

1. Legal Ad

Documents:

[PB LEGAL AD 5-23-17 2.PDF](#)

2. Agenda

Documents:

[PB AGENDA 5-23-17.PDF](#)

3. Maine Medical Center (IDP)

3.I. MMC (Memo)

Documents:

[PB MEMO MMC-IOZ-IDP FOR 5.23.17.PDF](#)

3.II. 1. Brought Forward From April 25, 2017 PB Workshop

Documents:

[1. MAINE MED \(BROUGHT FORWARD FROM 4-25-17 PB WORKSHOP\).PDF](#)

3.III. 2. Memo Attachments

Documents:

[2. MAINE MED \(MEMO ATTACHMENTS\).PDF](#)

3.IV. 3. Public Comments

Documents:

[3. MAINE MED \(PUBLIC COMMENTS\).PDF](#)

4. 547 Riverside Street

4.I. Report And Attachments

Documents:

[RIVERSIDE ST. - 547 \(REPORT\).PDF](#)
[RIVERSIDE ST. - 547 \(REPORT ATTACHMENTS\).PDF](#)
[RIVERSIDE ST. - 547 \(APPLICANTS SUBMITTAL\).PDF](#)
[RIVERSIDE ST. - 547 \(PLANS\).PDF](#)

5. 510 Stevens Avenue

5.I. Report And Attachments

Documents:

[STEVENS AVE. - 510 \(REPORT\).PDF](#)
[STEVENS AVE. - 510 \(ATTACHMENTS\).PDF](#)

6. 5-7 Cumberland Avenue

6.I. Report And Attachments

Documents:

[CUMBERLAND AVE. - 5-7 \(REPORT\).PDF](#)
[CUMBERLAND AVE. - 5-7 \(REPORT ATTACHMENTS\).PDF](#)
[CUMBERLAND AVE. - 5-7 \(APPLICANTS SUBMITTAL\).PDF](#)
[CUMBERLAND AVE. - 5-7 \(PLANS\).PDF](#)

7. 66 Congress Street

7.I. Memo And Attachments

Documents:

[CONGRESS ST. - 66 \(MEMO\).PDF](#)

CONGRESS ST. - 66 (MEMO ATTACHMENTS).PDF
CONGRESS ST. - 66 (APPLICANTS SUBMITTAL).PDF
CONGRESS ST. - 66 (PLANS).PDF

**LEGAL ADVERTISEMENT
PORTLAND PLANNING BOARD MEETING**

The Portland Planning Board will meet on **Tuesday, May 23, 2017**, Council Chambers, 2nd Floor, City Hall, 389 Congress Street.

Public comments will be taken for each item on the agenda during the estimated allotted time and written comments should be submitted to planningboard@portlandmaine.gov

Workshop: 4:30 p.m.

- i. Institutional Development Plan and Regulatory Framework; Maine Medical Center, City of Portland. (4:30 – 6:30 p.m. estimated time) The Board will hold a workshop on Maine Medical Center's proposed Institutional Development Plan (IDP) and the draft Regulatory Framework, which guides the hospital's future development within the zoning code. The IDP is proposed under the Institutional Overlay Zone Ordinance.

Dinner Break: 6:30 p.m.

Public Hearing - 7:00 p.m.

- i. Level III Site Plan and Site Location of Development Application; 547 Riverside Street; Riverside Self Storage; 547 Riverside LLC., Applicant. (7:00 – 7:30 p.m. estimated time) The Planning Board will hold a public hearing on a proposed commercial self-storage facility at 547 Riverside Street in the Industrial I-M zone. The proposal is to use 504 recycled shipping containers as self-storage units with a total floor area of 80,960 sq. ft. and an impervious surface area of 156,865 sq. ft. The proposal will be reviewed under Portland's Site Plan Ordinance and under the City's delegated review authority for a Site Location of Development Act application.
- ii. R-5 to B-1b Map Amendment; 510 Stevens Avenue; Steven and Roberta Cope, Applicants. (7:30 – 8:00 p.m. estimated time) The Planning Board will hold a public hearing on a proposed rezoning of 510 Stevens Avenue from R-5 to B-1b. The extension of the B-1b zone to incorporate the lot is proposed in order to develop a mixed-use project with residential and retail uses.
- iii. Level III Site Plan and Subdivision Application; 5-7 Cumberland Avenue; Banner Properties, LLC., Applicant. (8:00 - 8:30 p.m. estimated time) The Planning Board will hold a hearing on a proposed 4-story building with six (6) condominium units. The building footprint is 1,791 sq. ft. with a total square footage of 7,567 sq. ft. The site is in the residential R-6 zone.

Evening Workshop (immediately following the Public Hearing)

- iv. Level III Site Plan; St. Lawrence Arts Center; 66 Congress Street; Friends of the St. Lawrence Church, Applicant. (8:30 - 9:00 p.m. estimated time) The Planning Board will hold a workshop on a proposed building addition to include a 401 seat theater, lobby area, promenade room and accessory uses in the basement. The building addition is 6,715 sq. ft. A Conditional Rezoning Agreement #58, as amended, regulates the site and the addition will be reviewed under the site plan ordinance. The addition is also subject to Historic Preservation Review.

ELIZABETH BOEPPLE, CHAIR – PORTLAND PLANNING BOARD

CITY OF PORTLAND, MAINE

PLANNING BOARD

Elizabeth Boepple, Chair
Sean Dundon, Vice Chair
Carol Morrisette
David Eaton
Brandon Mazer
Maggie Stanley
Lisa Whited

AGENDA PORTLAND PLANNING BOARD MEETING

The Portland Planning Board will hold a meeting on **Tuesday, May 23, 2017**, Council Chambers, 2nd Floor, City Hall, 389 Congress Street.

Public comments will be taken for each item on the agenda during the estimated allotted time and written comments should be submitted to planningboard@portlandmaine.gov

WORKSHOP – 4:30 p.m.

- i. Institutional Development Plan and Regulatory Framework; Maine Medical Center, City of Portland. (4:30 – 6:30 p.m. estimated time) The Board will hold a workshop on Maine Medical Center’s proposed Institutional Development Plan (IDP) and the draft Regulatory Framework, which guides the hospital’s future development within the zoning code. The IDP is proposed under the Institutional Overlay Zone Ordinance.

Dinner Break 6:30 p.m.

PUBLIC HEARING – 7:00 p.m.

1. ROLL CALL AND DECLARATION OF QUORUM

2. COMMUNICATIONS AND REPORTS

Three 2-minute slide presentations from Portland Trails

3. REPORT OF ATTENDANCE AT THE MEETINGS HELD ON MAY 9, 2017:

Afternoon Public Hearing: Boepple, Dundon, Eaton, Mazer, Morrisette (recused for 1st workshop item, arrived at 5:30), Stanley and Whited present.

Public Hearing: All present.

4. REPORT OF DECISIONS AT THE MEETING HELD ON MAY 9, 2017:

- i. Level III Site Plan; 197 Spring Street; Steve Morrison of WAIT, LLC., Applicant. Dundon moved and Morrisette seconded a motion to waive the technical manual standard for a 10 foot driveway to allow for a 9 foot driveway. Vote: 7-0. Dundon moved and Whited seconded a motion to waive the standard parking space size to allow the spaces to be reduced down to 8’ by 15’. Vote: 7-0. Dundon moved and Whited seconded a motion to approve the subdivision and site plan with six conditions of approval. Vote: 7-0.

- ii. Zoning Map Amendments for R-1 to R-3 and ROS and Removal of Flexible Housing Zone in the Vicinity of 1700 Westbrook Street; Camelot Holdings, LLC., Applicant. Dundon moved and Morrisette seconded a motion to find the proposed map amendments to rezone the R-1 zone to R-3 and ROS for 1700 Westbrook Street are consistent with the comprehensive plan and recommends adoption of the map amendments to City Council. Vote 7-0. Dundon moved and Morrisette seconded a motion to find rescinding the Flexible Housing Overlay zone along Westbrook Street is consistent with the Comprehensive Plan and recommends adoption of the map amendment to City Council. Vote: 7-0.

5. NEW BUSINESS

- i. Level III Site Plan and Site Location of Development Application; 547 Riverside Street; Riverside Self Storage; 547 Riverside LLC., Applicant. (7:00 – 7:30 p.m. estimated time) The Planning Board will hold a public hearing on a proposed commercial self-storage facility at 547 Riverside Street in the Industrial I-M zone. The proposal is to use 504 recycled shipping containers as self-storage units with a total floor area of 80,960 sq. ft. and an impervious surface area of 156,865 sq. ft. The proposal will be reviewed under Portland's Site Plan Ordinance and under the City's delegated review authority for a Site Location of Development Act application.
- ii. R-5 to B-1b Map Amendment; 510 Stevens Avenue; Steven and Roberta Cope, Applicants. (7:30 – 8:00 p.m. estimated time) The Planning Board will hold a public hearing on a proposed rezoning of 510 Stevens Avenue from R-5 to B-1b. The extension of the B-1b zone to incorporate the lot is proposed in order to develop a mixed-use project with residential and retail uses.
- iii. Level III Site Plan and Subdivision Application; 5-7 Cumberland Avenue; Banner Properties, LLC., Applicant. (8:00 - 8:30 p.m. estimated time) The Planning Board will hold a hearing on a proposed 4-story building with six (6) condominium units. The building footprint is 1,791 sq. ft. with a total square footage of 7,567 sq. ft. The site is in the residential R-6 zone.

6. EVENING WORKSHOP (Immediately following the Public Hearing)

- iv. Level III Site Plan; St. Lawrence Arts Center; 66 Congress Street; Friends of the St. Lawrence Church, Applicant. (8:30 - 9:00 p.m. estimated time) The Planning Board will hold a workshop on a proposed building addition to include a 401 seat theater, lobby area, promenade room and accessory uses in the basement. The building addition is 6,715 sq. ft. A Conditional Rezoning Agreement #58, as amended, regulates the site and the addition will be reviewed under the site plan ordinance. The addition is also subject to Historic Preservation Review.



Memorandum

Planning and Urban Development Department

Planning Division

To: Chair Boepple and Members of the Portland Planning Board

From: Jean Fraser, Planning Division

Date: May 19, 2017 for meeting on May 23, 2017

Re: **MMC request for IOZ designation: Draft Institutional Development Plan (IDP)**

Applicant: Maine Medical Center (MMC)

I. INTRODUCTION

The Planning Board held an introductory workshop on April 25, 2017 where MMC presented the draft Institutional Development Plan (IDP) and provided the Board with an overview of their short and long-term plans for the MMC campus. The documents for that meeting (draft IDP & April PB Memo) have been brought forward as Attachments A and B for reference.

It should be noted that this phase of the review is largely a “listening” phase where both MMC and the City seek to understand the proposals, hear public, board and staff concerns, undertake further research or get additional information and explore options. Following the detailed topic discussions, it is anticipated that MMC would submit a revised IDP/Regulatory Framework for a final review.

Today’s Workshop will focus on two subjects covered in the IDP:

- the proposed IOZ boundaries (the MMC proposed IOZ boundary is shown in the Regulatory Framework on page 110); and
- the transportation baseline information and principles (Parking, TDM, Traffic).

Future Workshop topics will include:

- (if determined to be needed) Continued discussion of today’s topics
- Construction Management
- Community Engagement
- Infrastructure
- Design Envelope and Transitions
- Regulatory Framework provisions

II. UPDATE ON THE ENABLING ORDINANCE FOR INSTITUTIONAL OVERLAY ZONES

On May 1, 2017 the City Council unanimously approved the Institutional Overlay Zone (IOZ) text that sets out the process for designating an Institutional Overlay Zone, including the requirements for an IDP and Regulatory Framework. The Order as passed is attached as Attachment 1 to this Memorandum.

The City Council made one amendment to the Planning Board’s recommended text, which was to strike the following section (part of Section 14-281 (g): “Amendments brought forth by the city will require a supermajority of the City Council to take effect”. This section had been originally included to provide the institutions with some assurance that an IOZ designation was relatively permanent.

III. UPDATE ON THE REVIEW OF THE MMC IDP/REGULATORY FRAMEWORK

- **Planning Board Comments:** The Planning Board recognized that the draft IDP reflects a substantial amount of work and appreciated the scale of MMC's public engagement. The Board also welcomed the clarity of the work so far, but requested more specificity as its developed. Key preliminary comments included:
 - Transition Zones/Design
 - Very important; needed along all edges including for the Gilman Street garage
 - Look at retail/service uses on lower floors to help transitions to integrate with the community
 - Looking for Design Guidelines in the Regulatory Framework- expect new buildings to be state of art
 - Transportation Demand Management
 - Recommend thinking differently about parking provision- opportunity to be leader in challenging the car culture
 - Looking for a more "fleshed out" TDM approach
 - Gilman garage doesn't seem an appropriate parking solution - negates other positives of the project- look at satellite lot and something better at Gilman
 - Construction Management
 - Need framework and principles at this stage
 - Incorporate Best Practice
 - Community engagement
 - Suggest feedback re progress on issues
 - Create ongoing links
- **Public Comments:** The Board has previously seen the public comments that were received during the IOZ process ([PC 1- PC 22](#)) and the three comments that were circulated at the April Workshop that specifically address this draft MMC IDP (PC1-3 MMC-IOZ). A further three public comments are attached to this Memo as PC4-6 MMC-IOZ.

Extensive comments in writing and spoken at the Workshop include the economic and other impacts of construction and the need for specific mitigation measures; this will be included in a future Workshop discussion.

- **Staff comments**

The Planning staff met with other Departments in April to coordinate the preparation of comments on the draft IDP, and these were forwarded to MMC on May 2, 2017 and are included in [Attachment 2](#).

A meeting on the broader design issues took place on April 25th and informed the written review comments in the third attachment to the staff comments. More recently there have been follow up meetings on TDM, traffic and infrastructure between staff, MMC and their consultants to clarify information, understand the basis for elements of the proposals, and to identify issues that the IDP should address.

IV. DISCUSSION TOPICS FOR THIS WORKSHOP

- **The proposed MMC IOZ boundary (see at right and in IDP pg 110)**

The MMC IOZ *Regulatory Framework* and proposed boundaries would, once recommended by the Planning Board and adopted by the City Council, replace the two existing Contract Zone Agreements currently held by MMC. On the Plan at right the existing Contract Zones included all the area in blue except parcels 7 & 8.

For any areas outside the existing Contract Zone boundaries that are included in the IOZ boundary, the *Regulatory Framework* would replace the underlying zoning in respect of specified MMC uses and development. The underlying zone would continue to apply to non-MMC properties. The April PB Memo (Attachment B) included a table comparing these areas.

Planning staff have advised MMC that it would be in everyone's interest to present any planned future growth as part of the IDP to allow for proper planning and discussions with the neighborhood at an early stage. The proposed boundary has addressed this objective, but another approach would be for the IDP to provide a more conceptual indication of likely future growth, and then amend the IOZ boundaries when a firm programmatic need is identified.

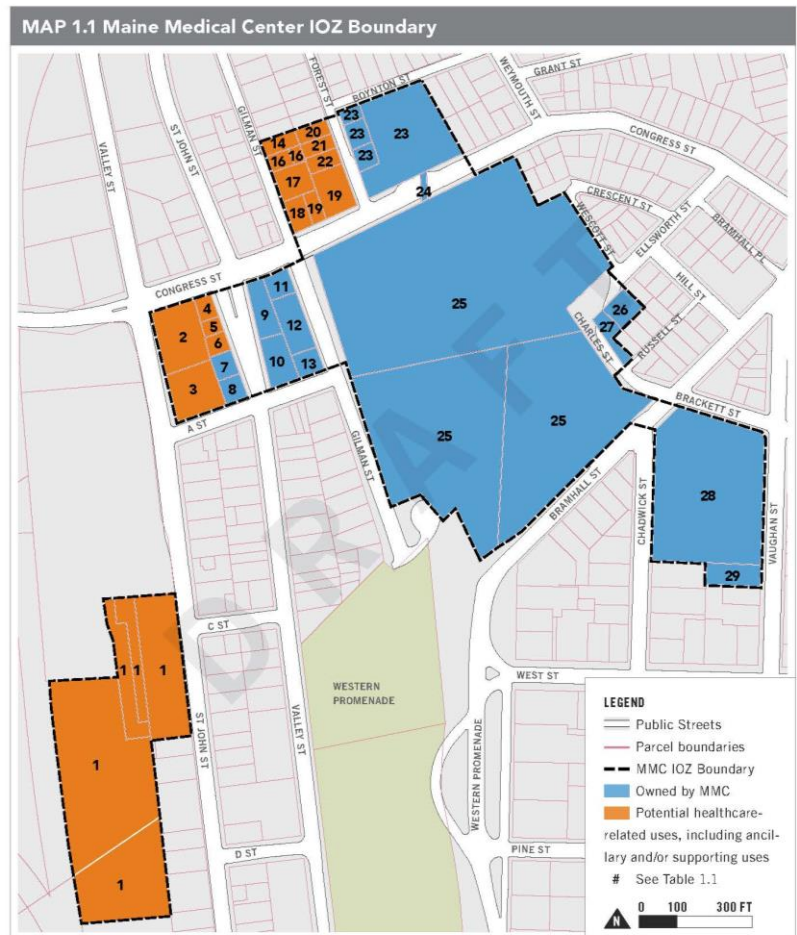
As noted in the public comments, the three parcels that have been included in the proposed IOZ boundary (outside the Contract Zone) include a few housing units and two to three local businesses that serve and support the local neighborhood. The majority of the area within these parcels also comprises surface parking, which appears suitable for more intense development.

If the Board supports the principle that some MMC growth is broadly a benefit to the City, then it is realistic to consider where that growth might occur and how it could be best integrated into the surrounding neighborhoods. The use needs to be considered in conjunction with any design standards, which could require ground floor retail/restaurant or other features that provide local services and ensure an active pedestrian realm.

- **Transportation Principles (Parking, Traffic and TDM)**

The broad focus of all comments on the transportation sections of the IDP has been to question the extent of the proposed parking provision as that drives the need for parking structures that are in or near to the campus and results in traffic impacts. Transportation Demand Management (TDM) potentially offers a mechanism that could reduce the parking demand and provide greater travel mode choice for MMC employees and visitors (less of an option for MMC patients).

1. BOUNDARY



The MMC consultants have shared the base information that informed the IDP proposals and assumptions for parking, traffic impacts and the scope for encouraging a mode shift to alternative modes of travel. These discussions are ongoing and both MMC and staff will update the Board at the Workshop.

In summary, staff understand that MMC will be submitting a TMP as part of the first phase site plan and that they acknowledge there is a general need for improved data collection and monitoring, and for a review of the management of parking facilities, but there are somewhat differing professional opinions on the following:

- What is realistic to expect in the short or medium term for a mode shift away from cars, given the current “low” level of transit, bicycle and walking infrastructure;
- How to plan for the possibility that even an aggressive TDM target may not be met and therefore the parking supply needs to be available for that possibility;
- What should be included in the IDP to reflect a commitment to TDM, as compared to the detailed TDM Plan that would be proposed as part of the site plan application?

V. NEXT STEPS

- Clarify what feedback is requested from MMC on today’s Workshop issues
- Further PB workshop(s) on other IDP topics

VI. ATTACHMENTS

1. Brought forward from April 25, 2017 PB Workshop
 - A. MMC Draft IDP as submitted early April 2017
 - B. April 25 Staff PB Memo
2. Memo attachments
 1. IOZ as approved by City Council
 2. Staff comments on IDP 5.2.17
3. Public Comments

PC 1- PC22 - (Brought forward) Public Comments from IOZ Ordinance review

PC1 MMC-IOZ - St John Valley Neighborhood Association 4.18.17 on 4.7.17 MMC IDP

PC2 MMC-IOZ – C MilNeil 4.25.17

PC3 MMC-IOZ – WPNA A Pringle 4.25.17

PC4 MMC-IOZ – C NilNeil 4.27.17

PC5 MMC-IOZ – K Snyder 5.9.17

PC6 MMC-IOZ – PBPAC 5.15.17



Institutional Development Plan

DRAFT FOR PLANNING BOARD REVIEW / APRIL 7, 2017



Institutional Development Plan

Purpose

This Institutional Development Plan was prepared by Maine Medical Center (MMC) to comply with the Institutional Overlay Zoning (IOZ) requirements of the City of Portland Code of Ordinances.

Date

Draft For Planning Board Review / April 7, 2017

Term

This document is valid until superseded by an approved update.

This document was prepared for Maine Medical Center by Perkins+Will with input from Maine Medical Center, VHB, Gorrill Palmer, and Sebago Technics, Inc. MMC would like to thank its neighbors and the City of Portland for their contributions to the Institutional Development Planning Process.

Table Of Contents

1. INTRODUCTION	7
About Maine Medical Center	8
2. EXISTING CONDITIONS+CONTEXT	17
MMC Today	18
Campus Context	26
Transportation Context.....	30
Environmental and Infrastructure Context	44
Public Engagement in IDP	50
3. INSTITUTIONAL NEEDS	53
Factors Affecting Healthcare Planning.....	54
MMC Future Needs	55
Short-Term Development Plan (0-5 Years)	58
Long-Term Development Plan (5-20 years)	60
Projected Daily Census	62
Compliance with the Comprehensive Plan	64
4. TRANSPORTATION PLAN	69
Vehicular Access and Circulation	70
Future Parking Conditions	74
Future TDM Strategies	76
Future Transportation Planning Considerations	79

5. ENVIRONMENTAL AND INFRASTRUCTURE PLAN	81
Natural Resource Protection.....	82
Projected Utility Demand	83
Operational Impacts	85
6. DESIGN	89
Neighborhood Impacts	90
Neighborhood Transition	92
Crime Prevention Through Environmental Design (CPTED).....	94
Public Realm Plan	95
7. NEIGHBORHOOD ENGAGEMENT	97
Ongoing Community Engagement	98
Construction Management Principles.....	99
MMC Community Benefits	102
APPENDIX: REGULATORY FRAMEWORK	

INTRODUCTION

Maine Medical Center has been a Portland landmark and a destination for excellent health care since it was built as Maine General Hospital in 1874. The campus has grown in size and complexity within its footprint to meet growing demand and changes in healthcare technology and care delivery.



ABOUT MAINE MEDICAL CENTER

Maine Medical Center (MMC) is a complete health care resource for the people of greater Portland, the entire state of Maine, and northern New England.

Incorporated in 1864, MMC is the state's largest medical center, licensed for 637 beds and employing more than 6,000 people. MMC's unique role as both a community hospital and a tertiary referral center requires an unparalleled depth and breadth of services, including the state's only medical school, through a partnership with Tufts University School of Medicine, and a world-class biomedical research center, the Maine Medical Center Research Institute.

The MMC care model includes the state's largest multispecialty medical group, Maine Medical Partners. Maine Medical Partners provides a wide range of primary, specialty, and subspecialty care delivered through a network of more than 40 locations throughout Maine.

Maine Medical Center is named one of "America's Best Hospitals" by U.S. News & World Report. MMC's Trauma Center is the busiest in Maine, providing the most advanced tertiary care in the state.

Mission, Vision and Values

Maine Medical Center is dedicated to maintaining and improving the health of the communities it serves by:

- Caring for our community
- Educating tomorrow's caregivers
- Researching new ways to provide care

We proudly carry our unique responsibility as Maine's leader in patient care, education and research. We are dedicated to the traditions and ideals of not-for-profit healthcare. Our care is available to all who seek it.

Our efforts to execute on our Mission are aimed at achieving a simple, yet powerful Vision: "Working together so our communities are the healthiest in America."

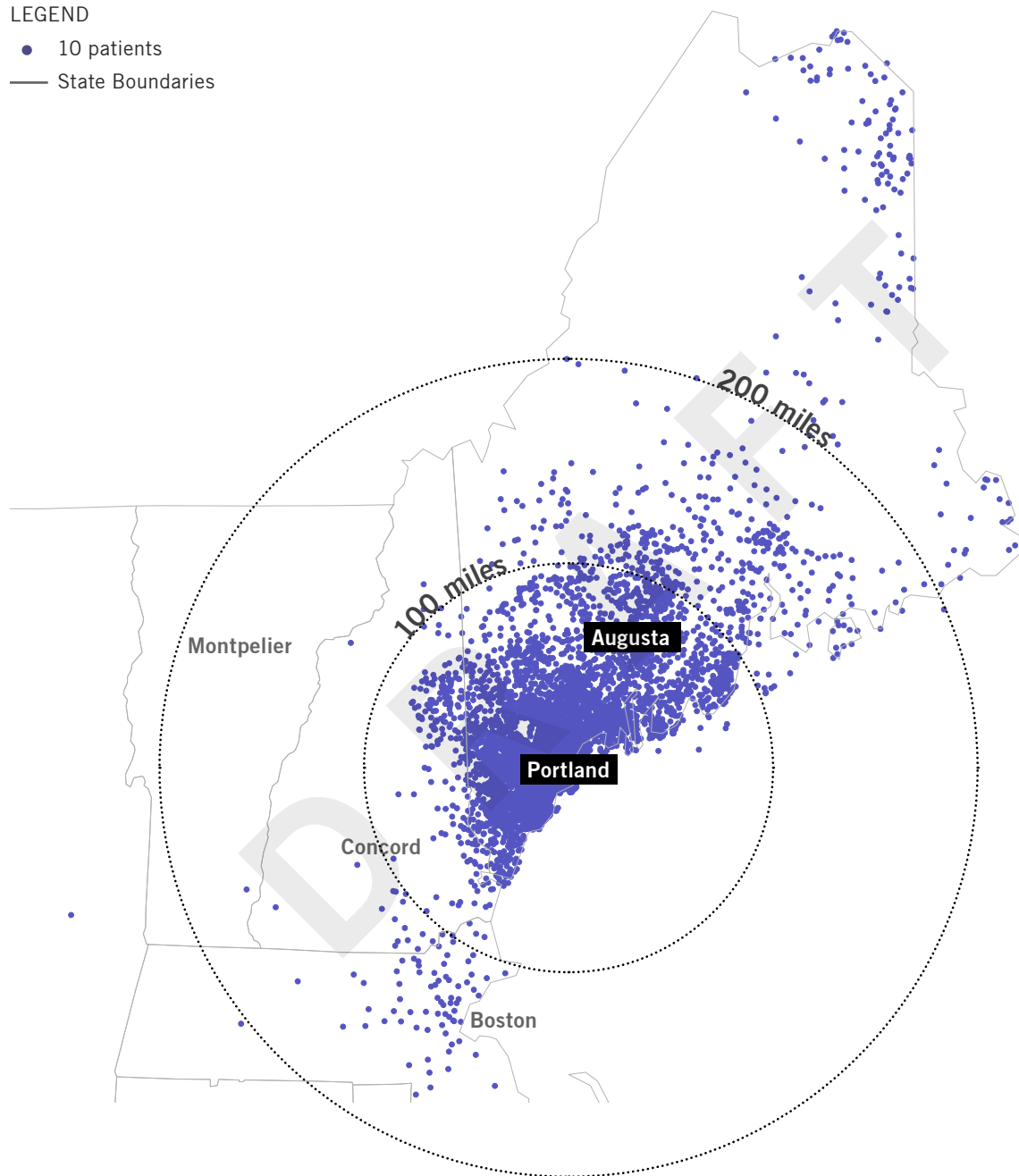
We are guided by our Values, which call on us to meet and exceed the expectations of those we are privileged to serve. Our Values:

- Patient-Centered
- Integrity
- Ownership
- Excellence
- Respect
- Innovation

Fig.1.1 Dot Density Map Showing Patient Origin by Zipcode (2016)

LEGEND

- 10 patients
- State Boundaries



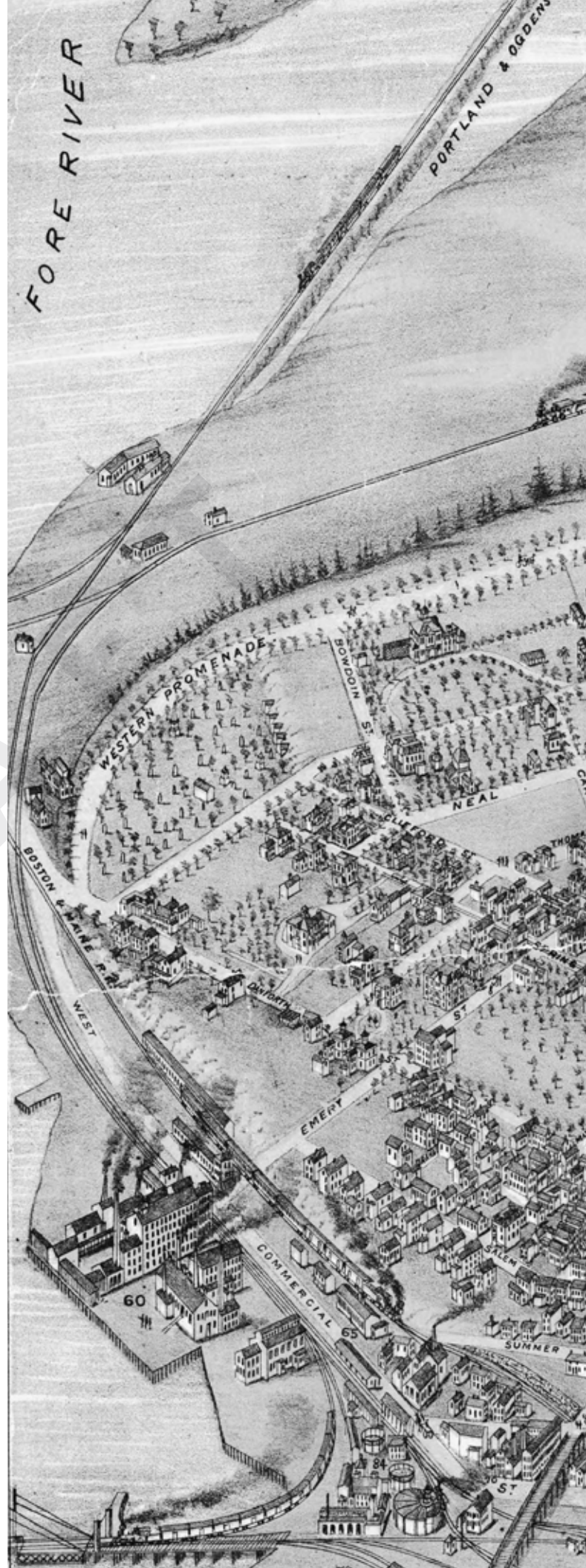
History

Maine Medical Center opened its doors in 1874 as Maine General Hospital on Bramhall Hill, at the northern end of the tree-lined Western Promenade and adjacent to the Bramhall Reservoir.

The campus, designed by architect Francis Fassett, included four pavilions around a central administration building. The east pavilion and two outbuildings were erected first, providing patients with sweeping views of Casco Bay and the Fore River. The hospital was designated as the training facility for the Portland School for Medical Instruction and the Medical School of Maine at Bowdoin College, and had its own School of Nursing. Built of red-brick in Italian Gothic style, Maine General soon became a local landmark and a destination for the most up-to-date medical care in the state.

The opening of Union Station (1888) down the hill at Congress and St John Streets brought commercial uses to the area, improving access to the hospital. The hospital also catalyzed development of the area with medical uses (such as the 1891 Maine Eye and Ear Infirmary) as well as residential uses. The Western Promenade neighborhood gained prominence at the turn of the century as high-end homes and apartment buildings were built near the hospital and improvements were

Fig.1.2 1876 Bird's eye view of Portland.



made to the Western Promenade parklands. Maine General Hospital modernized its facilities through the 1920s and added a third pavilion in 1929.

In 1951, Maine General Hospital, the Maine Eye and Ear Infirmary, and Children's Hospital merged to become Maine Medical Center. Two new pavilions were added in 1956 to provide modern patient rooms. Suburban growth and the construction of interstate highways in the 1960s increased demand for parking at the Medical Center, which was met by converting the Bramhall Reservoir into a surface parking lot (current South Lot).

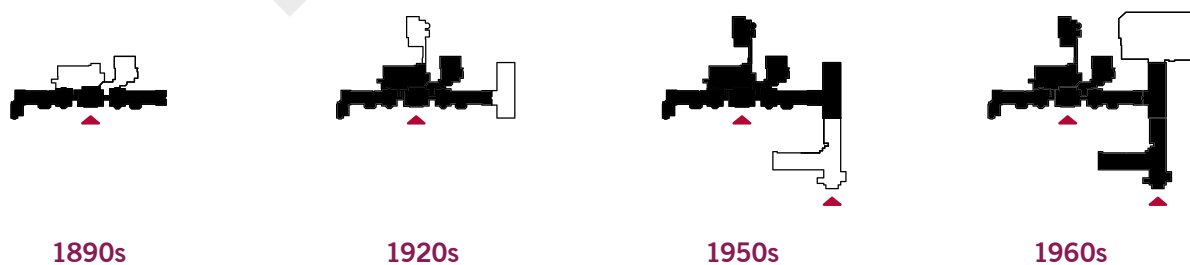
In 1968, MMC doubled the size of its facilities with the addition of the eleven-story Richards Wing. The campus expanded its footprint down towards Congress Street with the addition of its first parking garage (now known as Employee Garage) in the

1970s. In the late 1970s, MMC became a teaching hospital for the University of Vermont College of Medicine.

In 1985, MMC opened the six-story L.L. Bean Building, another major addition to the campus. The Bean Building housed the new Neonatal Intensive Care Unit (NICU), operating suites, and specialty departments; it also now houses the Barbara Bush Children's Hospital (BBCH). The Dana Building was built in 1987, adding much-needed classroom and conference space to the campus.

Through the 2000s, MMC has renovated and expanded its facilities to meet its role requirements as the highest acuity provider of healthcare in the state. In 2008, MMC opened the 190,000 SF East Tower including new units for prenatal care, labor, delivery and recovery, neonatal intensive care, and

Fig.1.3 Historical evolution of Maine Medical Center



mother-baby units. The Emergency Department expanded into the basement of the East Tower the following year. The campus transformation project also included a new central utility plant and the 512-car Patient and Visitor Garage.

As its partnership with the University of Vermont came to a close, MMC initiated a new training program for medical students at the Tufts University School of Medicine in 2011. Today, MMC also hosts students from the Geisel School of Medicine at Dartmouth and University of New England College of Osteopathic Medicine.

In 2015, MMC completed construction on a portion of the LL Bean building roof to add new operating rooms and perioperative care beds.

Today, MMC is undertaking a new planning effort driven by the need to replace semi-private

patient rooms with private rooms and to provide additional surgical capacity. The plan also provides an opportunity to address infrastructure needs, parking, wayfinding, and overall building organization to improve the delivery of care (see **Chapter 3** for details).

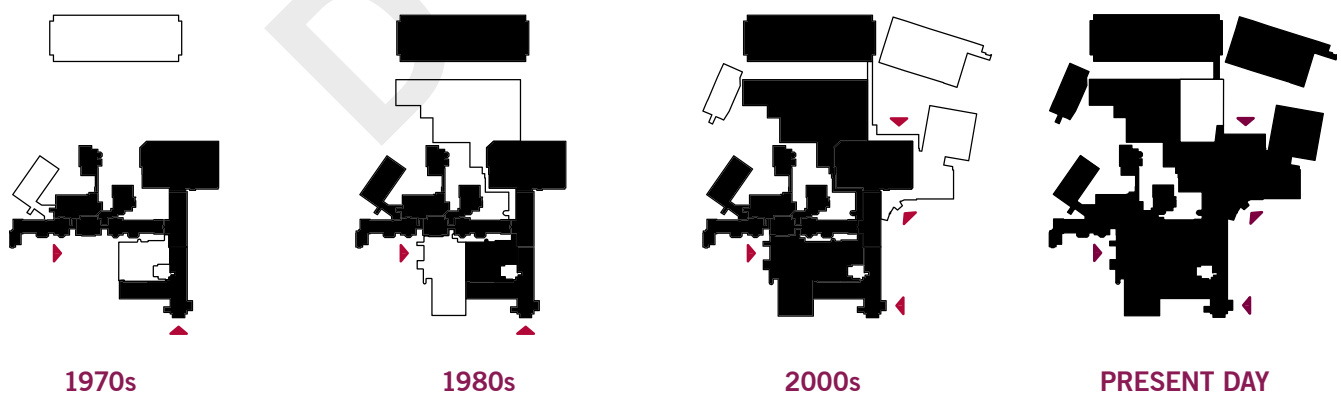




Fig.1.4 Bird's Eye View of the Campus in Context, Looking North



EXISTING CONDITIONS + CONTEXT

Maine Medical Center campus is located on a high point in the west end of the Portland peninsula that is easily accessible from I-295 and Congress St. Its dense, urban context includes historic landscapes and neighborhoods as well as areas that are designated for change in the City's 2017 Comprehensive Plan.



MMC TODAY

Programs And Services

MMC provides a scope and depth of specialty and subspecialty inpatient and surgical care that is unparalleled in Maine.

MMC is the only Level I American College of Surgeons (ACS) trauma center in Maine and has the only Level III Neonatal Intensive Care Unit (NICU) and the only kidney transplant program in the state. MMC is an American Nurses Credentialing Center (ANCC) Magnet Hospital and has received numerous awards including: Best Regional Hospitals (2016-2017) from U.S. News and World Report, Gold Seal of Approval and Top Performer in Key Quality Measures from the Joint Commission.

MMC’s clinical services are organized into six service lines listed in Table 2.1. at right.

Table 2.1 List of MMC Service Lines

More information available on the MMC website at <http://www.mmc.org/care-and-services>

ADULT MEDICINE

MMC’s Adult Medicine Service Line extends across the continuum of care, spanning from primary care, to emergency and critical care, medical services for hospitalized adults, subacute rehabilitation and long-term care. It includes a wide array of specialty programs and services including Digestive Health, Endocrinology, Geriatrics, Infectious Disease, Nephrology, and Palliative Care. This service line also includes the procedural areas of Endoscopy and Transplantation.

CARDIOVASCULAR

MMC’s Cardiovascular Service Line addresses the treatment needs of patients with cardiovascular diseases such as coronary artery disease, valvular heart disease, congestive heart failure, arrhythmias, congenital heart disease, and peripheral vascular disease.

ONCOLOGY

MMC’s Oncology Service Line provides health services to patients diagnosed with cancer such as medical oncology, radiation oncology, gynecological oncology, and surgical oncology.

SURGICAL

MMC’s Surgical Service Line addresses specific health problems requiring surgical intervention including cancer, cardiovascular disease, eye diseases and injuries, gastric and intestinal diseases and injury, gynecological diseases and injury, joint and bone diseases and injury, neurological and spinal diseases and injury, bariatric, trauma, and genito-urolgic diseases and injury.

NEUROSCIENCES

MMC’s Neurosciences Service Line addresses the treatment needs of patients with neurological diseases such as stroke, epilepsy, neuro-oncology, multiple sclerosis, neuroendovascular diseases, Parkinson’s disease, Alzheimer’s disease and dementia, neuromuscular diseases, peripheral nerve and muscle conditions, and spine disorders as well as an array of neurodiagnostic services including electroencephalography (EEG) and sleep lab.

WOMEN'S AND CHILDREN'S

MMC’s Women’s and Children’s Service Line addresses the health problems and needs of women and of children under 18 years of age with such clinical services as child birth and pediatric subspecialties including, neonatology, pediatric medicine, oncology, cystic fibrosis, gastroenterology and nutrition, cardiology and cardiac surgery, nephrology, neurology, pulmonology, ophthalmology, orthopedics, and urology.

Daily Census

While the number of patients, visitors, and employees on campus vary day-to-day, a daily census estimate can be produced for a typical week day using a variety of data sources, including the annual patient counts (see **Table 2.2**). The estimated daily census of individuals on the MMC Bramhall Campus is included in **Table 2.3** below and exceeds six-thousand individuals.

Table 2.2 Census of Patients on Bramhall Campus (FY 2013-2016)

	2013	2014	2015	2016
Inpatient Discharges	29,253	29,401	30,196	30,889
Outpatient Activity	138,626	132,257	140,862	154,434
Bramhall Outpatient Clinics	39,829	40,694	38,209	39,709
TOTAL	207,708	202,352	209,267	225,032

Table 2.3 Estimated Daily Census of Individuals on the Bramhall Campus on a Typical Week Day (FY 2016)

Inpatient Discharges	99	Assumptions: Daily inpatient discharges estimated from annual count, using six-day weeks to accommodate for reduced activities Sun-Tue. Daily outpatient activity estimated from annual count, using five-day weeks. Inpatient visitors estimated at 2.5 / patient, outpatient visitors estimated at one per patient. 60% of employees are estimated to be on the Bramhall campus at one time.
Inpatient Visitors	248	
Outpatient Activity	594	
Outpatient Visitors	594	
Bramhall Outpatient Clinics	153	
Employees: Shift 1	3,639	
Employees: Shift 2	206	
Employees: Shift 3	519	
Students on Campus: Medical	100	
Students on Campus: Nursing	86	
Other Students (PA, Pharma, etc.)	20	
Non-MFP Related Contractors	25	
TOTAL DAILY CENSUS	6,283	



Fig.2.1 Bird's Eye View of the Campus in Context, Looking South



Existing Facilities

MMC regularly conducts building assessments to inform future investment and development decisions on campus. The assessments evaluate the condition of building structure and systems, and compliance with current building codes and regulations including fire safety. The 2015 assessment (see **Fig.2.2** on page 23) illustrates that a number of buildings on campus are approaching the age and level of condition for replacement.

Among those that are listed for replacement in the long-term are the Pavilions, the Richards Building and the LL Bean Building, which together host a large percentage of the hospital's bed inventory. These include a large number of semi-private beds that must be replaced to conform to current patient care standards. The Employee Garage is identified for replacement in the short-term due to its structural challenges.

Table 2.4 Inventory of Existing Facilities

	Building Name	Date	Gross SF
1	Maine General	1870s	72,920
2	Annex B	1870s	36,250
3	Annex C	1870s	13,190
4	Annex A	1929	10,110
5	Pavilion A	1929	66,380
6	Pavilions C & D	1956	83,460
7	Richards Building	1968	228,920
8	Employee Garage	1970s	--
9	Diagnostics Building	1976	89,150

Property Ownership

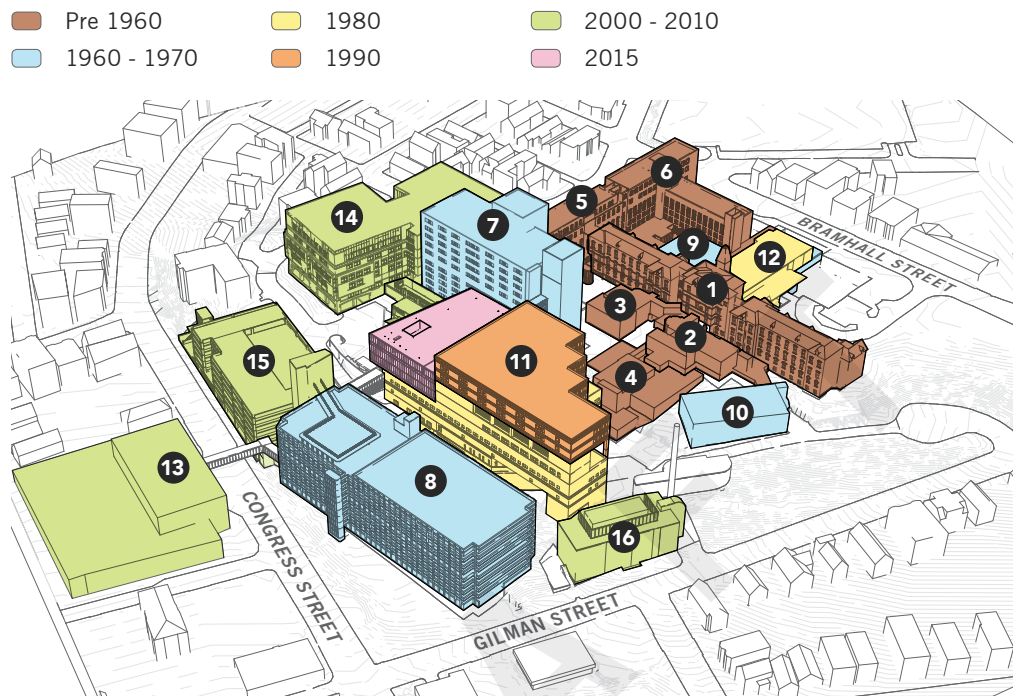
MMC owns and leases a number of properties across the City of Portland. These properties are listed and identified on a map on the following pages (see **Fig.2.3** and **Tables 2.5 and 2.6** on page 24.)

Properties that have a functional relationship to the MMC Bramhall campus, which is the subject of this IDP are highlighted with an ***** on **Tables 2.5 and 2.6**. Per the requirements of the IOZ, a functional relationship is defined as uses or activities that are integrally linked to the day-to-day operations of the MMC Bramhall Campus, without which activity MMC would be severely limited in one or more services.

	Building Name	Date	Gross SF
10	Engineering Services Building	1978	23,840
11	LL Bean Building	1985	231,830
12	Dana Building	1987	19,310
13	Congress Street Medical Bldg	1999	47,000
14	East Tower	2008	200,000
15	Patient and Visitor Garage	2008	--
16	Central Utility Plant	2008	--

TOTAL 1,122,360 GSF

Fig.2.2 Existing Facilities, by Age And Condition



Continued investment in this building is:

■ Recommended
 ■ Cautioned
 ■ Not Recommended

For future use.

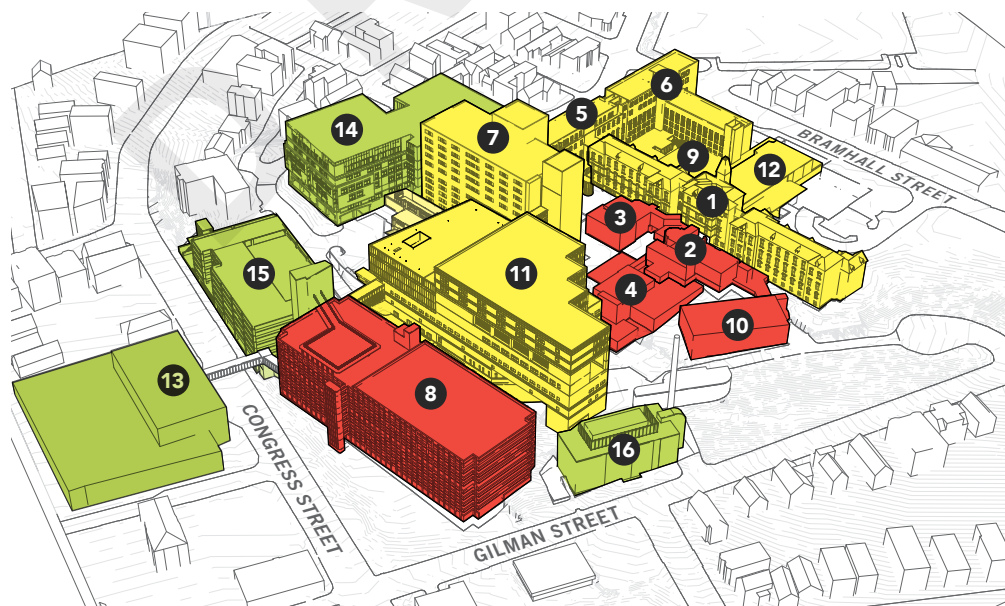


Fig.2.3 Map of MMC-Owned Parcels and Leased Properties

- All Parcels within the City of Portland owned by Maine Medical Center or MMC Realty Corp.
 ● Locations where MMC leases space (map extent only)

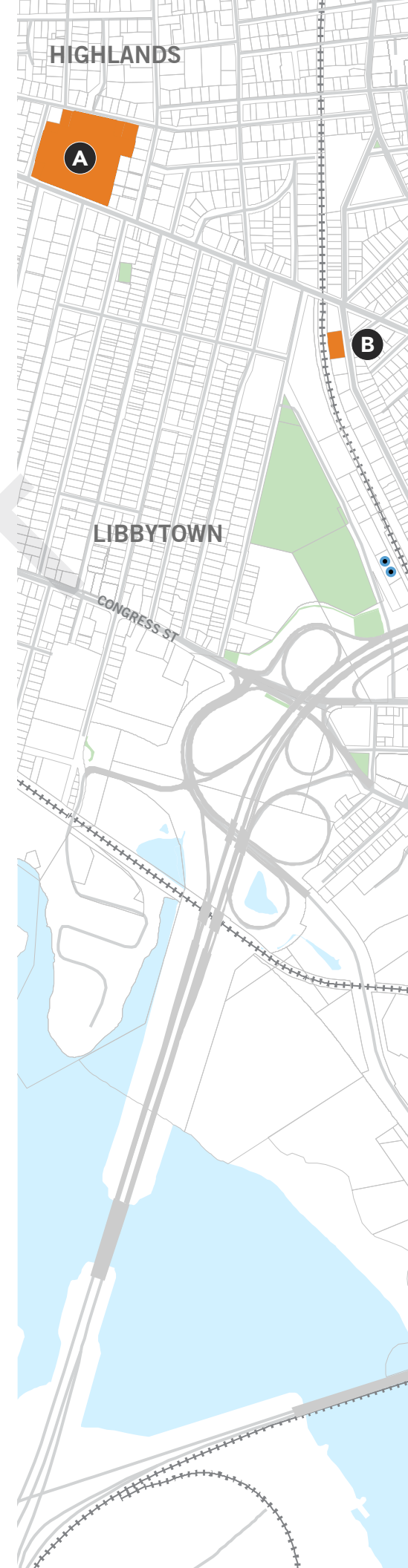
Table 2.5 List of Properties Owned by MMC within the City of Portland

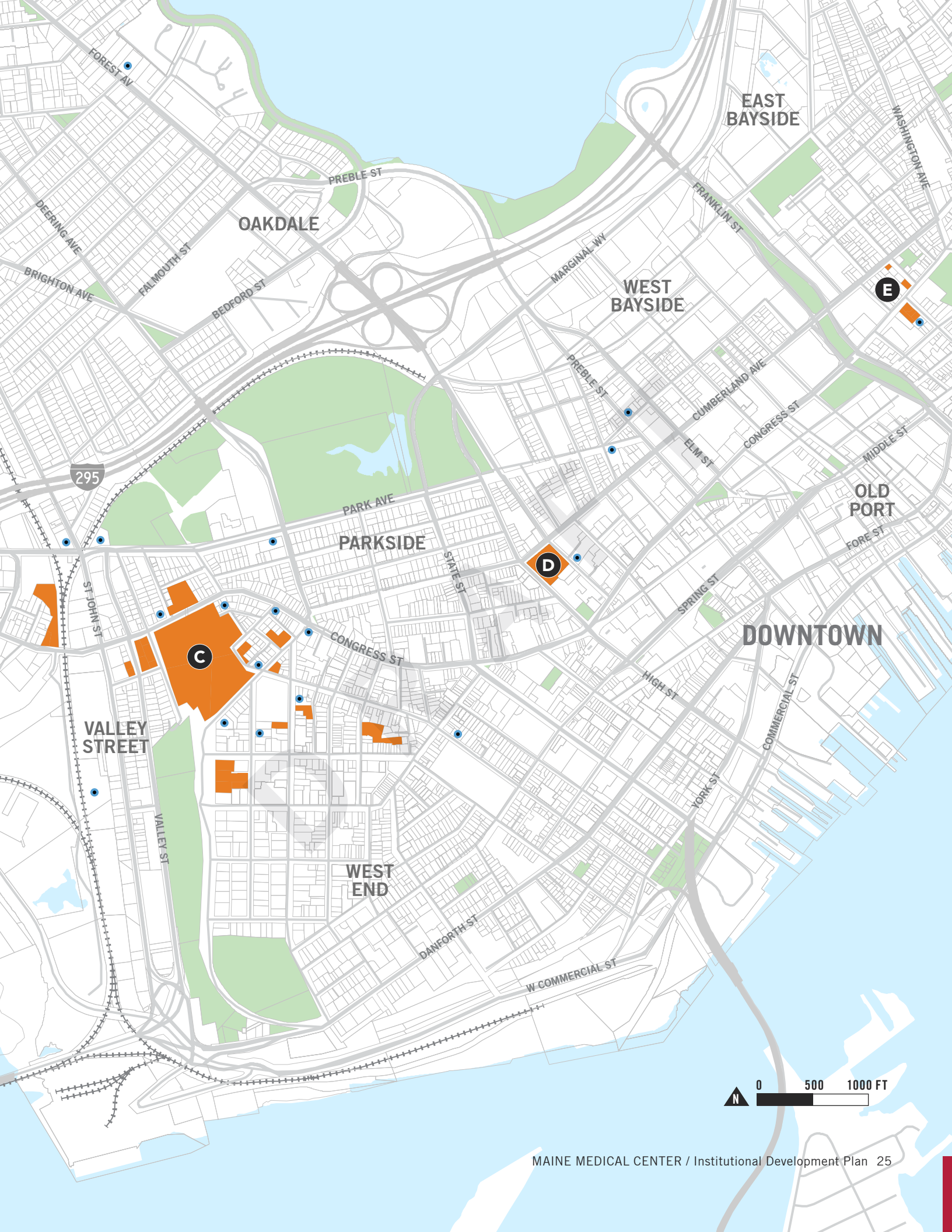
Parcel Address	Current Use		
A MMC BRIGHTON CAMPUS		C MMC BRAMHALL CAMPUS AREA	
335 Brighton Ave	MMC Brighton	* 22 Bramhall St	MMC Bramhall
367 Brighton Ave	Residential	* 930 Congress St	Medical Office
27 Hollis Rd	Residential	* 932 Congress St	Business Office
136 Prospect St	Residential	* 887 Congress St	Medical Off. / Pkng
142 Prospect St	Residential	* 308 Brackett St	Parking
170 Prospect St	Residential	* 993 Congress St	Parking
		* 995 Congress St	Business Office
B MMC BEHAVIORAL HEALTHCARE		* 98 Chadwick St	Maint. Garage
556 St John St	Medical Office	* 94 Chadwick St	Parking / Storage
		* 47 Bramhall St	Business Office
D GATEWAY GARAGE BUILDING		* 229 Vaughan St	Business Office
177 High St	Business Office	216 Vaughan St	Medical Office
429 Cumberland Ave	Business Office	66 Bramhall St	Medical Office
Note: MMC does <u>not</u> own but leases parking spaces in the Gateway Garage.		19 West St	Medical Office
		120 West St	Residential
E PORTLAND FAMILY MEDICINE		34 Ellsworth St	Vacant Land
272 Congress St	Medical Office	40 Ellsworth St	Vacant Land
263 Congress St	Parking Lot	231 Western Prom	Residential
148 Cumberland Ave	Parking Lot	227 Western Prom	Vacant Land
		44 Gilman St	Parking
		52 Gilman St	Medical Office
		261 Valley St	Parking
		262 Valley St	Parking
		264 Valley St	Vacant Land

Table 2.6 List of Properties Leased by MMC in the City of Portland

Parcel Address	Current Use		
* 131 Chadwick St	Business Office	* 905 Congress St	Parking
180 Park Ave	Business Office	98-100 India St	Parking
233 Vaughan St	Business Office	183 Brackett St	Residential
241 Oxford St	Business Office	25-29 Crescent St	Residential
315 Park Ave	Business Office	* 321-325 Brackett St	Res. / Pkng
39 Forest Ave	Business Office	75 St. James St	Storage
509 Forest Ave	Business Office	85 St. James St	Storage
* 7 Bramhall St	Bus. Off. / Pkng	<i>Located off the map extent:</i>	
794 Congress St	Business Office	12 Andover Road	Medical Office
295 Park Ave	Medical Office	1250 Forest Ave	Medical Office
20 Portland St	Medical Office	1577 Congress St	Medical Office
818 Congress St	Medical Office	901 Washington Ave	Business Office
* 181 High St	Parking	190 Riverside St	Business Office
* 222 St. John St	Parking	87 Central Ave	Medical Office

* Denotes properties with a functional relationship to the MMC Bramhall Campus. A functional relationship is defined as uses or activities that are integrally linked to the day-to-day operations of the MMC Bramhall Campus, without which activity MMC would be severely limited in one or more services.





CAMPUS CONTEXT

The Maine Medical Center Bramhall campus is located at a high point in the west end of the Portland peninsula that is renowned for the Western Promenade—an 18-acre park and national historic landmark designed by the Olmsted Brothers, among others. The campus abuts the Western Promenade in a dense urban setting that serves, in many ways, as a transitional zone between areas with diverse character, land uses, and demographics.

The campus, which serves the entire state of Maine as well as eastern New Hampshire, is located within less than a mile's distance of I-295, which links Portland to destinations across New England. To the north, the campus fronts on Congress Street—Portland's main street that extends along the spine of the peninsula to Portland's downtown and beyond. The MMC campus is located at the western gateway into the City.

Fig.2.4 Bird's eye view of the campus in its urban context





Adjoining Neighborhoods

The 21.8-acre MMC Bramhall campus abuts four distinct neighborhoods. To the west and north is the St John Valley Neighborhood, a diverse area featuring a wide mix of uses including industrial warehouses, a large food processing plant, bus garages and facilities, single-family residential, local and chain restaurant, multi-family rentals, and alternative grocery stores. St John Valley, and the largely residential Parkside neighborhood to its east, are among the most ethnically and racially diverse in Portland. (City of Portland GIS Maps, 2010 Diversity Index). The two neighborhoods share easy access to Hadlock Field, Fitzpatrick Stadium, and Deering Oaks Park north of Park Avenue.

The Western Promenade neighborhood is located to the south of the medical campus. The focal point and namesake of the neighborhood is the 18-acre linear park that wraps the 120-foot tall escarpment, providing sweeping views of Casco Bay and the Fore River. Designated as a park as early as 1836, and designed in 1905 by the Olmsted Brothers, the Western Promenade was also recognized as a national historic site in 1989. The Western Promenade neighborhood and large sections of the adjoining West End neighborhood are included in the West End local historic district in recognition of their cohesive residential character featuring major architectural styles from 1850 to the 1920's.

Zoning Context

Development on the MMC campus has been historically governed by Contract Zone agreements C41 (main campus) and C18 (Congress Street Medical Building).

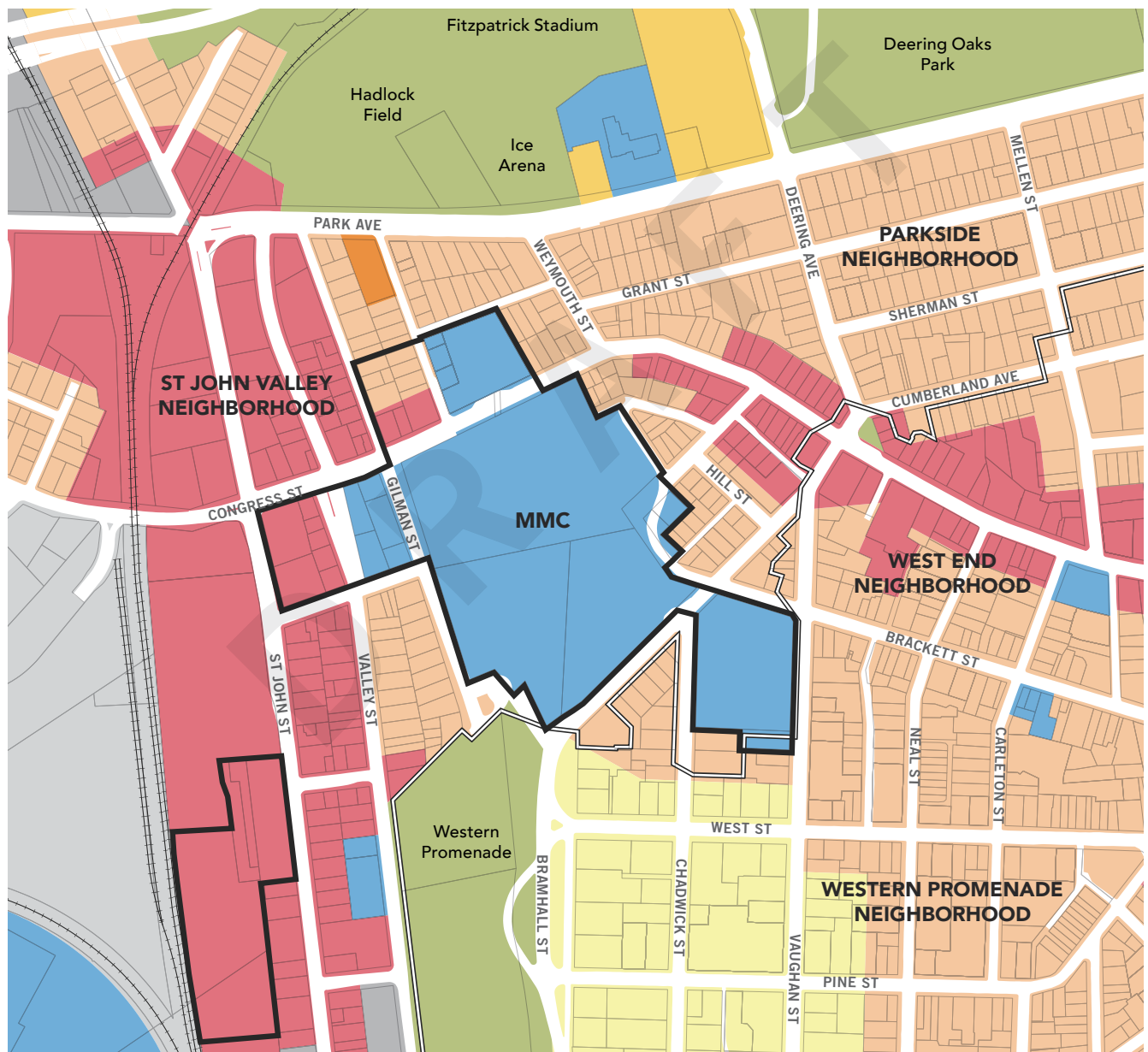
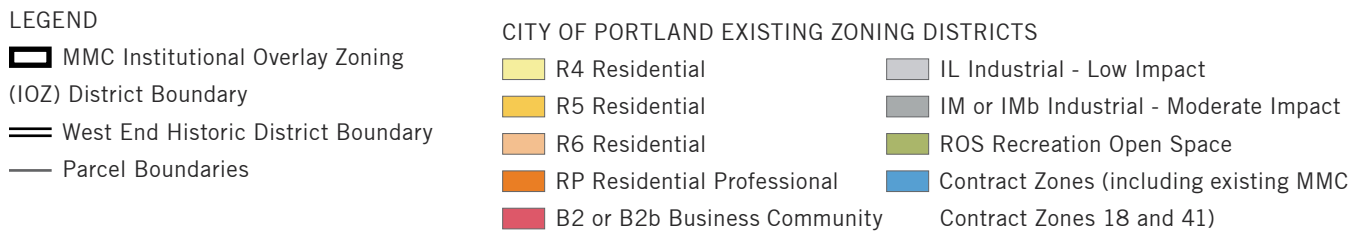
MMC is currently working with the City and surrounding neighborhoods to establish a new Institutional Overlay Zoning (IOZ) District to regulate future development on campus. MMC's IOZ District will supersede the contract zones for hospital-owned properties. See **Fig.2.5** on page 29 for a map of MMC's IOZ district in its zoning context.

As the City implements new institutional zoning for the MMC campus, opportunity exists to comprehensively review the zoning regulations for Congress Street to provide for orderly redevelopment on both sides of the gateway corridor.

Historic Resources

The MMC Bramhall campus abuts the West End Historic District, one of the eleven locally-designated historic districts in the City of Portland (see **Fig.2.5** on page 29). The West End Historic District includes the Western Promenade, which was designated as a national historic site in 1989.

Fig.2.5 MMC Campus: Neighborhood and Zoning Context (Data Source: City of Portland GIS)



TRANSPORTATION CONTEXT

Maine Medical Center's service area includes all of Maine and parts of New Hampshire. The majority of MMC patients and visitors do not live within walking distance or near public transportation and arrive by car. The nature and acuity of patient needs does not lend itself to the use of alternative modes of transportation. This situation is not atypical for a hospital, but rather is the norm even in locations with a robust public transit system.

The campus' proximity to I-295 provides ease of access to most patients and visitors. **Fig.1.1 on page 9** provides an illustration of the geographic breakdown of MMC's patient home origins in Maine and beyond.

MMC is open to patients every hour, every day of the year. Most MMC staff and physicians do not use alternative modes of transportation. Work responsibilities that require the use of an automobile, work shifts that do not lend themselves to taking transit, a lack of transit options to accommodate staff schedules, and an insufficient bicycle infrastructure in the surrounding municipalities could all be factors that contribute to a high drive share by staff. See **Fig.2.9** for a map of MMC employee residences.

Vehicular Access and Circulation

Vehicle access and circulation on the MMC Bramhall Campus was planned and designed to maintain a safe and efficient transportation system. Most notably, the concept of separating patients, employees, emergency department operations and

loading/service are all considerations that exist at MMC currently. **Fig.2.6** provides an illustrative summary of MMC's access and circulation system on the Bramhall Campus. Aspects of that system are described in greater detail below.

- **Patient/Visitor Access:** Patients and visitors have several choices when accessing the hospital. Through a strong wayfinding and signage plan, they are directed to park directly in the Congress Visitor Garage or the South Lot. They also have access to a convenient patient drop-off area that is located off of Bramhall Street, with direct access to parking in the South Lot.
- **Emergency Department Access:** MMC's Emergency Department (ED) is located near the main entrance but is clearly delineated and separated from it. Within the ED area, ambulances have their own dedicated area and are separated from patient ED access and short-term ED parking.
- **Staff Access:** Staff primarily park in the Employee Garage, which is located on Congress Street with access off of Gilman Street. This design limits the mixing of patient and staff traffic, resulting in fewer staff vehicles near patient access zones.
- **Loading/Service Access:** Trucks destined for MMC are directed to a dedicated loading and service facility located off of Gilman Street, separate from all active patient access and circulation functions. MMC does not accept large deliveries from any location other than through the loading dock area.

Fig.2.6 MMC Existing Circulation Routes and Access Points

KEY VEHICULAR CIRCULATION ROUTES

Patients / Visitors

Emergency Drop-off / Ambulance

Staff

Service

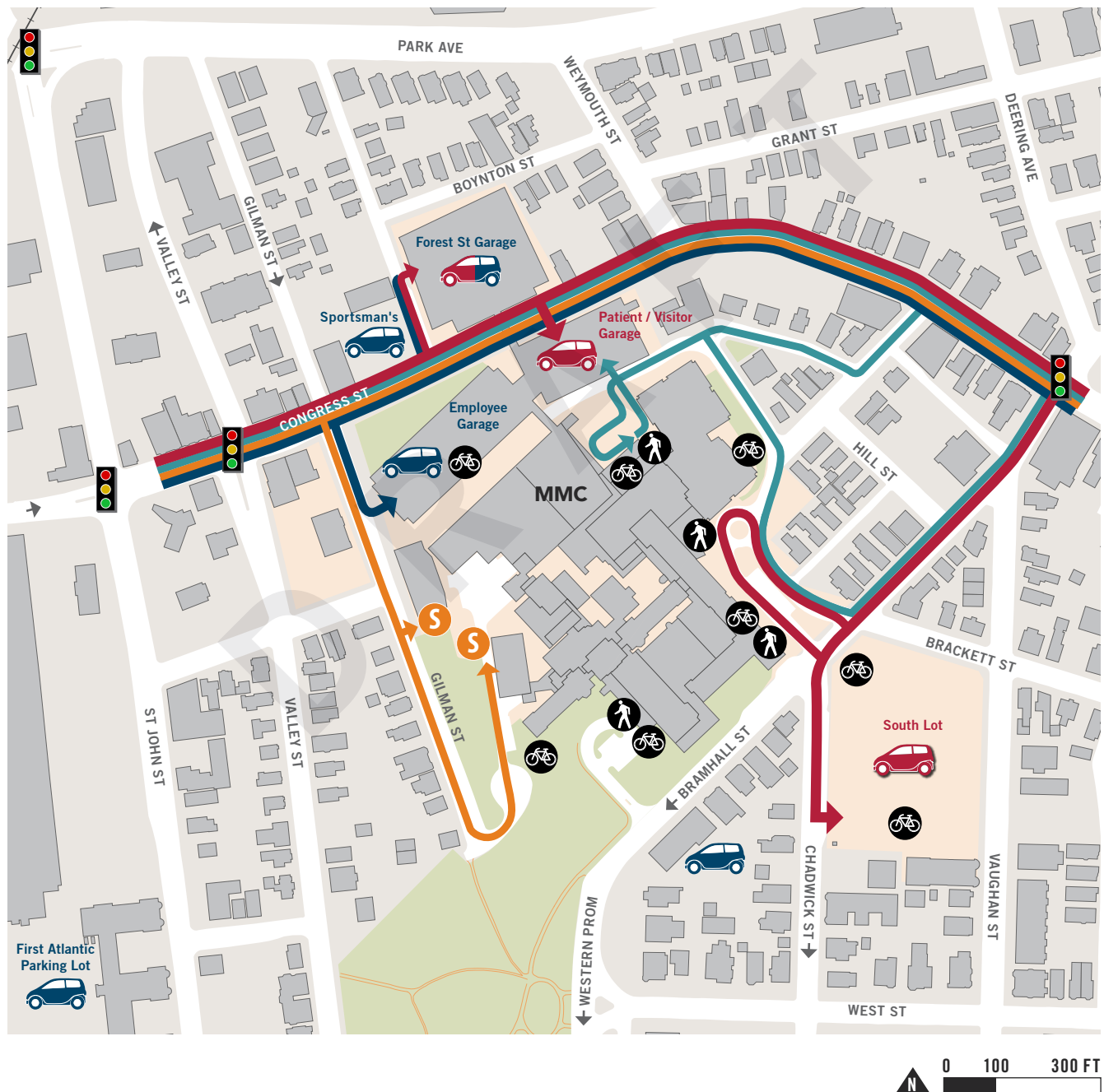
Patients and Visitor Parking

Staff Parking (In map extent only. See list on following page for all locations)

Limited Parking for Service Vehicles / Service Staff

Bicycle Rack Locations

Main Pedestrian Entrances



Parking

MMC offers its patients, visitors, physicians, and employees several options for parking. MMC currently controls approximately 2,877 total off-street parking spaces either via ownership or through leases with others that specifically serve the Bramhall Campus. Of the 2,877 spaces, 850 spaces are available for public use by patients and visitors, and 2,027 parking spaces are subscribed to staff and physicians. About 1,538 of these employee parking spaces are located on the MMC Bramhall Campus.

In addition to their on-campus parking spaces, MMC controls an additional 489 spaces for employees in remote parking facilities that serve the

Bramhall Campus. Off-site spaces that are used by employees require shuttle services to the Bramhall Campus by dedicated MMC-operated shuttle services. **Table 2.7** provides a summary of existing Maine Medical Center parking facilities and **Fig.2.6** illustrates each facility's geographic location.

MMC has continued to see demands on the existing supply intensify due to increased patient volumes and higher acuity patients (longer lengths of stay). And under current conditions, the MMC staff parking system typically operates at capacity during the weekday daytime hours. When off-site, remote staff parking facilities reach capacity, staff are directed to park on-campus in the Congress Visitor

Table 2.7 Existing Parking Spaces

		Patient / Visitor	Employee	Total at Facility	Ownership
ON-CAMPUS 850 patient / visitor 1,538 employee spaces	Employee Garage	0	1,274	1,274	Owned
	Congress Visitor Garage	480	0	480	Owned
	South Lot	370	0	370	Owned
	887 Congress (CMOB Garage)*	0	178	178	Owned
	7 Bramhall St	0	26	26	<i>Leased</i>
	905 Congress St (Sportsman Lot)	0	60	60	<i>Leased</i>
OFF-CAMPUS 489 employee spaces	222 St John St (First Atlantic Lot)	0	283	283	<i>Leased</i>
	181 High St (Gateway Garage)	0	100	100	<i>Leased</i>
	993 Congress St (Classic Lot)	0	97	97	Owned
	321 Brackett St	0	9	9	<i>Leased</i>
TOTAL PARKING SPACES		850 Patient / Visitor	2,027 Employee	2,877 Total	

* The CMOB Garage has an additional 222 spaces that are dedicated to medical office staff and patients.

Garage. Some staff also independently choose to park nearby utilizing neighborhood on-street parking, although this is discouraged by MMC.

Tables 2.8 and 2.9, respectively, highlight the number of on-campus parking spaces that MMC controls, and measures those space counts as a ratio of total beds on the Bramhall Campus. The tables also compare those ratios to comparable peer academic medical centers to get a better relative understanding of the amount of parking that MMC uses to support its Bramhall Campus versus these peer institutions.

As shown in **Table 2.8**, MMC's 850 patient/visitor parking spaces equates to about 1.33 parking spaces per bed. This is low when compared to other New England and national peers. Patient drive rate is consistently high among large academic medical centers regardless of location. Therefore it is appropriate and reasonable to compare MMC patient parking needs on a space per bed basis to highly urban, suburban, and rural settings. MMC would need about 340 additional patient/visitor parking spaces to achieve the midpoint parking space/bed ratio (approximately 1.87) of its peers.

As shown in **Table 2.9**, MMC's 2,027 staff parking spaces equates to about 3.18 parking spaces per bed. This ratio is also low when compared to other peer institutions. When studying staff/physician parking needs, it is important to compare institutions that would reside in similar contexts

where driving behavior and auto mode shares would be similar. Because of this, the list of institutions in **Table 2.9** is shorter, and only includes those that provide for a reasonable comparison to MMC, where the staff drive mode share is very high (over 90 percent).

Under current conditions, MMC would likely require about 150-200 additional on-campus parking spaces to alleviate current staff parking shortfalls that have been estimated via observations and data collection activities and eliminate on-street parking by MMC staff. To help alleviate these pressures, MMC continues to pursue a number of strategies to address its constrained parking situation, including:

- The study of enhanced Transportation Demand Management (TDM) actions to reduce single-occupancy vehicle trips and parking demand,
- Moving employees to off-campus locations (both program and parking), and,
- Securing additional remote parking and serving that remote parking with convenient shuttle services for staff.

See "Future Parking Conditions" on page 74 for MMC's future parking plan.

Table 2.8 Peer Institutions: Inpatient Parking Demand Ratios

	Total Beds	Total Patient Parking Spaces	Parking Ratio (spaces /bed)
Maine Medical Center / Portland, ME	637	850	<i>lowest</i> 1.33
Advocate Illinois Masonic Medical Center / Chicago, IL	211	292	1.38
VCU Health / Richmond, VA	1,125	1,830	1.63
University of Pennsylvania Health System / Philadelphia, PA	695	1,155	1.66
New Spaulding Rehabilitation Hospital / Boston, MA	132	230	1.74
Washington University Medical Center / BJHN / St. Louis, MO	220	402	1.83
Rush University Medical Center / Chicago, IL	674	1,249	1.85
Loyola University Medical Center / Maywood, IL	536	1,018	1.89
Brigham and Women' Hospital / Boston, MA	793	1,564	1.97
Beth Israel Deaconess Medical Center / Boston, MA	632	1,302	2.06
Massachusetts General Hospital / Boston, MA	902	2,057	2.28
Central DuPage Hospital / Winfield, IL	361	965	2.67
Florida Hospital Orlando – Ginsburg Tower / Orlando, FL	440	1,726	3.92
Edward Hospital / Naperville, IL	357	1,425	<i>highest</i> 3.99

median **1.87****Notes:**

Gross on-campus patient parking spaces to total inpatient beds. Includes any related outpatient demand at each respective facility. Florida Hospital Orlando - Ginsburg Tower includes some staff parking on-campus.

Table 2.9 Peer Institutions: Employee Parking Demand Ratios

	Total Beds	Total Patient Parking Spaces	Parking Ratio (spaces /bed)
Maine Medical Center / Portland, ME	637	2,027	<i>lowest</i> 3.18
Washington University Medical Center / St. Louis, MO	986	3,569	3.61
Florida Hospital Orlando – Ginsburg Tower / Orlando, FL	440	1,726	3.92
University of Virginia Health System / Charlottesville, VA	600	2,895	4.83
Elliot Hospital / Manchester, NH	296	1,852	6.26
VCU Health / Richmond, VA	1,125	7,063	<i>highest</i> 6.28

median **4.38****Notes:**

Gross employee parking spaces to total inpatient beds. Includes any related outpatient demand at each respective facility. Elliot Hospital includes patient and visitor parking. Florida Hospital Orlando - Ginsburg Tower includes some staff parking on-campus.

Public Transit Access

METRO provides bus service throughout the Greater Portland region and makes stops within walking distance of museums, galleries, shops, restaurants and historic landmarks. **Table 2.10** (page 41) and **Fig.2.13** (page 42) summarize and illustrate those key bus routes that the METRO operates that are within a 5-minute walk of the MMC Bramhall campus. METRO bus stops that are located near the MMC campus are also noted on **Fig.2.13**. MMC riders can transfer to other METRO buses at the Portland Transportation Center (PTC) and the Downtown Hub. The PTC also serves as the connection to Amtrak Downeaster service.

Bicycle Access and Storage

MMC is committed to supporting bicycle access to the Bramhall Campus. As shown in **Fig.2.7**, bicycling is prevalent within the City of Portland, however, bike use at and around the MMC campus is generally lower than in other Portland locations. This could be a result of the severe grades in the Bramhall neighborhood, but also the lack of strong municipal bicycling infrastructure, including dedicated bike lanes, paths and sharrows.

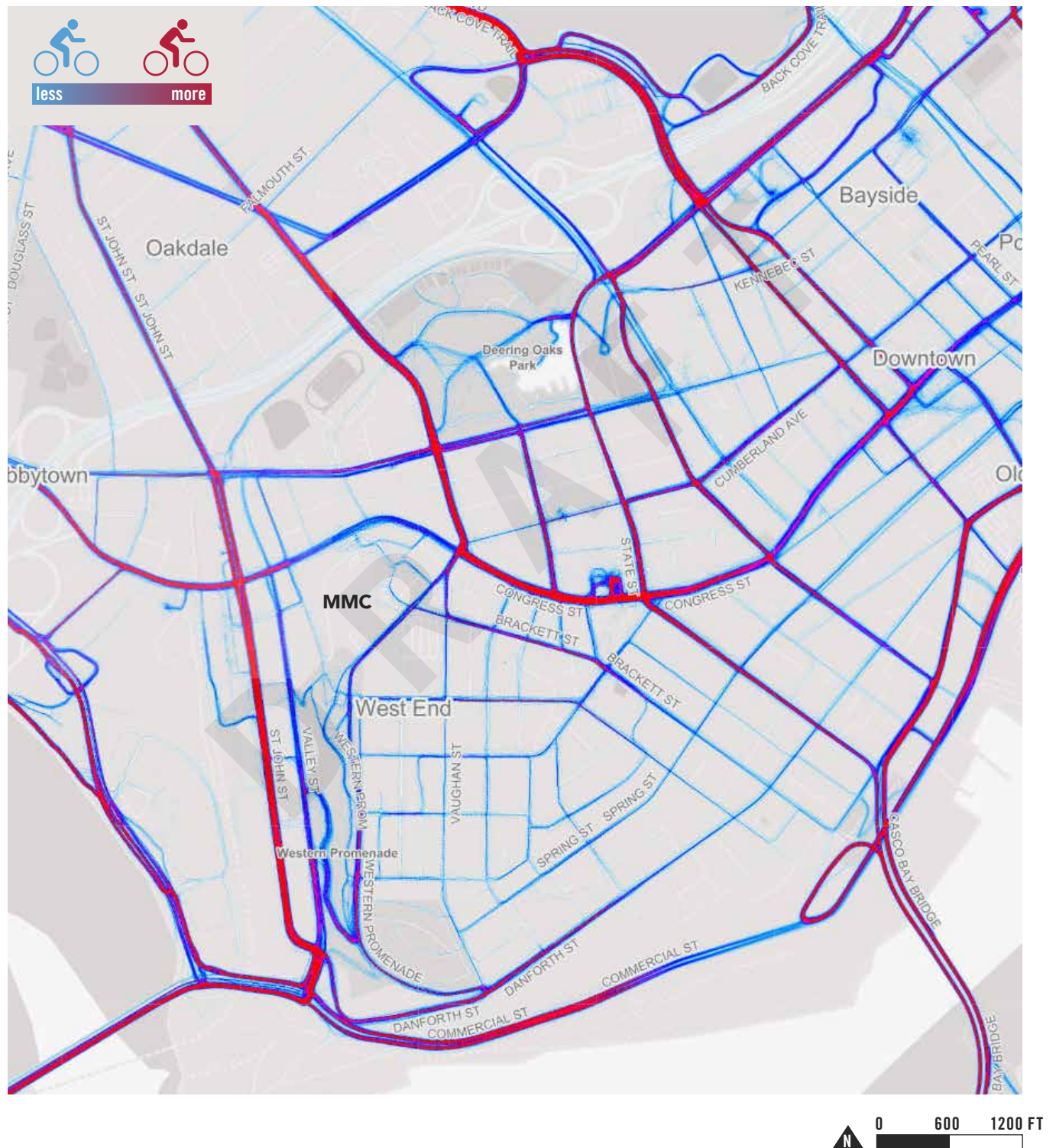
In recent years, the hospital has invested in bicycle racks, showers, and lockers. **Fig.2.6** on page 31 indicates the location of bicycle racks on campus. MMC currently has capacity to accommodate up to 193 bicycles on campus.

Pedestrian Entrances and Access

As illustrated previously in **Fig.2.6**, there are many options for MMC patients, visitors and staff to access the Bramhall Campus. Most notably, the major parking garages are directly connected to the hospital with elevated, covered, and temperature-controlled pedestrian walkways. This limits exposure to adverse weather conditions as well as minimizes on-street vehicle conflicts at intersections and pedestrian crossings.

Fig.2.7 Heatmap Showing Popular Bicycle Routes in the Area, as Recorded by Strava App Users

Source: Based on self-tracking app data mapped by Strava Labs (labs.strava.com/heatmap)



Transportation Demand Management (TDM)

As part of its efforts to monitor and enhance the “Get on Board!” (MMC's existing TDM) program, MMC recently completed a survey of its employees to better understand existing conditions. The current mode split is shown in **Fig.2.8**.

Maine Medical Center is open 24 hours per day, 7 days per week, 365 days per year. Patients require the round-the-clock care that MMC provides. Robust public transportation is not available to service the needs of the broad geographic area. The high percentage of employees driving to work alone and parking near campus is not surprising given the nature of the services provided.

“Get on Board!” TDM Plan

MMC's TDM Plan, “Get on Board!” was successfully implemented in June 2008 and updated annually.

The “Get on Board!” Program, aims to reduce MMC's traffic impact on the peninsula by reducing the number of single-occupancy vehicles (SOV) trips to the campus. The goal is advanced through the subsidy, and marketing of alternative commute options including walking, bicycling, public transit, and rideshare.

“Get on Board!” has continued to grow since implementation. Its success is demonstrated in the growing enrollment in the “Get on Board!” program. The “Get On Board!” Program is administered through an employee portal that includes

Fig.2.8 MMC Bramhall Campus Employees Commuting Mode Split (2017)

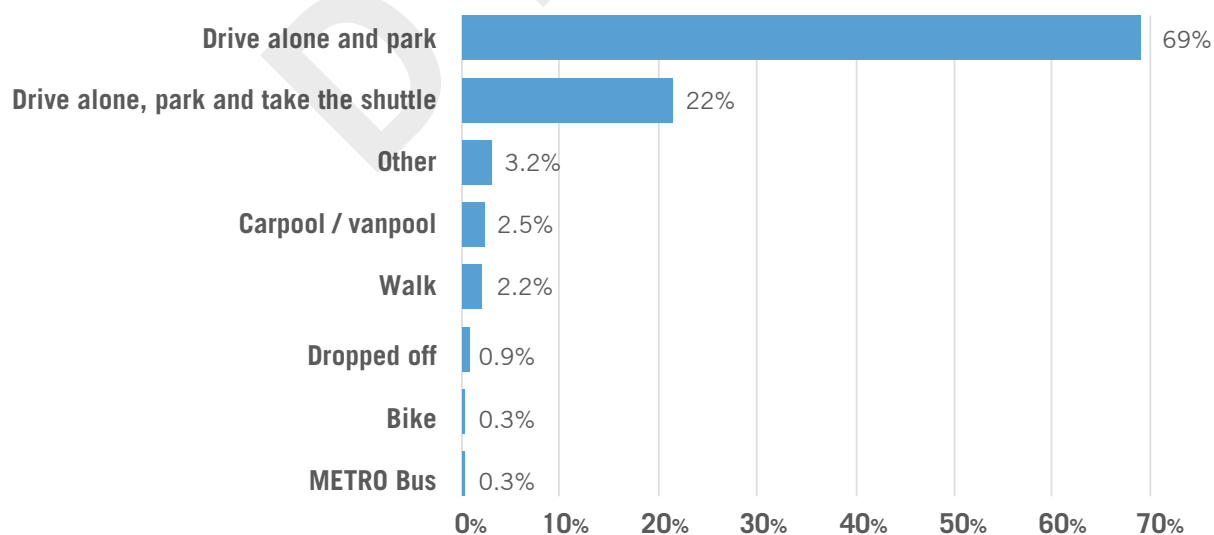
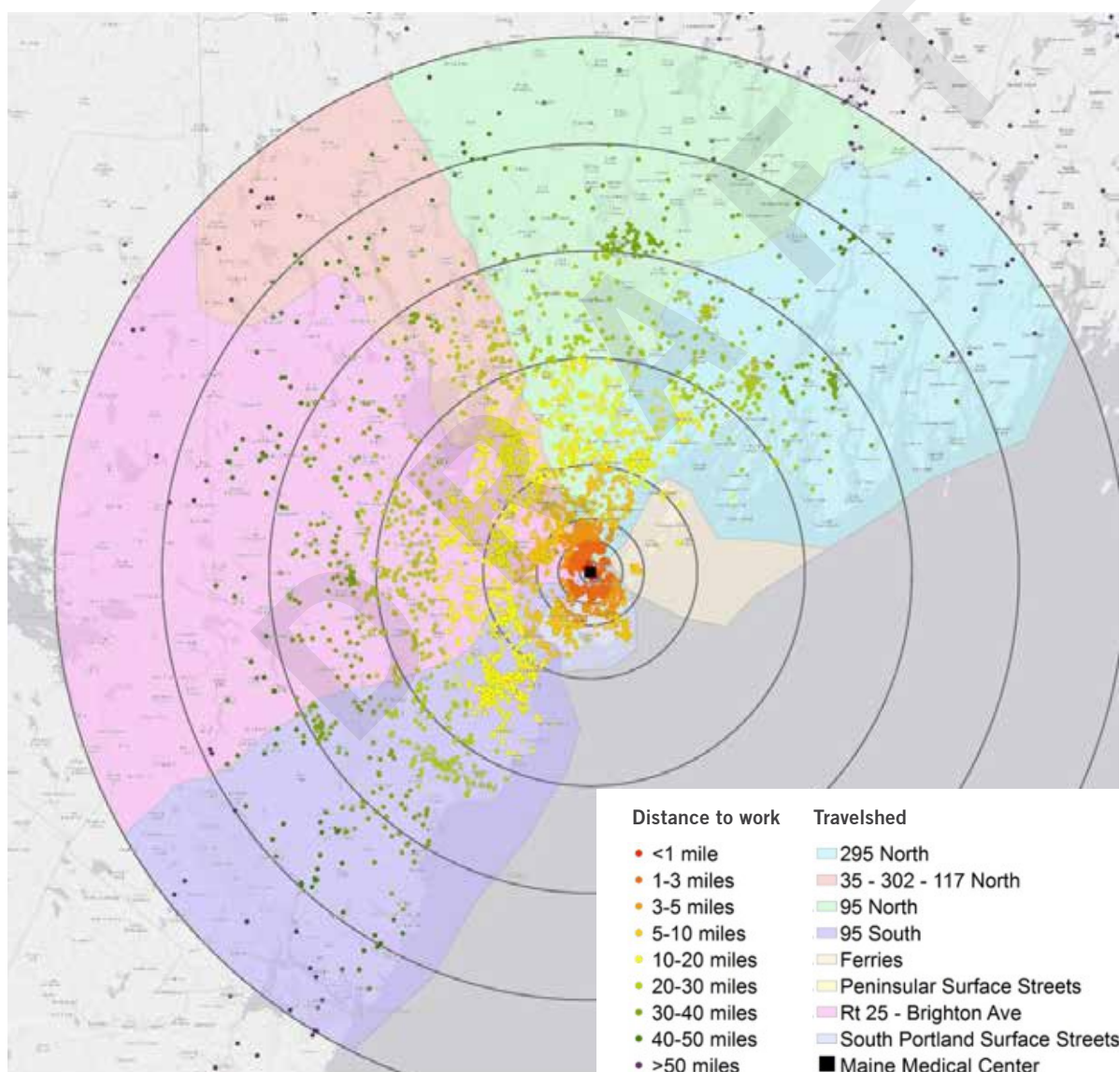
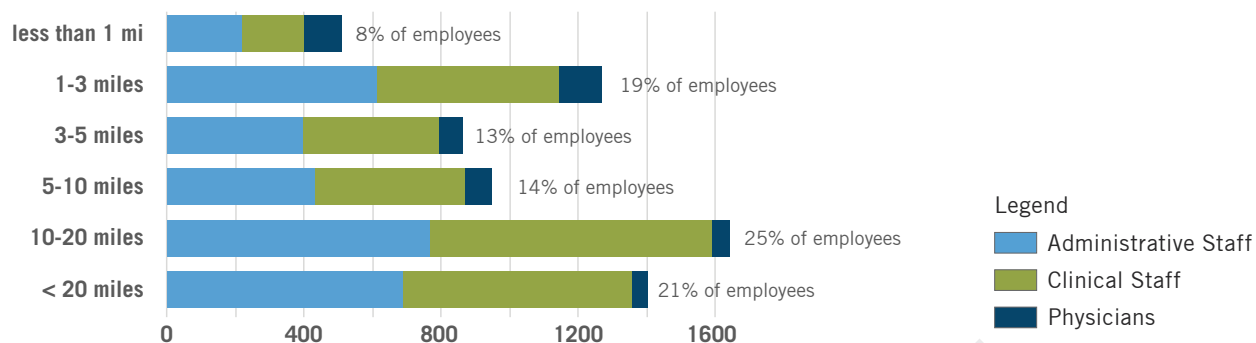


Fig.2.9 MMC Employees, Distance to Work



information and resources for alternative commutes. The website provides links to Maine Department of Transportation and the Maine Turnpike Authority's "GO MAINE" program to provide employees easy access to additional benefits. All new employees receive "Get On Board!" information during orientation with instructions on how to join the program. This has increased the number of people that join the program at the start of their employment and has made "Get On Board!" a focus of institutional policy to help influence travel behavior by MMC staff.

Individual program elements and related incentives are outlined in the following section.

Supporting Mass Transit Commutes

Employees can purchase discounted bus tickets and Shuttle-Bus Zoom tickets conveniently in the cafeteria. MMC buys the tickets at the regular price and offers them to employees at the reduced prices listed below. This is a clear demonstration of MMC's commitment to making "Get on Board!" work. **Table 2.10** includes a list of buses currently serving the MMC campus. See **Fig.2.13** on page 42 for a map of these routes, and stops located within walking distance of the campus.

	MMC COST	EMPLOYEE COST
METRO	\$13.50	\$8
S. PORTLAND	\$13.50	\$8
ZOOM 10 RIDE	\$39	\$29.60
ZOOM MONTHLY	\$100	\$84.50
ZOOM QUARTERLY	\$260	\$197.50

Supporting Employee Carpools

Employees participating in the Ride Share (carpooling) program are given access to preferred parking in a gated, ID-card access only area of the Employee Garage that connects directly to the Main Lobby on the ground floor of the hospital.

Supporting Bicycle Commutes

The MMC campus is located in close proximity to popular bicycle corridors, including St John and Congress Streets which connect riders to destinations across the City of Portland (see **Fig.2.7** on page 36). MMC has worked diligently to support bicycle commuters. In 2008, MMC installed five strategically-located bike racks and ten bike lockers on their Bramhall Campus. Three new bicycle racks were added in the vicinity of the Main entrance and in the South Lot in 2016, bringing total storage capacity to 193 bicycles across campus (see **Fig.2.6** on page 31 for location of bicycle racks on campus). Bicycle commuters also have access to a shared toolshed with basic tools.

MMC Employee Shuttles

The MMC employee shuttle operates Monday-Friday from 6am to 11pm. The number of shuttles running to off-site parking locations at any given time varies from 1-5 shuttles depending on traffic volume. These offsite lots fill to capacity on a daily basis. The employee shuttle service has three distinct routes and schedules:

- A. Service to and from the offsite 1st Atlantic and Classic parking lots runs from M-F from 6am to 11pm, in a continuous loop. The 1st Atlantic parking lot (222 St John St) is utilized first in the mornings. Once it nears capacity, service shifts to the Classic parking lot (993 Congress St). Return trips in the evenings service both lots.
- B. The Gateway shuttle moves employees between the MMC Bramhall campus, the Gateway office building / garage and the MaineHealth home office at 110 Free Street. The shuttle leaves every 20 minutes from the south entrance M-F from 6am to 4pm. Transportation is provided on an “On Call” basis between 4pm and 11pm. This shuttle also provides a limited courtesy transportation service to patient families staying at the Ronald McDonald House (250 Brackett St.).
- C. A courtesy shuttle runs between Brighton Medical Center (335 Brighton Ave) and Maine Medical Center every 20 minutes from 6am to 4pm.

Fig.2.12 Map of MMC Shuttle Routes A & B.



Table 2.10 Bus Routes Serving MMC Bramhall Campus

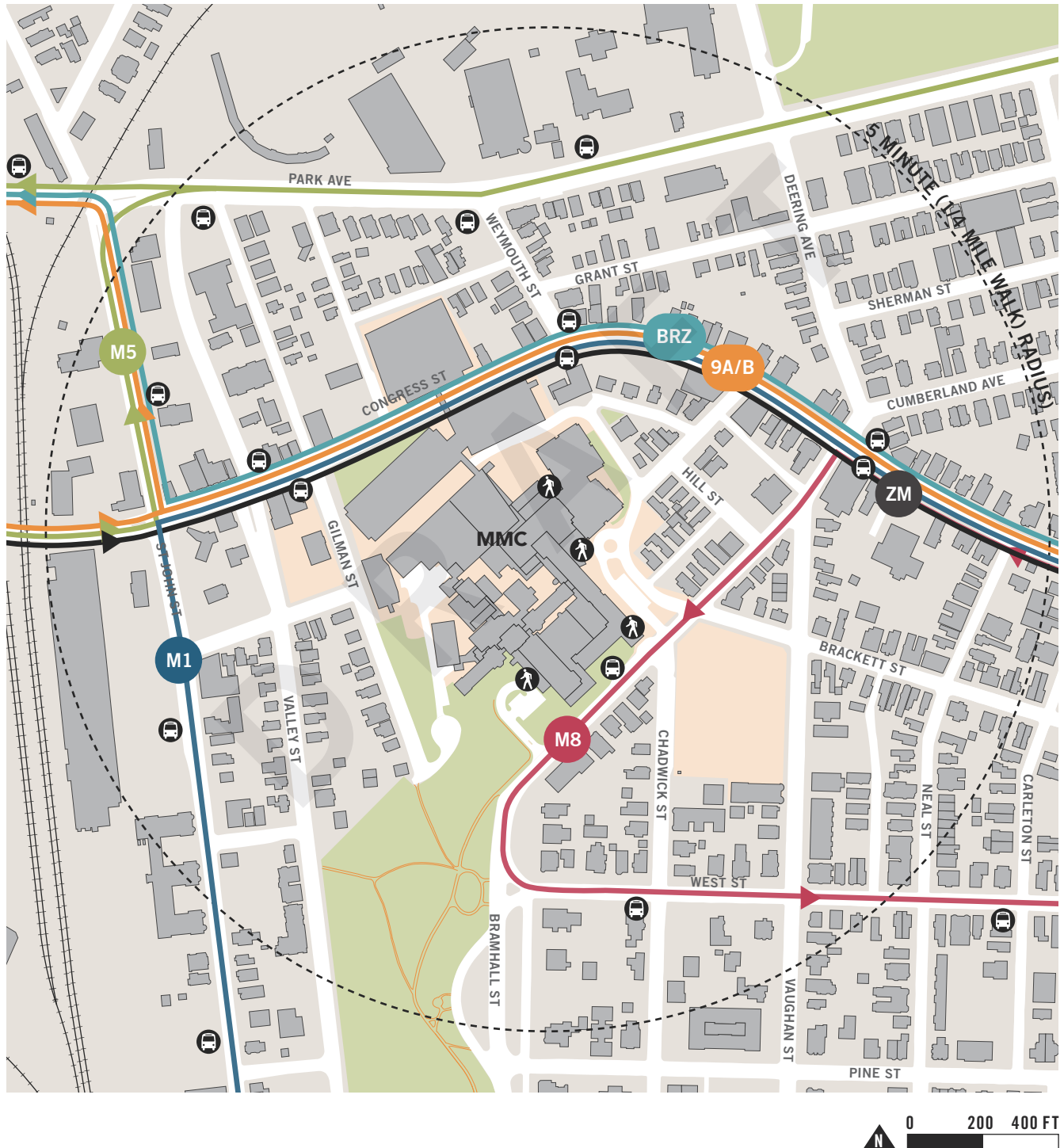
The following bus routes are accessible within a five minute walk of the MMC campus.

- M1 – CONGRESS STREET**
Connection to Portland Transportation Center (PTC), Downtown, Munjoy Hill and Eastern Promenade
- M5 – JETPORT / MAINE MALL**
Connection to Downtown, Hannaford Plaza, Maine Mall and Portland Jetport
- M8 – PENINSULA LOOP**
Connection to Downtown, Franklin Towers, Whole Foods Plaza and Hannaford Plaza
- 9A/B – NORTH DEERING VIA STEVENS AVENUE**
Connection to MMC Brighton campus, Highlands, Rosemont, and North Deering
- BRZ – METRO BREEZ EXPRESS (BRZ)**
Connection to PTC, Downtown, Falmouth, Yarmouth, Freeport
- ZM – ZOOM Turnpike Express (ZM)**
Connection to Biddeford and Saco

Rte #	Closest Stop	Times of Operation	Headways
M1	Congress Street	5:35am to 11:10pm (M-F) 7:45am to 6:05pm (Sat) 8:10am-6:35pm (Sun)	Varies between every 30 minutes during daytime to every 45 minutes late evenings
M5	St John Street	5:30am to 10:45pm (M-F) 6:05am to 10:45am (Sat) 7:55am to 6:40pm (Sun)	Varies between 25-35 minutes during weekdays (day-time) to every 40-45 minutes on weekend evenings
M8	Bramhall	6:40am to 6:00pm (M-F) 7:50am to 6:17 pm (Sat) 9:35am-4:17pm (Sun)	Varies between every 30-40 minutes during weekdays to every hour during weekends
M9A/9B	Congress	5:35am to 10:35pm (M-F) 7:35am to 10:30pm (Sat) 8:35am-4:35pm (Sun)	Varies between 10 minutes on weekday mornings to every 1 hours on weekends and evenings
BRZ	Congress	6:00am to 7:45pm (M-F) 8:20am to 6:10pm (Sat) No Sunday Service	Varies between 45 minutes on weekday mornings to every 2 hours on Saturdays
ZOOM	Bramhall and Congress	6:00am to 6:40pm (M-F) No Weekend Service	5 buses in the morning b/w 6am-8:17am 6 buses in the afternoon b/w 2:46pm-5:35pm

Fig.2.13 Map of Existing Transit Routes and Stops

-  MMC Main Pedestrian Entrance
-  Existing bus stops in the area (see previous page for transit route legend)



The shuttles provide a predictable alternative to employees commuting between the three sites while reducing vehicular traffic in and around campus.

Contractor Parking and Shuttle

MMC has instituted a shuttle service for contractors from the Classic Parking Lot (993 Congress Street) to the hospital to reduce traffic and parking impact on the campus and surrounding neighborhoods. In 2015, MMC added a 20-space contractor lot on Forest Street. Only essential contractor vehicles are permitted to park on campus: contractor parking passes are distributed by the Engineering Department on a case-by-case basis.

UCar

Through contract with Uhaul CarShare, MMC provides a UCar on its campus for use by employees as well as members of the surrounding community. Instituted in 2016, the UCar has been accessed 106 times over the last year. In March 2017 Uhaul representative Leo Sturger stated: “[The 106 rentals] is obviously low considering the amount of time, and the reason for that is that the Ford CMAX that we have at your location was effected by a recall and had to be taken offline for a period of almost 6 months. The vehicle is back online now and is renting again. We expect to see numbers climb significantly in the coming months.” Working in conjunction with the City’s Parking Division and

UHaul’s UCar program, MMC promotes the UCar as available gap transportation for employees who choose not to have a vehicle or choose to take alternative modes of transportation to work.

ENVIRONMENTAL AND INFRASTRUCTURE CONTEXT

Environmental Context

The MMC Bramhall campus is located in an urban context with development history dating back to the late 19th century. The campus and adjoining neighborhoods benefit from proximity to the Western Promenade, which provides recreational open space, wildlife support, and natural stormwater management in the otherwise densely developed urban environment.

FEMA Flood Zones

The MMC Bramhall campus is not located in a FEMA-designated flood zone. The 100-year flood zone boundary is located at the western edge of the Pan Am rail line and consist of flood-prone flats along the Fore River. Redevelopment on MMC's campus is not expected to impact existing flood risk in this area.

Existing Utility Context

In 2008, MMC's 22 Bramhall Street campus went live with its upgraded and centralized utility plant. The Central Utility Plant (CUP) was designed to provide better management of and more efficient results for energy consumption by the hospital. The plant produces steam, chilled water, and back-up power for the Bramhall campus. The peak tonnage of the plant is currently close to 2,400 tons per hour of chilled water.

Since 2008, MMC has experienced dramatic energy consumption decreases directly resulting from the state of the art utility plant. The CUP controls

both electrical and gas utilization, and heating and chilling functionality, and will service the short-term modernization project under development at the Bramhall campus.

Because MMC, of necessity, is such a large consumer of energy, it utilizes the services of an energy procurement broker, Competitive Energy Services, to provide it with strategic energy consulting services and management of energy procurement activities for electricity, natural gas, and oil in order to maximize efficiency and to ensure MMC achieves the most competitive pricing. MMC purchases its energy through a competitive bid-based energy procurement process.

The electrical consumption at MMC for calendar year 2016 was 35,375,765 Kw-Hr.

The CUP upgraded contains state-of-the-art dual natural gas /oil system allowing for switching between oil and gas depending upon price and availability. The oil consumption at MMC for calendar year 2016 was 411 gallons. The natural gas consumption at MMC for calendar year 2016 was 1,633,686 CCF units.

In addition to its conservation methods in the electric, oil and gas arena, MMC has also undertaken investment in infrastructure upgrades at its 22 Bramhall Campus to reduce building air changes and temperature set-points allowing for the monitoring and control of humidity and temperature

during high demand use times. Upgrades in sequencing and timing of set points have achieved efficiencies of HVAC run times and energy demand.

Further, MMC has been investing in lighting and plumbing features that allow for reduced energy consumption. LED lights have been installed in its garages and in the public corridor within the Bean Building. Low flow plumbing fixtures with aerators are installed when replacements or renovations are required. These fixtures lower overall water consumption at the hospital.

Stormwater Management

The MMC Bramhall campus is located at a high point in the west end of the Portland peninsula. From the high point of the property along Bramhall Street, runoff from the site drains west, north and east entering the to the City of Portland's separated storm drain system and combined sewer system (see **Fig.2.15** on page 48).

In general, the campus redevelopment over the last 15 years has collected runoff from parking lots and new rooftops into a separated storm drainage system, including storm drains in the public right of way. Where feasible, the on-site separated drainage system has been connected to a municipal separated storm drain. This includes the storm drain A Street constructed by the City in 2001 and Gilman Street constructed by MMC in 2005.

Other locations abutting the campus including Congress Street, Wescott Street, Charles Street, Bramhall Street and Bracket Streets are only served by combined sewers. At these locations, MMC's recent drainage construction terminates in a separated storm drain manholes connected to adjacent City combined sewer manholes to provide points of connections for future municipal separated storm drains. The campus' stormwater conditions were most recently evaluated in a stormwater management report prepared by Sebago Technics, Inc. in 2004 as part of the Planning Board's review of the Bramhall campus expansion project,

which included the construction of the Women and Infants Center, Emergency Department Expansion, Congress Street Parking Garage and the Central Utility Plant.

Stormwater Quality Features

To meet the 2004 stormwater treatment requirements, MMC installed two Downstream Defender Stormwater treatment units to treat runoff from impervious areas on the site. The redevelopment separated and redirected stormwater runoff from approximately 6.3 acres of existing development from the combined sewers in Crescent Street, Ellsworth Street, and Congress Street to the separated storm drain in A Street.

A 6' diameter unit has been installed in the Congress Street Parking Garage, treating runoff from the garage (see Location 2 on **Fig.2.15** on page 48), and a 10' diameter unit has been installed in Gilman Street (see Location 6 on **Fig.2.15** on page 48).

Sanitary Flows

The MMC campus is served by the City of Portland's combined sewer system. Located at a high point in the west end of the Portland peninsula, sanitary flows from the campus to the City's sewer system at approximately seven locations (see **Fig.2.15** on page 48).

This information is provided to the best of MMC's knowledge after researching its own records and

those of the City of Portland. Due to the age of the public sewer system and MMC's buildings, record plans of the existing sewer systems may be incomplete and additional currently unidentified connections may exist.

Fig.2.14 Diagrams Illustrating Elevation and Location of Steep Slopes

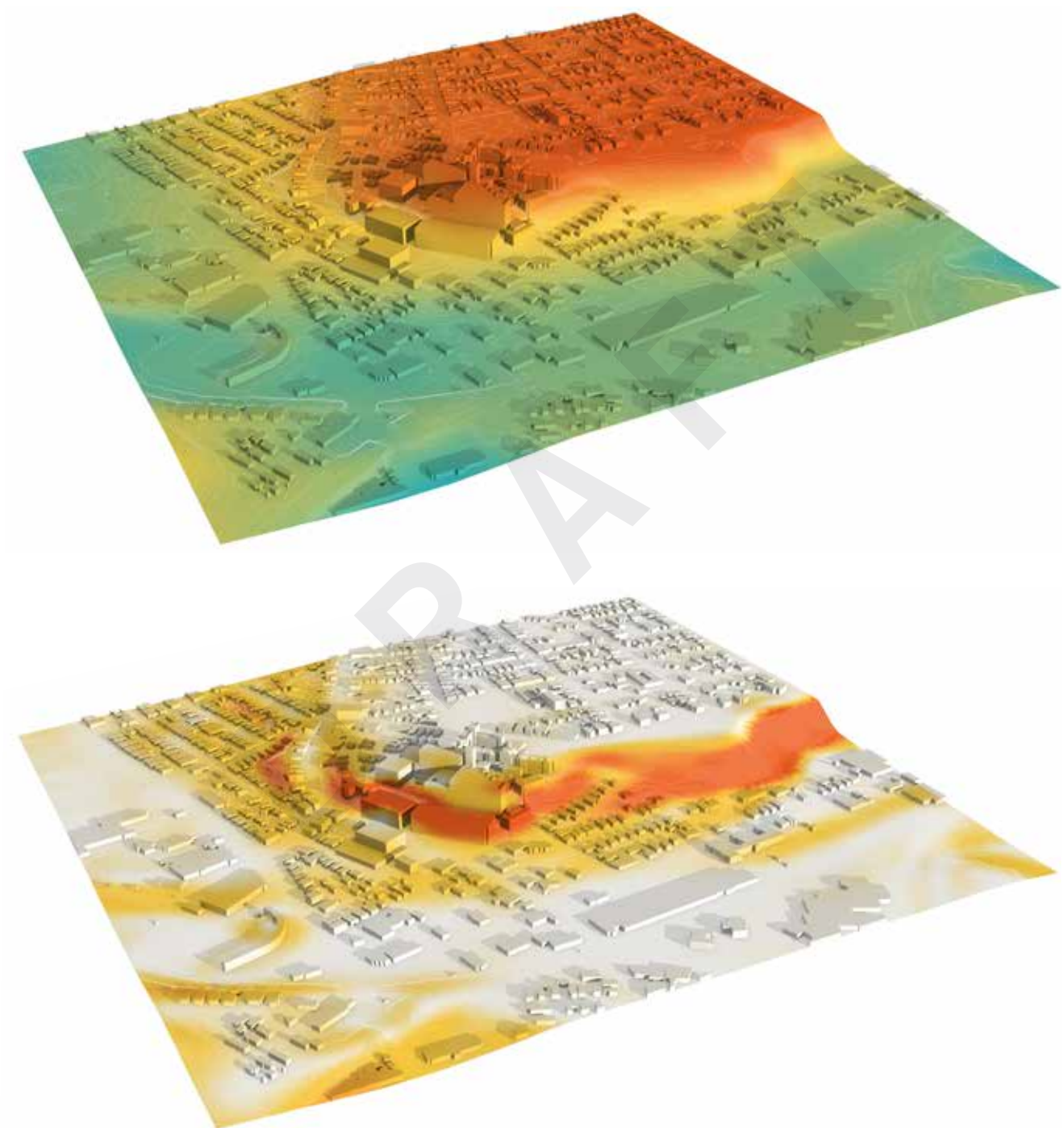
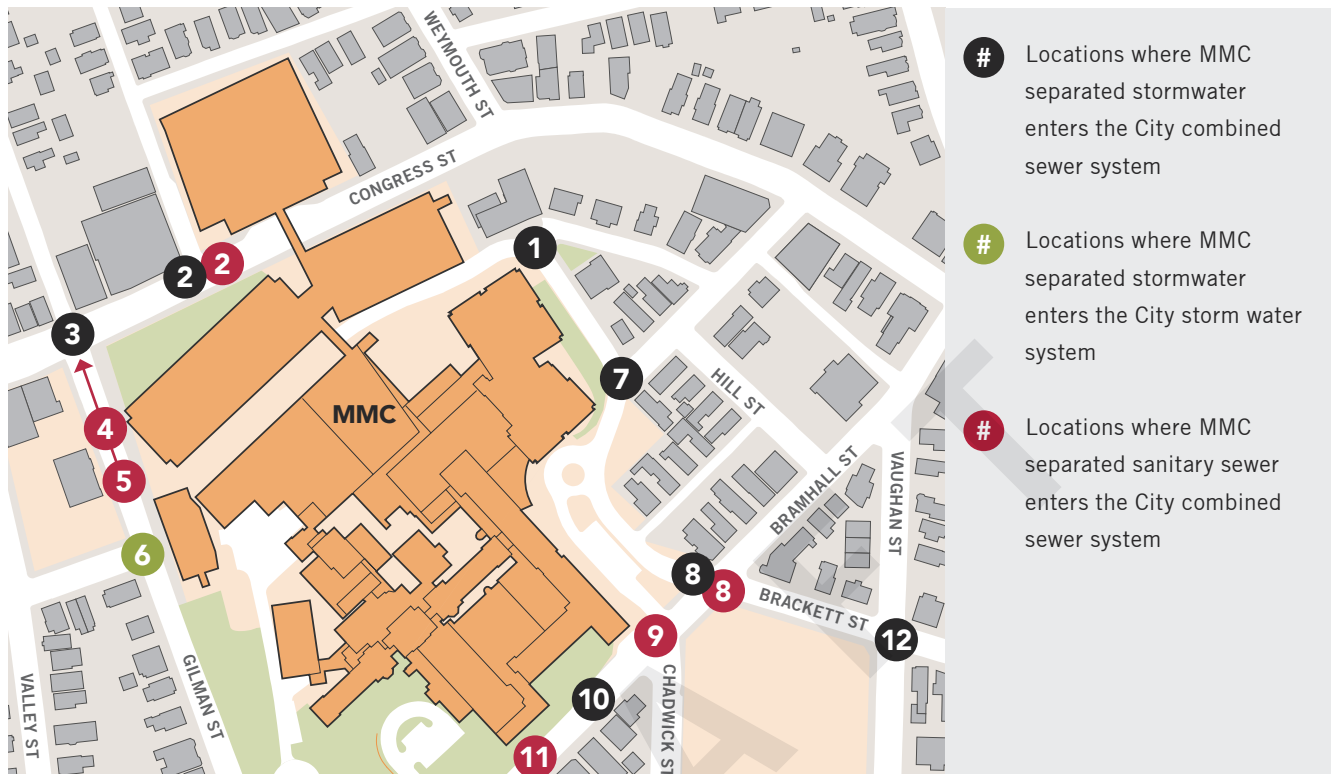


Fig.2.15 Existing Sewer Connection Points



LOC.	MMC STORM WATER FLOWS	MMC SANITARY FLOWS
1	Runoff from the campus and storm drains constructed by MMC in Wescott St enters a combined sewer man-hole at the intersection of Wescott St and Crescent St. The outfall of this system a 12" combined sewer that drains in a westerly direction along Crescent St, eventually draining to Park Ave via sewers in Ellsworth St, Congress St and Weymouth St.	N/A.
2 2	Separated runoff from the MMC parking garage enters the municipal combined sewer at the intersection of Congress St and Forest St. The sewer outlet from this manhole is an 18" reinforced concrete pipe that drains north in Forest St to Park Ave.	Sanitary sewer outfalls from the MMC parking garages enter the municipal combined sewer at the intersection of Congress and Forest St. The sewer outlet from this manhole is an 18" reinforced concrete pipe that drains north in Forest St to Park Ave. Areas tributary to this system include the Emergency Department, Women and Infants Center and Richards Wing.
3	Runoff from areas of the campus along Congress and Gilman St enter catch basins connected to the City's combined sewer system at the intersection of Gilman and Congress St. From this point the combined sewer drains north in Gilman St to Park Ave. Runoff in the roadway that bypasses the catch basins at the intersection runs west along Congress to St John St.	Sanitary sewer flows from #4 and #5 enter the City combined sewer at this location.

LOC.	MMC STORM WATER FLOWS	MMC SANITARY FLOWS
4	N/A.	The sanitary sewer serving the LL Bean Building, Annex B / Maine General Bldg, and the Engineering Services Building enters the City's 12" concrete sewer in Gilman St. From this point the sewer drains north in Gilman St to Congress St (#3) and continues to Park Ave.
5	N/A.	The sewer service from the Central Utility Building enters the 12" concrete City sewer in Gilman St, a short distance above Location 4.
6	Runoff at the intersection of Gilman St and A St at the upstream end of a separated storm drainage system constructed by the City of Portland in 2001 as part of the St. John St sewer separation project. The storm drain was extended along A St, from its intersection with St. John St to a drain manhole in Gilman St opposite the MMC Central Utility Plant. This storm drain was extended to the hospital property specifically for the purpose of providing a point of connection for separated stormwater runoff from the hospital. In 2005 MMC constructed drainage on campus to collect runoff from areas of the site including the existing emergency room parking area, L.L. Bean Wing, and service areas abutting the Central Utility Plant to the A St storm drain. This project also extended the separated storm drain in Gilman St to the south, separating runoff in Gilman St and the Dana Center from the City's combined sewers.	N/A.
7	Runoff at the intersection of Ellsworth St and Wescott St. Separated storm drains constructed by MMC in 2005 connect to a combined sewer system manholes in Ellsworth St. The combined sewer drains in an east in Ellsworth St towards to Congress St.	N/A.
8 8	Separated storm drainage from the MMC parking lot enters the combined sewer in Charles St at its intersection with Bramhall St.	Sanitary sewer manhole in the intersection of Bramhall and Brackett Sts where sewer services from Pavilions A and C connect to the City sewer. The outfall of the manhole at this location is a 15" sewer that drains to the east in Bramhall St.
9	Runoff from small areas of the site along Bramhall St enters the combined sewer system at Location 8.	Sewer service from the south end of Pavilion A enters a City sewer manhole at the intersection of Bramhall and Chadwick St. From this location, the sewer continues east to Location 8.
10	Small areas along Bramhall St enter catch basins in the city right-of-way	N/A.
11	N/A.	Sewer manhole in Bramhall St where a sewer service from the Dana Center enters the City sewer in Bramhall St. From this location, the sewer continues east to Location 9.
12	Runoff at the intersection of Brackett St and Vaughan St where separated MMC storm drains in the Brackett St parking lot connects to the combined sewer draining southeast in Bracket St.	N/A.

PUBLIC ENGAGEMENT IN IDP

MMC appreciates the importance of maintaining an open dialogue with its neighbors keeping its neighbors up to date on its evolving plans for replacement and modernization at its Bramhall Campus. In August 2016, MMC leadership met with the neighborhood representatives of its four adjacent neighborhood groups: St. John Valley, West End, Western Promenade, and Parkside to explain its need to modernize its campus. Since November 2016, MMC has met on a monthly basis with two representatives of each neighborhood (“Expansion Group”) to engage in a productive dialogue

regarding the City’s new IOZ process and MMC’s Institutional Development Plan. The City’s Planning Director has been invited to each of these monthly meetings. Recently, an invitation was extended to a representative of the Libbytown neighborhood to join in the ongoing conversation. The minutes of the monthly meetings are distributed to the Group members who are asked to disseminate them to its neighborhood constituents.

MMC also has created a website (<http://www.mmc.org/modernization>) to ensure open communication with the community at large and specifically its

Fig.2.16 Public Meeting #1 (January 12, 2017): Open House Portion for Collecting Public Comments



adjacent neighbors. The minutes of each Expansion Group meeting are posted on the website, as are any updates or current events occurring which involve MMC's plan. These include dates for the Planning Board workshops and hearings and a link to the City's Planning website. A designated contact email has been established where residents can ask questions, provide suggestions, etc.

Finally, to date, MMC has held two larger neighborhood meetings where information has been shared about MMC's needs and its plans to address its issues of bed capacity, operating needs and transportation and parking. These meetings have been well attended and have allowed time for participants to ask questions and to get answers. The minutes of these meetings, as well, are posted on the MMC website as well as submitted to the City of Portland.

MMC, its neighborhoods and the City staff have embarked, together, on the creation of a new zoning mechanism known as the IOZ/IDP.

Major Areas Of Public Concern

At the initiation of MMC's Master Facility Planning engagement with its neighbors, it was recognized there would be concerns identified by MMC as well as by the neighborhood residents which would require ongoing dialogue and an openness to new ideas or suggestions. It was understood that there may be many areas where consensus of approach will be reached, and other areas where reasonable

minds could differ. MMC and the participants in this process have identified the following "areas of major public concern:"

- By far the biggest concern with the MMC proposed IDP revolves around transportation and parking, most notably the size of the MMC staff garage on the Gilman Block*;
- A fear of property acquisition by MMC in residential zones;
- Patients, visitors, or employees smoking in the neighborhood; and,
- Hope for continued public engagement between MMC and its neighbors.

* Note: Alternative employee parking solutions are currently being investigated.

INSTITUTIONAL NEEDS

As it nears its 150th anniversary, Maine Medical Center continues to improve its facilities and services to fill its role as Maine's leader in patient care, education, and research. MMC is planning projects to address immediate clinical, building, and parking needs in the short-term.



FACTORS AFFECTING HEALTHCARE PLANNING

There are a multitude of factors to consider in healthcare planning that are unique to the industry and some that limit the ability to plan too far into the future. Due to the unpredictability of many of these factors, healthcare planning beyond three years with relative accuracy is challenging. Therefore, healthcare planning is typically completed in three-year increments. For example, the rate of change in healthcare payment and policy often follows federal and state election cycles but can change as often as annually. A summary of factors that affect healthcare planning is included in the table below.

Table 3.1 Factors Affecting Healthcare Planning

Factor	Definition
POPULATION	Changes in utilization due to population growth: — Population increase or decrease — Population aging — Population distribution — Consumer preference
EPIDEMIOLOGY	The underlying causes of disease (divided into two categories): — Disease-based: Estimates the incidence and prevalence that are impacted in the long-run by preventative measure (i.e. vaccinations effectiveness) — Behavioral-based: Changes in disease incidence and prevalence due to behavioral and sociocultural factors (i.e. obesity, smoking, diet)
ECONOMICS	Macro-economic factors that affect healthcare utilization: — Employment — Healthcare Consumer Price Index — Gross domestic product growth or decline — Employer-based coverage levels — Benefit level and out-of-pocket expense — Regional/Local healthcare environment
PAYMENT & POLICY	Legislative and market-driven reform, including specific payment and policy innovations that will impact utilization: — Health insurance coverage expansion — Bundled payment initiatives/pilots — Accountable Care Organizations (ACOs) — Publicly-funded prevention and wellness initiatives
INNOVATION & TECHNOLOGY	Structural technology that shifts the site at which care is delivered or innovations that affect utilization across different care settings: — Imaging and diagnostics — New therapeutics — Pharmaceutical advancements — Quality innovations
SYSTEMS OF CARE	Increased efficiency resulting from better care coordination and serve integration across various care sites: — Clinical Integration: Use of evidence-based practices and elimination of redundant care — Alignment: Coordination between providers, including inpatient and outpatient providers — Information Technology: Includes computerized physician order entry (CPOE) and e-care
WORKFORCE AVAILABILITY	The healthcare workforce is highly specialized which requires years of training. The availability of qualified individuals can severely limit a healthcare organization's ability to provide care.

MMC FUTURE NEEDS

Maine Medical Center (MMC) is a 637 licensed bed Academic Medical Center with an affiliation with Tufts University School of Medicine. MMC is the leading provider of tertiary services in the State of Maine. Tertiary services are defined as a set of Medicare severity diagnosis-related groups (MS-DRGs) that are rare and complex, require collaboration across treatment modalities, complex treatment decisions dependent upon unique diagnostic tests, regionalized care, and associated with complex co-morbidities and complications. MMC is the top provider of these services in the state. In 2014, MMC provided 42% of all the tertiary services for the state of Maine.

MMC treats Maine's sickest patients and estimates that the average patient seeking care at MMC will continue to get sicker. MMC's case mix index (CMI) was 1.86 in fiscal year 2015 (October – September); the highest in the state of Maine. A hospital's case mix index is calculated by finding the average severity of diagnosis-related groups at that hospital. The average case mix index for a hospital in the U.S. is 1.31 ([CMS.gov](https://www.cms.gov)). In fiscal year 2016, MMC's CMI grew to over 2.00 and is expected to continue to increase.

Key Drivers for Campus Transformation

MMC's facility needs are multi-factorial but can be summarized into three categories:

1. Immediate Clinical Need
2. Building Need
3. Parking Need

Immediate Clinical Need

On an average day, MMC can expect over 500 patients in the hospital and over 60 beds closed. On a routine day, MMC can expect approximately 100 admissions from Surgery and the Emergency Department and 30 to 50 transfer requests per day from other healthcare and provider organizations.

MMC routinely closes inpatient beds due to patient condition such as infection from disease-resistant organisms (DROs) or behavior related issues, room sharing restrictions such as male/female, and regular building maintenance. On average more than 60 beds are closed each day for these reasons. This along with construction closures for renovations and repairs reduces MMC's licensed bed capacity of 637 beds to an effective bed capacity closer to 560.

While MMC is licensed to operate 637 inpatient beds, the medical center operates at capacity with a census in the mid-500s. When 500 patients are in the hospital and over 60 beds are closed, a limited number of inpatient beds are available for new patients. Inpatient beds are specialized for medical/surgical, intermediate care, intensive care, psychiatric, pediatric, or infant care services. The actual number of beds available for specific populations of patients is much smaller. For example, if a patient needs a critical care bed but, the only beds that are available are general medical/surgical, then MMC struggles to meet that patient's needs.

Fig.3.1 demonstrates a snapshot of the challenge MMC is faced with daily to meet the needs of the community. The challenge is expected to grow in complexity as patients get sicker and require highly specialized care.

Building Need

Facilities at MMC date back to the 1870's with the construction of the Maine General Building. Since the early 1900s, MMC has grown to meet the needs of patients. A building assessment was completed by a team of engineers in 2015 that evaluated essential systems in each of the buildings that comprise MMC's campus (see **Fig.2.2** on page 23). Close to 77% of MMC's clinical activities occur in buildings more than 30 years old. Nearly half of MMC's operating rooms are smaller than 500 square feet and over half of MMC's inpatient beds are in semi-private rooms.

MMC's Care teams work collaboratively with MMC's Facilities and Engineering teams to ensure patients are cared for in the best possible environment. This requires continuous maintenance and improvements to the facilities. The remaining opportunities for improvement and retrofits in the existing buildings are marginal. It is impossible to enlarge operating rooms or make semi-private rooms private without major disruptions to the delivery of patient care, reduction in capacity, major facility expansion, or some combination.

The proposed Development Plan (see page 58) will partially replace rooms and modernize MMC's campus to meet anticipated future need. Proposed patient rooms will be private and adaptable to the level of care needed by patients. They will be "universal rooms" capable of being occupied by a wide spectrum of patient populations from intensive care to recovery from surgery. Procedure rooms will be large enough to fit the equipment and technology needed for the complex procedures that patients increasingly require at MMC.

Parking Need

MMC hosts a wide variety of people on campus every day. Patients, families, staff, and students all require access to the facility. Patients and families from all over northern New England come to MMC for care. These people do not live close enough to take advantage of alternative methods of transportation like buses, cycling, or walking that are provided locally—even if they were healthy enough to do so. Clinical and support staff require safe, reliable, and often emergent, access to the facility in order to provide services to patients. Providing parking is a priority at MMC (see **Section 5** on page 80 for additional details).

Fig.3.1 A Day In The Life Of Maine Medical Center: Bed Shortage

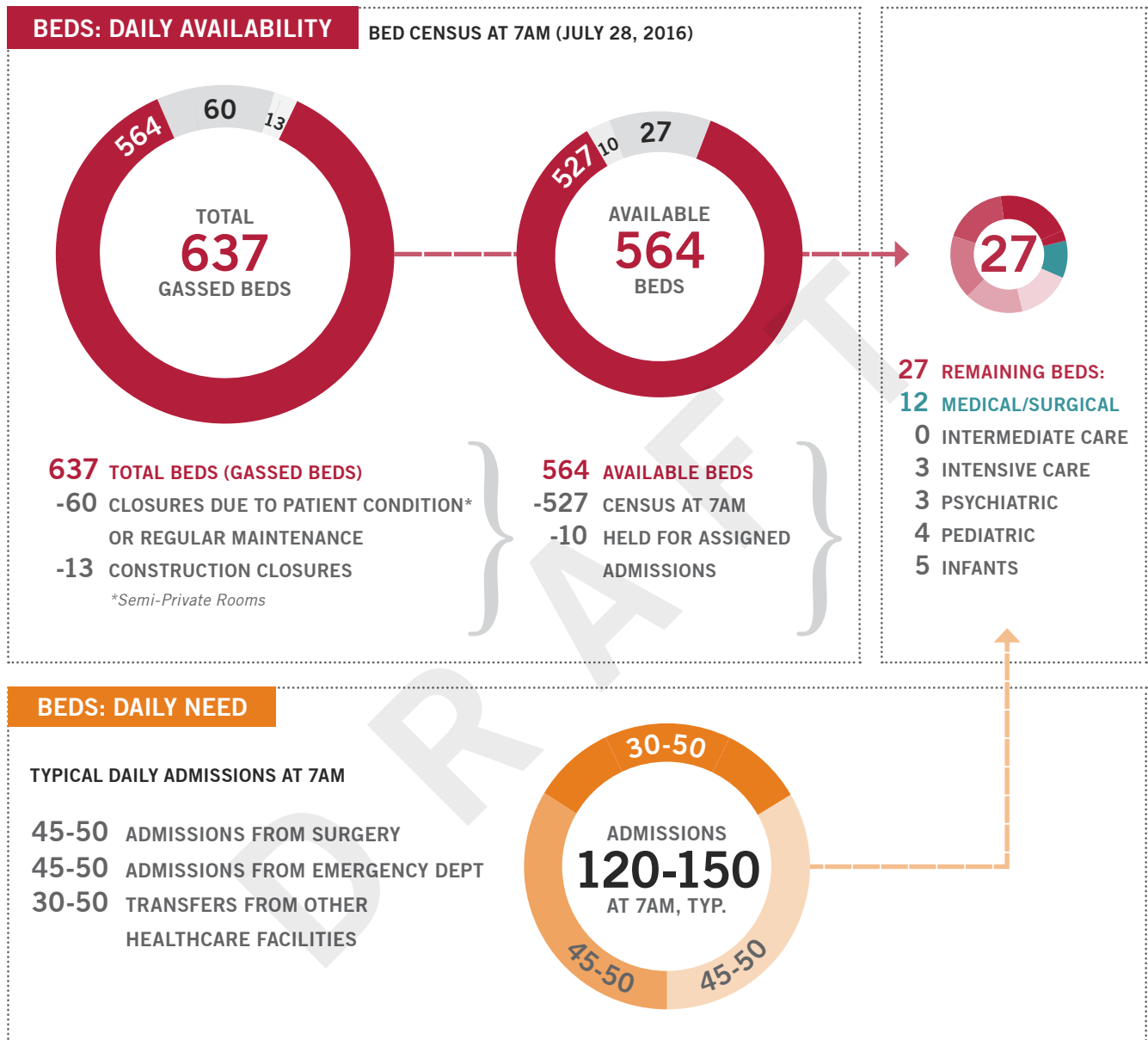
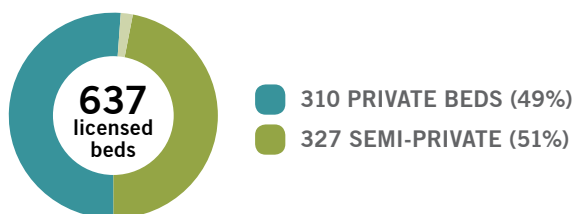


Fig.3.2 Existing Inventory of Private vs Semi-Private Beds



SHORT-TERM DEVELOPMENT PLAN (0-5 YEARS)

A series of projects have been planned throughout the campus to meet current needs and to improve the efficiency of care delivery. These projects are possible options for expansion.

The bed count will stay the same in the short-term. The Long-Term Plan adds approximately 770,000 GSF to the MMC campus over the next twenty years, and may also provide additional services and inpatient beds.

Demolitions

A Employee Garage Demolition

The 2015 building assessment does not recommend continued investment in this structure (see **Fig.2.2** on page 23).

D Removal of existing one and two-story structures currently used as office space and for small clinical functions will be required to construct the proposed parking garage.

E Abandonment of service road to enable connection between Congress Street Development (A) and existing facilities.

Additions / New Construction

A Congress Street Development, Phase I (New Construction, 285,000 GSF)

New six-story building along Congress Street on former site of the Employee Garage, plus two-story connector to the LL Bean Building. Building program includes: main hospital drop-off and entrance, universal, private inpatient beds and new operating rooms. The relocation of the main entrance changes the campus's orientation to Congress Street.

B Visitor Garage (Vertical Expansion)

Addition of three floors at top to accommodate 225 new parking spaces.

C East Tower (Vertical Expansion, 60,000 GSF)

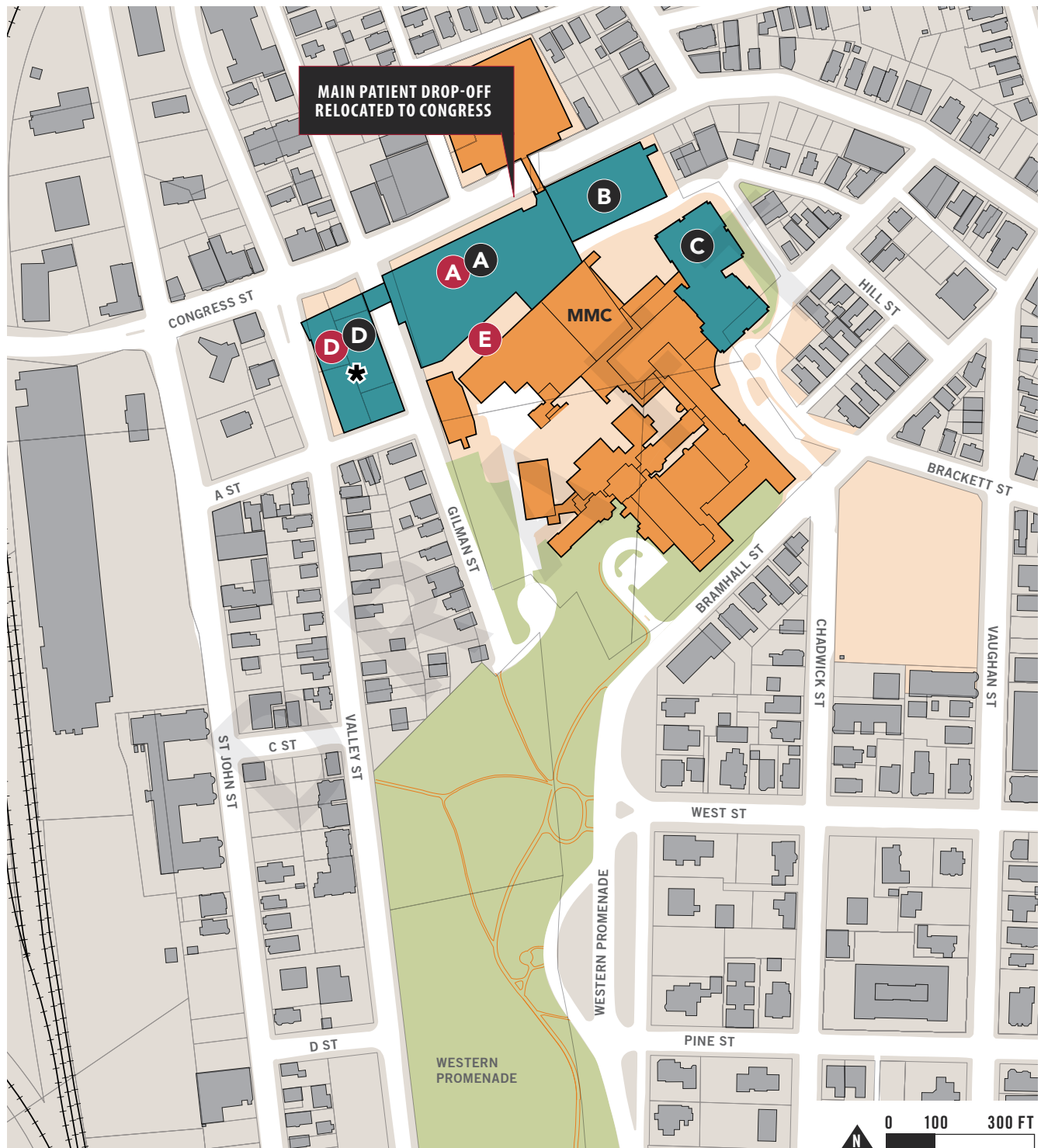
Addition of two floors at top to accommodate 64 inpatient beds and relocated heliport.

D Gilman Garage (New Construction)

13-story free-standing garage to accommodate 1135 new parking spaces. (Note: Alternative employee parking solutions are currently being investigated).

Fig.3.3 Short-Term Development Plan (0-5 Years)

- EXISTING MMC FACILITIES
- # DEMOLITION
- SHORT-TERM PROJECTS (0-5 Years)
- # ADDITION / NEW CONSTRUCTION (see opposite page for descriptions)



* Alternative employee parking solutions are currently being investigated.

LONG-TERM DEVELOPMENT PLAN (5-20 YEARS)

The facility planning process has also identified potential long-term projects that are identified below. Given the changing nature of the healthcare industry, it is currently uncertain if these projects will be implemented. MMC will continue to evaluate its facility needs, if any, following the implementation of the Short-Term Development Plan by 2023.

Long-Term Projects

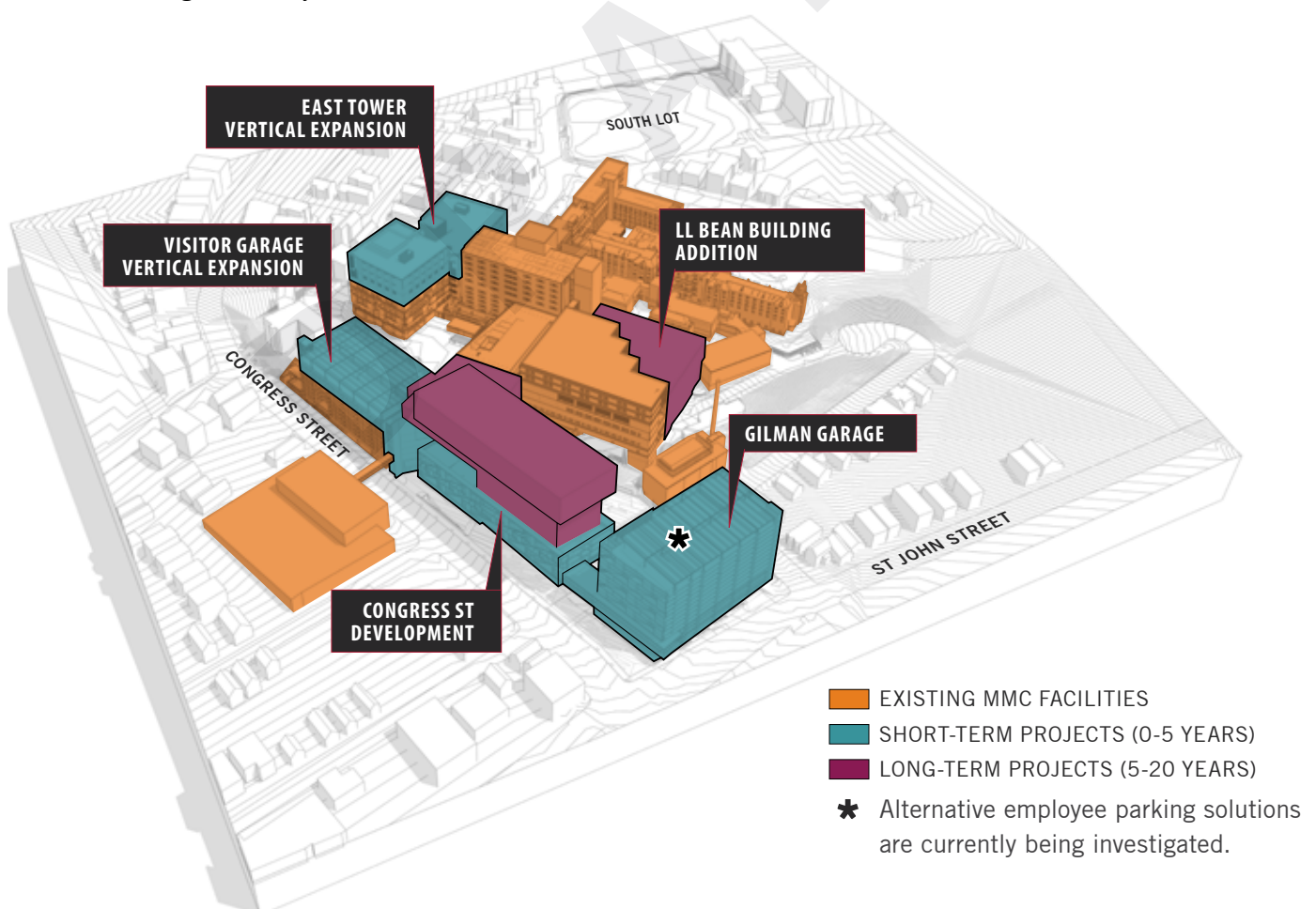
Congress Street Development, Phases II and III (Vertical Expansion, Approx. 300,000 GSF)

Future vertical expansion to include additional private inpatient beds.

LL Bean Building, MFP Phase III (Addition, 120,000 GSF)

Expansion of diagnostics and treatment, and interventional platforms. If necessary, existing Laundry Building and Engineering Services Building may be modified or removed to facilitate expansion.

Fig.3.4 MMC Development Plan:
Short- and Long-Term Projects



Long-Term Redevelopment Zones

While no plans currently exists for other projects, all properties within the IOZ boundary are considered potential redevelopment zones for the long-term horizon. MMC may locate the following healthcare-related uses, including ancillary or supporting uses, within the City of Portland.

Table 3.2 MMC Potential Future Uses in the City of Portland

ON-CAMPUS (Within the IOZ Boundary)

Healthcare facilities including but not limited to the following ancillary and/or supporting uses:

- Hospital
- Medical Office / Clinic
- Laboratory Center / Services
- Research and Development Laboratory or Facility
- Educational Facility / Conference Center
- Administrative / Business Office
- Accessory Service or Trade Uses
- Guest House
- Medical Resident Apartments
- Rehab / Skilled Nursing Facility
- Retail Facility
- Restaurant / Cafe
- Employee Service Amenities
- Day Care Center (Child / Adult)
- Fitness Center or Gymnasium
- Parking Lot
- Parking Garage
- Bicycle Storage
- Heliport
- Antenna Station

OFF-CAMPUS (Outside the IOZ Boundary)

- Medical Office / Clinic, including Primary Care and/or Specialty Clinic
- Laboratory Center / Services
- Inpatient / Outpatient Surgery Center
- Imaging Services
- Physical Therapy Center
- Specialty Hospital
- Post-acute care
- Rehab/Skilled Nursing
- Respite Care
- Adult Daycare
- Administrative / Business Office
- Information Technology Center
- Distribution Center
- Parking Lot
- Parking Garage

PROJECTED DAILY CENSUS

The anticipated change in campus users over time are summarized in **Table 3.3** on the following page. MMC developed this estimate considering the following summarized factors:

- MMC is Maine's largest medical center, the only American College of Surgeons Level 1 trauma center, the one of three American Academy of Pediatrics Level III nurseries and the largest academic medical center, in partnership with Tufts University School of Medicine and is therefore best equipped to meet the rising patient need.
- The number of Maine Residents seeking care outside of Maine has been decreasing over the past several years.
- MMC's share of inpatient discharges has increased over the past several years.
- MMC's Case Mix Index is increasing.
- Complex healthcare services are consolidating across the country.
- Changes in the underlying causes of disease (i.e. incidence and prevalence of disease and the impacts of a focus on prevention) and behavioral-based impacts to health (i.e. smoking and obesity);
- Macro-economic factors affecting healthcare utilization (i.e. employment, employer-based insurance coverage, health care consumer price index);
- Legislative and market-driven healthcare reform;
- Innovations in technologies and models of care;
- Improvements in the systems of care that improve coordination among providers; and,
- Continuous process improvements within care models that reduce potentially avoidable admissions and 30-day readmissions.

MMC uses national healthcare consulting firm Sg2 and The Advisory Board to consider additional factors impacting the evolving healthcare industry and local demand for services. Additional factors considered in the volume estimate include:

- Changes in healthcare utilization as a result of changes in the population within the hospital's service area;

Table 3.3 Individuals on Campus on an Average Week Day, 10-Year Projection

	2016 (FYE Sept-Oct)	Forecast, 2026	Projected 10-Year Growth	CAGR (2016-2026)
Inpatient Discharges	99	107	7.84 %	0.76 %
Inpatient Visitors	248	267	7.84 %	0.76 %
Outpatient Activity	594	620	4.45 %	0.44 %
Outpatient Visitors	594	620	4.45 %	0.44 %
Bramhall Outpatient Clinics	153	150	-1.79 %	-0.18 %
Employees: Shift 1	3,639	3,892	6.96 %	0.67 %
Employees: Shift 2	206	220	6.96 %	0.67 %
Employees: Shift 3	519	555	6.96 %	0.67 %
Students on Campus: Medical	100	110	10 %	0.96 %
Students on Campus: Nursing	86	95	10 %	0.96 %
Other Students (PA, Pharma, etc.)	20	22	10 %	0.96 %
Non-MFP Related Contractors	25	25	--	--
TOTAL / AVERAGE	6,283	6,683	6.43 %	0.63 %

CAGR = Combined Annual Growth Rate

Assumptions:

- Daily inpatient discharges for 2016 estimated from annual count, using six-day weeks to accommodate for reduced activities Sun-Tue.
- Daily outpatient activity for 2016 estimated from annual count, using five-day weeks.
- Inpatient visitors estimated at 2.5 per patient for the base year of 2016.
- Outpatient visitors estimated at one per patient for the base year of 2016.
- 60% of employees are estimated to be on campus at one time for the base year of 2016.

COMPLIANCE WITH THE COMPREHENSIVE PLAN

MMC, being a long term member of the City of Portland community, recognizes the City's Comprehensive Plan contains the overall goals for growth and change within the City by its articulation of a variety of policy directives and goals for the development of the City. Among other things, the Plan address the City's infrastructure, commercial/business development, transportation resources, industry, and commerce and residential housing.

The IDP and the Regulatory Framework of MMC are in basic harmony with the City's over arching goals and policies. With its IDP and Regulatory Framework MMC has balanced and accommodated the many City goals and policies in a way that advances the City's overall best interests while at the same time addresses the high priority healthcare needs of Portland's residents and the people of the State of Maine. This balancing is exactly the type of flexibility that the City's recently drafted Institutional Overlay Zone zoning policy is meant to facilitate.

MMC's Institutional Development Plan:

Compliance with the Comprehensive Plan

In this IDP, MMC communicates its needs to modernize its facility in order to meet the healthcare needs of the people of Northern New England. This includes not only upgrading clinical space and providing for the needs of its patients, but also continuing its investment in its personnel and their ability to travel to and from the workplace and secure needed parking. The Portland Comprehensive Plan "promotes the orderly expansion of institutional uses, such as educational and hospital campuses, which are central to workforce development, employment, and the health of the local and regional economies."

Economic Growth

Employee engagement indicators reveal that one of the issues of greatest importance to current and future employees, in addition to compensation, is parking availability. In order to attract a high quality, highly educated workforce, MMC factors into its operations these two important considerations. Following the completion of its short-term modernization project, MMC projects a growth in its employment base into the future in part because of its status as an excellent academic medical center located in the city of Portland. Portland's Comprehensive Plan promotes the growth in employment base and supports sustainable growth in education and medical institutions.

Transportation

MMC has also considered its transportation needs holistically, factoring into its future development alternative means of transportation. Since 2009 the Medical Center has had in place a Transportation Demand Management plan called “Get on Board!”. MMC is updating that plan and considering enhancements to encourage more walking, cycling, and public transportation by its employees. Changes by the City and State will be needed in order to make this Plan successful and allow for reliable alternatives to driving. It is recognized that this endeavor is a joint responsibility between MMC and the City and State which will take years to address. The Comprehensive Plan challenges the City to “support the vision of large, transformative projects [such as the MMC modernization project] through strategic, cost effective, and incremental actions. “ MMC has been, and continues to be, committed to the process and has often been cited by the City of Portland Planning Department as a TDM role model in the City.

Environment

A clean environment is important for healing and health. MMC is environmentally conscious and engages in recycling to minimize the generation and environmental impacts of solid waste. The Hospital conserves water when possible, and has switched away from pesticides to more organic landscape solutions reflecting Portland’s goal of

“model[ling] environmentally sound landscape management practices, such as planting native species, and limiting the use of pesticides and fertilizers.” Buildings are built with energy efficiency standards in mind. Local farmers market truck visits the campus weekly during harvest months and employees are encouraged to support the local food movement. The Comprehensive Plan also notes the need to “support a healthy, resilient, and sustainable food system by collaborating with local and regional stakeholders.”

MMC's Regulatory Framework:

Compliance with the Comprehensive Plan

In keeping with the goals of the Comprehensive Plan, MMC has projected its future expansion needs, taking into account the neighborhood in which it is situated. MMC has minimized any expansion into residential areas adjacent to its campus, thereby preserving housing stock in the City. It has appreciated the neighborhood involvement in its zoning process and has been responsive to the concerns raised.

MMC is taking the bold step of reorienting its front entrance to Congress Street, which serves as a gateway corridor to the City of Portland. The area presently is commercial in nature and in need of investment and activation as is recognized by the City’s Comprehensive Plan. Welcoming the public at

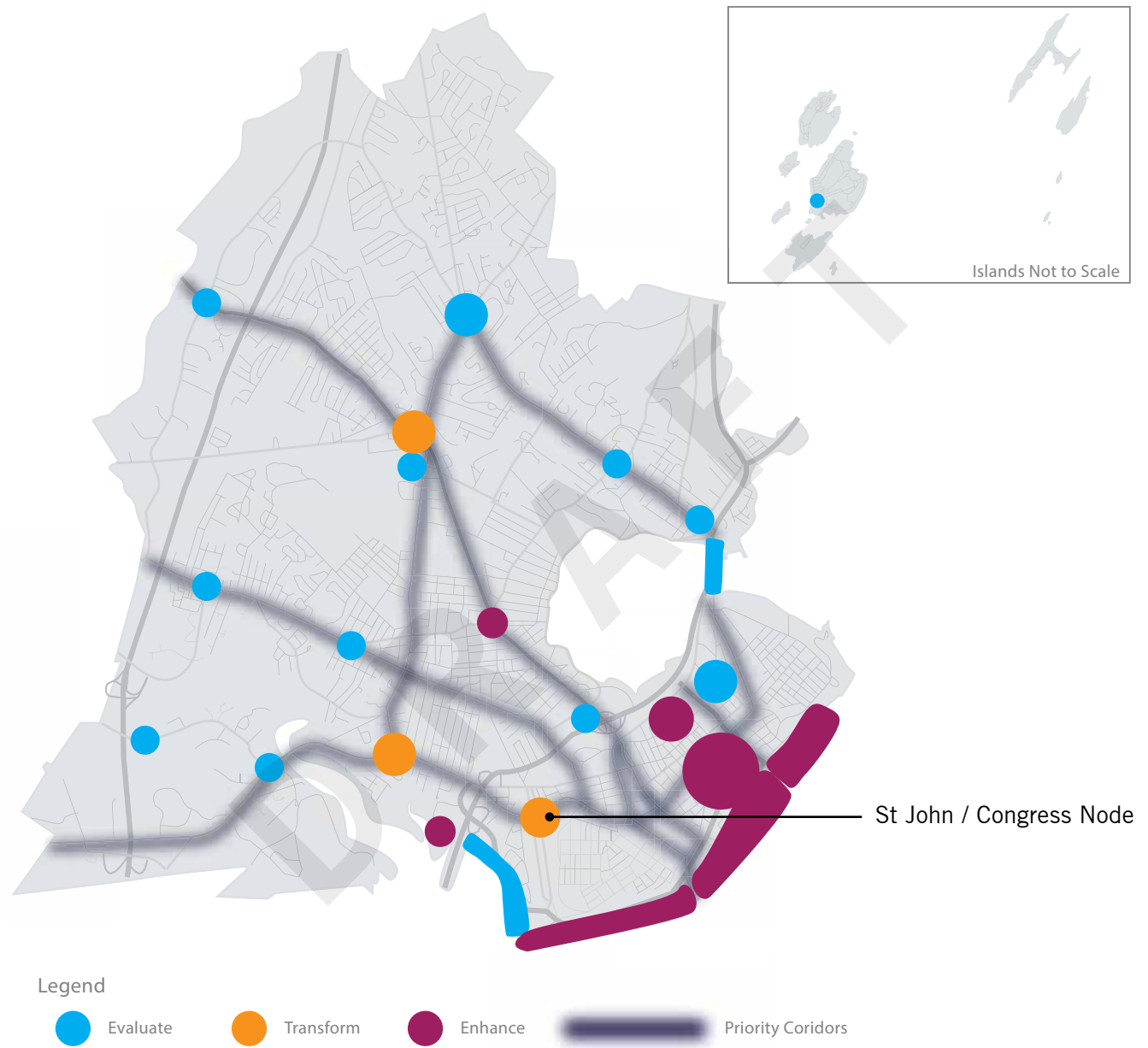
the new front entrance accomplishes a number of land use goals: it adds tremendous activity to the streetscape, with people coming and going. It also eliminates traffic in the residential neighborhoods of the West End and Western Promenade by providing clear wayfinding directly off of Interstate 295 and the major arterials entering the City. Further, investment in this area will transform the area with the expectation that other properties in the vicinity will likewise invest. In fact, the owners of Union Plaza, located at the junction of Congress Street and St. John Street, testified before the Portland Planning Board that they have been waiting for such investment before they took the step of redesigning and investing further in that property. MMC expects, and is excited about, a transformation of the area into a more vibrant, active and clean area, good for local merchants, hospitality businesses, restaurants and residents.

The Comprehensive Plan identifies the St. John Street/Congress Street area as a "priority node, an area that has seen disinvestment, grown in sprawling patterns, simply have the potential to serve as focal points for change in the forms of increased density or, height, streetscape improvements, or diversification of uses to better serve neighborhood needs" (see **Fig.3.5** on page 67). MMC's IDP will serve as the catalyst to stimulate new development, investment and reinvestment in this area of the City.

From an analysis of MMC's IDP, it becomes clear that the IDP is consistent with the City's Comprehensive Plan and the Purposes contained within the City's Institutional Overlay Zone.

From an analysis of the Regulatory Framework that accompanies MMC's IDP, it becomes clear that the Regulatory Framework is consistent with the City's Comprehensive Plan and MMC's Institutional Development Plan.

Fig.3.5 Diagram Showing Priority Nodes and Corridors, City of Portland Comprehensive Plan (2017)



TRANSPORTATION PLAN

Maine Medical Center is developing a long-term transportation plan that will improve campus access, circulation, and wayfinding for patients and visitors. Ongoing initiatives are aimed at providing alternative transportation options to reduce traffic and parking impacts.



Maine Medical Center's plan of transportation and parking improvements is designed to improve campus access, circulation, and wayfinding for patients, visitors, physicians, and staff. This plan will be developed and refined during the MDOT required Traffic Movement Permit process, with input from the City of Portland staff and the public, including adjacent MMC neighbors. This plan includes an assessment of the hospital's parking needs to adequately support the Bramhall Campus, and includes strategic initiatives aimed at providing alternative transportation options to reduce both traffic and parking impacts. The overriding goal throughout this transportation plan is to provide effective and intuitive transportation solutions that emulate Best Management Practices in transportation infrastructure and operations that support tertiary academic medical centers, enhance and optimize the patient experience, and improve overall traffic flow in the surrounding area.

The purpose of this chapter is to provide a framework for the key transportation elements of the transportation plan and for supporting infrastructure improvements that will address neighborhood concerns of on-street parking shortages and accommodate anticipated increases in MMC patient demand and staffing.

VEHICULAR ACCESS AND CIRCULATION

Well-designed curbside drop-off/pick-up areas for patients and visitors are critical to the functionality of any medical center campus. These amenities provide the opportunity for patients and visitors to quickly reach their destination, without the need to park their vehicle, and in some cases, having to walk long distances, often times unprotected from weather conditions. MMC provides both ambulatory /outpatient care and complex inpatient care at the Bramhall campus. Ambulatory/outpatient care services experience higher curbside demands for patient drop-off/pick-up activities because of the shorter visits and higher "turnover". Inpatient care centers have less turnover, but those patient's medical concerns are generally of a higher acuity, and with that comes higher rates of accessibility need. In addition to general patient access and egress by private vehicles, Maine Medical Center will also experience other demands created by taxis (including ride-share such as Uber, Lyft, etc.), shuttle buses, short-term deliveries (like flowers, etc), and staff – vehicles that do not necessarily park, but intend to only drop-off passengers and then exit the hospital campus.

Proposed Main Entrance Relocation

MMC's Short-Term Development Plan includes a new Main Entrance on Congress Street to improve access and egress for patients and visitors. As previously described in the Existing Conditions section, most motorists arrive on campus via

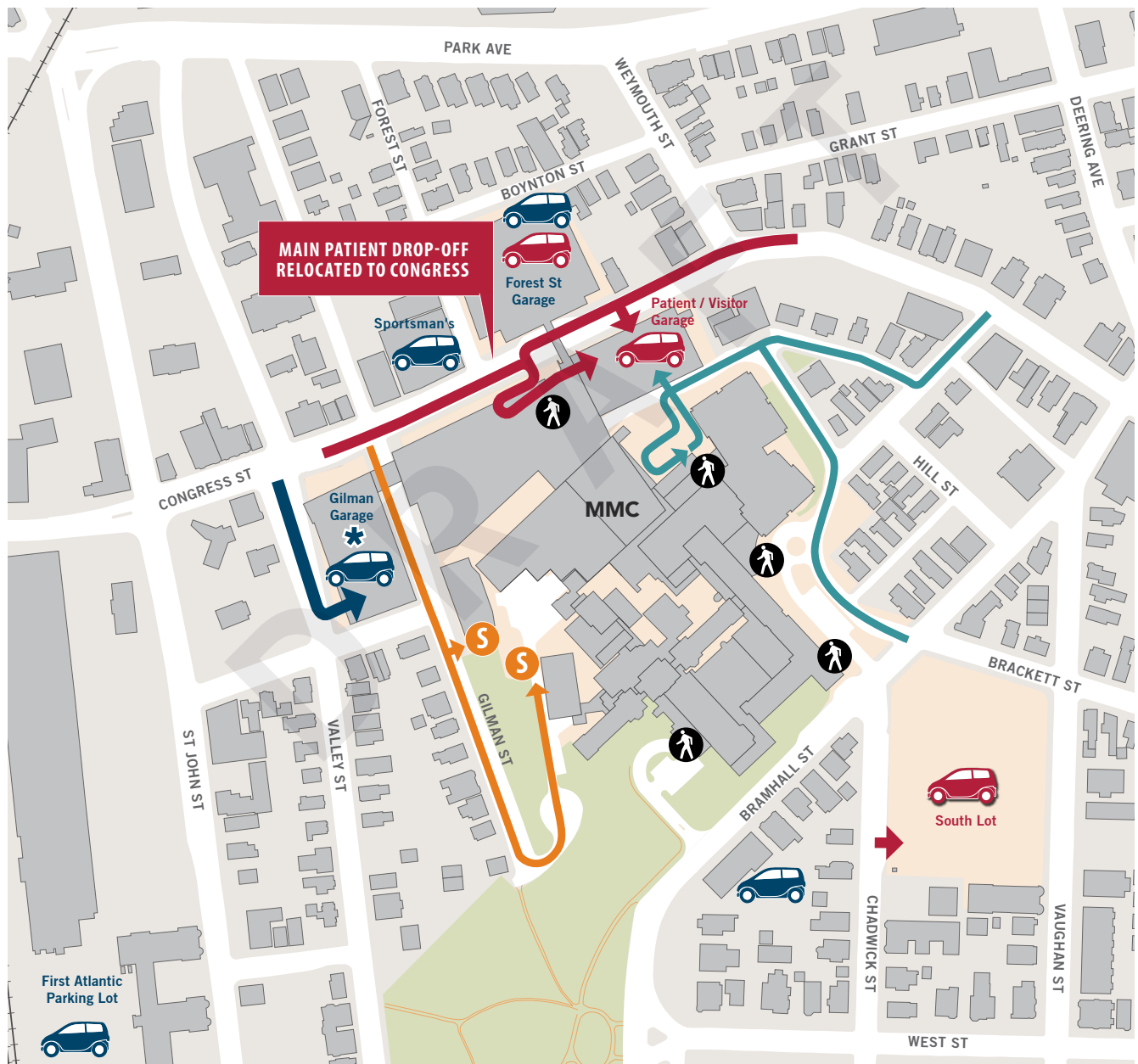
Fig.4.1 Transportation Plan (Future): Vehicular Access and Parking

KEY VEHICULAR CIRCULATION ROUTES

- █ Patients / Visitors
- █ Emergency Drop-off / Ambulance
- █ Staff
- █ Service

PARKING

- 🚗 Patients / Visitors
(including parking after emergency drop-off)
- 🚗 Staff Parking (In map extent only)
- S Limited Parking for Service Vehicles / Service Staff



* Alternative employee parking solutions are currently being investigated.



Congress Street and either park off Congress Street in the Congress Visitor Garage, or use Bramhall Street to reach the emergency room or main entrance on Charles Street.

It is anticipated that the new Congress Street main entrance will be used primarily by vehicles dropping off or picking up patients, shuttle buses, or short-term deliveries (like flowers, etc). The design will allow vehicles to either exit back onto Congress Street or directly enter the adjacent Congress Visitor Garage after passing through the drop-off zone without having to go back onto the public street.

The existing hospital entrance (at the East Tower) will remain open and continue to accommodate some defined patient demand. Changes to patient/visitor circulation and the impacts on Congress Street traffic operations will be studied as part of the Traffic Movement Permit Application (TMP) process as described in a following section of this report.

The new main entrance is expected to improve access to the campus while reducing vehicular traffic on neighborhood streets. Work is currently underway to identify design options for the new main entrance and drop-off that minimize impact on existing pedestrian, bicycle, transit and vehicular traffic along Congress Street. MMC is currently studying queuing demands in order to estimate the projected demand at the drop-off/pick-up at the proposed main entrance on Congress Street and ensure that the geometric configuration of

that space is suitable to support future anticipated demands and does not generate adverse traffic impacts along Congress Street. The proposed site plan will be reviewed as part of the State's Traffic Movement Permit (TMP) Application and the City's Site Plan review process.

Proposed Employee Parking Garage Relocation

As part of MMC's Short-Term Development Plan, the existing 1,274 space Employee Garage will be demolished. MMC is looking at multiple sites currently for the replacement of lost employee parking spaces.

Loading and Service Vehicles

Loading and service vehicles will continue to use Gilman Street to access the Utility Plant and Engineering and Services Building. This IDP submission does not anticipate changes to how loading and service functions are handled at the MMC Bramhall campus. The current configuration provides for separation between loading/service vehicles and patient, visitor and employee vehicles on-campus. The current location also provides for direct, convenient access to arterial roads and regional highway connections. Trucks will continue to access/egress loading dock bays off-street and not impede vehicular flows on area roadways or in surrounding residential neighborhoods.

Traffic Movement Permit

As mentioned previously, the traffic impacts of the MMC Short-Term Development Plan will be studied comprehensively as part of the MaineDOT TMP application process delegated to the City of Portland. A project generating a net increase of 100 peak hour trip ends or greater must apply for and obtain a TMP prior to receipt of a Certificate of Occupancy. The proposed Development Plan will be required to obtain a TMP, as it does trigger this 100 peak hour trip end threshold.

Some of the traffic items reviewed as part of this application include:

- Trip generation methodology
- Trip distribution assumptions
- Weekday morning and evening traffic operations/capacity analyses

- Average and 95% queue analyses for key intersection approaches
- Pedestrian and bicycle safety evaluations
- Identification of potential mitigation to address identified deficiencies created or exacerbated by the proposed development.

The conduct of a comprehensive Traffic Impact Study typically requires several months to develop, and involves close inter-coordination between the City and the applicant. Since the TMP is technically a MaineDOT permit, it is a separate process from all other City processes; however, it typically runs concurrent with the site plan approval process.

FUTURE PARKING CONDITIONS

With regard to Parking, the goal of MMC's transportation plan is to accomplish the following key objectives:

1. Address neighborhood complaints of MMC staff occupying on-street parking spaces.
2. Support a premier arrival experience for patients and visitors
3. Where feasible, allow for segregation of MMC patients/visitors and staff parking
4. Rely upon an enhanced TDM program to help reduce vehicle trips and parking demands wherever reasonably feasible
5. Provide for a parking supply that is sufficient to support the medical center and is comparable to other peer institutions.

The aspects of the parking plan are described in greater detail in the text below.

Future MMC Parking Demand Summary

As MMC implements their Transformation Plan, there will be an increased demand for parking that is driven by growth in patient demand. Currently, MMC anticipates that the overall patient demand will grow by 8 percent over the next ten years (or 0.75 percent per year). Similarly, employment at MMC is expected to grow by approximately 7 percent over the next ten years (or 0.7 percent per year). These expected trends will result in increased parking needs.

As described previously in the Existing Conditions chapter, the Bramhall campus is served primarily by

three large on-campus facilities that accommodate both patient/visitor and physician/staff parking. There are also several off-campus parking facilities that provide additional remote staff parking. The following key points summarize MMC parking activity under current conditions, and provide the context for assessing and understanding the parking objectives that are proposed for the transportation plan:

- Under current conditions, the MMC parking system typically operates at capacity during the weekday daytime hours.
- The hospital requires about 150-200 additional on-campus parking spaces to alleviate current 2017 staff parking shortfalls that have been estimated via observations and data collection activities, and to eliminate the need for MMC staff to park on neighborhood streets.
- When compared to other peer academic medical centers, MMC generally has a lower parking-to-licensed bed ratio both for its patients as well as its physicians and staff.

Modifications

Key patient/visitor and physician/staff parking supply actions resulting from the MMC Transformation Plan are summarized as follows:

- Congress Visitor Garage Addition: MMC will expand its existing 480-space Congress Visitor Garage by three levels to

accommodate an additional 225 spaces by 2019.

- New Gilman Garage: MMC will demolish the existing 1,274-space employee garage and construct a replacement Gilman Employee Garage on Congress Street that will contain a supply of 1,135 spaces. (NOTE: Alternative employee parking solutions are currently being investigated.)

Patient/Visitor Parking

The patient/visitor parking needs will be fully accommodated by the Short-Term Development Plan. However, there will be a period of time when there will be a temporary shortfall of patient parking spaces. This period of time is associated with the construction of the Congress Visitor Parking Garage Addition, which requires some parking to be taken out of service temporarily. To help alleviate this shortfall, MMC intends to maximize parking opportunities elsewhere and/or increase valet services from satellite lots. All other means of assisting patient and visitor parking will be considered prior to the commencement of construction of the visitor garage addition. The Development Plan will increase patient/visitor parking supply from 850 spaces to 1,075 spaces (or an increase of 225 parking spaces). As a ratio of parking spaces per bed, MMC's position will improve from an existing ratio of 1.33 (a rate that is low when compared to peers) to 1.68 (average to its peers). Parking rates for peer institutions are listed in **Tables 2.8 and 2.9** in Chapter 2.

Staff / Physician Parking

Detailed review and observation of existing staff/physician parking supply/demand and anticipated growth indicates that there will be a measurable shortage of available parking to support anticipated future staff demands. This shortfall is driven by the following factors, based on an evaluation of current parking practices and future parking capacity:

- Future staff growth
- Staff parkers relocated from patient parking facilities
- Staff parkers prohibited from using neighborhood on-street parking

In total, MMC estimates a need for 500-600 additional staff/physician parking spaces to accommodate future demands. Studies to determine an appropriate parking solution that accommodates these demands and is supportive of the IDP are currently underway.

This increase in staff / physician parking supply will improve MMC's ratio of staff / physician parking to patient beds from their existing ratio of 3.18, which is very low when compared to peer academic medical centers, as illustrated in **Table 2.9** in Chapter 2.

FUTURE TDM STRATEGIES

MMC is committed to reducing single-occupant vehicle (SOV) commuting. As the Medical Center looks to the future, it seeks to build on the past successes of its “Get On Board!” Program. Based on a review of census data, employee travel origin and destination information, existing employee travel mode split, and transportation survey results, MMC believes it can further reduce the portion of employees driving alone to work, thus reducing trip making and resultant parking demands. An initial estimate is that an additional 1.5% of the daytime population could be shifted into alternative modes of accessing the campus. This represents approximately 65 fewer individuals driving alone to campus.

The reduction would be achieved through MMC’s existing TDM initiatives, as well as new strategies. MMC is considering the following range of new programs. It will endeavor to reduce the number beyond the target identified above through further enhancements or program expansions in the coming years.

Increased Education of Employees about the “Get on Board!” Program

Presently, all new MMC employees receive information and sign up materials for the “Get on Board!” program during the MMC New Employee Orientation process. MMC will be enhancing that education process by periodically educating existing employees of the options and benefits available through the “Get on Board!” program. Additionally,

newsletters will be distributed highlighting the environmental, health and other benefits of TDM.

“Get on Board Coordinator!”

MMC will be hiring a “Get on Board!” Coordinator responsible for the implementation, operation and continuing sustainability of MMC’s TDM. This individual will continually monitor the program, its operations and future opportunities to reduce vehicle dependency by staff at MMC. The Coordinator will also be responsible for data collection and TDM updates as required.

Pay for Parking

MMC will charge its employees no less than \$3 per paycheck to utilize MMC parking.

Guaranteed Ride Home (GRH) Program

For those employees who regularly use alternative modes of transportation to and from its Bramhall Campus, MMC will guarantee a ride home in emergency situations.

Enhanced Active Transportation Network

As noted above, changes along Congress Street and adjacent streets should enhance the streetscape and overall quality of experience for pedestrians and cyclists. MMC supports enhancements for pedestrians and cyclists improving access to the campus. As the City, generally, experiences an increase in its residents walking and biking to other work locations throughout the City, an increase in people visibly using alternative forms of transportation the streets of Portland may spur more participation by MMC employees in the future.

Fig.4.2 Portland Bikeway and Pedestrian Network (Source: City of Portland, 2014)

EXISTING FACILITIES

- Bicycle Lane
- Paved Shoulder
- Neighborhood Byway

- Shared Use Pathway
- Shared Lane, with Marking
- Shared Lane

PLANNED FACILITIES

- On Road Bikeway
- Neighborhood Byway
- - - Shared Use Pathway or Rail with Trail



Enhanced Transit Fare Discount

MMC employees can currently purchase METRO bus tickets at a discounted price from MMC. Increasing the discount on METRO tickets would provide employees with an additional financial incentive to use the transit system serving the MMC district. METRO may need to improve its services in order to meet hours of operation at twenty four hour facilities such as MMC, however.

Enhanced Carpool/Vanpool Matching

“Get on Board!’s” most successful initiative to date has been its carpooling program. Most of these connections are ad-hoc. MMC could increase participation by actively matching potential riders. Additionally, while Go Maine is the primary administrator of vanpools in the state, MMC could work to proactively identify and assist with the formation of vanpools.

Active Transportation Incentives

MMC will undertake an internal marketing program which offers fun and useful prizes for those participating in alternative modes of transportation. Making alternative transportation fun and a community-wide effort is likely to increase participation by some who might not otherwise engage in the process.

UCar

Working with UHaul and the City’s Parking Department, MMC will continue to monitor the use of the UCar presently located in its Congress

Street parking garage. In the event an additional car is warranted, MMC will work with its partners in finding a suitable location on the main campus for the storage and use of the UCar.

Transportation Survey

MMC will conduct a Transportation Survey of its employees every 2 years to collect data about commuting mode split, barriers to TDM use and marketing effectiveness.

FUTURE TRANSPORTATION PLANNING CONSIDERATIONS

The patient experience of getting to and leaving MMC is also critically important to the transportation plan. Inefficient area traffic operations can lead to delays in patient treatment and an increase in patient frustration in addition to negative impacts on the adjacent local neighborhoods. MMC will need to accommodate new patients/visitors and add employees to the campus, increasing traffic demands on the existing roadways, however modestly. Initially identified issues and possible improvements that should receive additional consideration include the following measures:

- Community Access Circulation: Focus on logical traffic flow, pedestrian access and safety, bicycle access and on-street parking.
- Managing key neighborhood access and circulation concerns:
 - » Chadwick Street: A portion of Chadwick Street is one-way. The conversion to two-way could reduce the amount of traffic going further into the West-end neighborhood. MMC will work with the City to investigate the viability of converting this road section into two way travel.
 - » Chadwick Street at West Street: Develop potential safety improvements at this unsignalized intersection. Neighborhood comments have indicated

observations of low compliance with stop-signs and two-way travel. However, if Chadwick is made two –way, the need for improvements may be eliminated.

» Vaughan Street at Bramhall Street:

This is a difficult intersection geometry for pedestrians, cyclists and vehicles. Develop potential safety improvements for the unsignalized intersection.

ENVIRONMENTAL AND INFRASTRUCTURE PLAN

Sustainable and resilient infrastructure is key to ensure safe and efficient operations of healthcare facilities in the 21st century. Maine Medical Center is seeking to advance its good stewardship of environmental and infrastructure resources through its Institutional Development Plan.



NATURAL RESOURCE PROTECTION

The Maine Medical Center Bramhall campus is located at a high point in the west end of the Portland peninsula. There are several locations where natural resources are significant (see **Fig.5.1** on page 82):

- The Western Promenade, a culturally significant public park that is listed in the National Registry of Historic Places (NRHP'89);
- MMC-owned landscape along Bramhall Street abutting the Western Promenade and serving as a foreground to the Maine General Building and original hospital structure;
- MMC, located in an urban setting, maintains small landscaped areas that provide visual respite from surrounding hard scape. These areas are well maintained, flowers watered and mulched and trees fertilized in order to preserve the pleasing aesthetics important to its neighbors, employees and patients. landscaped campus; and,
- MMC-owned natural area along Gilman Street. This steeply sloping zone contains natural vegetation consisting primarily of mature evergreen tree growth which serves as a natural buffer between the hospital and residences on Gilman Street.

The Western Promenade, in particular, is a treasured resource for the public, including employees, patients and visitors to the MMC Bramhall Campus. The Development Plan utilizes vertical expansion and/or previously developed sites to minimize impact on natural resources and maintain existing campus open spaces. The plan does not encroach upon or negatively impact any of the natural resources listed above.

Fig.5.1 Campus Relationship to the Western Promenade



PROJECTED UTILITY DEMAND

Green Building Design

The historic Maine General Hospital incorporated natural light and ventilation as an important part of the healing process. The design of buildings identified in the Development Plan will take advantage of the natural light, heat, and ventilation, which will not only contribute to the healing process and improves the quality of patient and family spaces, but it also improves the building's energy performance.

Energy

Healthcare projects and hospitals are traditionally some of the largest consumers of energy by building type due to the demands of the internal programs. It is the goal to reduce the impact of these projects by minimizing energy consumption. A key element is to lower the Energy Use Intensity (EUI) for each project against the traditional code minimum baseline to both address sustainable goals and reduce the impact on infrastructure. Use of industry

standards such as LEED will serve as a model for evaluation of future buildings on the MMC campus.

Each project in the Development Plan has specific needs and vary in their impacts. The proposed projects combined are anticipated to generate 5,400 KW of additional electricity demand (see **Table 5.1** for details). MMC is currently working with Central Maine Power to identify capacity for the projected energy loads.

Steam

The steam loads are met by the Central Utility Plant and will not impact city infrastructure. The removal of the laundry facility to an off-site location has created extra steam capacity for the campus. MMC's Central Utility Plant has the capacity needed to service MMC's short term growth needs.

Gas

The gas infrastructure has capacity to handle any increases to the current steam load.

Table 5.1 Projected Energy Demand

		Projected Net Energy Demand	Potential On-Site Energy Production (Rooftop PV)
Gilman Garage*	Stand-alone project not on the campus primary metered system	1,250 KW	300 KW
East Tower Vertical Expansion	Utilizing new systems for efficiency	300 KW	--
Visitor Garage Vertical Expansion	Utilizing existing systems	350 KW	150 KW
Congress Street Development	Net demand with the deletion of the existing garage currently on site	1,700 KW	
Central Utility Plant Expansion	Additional summer cooling demand	1,800 KW	
TOTAL ENERGY DEMAND		5,400 KW	450 KW

* Alternative employee parking solutions are currently being investigated.

Sanitary and Stormwater Flows

The development site is served by a combined sewer system at multiple locations surrounding the campus. We are unaware of any existing capacity issues in the City's existing system and will have to rely on the City to identify known off-site deficiencies.

Sanitary Sewer Impacts

The East Tower expansion will increase sanitary flows in the combined sewer located at the intersection of Congress Street and Forest Street ultimately discharging to the Forest Street combined sewer. The increased sewer flow has not yet been determined. The East Tower project is not expected to affect stormwater flow rates.

The Congress Street Building will increase sewer flows in the Congress Street combined sewers. The sewer connection locations and loads have not yet been determined and more than one connection location may be required. New sewer flows from the Congress Street Building are expected to increase sanitary flows in the combined sewer located at the intersection of Congress Street and Forest Street ultimately discharging to the Forest Street combined sewer. The Congress Street Building may also include a sewer connection increasing flow in the combined sewer located at the intersection of Congress Street and Gilman Street ultimately discharging to Gilman Street.

Stormwater Impacts

The East Tower and Visitor parking garage projects are vertical expansion and are not expected to increase or decrease stormwater discharge. Both of these project currently discharges stormwater to the combined sewer located at the intersection of Congress Street and Forest Street ultimately discharging to the Forest Street combined sewer

The Congress Street Building will be required to meet the City's stormwater management ordinance requirements and mitigate any increases in discharge to the extent practicable. The current design of the building and project site redevelopment includes an extensive green roof component and proposes removals of existing impervious area. The net impact of this design is expected to result in no increase in the peak rates of runoff from the site. If necessary, a subsurface chamber system is being considered as a stormwater treatment measure to further mitigate increases in discharge to the City system. The project may however alter the location of the discharge points to a limited extent.

The primary existing stormwater discharge point for the Congress Street Site Congress Street Site is the combined sewer at the intersection of Congress Street and Forest Street ultimately discharging to the Forest Street combined sewer system. A limited amount of stormwater from the Congress Street Site drains to the Gilman Street combined sewer. It is expected that the primary post-development

stormwater connection will be to the Forest Street Combined sewer at the intersection of Congress Street and Forest Street

The Congress Street Building will be required to meet the City's stormwater management ordinance requirements and mitigate any increases in discharge to the extent practicable. The new Gilman Garage* is comprised of the redevelopment of an existing site removing buildings and surface parking and replacing it with a new parking garage. Preliminary studies indicate that the rate of runoff from the site will be relatively unchanged. A subsurface chamber stormwater treatment system is proposed to provide stormwater quality treatment measure, further mitigating increases in discharge to the City System. The site will discharge to the existing combined sewer in Congress Street discharging west toward Saint John Street.

Other Impacts to City Infrastructure

The electrical meter and service for the street lights on Congress Street in front of the Congress Street building will be relocated as part of MMC's Short-Term Development Plan. At least one city street light will be removed for the construction of the new Congress Street entrance. We are not aware at this time of other impacts to City owned infrastructure.

* Note: Alternative employee parking solutions are currently being investigated.

OPERATIONAL IMPACTS

Noise Impact

MMC's Development Plan aims to minimize noise and disturbance both for the benefit of its neighbors and its patients. Key to this is relocating the main campus entrance to Congress Street. This will limit traffic and associated noise from moving up onto the hill. The relocation of the helipad will maintain current flight paths, which were designed to minimize neighborhood noise impacts by following the recommended approach to the hospital over the Congress Street corridor as opposed to over dense residential areas.

Hazardous Waste Generation and Disposal

MMC has a Hazardous Materials and Waste Plan supported by policies for the handling and disposal of hazardous waste, universal hazardous waste and biomedical waste.

Biomedical and Hazardous Waste

Biomedical waste sharps, biomedical waste, pathological waste (tissues, etc), and hazardous pharmaceutical and other chemical waste are collected by MMC Environmental Services or contractors, and stored at secure locations across campus prior to pick up, transfer, and ultimate disposal by contractors. DEA controlled substances are wasted at the point of generation (e.g. medication rooms), solidified, and collected by MMC Environmental Services at a secure holding room for pick-up, transfer and ultimate disposal by contracted vendor. All hazardous materials leave the campus through the loading docks (see **Fig.5.2**).

MMC's Short-Term Development Plan is not expected to create significant increases waste volumes. No changes are currently planned to hazardous materials storage and transfer locations on campus.

Grease Discharge

MMC will be installing a grease trap system capable of separating grease from waste water as part of its Short-Term Development Plan.

Soiled Linen

MMC has its own Linen Services department that is responsible for overseeing the processing of laundry for all of MMC and Maine Medical Partners (MPP) locations. The plant is located in Westbrook, and the linen is transported between these locations by MMC's Materials Management team.

Sustainable Operations

MMC expects to continue, and where possible, expand on the following sustainable operation strategies as part of its long-term plan.

Campus Recycling

MMC separates paper and cardboard out of the waste stream through on-campus recycling. MMC Kitchen and Café provide recycling for can and bottle returnables, and separate compostable items from the waste stream. MMC has also switched to reusable needle boxes to reduce plastic waste. Expired medical equipment and devices are reprocessed by contractors.

Landscaping

MMC contracts with an outside landscaping company. In renewing its contract, MMC is requiring the use of organic pesticides and fertilizers for all planting and green space on campus.

Snow Removal

MMC contracts with an outside snow removal company. The environment requires the use of melting agents, but MMC has taken steps to minimize its use by installing heated sidewalks at the front entrance and South lot entrance as well as the Emergency Department entrance. MMC will continue to use replace calcium chloride instead of salt, when possible, to reduce environmental impact of snow removal.

Fig.5.2 Environmental Protection Plan

- | | | |
|--|---|---|
| MMC FACILITIES | PROTECTED OPEN SPACES | MMC OPERATIONS |
|  Existing Buildings To Remain |  Western Promenade (NRHP'89, City-owned) |  Hazardous Waste Departure Point |
|  Short-Term Projects |  Bramhall Street Landscape (MMC-owned) |  New Grease Trap System (Location TBD) |
|  Long-Term Projects |  Gilman Street Landscape (MMC-owned) | |



 Alternative employee parking solutions are currently being investigated.



DESIGN

Maine Medical Center aims to continue its tradition of design excellence with its new campus projects. Future buildings are being designed to improve care delivery while also providing a new gateway to Portland on Congress Street.



NEIGHBORHOOD IMPACTS

MMC's vision is "Working together so our communities are the healthiest in America." MMC sees the IDP as an opportunity to design an environment for better care delivery that also improves the overall neighborhood condition.

The following section outlines some of the different design aspects that MMC's Development Plan takes into account to improve its immediate context.

Minimizing Shadow Impact

In order to understand the shadow impact on the campus surroundings, the design team has done detailed shadow studies (see **Fig.6.1** on page 91). The objective of the new building massing is to minimize the shadow impact to surrounding areas.

Along Congress Street and Valley Street, the Development Plan is minimizing the shadow impact of the new buildings by either bringing the overall building height down as much as possible and/or by setting the building massing back from the sidewalk to allow more sunlight to hit the street.

Context-Appropriate Lighting

By modulating the lighting intensity along the campus edges, the Development Plan responds to its immediate context in a respectful way. Providing appropriate artificial lighting will help create a safe environment within and around the campus. At the same time, the lighting design takes into account the necessary lighting cut-offs to minimize the impact on the neighboring properties.

For instance, the Development Plan proposes having the highest level of lighting intensity along Congress Street since this is a commercial street. Indoor circulation and waiting areas are located along Congress Street animating the streetscape 24/7. Along streets that are adjacent to residential areas, the lighting intensity is minimized and strict light cut-offs prevent artificial lighting from spilling into the neighbors' properties.

Mitigating Wind Impact

Upon final design of MMC's applicable site plans, it will consult with the City of Portland's Arborist to selectively determine the placement of trees or other landscape features on any new landscape areas on the campus to minimize the amount of wind created by the buildings' mass.

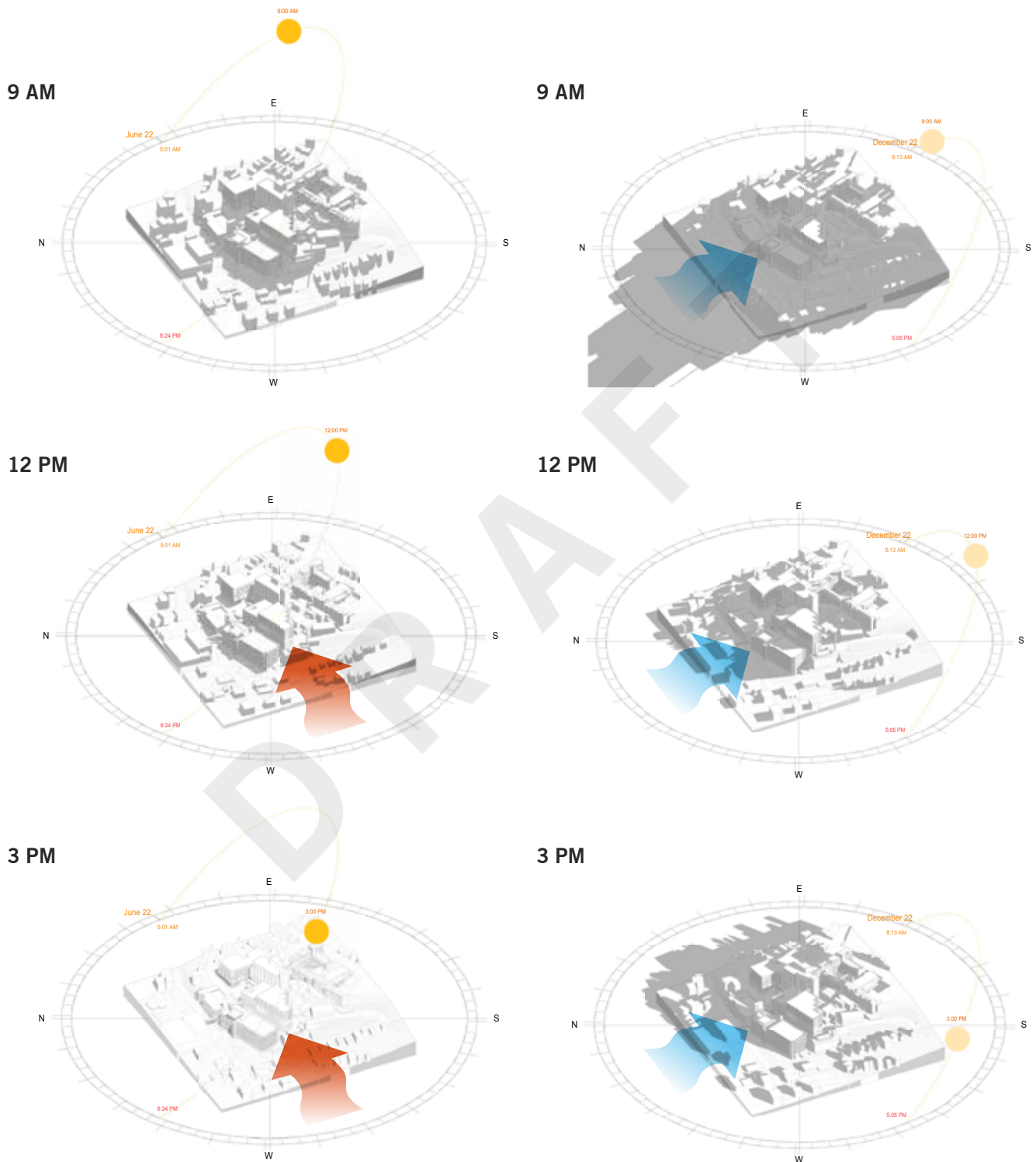
Mitigating Impact of Building Heights

The overall buildings' heights are kept to a necessary minimum. Generous setbacks and potential public landscaped areas along sidewalks will mitigate the buildings' heights along Congress Street and Valley Street.

Fig.6.1 Future Campus Buildings Solar and Wind Studies

SUMMER SOLSTICE (JUNE 21)

WINTER SOLSTICE (DEC 21)



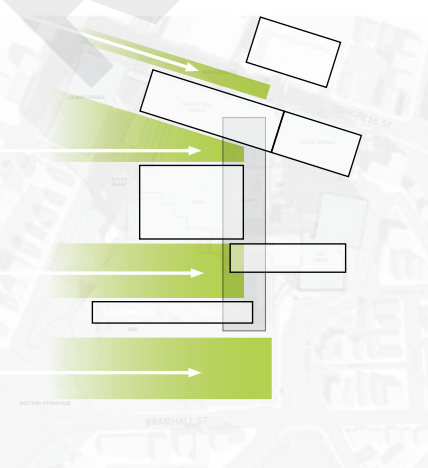
NEIGHBORHOOD TRANSITION

Building on the Western Promenade

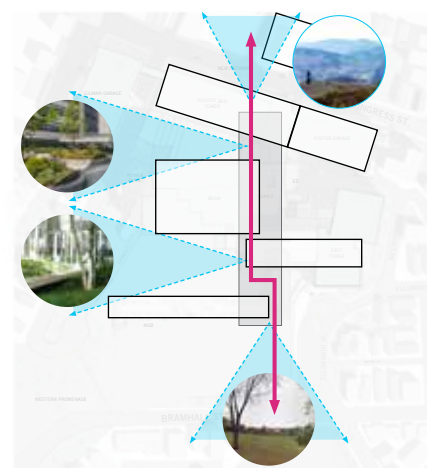
MMC's IDP embraces the historic Western Promenade as valuable open space amenity for campus users as well as the broader community. The landscape framework is built on the basic idea that access to views, natural light and nature create a positive patient and visitor experience that supports healing. Landscape plays a key role in MMC's Development Plan: in a strategic move that extends the experience of the Western Promenade into the campus, a series of landscapes are introduced along the revised main circulation route to provide views, and where possible, physical access to landscape for the benefit of all campus users (see **Fig.6.2** on page 92).

The design goal is to create a campus that belongs in Maine and engages with the surrounding community. Maine's natural environment is an important source of inspiration for the campus design and the landscape design intends to incorporate the different Maine landscape typologies (from tundra plateau to coastal outcrops). The future campus will be designed to create a seamless transition between the bucolic character of Western Promenade and the urban condition along Congress Street. With the addition of the new buildings, the campus extends its reach down from the top of the hill to engage with the community along Congress Street.

While a holistic design approach gives coherence to the overall campus, the site plan design will pay special attention to the neighborhood context.



Pulling Western Promenade into the campus with a series of landscape spaces at different levels



Clear wayfinding with views out to nature

Fig.6.2 Landscape Design Framework inspired by the Western Promenade

Congress Street

This area has an urban and active character, which MMC's Development Plan intends to strengthen.

Transparency of large portions of the building facades along Congress Street at the pedestrian level will activate the streetscape 24/7. Active inside and outside uses, such as a café area and waiting area, are on the lower levels. The articulation on the bed floor elevation helps bringing down the building scale. The building mass of the clinical block and the new Gilman Garage* is set back providing a generous public landscape area along the sidewalk enhancing the pedestrian and vehicular experience.

Valley Street

Valley Street defines the western edge of campus. This active vehicular road transitions from a residential area to Congress Street, which is a commercial Street.

The Gilman Garage* massing is set back along Valley Street to give room to a new green area. The landscape design creates a buffer zone between the building mass and the pedestrian sidewalk. The presence of the exposed circulation that ties this garage structure back to the new lobby will make the streetscape safer and create an active backdrop at the intersection of Valley Street with Congress Street.

East Upper Campus

This campus area is adjacent to a residential neighborhood and brick is the predominant material on the campus buildings.

The East Tower addition fits and blends within its immediate campus context. The use of brick as the main material reinforces the existing character of this part of campus. The goal is to preserve the current relationship between the existing campus and the neighboring buildings.

Upper Campus

This part of campus benefits from the presence of the Western Promenade and includes the original Maine General building. The IDP does not propose any changes for this section of the campus.

*Note: Alternative employee parking solutions are currently being investigated.

CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED)

MMC aims to create a healthy and safe environment for the surrounding community. MMC plays an active role to enhance the safety within the adjacent neighborhoods. MMC's Development Plan incorporates the Crime Prevention Through Environmental Design (CPTED) principles. These principles are implemented through the following design strategies:

- Design clarity and an aesthetically pleasing environment, will improve pedestrian experience for users, neighbors and passers-by.
- Clear and properly-sized signs located in strategic locations will provide safe wayfinding.
- The circulation paths from parking areas to the main building entrance are secured, conditioned and well-lit with clear sight lines.
- The ground floor of the new buildings are designed to avoid entrapment areas. By creating a continuous elevation without recesses, the design minimizes potential hideouts.
- The large number of people walking through the transparent bridge that connects the Gilman Garage* with the clinical block will provide natural surveillance of less visible areas such as Gilman Street.
- The use of vandal resistant materials and proper maintenance of the green open spaces will create territorial reinforcement, discouraging vandalism as well as misuse of the streetscape.

*Note: Alternative employee parking solutions are currently being investigated.

PUBLIC REALM PLAN

A conceptual public realm plan for the proposed short-term development is shown below.

Fig.6.3 Public Realm Improvements along Congress and Valley Streets

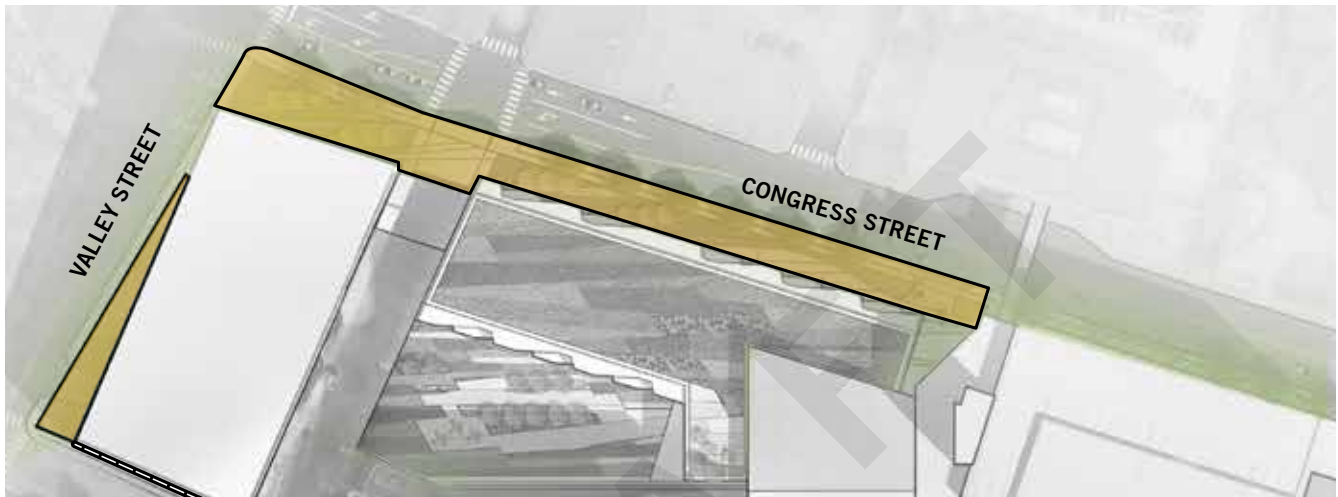
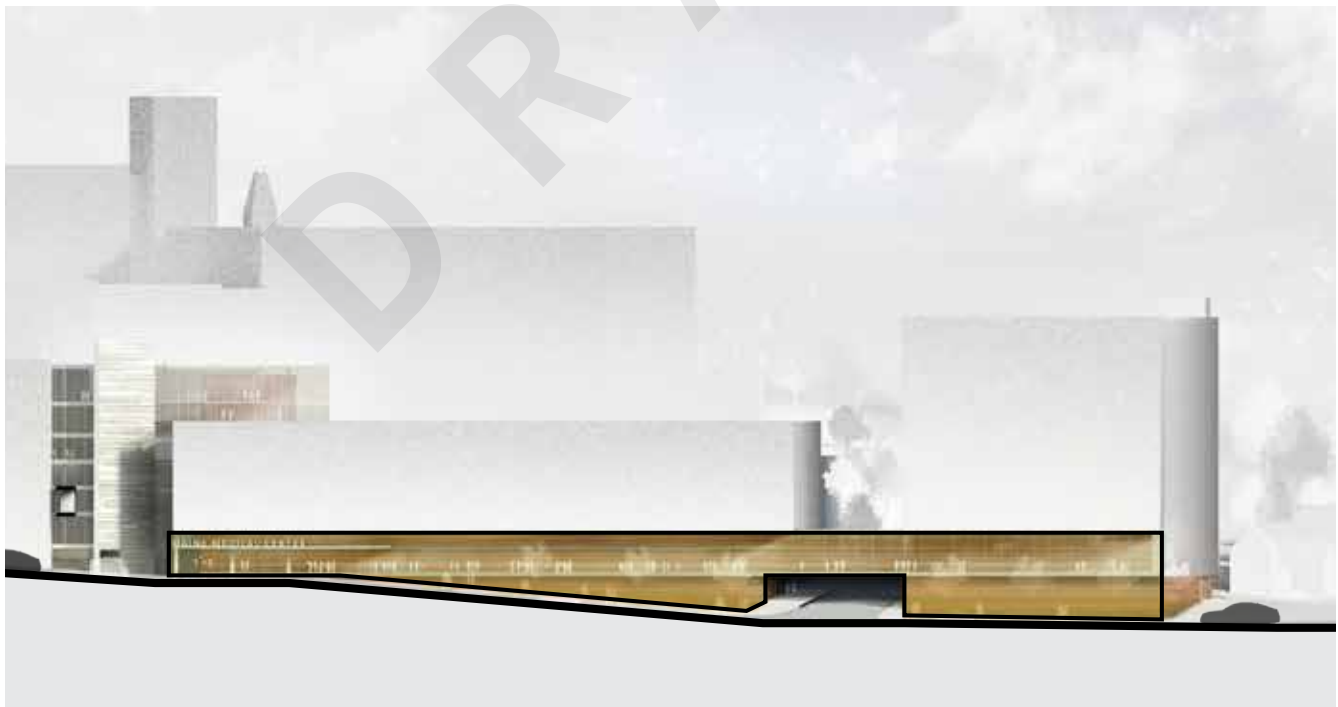


Fig.6.4 Pedestrian Concourse and Congress Street Landscape



NEIGHBORHOOD ENGAGEMENT

Maine Medical Center strives to be a good neighbor to surrounding communities. Ongoing dialogue and exchange of information and ideas is a core tenant of MMC's neighborhood engagement plan.



ONGOING COMMUNITY ENGAGEMENT

It is important for MMC and its neighbors to maintain the dialogue that has been established during the development of MMC's IDP. As a result, MMC proposes the following ongoing community engagement to ensure community members are informed throughout the MMC build out period and beyond:

- For the purposes of keeping the surrounding residential areas apprised of its future development plans, and to address any neighborhood issues related to the operations of the MMC campus, no less than quarterly, MMC shall invite representatives of the adjacent neighborhood associations to meet with designated MMC representatives. MMC will engage neighbors in more routine dialogue during major planning efforts. These meeting invitation shall also be extended to the Director of Planning at the City of Portland. Minutes of such meeting shall be taken.
- MMC shall host at least two neighborhood meetings during the development of future IDPs in compliance with IOZ requirements.
- During construction, MMC will designate MMC shall provide contact information for a designated community liaison on

its website for day-to-day inquiries and complaints.

- MMC shall also employ social media to make information about any pending project readily available to the public. This shall include a dedicated website page and a dedicated email address for residents to ask questions, provide suggestions or voice concerns.
- Finally, MMC will set up a text alert system to notify any subscriber of advance construction impacts which may be necessary during construction (for example, road closure, large truck delivery etc.)

CONSTRUCTION MANAGEMENT PRINCIPLES

The following section provides an overview of the construction management principles that MMC has identified to minimize impacts from noise, vibrations, ground movement, truck traffic, and other construction related factors to the surrounding buildings and communities. It is MMC's full intent to schedule and conduct operations in a manner that will minimize, to the extent feasible, the disturbance to the public in areas adjacent to the work and to occupants of buildings in the vicinity.

Communication Initiatives

MMC appreciates the importance of keeping its neighbors up to date on planned construction activities that may impact them. To that end MMC will implement a communication strategy using social media and texting to alert surrounding neighbors of activities that may cause disruption.

MMC has created a dedicated webpage on its website devoted to the MFP Project to inform the public of important information related to the Project. (<http://www.mmc.org/modernization>) Information and updates on the Project are regularly posted including project updates, neighborhood meeting minutes, Portland Planning Board information related to the project, news releases, fact sheets and frequently asked questions. As construction commences, important alerts regarding construction activity such as activities impacting roadways, potential creation of dust, vibration, or noise, etc. will also be posted. To the extent

possible, MMC will provide two week advance notice of such activities.

MMC has created a dedicated email address which allows for members of the public to ask questions and provide information directly to the Construction Team. These emails will be answered in a timely fashion by the people directly involved in the construction activities.

MMC has created a dedicated email address which allows for members of the public to ask questions and provide information directly to the Construction Team. These emails will be answered in a timely fashion by the people directly involved in the construction activities.

Construction Schedule

The construction period for the project is expected to be approximately 54 months in duration. It is anticipated that the project is estimated to start on or about January, 2018 and last through June, 2022. Estimated dates for the project phases identified as follows:

- East Tower: Dec 2017-Oct 2019
(Helipad Occupancy: July 2019)
- New Garage (location TBD):
Oct 2017-June 2019
- Visitor Garage Expansion: Jun-Oct 2018
- Removal of Employee Garage: June-Dec 2019
- Congress Street Clinical Building:
Jan 2020-July 2022

Schedules are subject to change based on site conditions and other considerations.

Construction Management Plan

Prior to construction, MMC will develop comprehensive Logistics and Safety Programs. Maintaining normal campus operations and public safety, and minimizing impacts to areas surrounding the campus will be the primary considerations in this process.

Project Work Hours

Construction will occur during the daytime hours as defined by the Portland Noise Regulation (7am to 6pm, Monday through Friday). In some unavoidable instances, weekday night hours could extend to beyond 6pm when a second shift is employed. Weekend work hours will be 7AM to 4PM on the Saturdays and Sundays when required.

Perimeter Protection/Public Safety

In general, secured fencing will be used to isolate construction areas from pedestrian traffic and Police Details will be provided, when necessary, to facilitate traffic flow. MMC will work to ensure the sidewalk protection minimizes impact to pedestrian and vehicular flow. The specific configuration of sidewalk protection and pedestrian access around the site will vary depending on the phase of the work being performed. Construction procedures will be designed to meet all OSHA safety standards for specific site construction activities. MMC will provide sufficient temporary site lighting to ensure

the safety of all pedestrians accessing the sidewalks around the site, including lighting at all covered pedestrian walkways, until permanent street lights are installed.

Construction Noise Impacts

The project will require the use of equipment that can be heard from off-site locations. MMC is committed to mitigating construction noise impacts. Increased community sound levels, however, are an inherent consequence of construction activities. When these events are scheduled, advance notice will be provided.

Construction Traffic and Parking Impacts

Construction Workers

The number of workers required during the construction will vary with an estimated average daily workforce of 150 during the peak of construction. Jobsite personnel shall park at an offsite parking area and will be shuttled to the construction site. MMC will work with the Construction Management Company to identify an off-site parking location and shuttle service. No personal vehicles will be allowed to park at the project construction site or in the adjacent residential streets. The construction company and its subcontractors shall encourage the use of public transportation by their workers, if available.

Truck Routes and Volumes

Truck traffic will vary throughout the construction period, depending on the activity. It is expected that

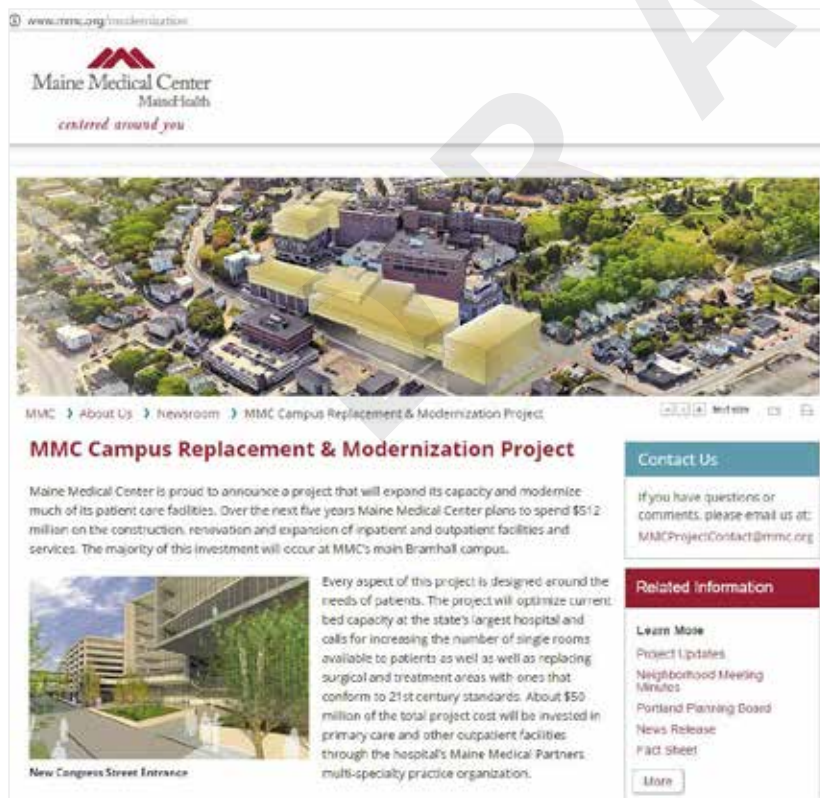
truck traffic will average 8-10 trucks daily spread evenly throughout the day. An off-site marshalling area will be utilized for trucking.

MMC will install way finding signage at strategic locations identifying no travel zones for construction vehicles. To the extent possible, all truck traffic will be directed to enter the sites utilizing Congress Street. Once at the site all vehicles will be brought within the fence line and will make every attempt to avoid queueing on Congress Street or Gilman Street, unless during specific times as addressed on the site logistics plans.

Construction Air Quality Impacts

To reduce emission of fugitive dust and minimize impacts on the local environment, MMC will adhere to a number of strictly enforced mitigation measures. These include the use of wetting agents to control and suppress dust; covering stock piles of soils and trucks transporting debris; managing construction practices to reduce unnecessary transfers of loose materials; periodic cleaning of streets and sidewalks; and, use of wheel wash stations.

Fig.7.1 Screenshot of MMC Website dedicated to the Project



MMC COMMUNITY BENEFITS

MMC provides much to the City of Portland community, which often goes overlooked. These benefits are not only to our adjacent neighbors but also to the residents elsewhere in the City.

Smoking Policy and Related Initiatives

MMC, as a health care institution, understands that smoking is an addiction that has harmful effects—effects from directly inhaling nicotine, as well as the effects of second hand smoke. The effects are serious and can be life threatening. In order to advance its vision to make the people in Maine the healthiest in America, MMC, like other businesses in the City of Portland—including the City itself—has instituted a no smoking policy on its premises.

But the hospital also recognizes that addiction is difficult to overcome and the ability to quit smoking is often difficult. That is why MMC offers assistance to its employees, patients and visitors to quit smoking and to reduce and eliminate noxious fumes in the environment. MMC provides free smoking cessation classes to its employees. It offers free nicotine gum to visitors to the hospital in an effort to reduce the desire to smoke. MMC conducts periodic “walk-about” in the neighborhood to talk with people about smoking and its health impacts.

Neighborhoods throughout the City all deal with unwanted smoke. MMC has heard the concerns of its neighbors relating to people walking on the public sidewalks in their neighborhoods while smoking. Whether or not people smoking in MMC’s adjacent

neighborhoods are affiliated with the Hospital, MMC has taken significant measures to respond in a positive fashion to these concerns. In addition to the proactive walk-about providing education about smoking and resources to assist in quitting (such as providing the hotline telephone number for the Center for Tobacco Independence), the Hospital has taken steps to alleviate the unsightliness of cigarette butts on public streets near its campus. As documented in its MMC Neighborhood Council Meeting minutes of June 23, 2016, MMC has purchased 30 “butt butlers” for use by the City in areas around the MMC main campus. In 2016 MMC and the neighbors collaboratively walked the neighborhood and identified areas for installation of the butt butlers.

At the request of the neighborhood representatives, MMC also modified its smoking policy as follows:

- Limits the distance from entrances within which individuals can smoke from 50 feet to 20 feet;
- Remove MMC Tobacco Free signs installed along the perimeter of the open “South Lot” (Bramhall, Chadwick, Vaughan, and Brackett Streets).
- Letter to employees sent by the MMC CEO and COO regarding these changes and the expectations for employees to abide by them
- MMC has hired, at its expense, a trash removal vendor to collect cigarette butts and trash in the areas surrounding the

hospital. This vendor provides such service between April 1 and first snow, on M, W, and F at 4–6 hours per day.

- MMC has a telephone line dedicated to the receipt of concerns from neighbors regarding MMC related events in their neighborhoods

While MMC recognizes that it cannot prevent people from smoking, it is committed to ongoing efforts to address this public health issue.

Neighborhood Garden

The St. John Valley Neighborhood requested the use of property owned by MMC at 268-270 Valley Street. In an effort to respond to the neighbors, MMC contacted the City for guidance on how it permitted use of public property for such community gardens. MMC fashioned an agreement with SJVNA which mimicked the Agreement used by the City for use of its land by gardening neighbors. As of June 2016 SJVNA was looking into procuring insurance of the same type required by the City.

Neighborhood Clean Up Days

MMC has sponsored neighborhood clean-up days in the past in an effort to partner with its adjacent Neighborhood Associations to beautify the neighborhood. It has supplied lunch, trash bags, gloves and water for those participating.

Snow Ban Parking

MMC allows its neighbors the use of its parking garage at 887 Congress Street on those days when the City calls a snow ban. Although there have been glitches of this policy by MMC in the past, as well as abuses of this policy by neighbors leaving cars parked long-term in the past, for the most part the locations of vehicle parking and the hours for such parking have been respected and appreciated by the neighbors.

City-Wide Benefits

MMC is actively involved in giving back to the City of Portland. The following initiatives provide some examples of the actions undertaken by MMC to give back to the community.

- MMC-Preble Street Learning Collaborative:
MMC nurse practitioners, primary care residents, medical students, and MMC Homeless Health Partners, provide services to the most vulnerable underserved people in Portland, allowing them access to quality, barrier-free health care.

City-Wide Benefits, *continued*

- Portland School Based Health Clinics are made possible through a partnership between Maine Medical Center and Portland Public Health.
- Portland School Athletic Contributions: The Sports Medicine division at MMC's Family Medicine Center provides physical exams and training room support for area school teams, marathons and other sports events.
- MMC RN Health Fairs: MMC RN's routinely hold community health fairs on MMC's time to benefit vulnerable populations. Locations of health fairs include: the Preble Street Teen Center, Boys and Girl's Club of Portland, and the Florence House, a permanent shelter for chronically homeless women. The events are frequently accompanied by a collection of supplies.
- Sagamore Village Health Center: MMC provides staff and support at the Sagamore Health Resource Center, a community-based nurse managed clinic that provides public health, primary care and mental health services to residents. MMC provides the services and support in collaboration with the USM School of Nursing and Portland Housing Authority. In addition to staff and administrative support, MMC provides direct financial support to the Health Clinic.
- MMC Care Partners: A “safety net” program designed to provide care for those who cannot afford commercial insurance but are not eligible for government programs. CarePartners provides administrative support to help serve the target population, including comprehensive eligibility assessment, care management, and access to low cost or free pharmaceuticals.
- Virology Treatment Center: A resource to patients and physicians caring for patients with HIV/AIDS; it also provides education and conducts clinical trials, including many that otherwise would not be available in the community.
- International Clinic: Provides services and healthcare education to immigrants and refugees from around the world who have settled in Portland.
- Northern New England Poison Center: MMC is the home of the NNEPC. The NNEPC provides a 24 x 7 hotline and chat service to provide 24 x 7 consultation with healthcare professionals and the public regarding accidental pediatric or geriatric poisonings, therapeutic errors and adverse

effects/interactions, management of drug- or poison-related suicide attempts and substance abuse misadventures, environmental exposure, food poisoning and other toxic exposures. The Center also provides education for the public and healthcare professionals, including school nurses and law enforcement, assists with preparedness and toxic-surveillance for events including food or water contamination/tampering, weapons of mass destruction, regional antidote management, and infectious disease.

- Sexual Assault Response Services of Maine (SARSSM): MMC, through its Emergency Department, teaches classes to support SARSSM. Emergency department members present at meetings and conferences in support of these services.
- The Maine Medical Center Research Institute (MMCRI) is the largest hospital-based biomedical research facility in northern New England. Many clinicians author scholarly work or participate in various studies and research activities, and the institute offers a summer student program. Residents and community members participate in clinical trials to manage and treat diseases and medical conditions, which would otherwise not be available in the community.
- MMC Classroom Facilities at the MMC Dana Center are used by health care mission focused community groups for meetings and educational sessions. Local Chapters of Alcoholics Anonymous, Al-Anon, the National Alliance for the Mentally Ill and Take Off the Pounds Sensibly meet weekly at the Dana Center. HOPE Support Group, Making Strides against Breast Cancer, an Autism Parent Support Group, and Survivors of Suicide are some of the organizations that make use of MMC's facilities on a weekly basis throughout the year.
- MMC's Certified Nursing Assistant (CNA) Program: In affiliation with Portland Adult Education this program has graduated approximately 1,200 graduates to date. Offered 3 times a year at no charge to students, this state-approved 180-hour course incorporates experienced MMC nursing staff as faculty/mentors within classroom presentations, skills labs, and supervised clinical experiences. Clinical nurses and others throughout MMC instruct and mentor these student team members, highlighting MMC's belief in CNAs as integral to the comfort, care, and outcomes of our patients and services. An average of 75 participants attend per session. Near the end of this eleven-week program, students take the

City-Wide Benefits, *continued*

state certification examination during the course at no cost to the student.

- Medical Explorers: Provides opportunity for High School students to experience a combination of lecture, experiential learning, and hand-on skills practice. MMC also offers summer internships and opportunities through the school year for High School students to meet, observe and interact with many disciplines in the medical profession.
- Doc for a Day: MMC provides students, chosen from underrepresented minority groups or educationally or economically disadvantaged backgrounds, an overview of what is involved in becoming a physician, and participate in hands on clinical activities in the simulation lab.
- Disaster Preparedness and Emergency Services: MMC is deeply involved in disaster planning at the local and State levels. It is one of three state Regional Resource Centers for Emergency Preparedness, and the hospital has a full-time Director of Emergency preparedness. Additionally, MMC is a member Southern Maine Regional Resource Center for Health Emergency Preparedness, which coordinates all Emergency Preparedness Activities of the Southern 4 Counties

of Maine including: York, Cumberland, Sagadahoc and Lincoln. These Public Healthcare Emergency services include services and support to other local Hospitals and Medical Centers, Laboratories, Clinics and Ambulatory Centers, Assisted Living and Long Term Care Facilities and Home Health Agencies in the greater Portland Community.

- Financial Support to Community Agencies: MMC supports financially and provides in kind services to various community agencies and sponsors events throughout the City, including the Heart Walk; American Cancer Society walk, Hospice of Southern Maine, Let's Go Program, Ronald McDonald House, March of Dimes and National Multiple Sclerosis Society. MMC and its employees participate in the United Way, which donations benefit numerous local agencies.

Fig.7.2 Photographs from Community Benefit Events Supported by MMC



The Annual Maine Children's Cancer Program (MCCP) Walk



Tobacco Cessation Program



Park Clean-Up

DRAFT

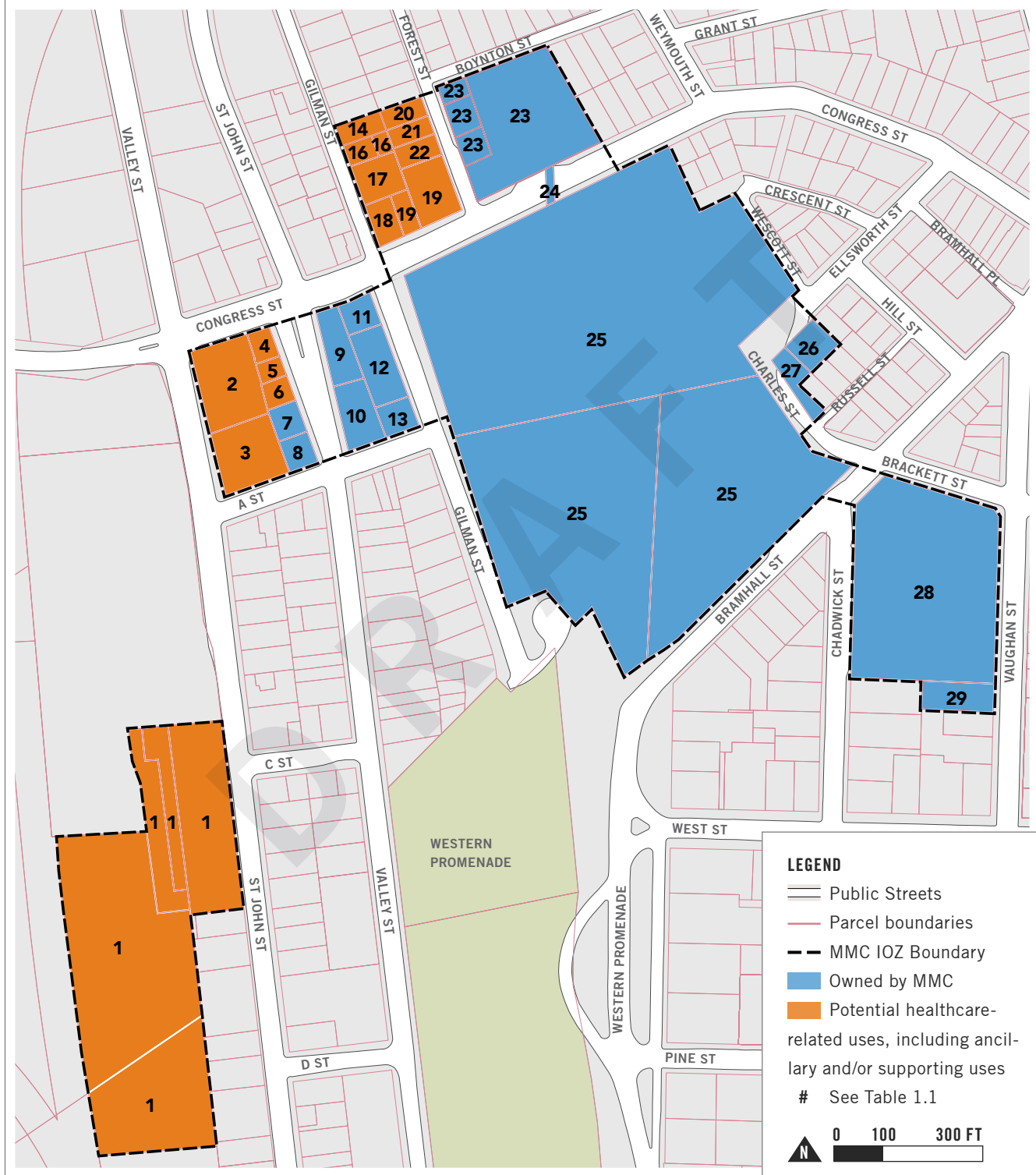


Institutional Overlay Zone (IOZ) Regulatory Framework

INTERNAL DRAFT FOR REVIEW BY MMC / March 20, 2017

1. BOUNDARY

MAP 1.1 Maine Medical Center IOZ Boundary



1. BOUNDARY

TABLE 1.1 List of Properties Included in the Maine Medical Center IOZ

Map#	Legal Description	Address	Acreage	MMC Title?
1	64-A-2-8-9-11 74-A-7 / 75-A-6	222 St John St	4.6516	No
2	65-G-1	950 Congress St	0.4628	No
3	64-B-1	275 St John St	0.4163	No
4	65-G-2	942 Congress St	0.0659	No
5	65-G-3	940 Congress St	0.0482	No
6	65-G-4	274 Valley St	0.0667	No
7	65-G-5	268-70 Valley St	0.0978	Yes
8	64-B-2	264 Valley St	0.0895	Yes
9	65-H-1	932 Congress St	0.1864	Yes
10	65-H-9	261 Valley St	0.2185	Yes
11	65-H-2	930 Congress St	0.1040	Yes
12	65-H-5	52 Gilman St	0.2384	Yes
13	65-H-8	44 Gilman St	0.1128	Yes
14	65-E-18	93 Gilman St	0.0826	No
15	65-E-22	85 Gilman St	0.0565	No
16	65-E-32	85 Gilman St	0.0282	No
17	65-E-24	81 Gilman St	0.1653	No
18	65-E-28	919 Congress St	0.1059	No
19	65-E-29-30	909 Congress St	0.3233	No
20	65-E-21	18 Forest St	0.0831	No
21	65-E-23	14 Forest St	0.0826	No
22	65-E-25	12 Forest St	0.0883	No
23	53-I-1-2-3-12	887 Congress St	1.3400	Yes
24	53-X-1	Congress St Air Rights and Pedestrian Walkway	---	Yes
25	53-D-7 54-H-1 64-C-1	22 Bramhall St	12.563	Yes
26	54-C-6	34 Ellsworth St	0.1341	Yes
27	54-C-10	40 Ellsworth St	0.1155	Yes
28	54-I-1	308 Brackett St	2.5200	Yes
29	63-B-8	214 Vaughan St	0.1983	Yes

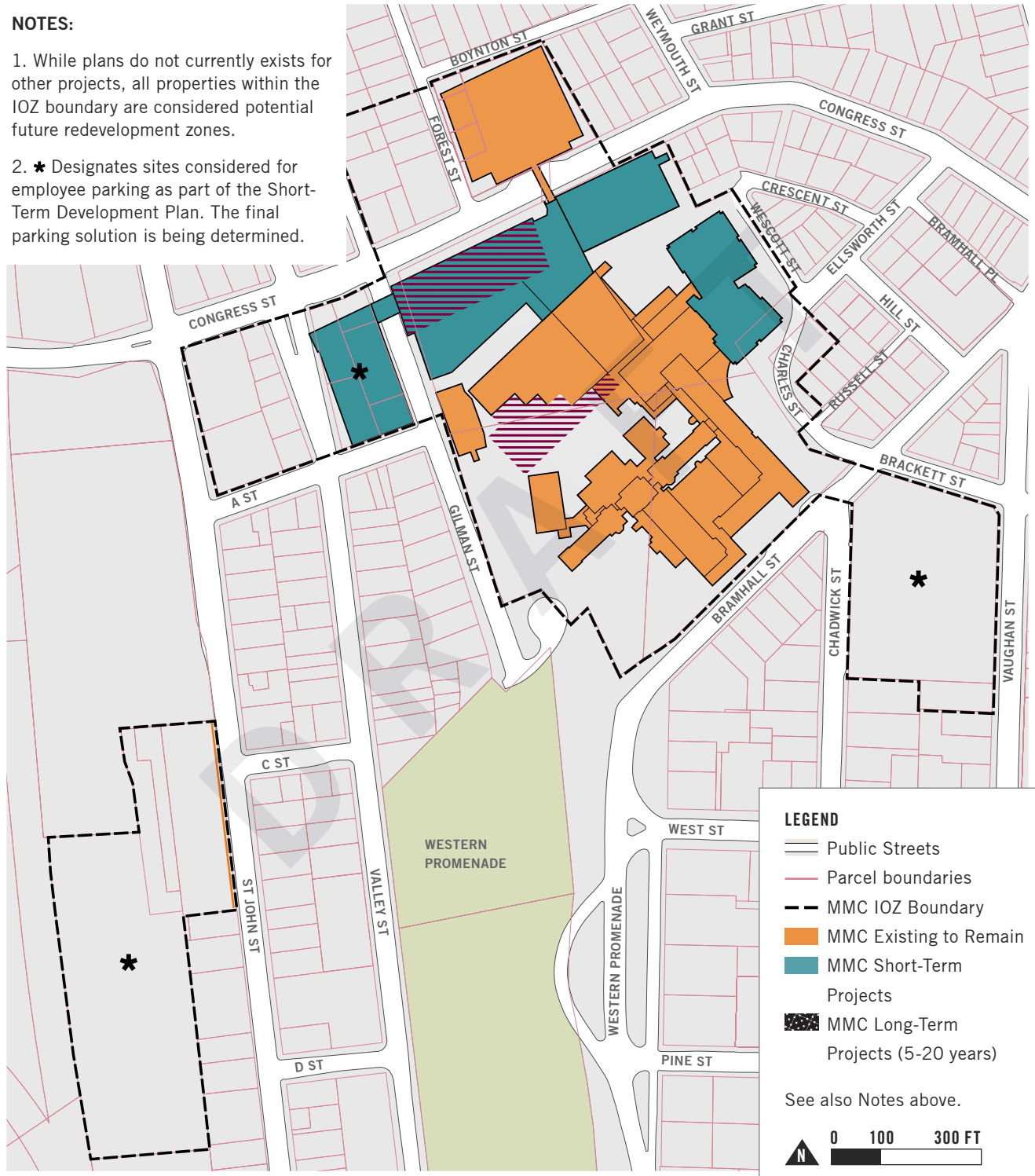
Notes: Properties owned by MMC are listed under Maine Medical Center or MMC Realty Corp.

2. PHASING AND SCHEDULES

MAP 2.1 Maine Medical Center Development Phasing Plan

NOTES:

1. While plans do not currently exist for other projects, all properties within the IOZ boundary are considered potential future redevelopment zones.
2. ★ Designates sites considered for employee parking as part of the Short-Term Development Plan. The final parking solution is being determined.



2. PHASING AND SCHEDULES

TABLE 2.1 Thresholds for Plan Amendments

Plan Name	Threshold for Update
Maine Medical Center Institutional Development Plan (IDP)	Every ten (10) years, or, prior to development projected to increase total facility holdings by more than 800,000 GSF of healthcare uses, not including parking.
Maine Medical Center Transportation Demand Management (TDM) Plan	Every five (5) years. Monitoring reports to be provided every 5 years upon request by the City.

DRAFT

3. USES

TABLE 3.1 List of Uses Permitted by Right within the IOZ	
Healthcare facilities including but not limited to the following ancillary and/or supporting uses:	
• Hospital • Medical Office / Clinic • Laboratory Center / Services • Research and Development Laboratory or Facility • Educational Facility / Conference Center • Administrative / Business Office • Accessory Service or Trade Uses • Guest House • Medical Resident Apartments • Rehab / Skilled Nursing Facility	• Retail Facility • Restaurant / Cafe • Employee Service Amenities • Day Care Center (Child / Adult) • Fitness Center or Gymnasium • Parking Lot • Parking Garage • Bicycle Storage • Heliport • Antenna Station

4. DIMENSIONAL REQUIREMENTS

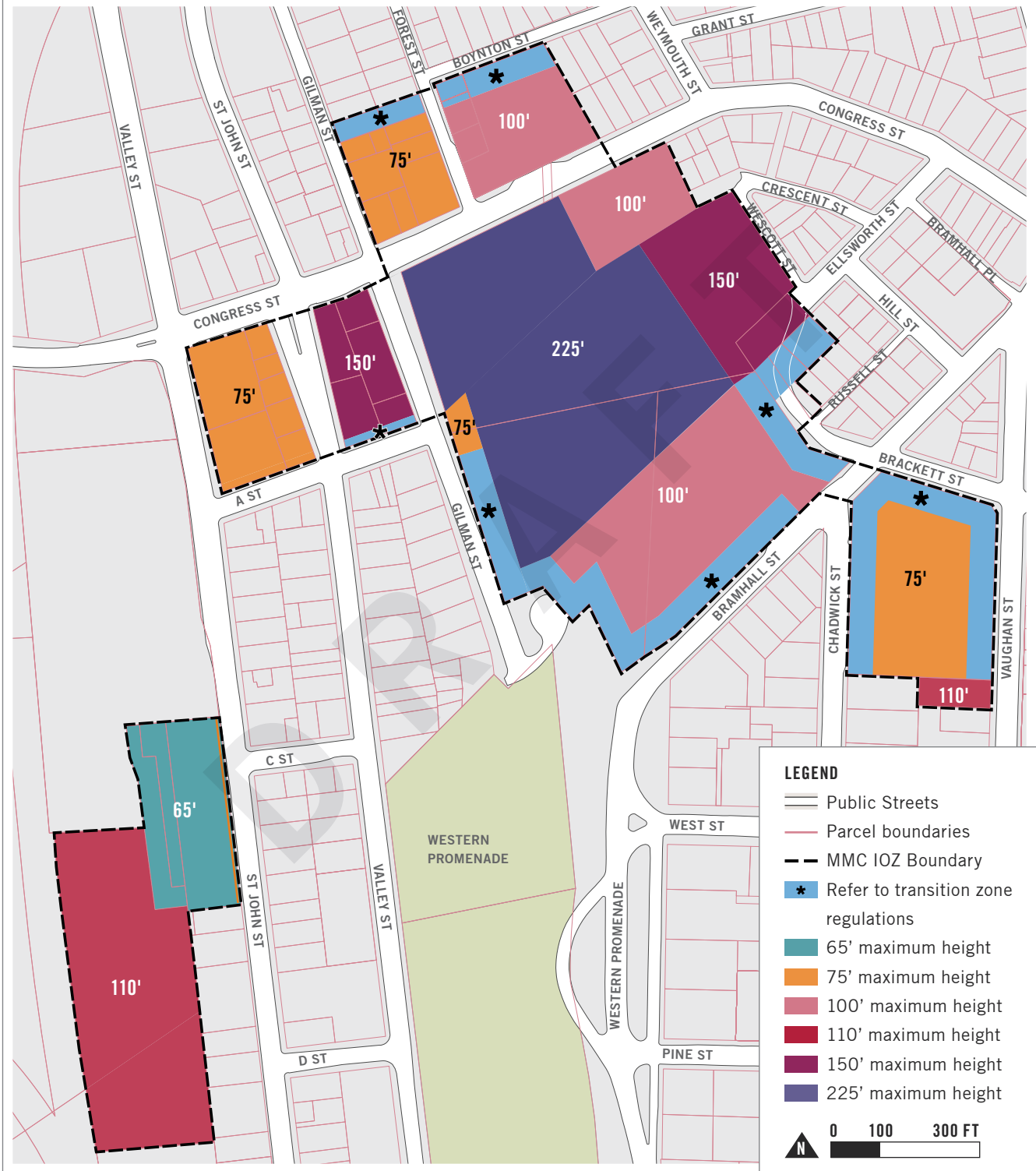
TABLE 4.1 Dimensional Requirements

Building Heights (max.)	See Map 4.1. for maximum building heights.
Floor-Area-Ratio (max.)	None
Building Setbacks (min.)	See Map 4.3 for minimum building setbacks.
Congress Street Build-to-Zone*	A Build-to-Zone is identified for properties that abut Congress Street. The Congress Street Build-to-Zone extends between 0 to 40 feet from the right-of-way boundary. Buildings located in these parcels must have a minimum of 70% of the façade facing Congress Street located anywhere within the build-to-zone.
Transition Zones	Transition zones are identified inside the IOZ boundary in areas where the IOZ abuts or is located across a public right-of-way from a residential use district or a historic-designated district. See Map 4.2. for location of transition zones. i. Transition zones that abut a Residential District <u>with</u> an intervening public right-of-way that is not an alley shall have a height limit that matches the maximum height across in the Residential District. ii. Buildings located in transition zones that abut a Historic District may be subject to review by the Historic Preservation Board per the City of Portland zoning ordinance. iii. In areas where the IOZ abuts a Residential or Historic District without an intervening public right of way or an alley, minimum side and rear yard requirements of the abutting Residential or Historic District apply within the IOZ boundary.

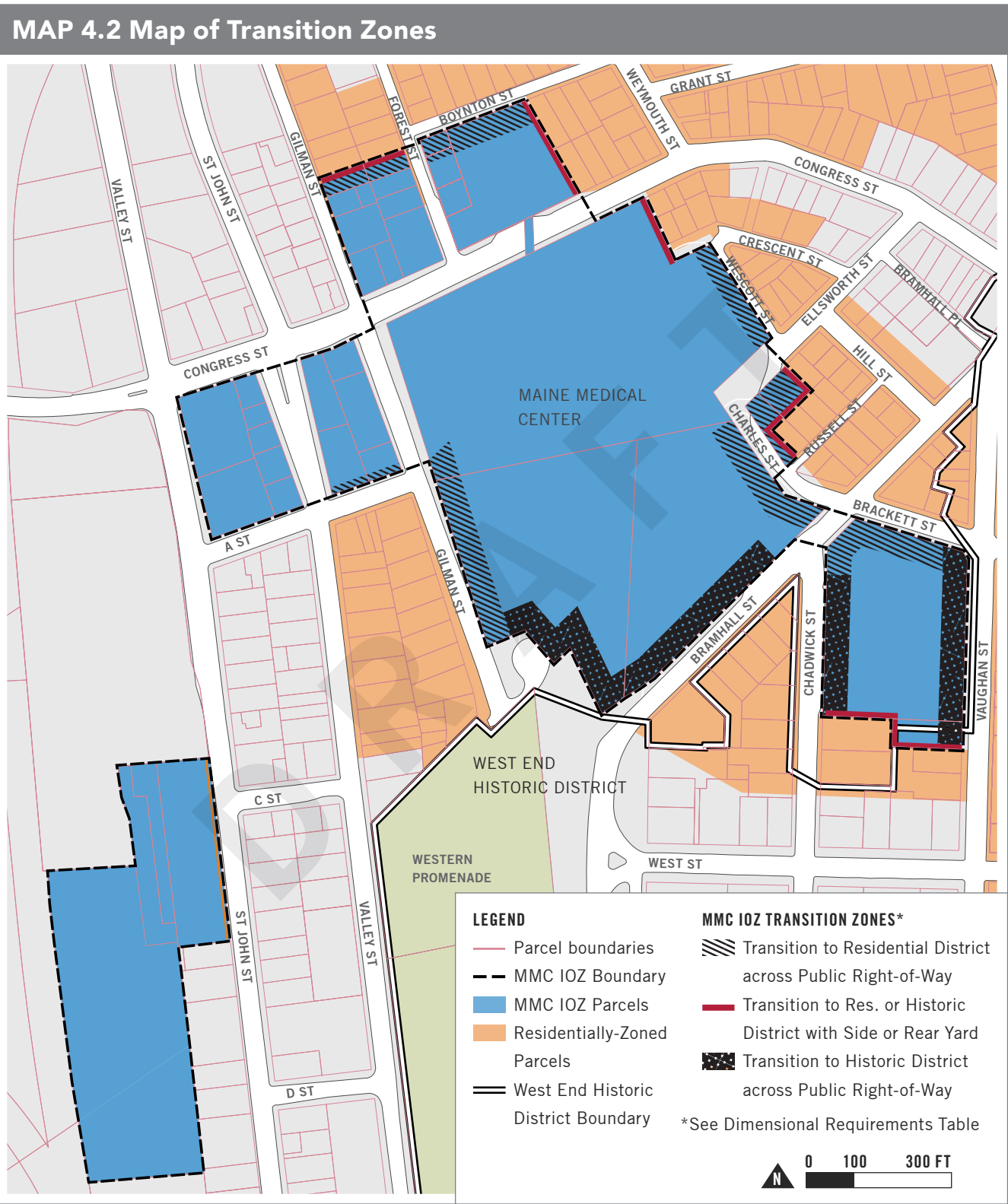
*A "build-to zone" is the area on the lot where all or a portion of the street-facing building facade must be located, measured as a minimum and maximum yard (setback) range from the public right-of-way boundary.

4. DIMENSIONAL REQUIREMENTS

MAP 4.1 Building Heights Map

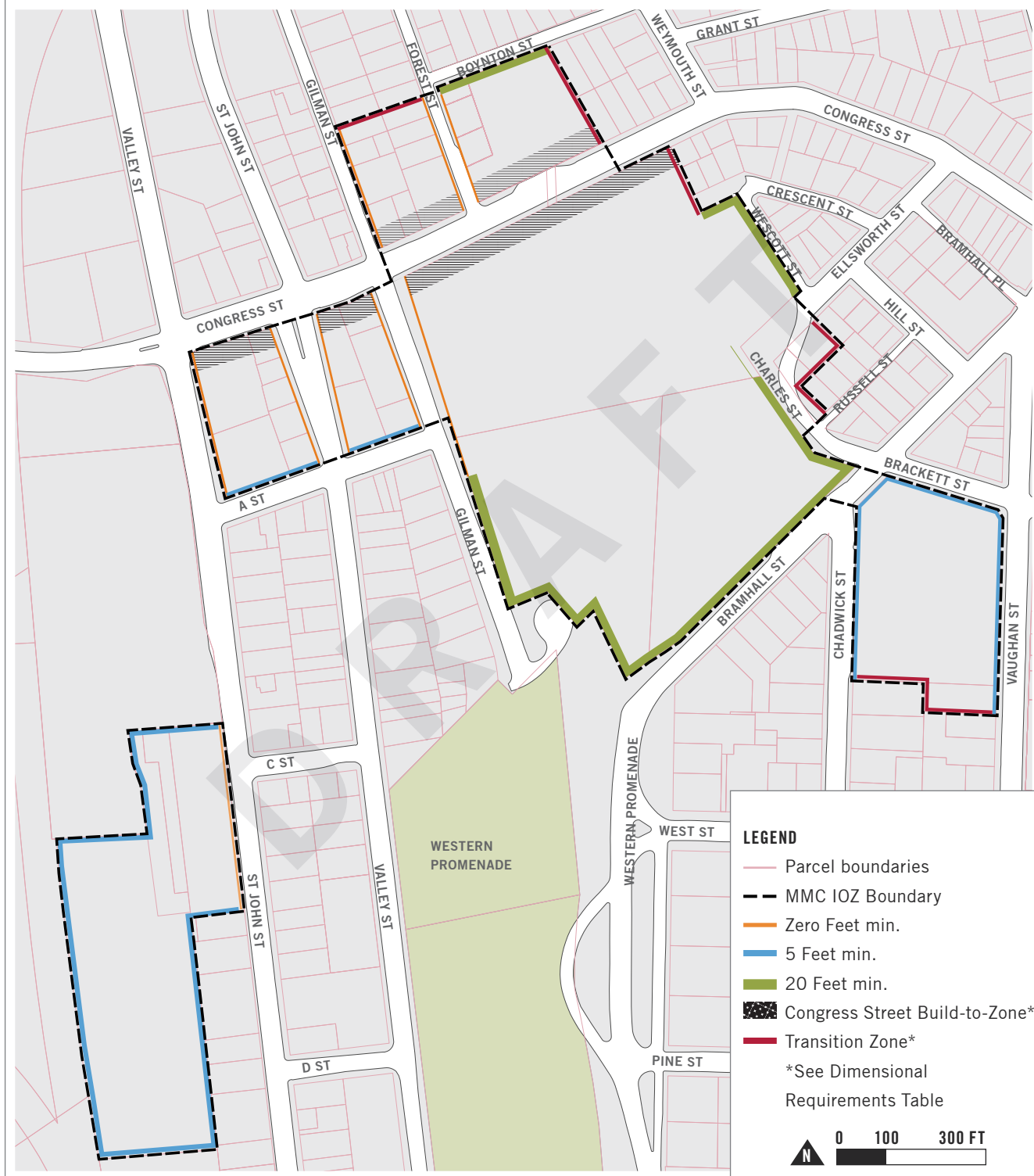


4. DIMENSIONAL REQUIREMENTS



4. DIMENSIONAL REQUIREMENTS

MAP 4.3 Map of Minimum Setbacks



5. TRANSPORTATION

- A. Maine Medical Center shall comply with City of Portland Site Plan Standards for ensuring pedestrian, vehicular, bicycle and transit access and safety.
- i. Sidewalk Material: In order to maintain the safety of patients and visitors to/from the hospital, MMC need not comply with the City's brick sidewalk policy but may use alternative material substantially similar to that used along the sidewalks abutting the Bramhall Street entrance.
- B. Maine Medical Center shall endeavor to meet a TDM trip reduction target of 65 by year 2020.
- C. Maine Medical Center shall meet thresholds for access improvement upon the issuance of a Traffic Movement Permit.
- D. Maine Medical Center shall provide no less than 915 parking spaces for patients and visitors and no less than 2325 parking spaces for employees. Parking requirements shall be revised with every TDM update.

6. SITE PLAN REVIEW

The following elements shall be considered by the Planning Board at Level III Site plan review:

- Building envelope design
- Landscape and public realm design
- Vehicular circulation and safety
- Pedestrian and bicycle safety measures
- Mitigation measures for development impact
- Construction management approach

7. OTHER REQUIREMENTS

A. Helipad Permitted Use and Specifications

The Helicopter Landing Pad shall not be subject to the provisions of section 14-409 (Heliports), but shall be governed by the provisions of the Helistop Overlay Zone (Sections 14-325 through 14-327), except as follows:

- i. Setbacks. Because it is to be located on the roof of an existing structure, the landing pad shall not be required to meet the setback requirements of Section 14-327(3) or the fencing requirements of Section 14-327(4).
- ii. Flight Routes. MMC shall identify preferred flight routes, to be approved by the CITY, designed to minimize noise impact of helicopter flights on surrounding residential areas, shall notify all flight providers likely to use the Helicopter Landing Pad of such preferred routes, and shall take the following measures to ensure that such preferred routes are utilized whenever weather conditions, safety considerations and the best interests of the patient being transported permit, with the expectation that this will be the usual case. MMC will instruct all providers which regularly use the Helicopter Landing Pad that pilots must file an exception report with the Air Medical Provider Administration of Lifeflight of Maine or its successor entity for operations modified for safety

considerations or at the direct request of Approach Control at the Portland International Jetport. Logs of these exception reports will be made available to MMC and to the City upon request but no more frequently than annually. When and if the Portland Jetport has the capacity to maintain and preserve data which specifically identifies flight routes actually taken by aircraft utilizing the Helicopter Landing Pad, the City shall consult such data to review compliance with this paragraph, and MMC, upon request of the City, shall be responsible for the cost of translating this data into usable form but not for the costs of the flight monitoring.

Initially, such preferred flight routes shall be as shown on the flight map (see **Map 7.1**). At the initiative of either the City or MMC, the map of preferred flight routes may be amended from time to time by agreement between MMC and the City.

MMC will continue to engage providers of helicopter emergency medical transport who operate in compliance with the "Fly Neighborly Guide," third edition, (and any subsequent revisions) prepared by the Helicopter Association International Fly Neighborly Committee and published by the Helicopter Association International.

Helicopter landings on the Helipad shall be used for emergency patient care only, and on the rare occasion for emergency management training by federal or state management agencies or U.S. military or government aircraft.

7. OTHER REQUIREMENTS

MAP 7.1 MMC Helicopter Flight Path



7. OTHER REQUIREMENTS

B. City Snow Ban Parking

MMC recognizes that City snow ban parking locations in the vicinity of MMC is limited. MMC also recognizes the need to prioritize its parking for patients, visitors and staff. However, during winter months when the City of Portland implements citywide parking bans for snow plowing and or snow removal, MMC will offer to its neighbors the ability to park in a designated area of the Forest Street garage for so long as such spaces are not needed to service MMC and according to the following requirements:

Hours: Due to the patterns of patient flow in the hospital, the hours that we are able to offer community parking during the announced City of Portland Snow Parking Bans is strictly limited to 6:00pm until 6:00am. On Saturdays and Sundays, the morning deadline is 8:00am.

Note: Vehicles that are not moved out of this Lot prior the applicable time each morning will be towed, without notice, and at the owner's expense.

C. Signage

MMC shall abide by the requirements of sections 14-366 through 14-372.5 of the Portland Land Use Code, except as otherwise approved by the Portland Planning Board under Chapter 14, Article V.

THIS PAGE LEFT INTENTIONALLY BLANK.





Memorandum

Planning and Urban Development Department

Planning Division

To: Chair Boepple and Members of the Portland Planning Board

From: Jean Fraser, Planning Division

Date: April 21, 2017 for meeting on April 25, 2017

Re: **MMC request for IOZ designation: Draft Institutional Development Plan (IDP)**

Applicant: Maine Medical Center (MMC)

I. INTRODUCTION

Maine Medical Center applied in January, 2017 for a zoning amendment to create an MMC Institutional Overlay Zone (IOZ) to allow MMC to modernize and expand their Bramhall Street campus. The ordinance that provides the framework for this zoning amendment was recommended by the Planning Board to the City Council in March 2017, and a City Council hearing on this broad “enabling” ordinance text will take place on May 1, 2017.

The process for designation of an IOZ requires the institution to prepare an Institutional Development Plan that is a proactive planning document for identifying and addressing anticipated change and growth by an institution. The IOZ also requires a Regulatory Framework be submitted, which would be included in the Land Use Code and identifies the land area to be included on the zoning map as the Institutional Overlay Zone with the associated requirements. The Planning Board is authorized to review and approve an Institutional Development Plan that is consistent with the standards of the enabling legislation for an IOZ. The Planning Board reviews and recommends to City Council the Regulatory Framework and the IOZ boundaries. Refer to Attachment 3 for the chart for the process and interrelationships of the Institutional Overlay Zone, Institutional Development Plan and IOZ boundaries for each institution.

MMC has recently submitted this first substantive draft Institutional Development Plan (IDP), along with a cover letter (Attachments A and B). A preliminary draft IDP was included in the January 10, 2017 workshop memo and informed the discussion of the IOZ enabling legislation. That early draft IDP was not formally reviewed, as it was still under development and the final requirements of the new IOZ Ordinance were also still in development.

Since January MMC has brought in additional consultants and met frequently with Planning and other City staff, as well as the public, to develop the IDP further and more fully address the Planning Board’s recommended IOZ Ordinance requirements. The April draft IDP (Attachment B) represents a substantial expansion of the earlier draft and provides a strong basis for moving forward with the IOZ process of finalizing the IDP and Regulatory Framework.

MMC has indicated that this draft IDP (Attachment B) is not comprehensive in respect of the transportation and design sections, in part due to the need to re-consider where and how to address the potential parking demand related to future growth. Therefore, this workshop is an introductory workshop to provide the Board with an overview of MMC’s short and long-term plans for their campus and an opportunity to comment on areas where further depth or reconsideration is appropriate. Subsequent workshops on specific topics are anticipated.

II. STATUS OF THE REVIEW

MMC's request for designation of their campus as an Institutional Overlay Zone (IOZ) is allowed by the enabling Institutional Overlay Zone Ordinance that was recommended by the Planning Board in March 2017 and is now being considered by the City Council for adoption. During the discussions on the new IOZ Ordinance a flow chart of the zoning process and the review process for a specific institution's IOZ was presented ([Attachment 3](#)). The first stage of the process is now almost complete and MMC's draft Institutional Development Plan (IDP) is within the second stage ie the submission and review of the required submittals for an institution-specific IOZ designation. The required submittals are:

- **Institutional Development Plan (IDP):** The IDP is a longer term development or master plan, to be developed by the eligible institutions, which would guide each institution's development over the life of the plan. The IDP is envisioned as the basic building block of the Institutional Overlay Zone. The IDP is intended as a stand-alone document. This would be approved by the Planning Board.
- **Regulatory Framework:** The Regulatory Framework is within the land use code as the ordinance requirements for each institution, and is intended to evolve from the IDP. The Regulatory Framework would establish the parameters to allow each institution to grow as envisioned in the IDP, yet also formalize requirements, guidelines, and performance measures that address the major ramifications of institutional growth and change. The Regulatory Framework would be adopted into the land use code by the City Council.
- **IOZ - Zoning Map:** The boundaries of each institution's IOZ would be defined as a geographic element represented as an amendment to the city's zoning map. This would be adopted by the City Council. [Prepared once the IDP and Regulatory Framework are finalized].

III. OVERVIEW OF MMC'S EXPANSION PROPOSALS AS PRESENTED IN THE INSTITUTIONAL DEVELOPMENT PLAN

The MMC IDP outlines three "phases" of expansion:

- **Short Term Development Plan (0-5 years) (IDP pp 58-59):**
 - Total of 345,000 sq ft additional floorspace in a new Congress Street hospital building and in 2 added floors to East Tower
 - 1360 new parking spaces in 3 added floors to visitor garage and a new garage (indicated at Gilman Street though other options are under investigation) to replace the existing spaces in the demolished employee parking garage

Fig.3.3 Short-Term Development Plan (0-5 Years)



★ Alternative employee parking solutions are currently being investigated.

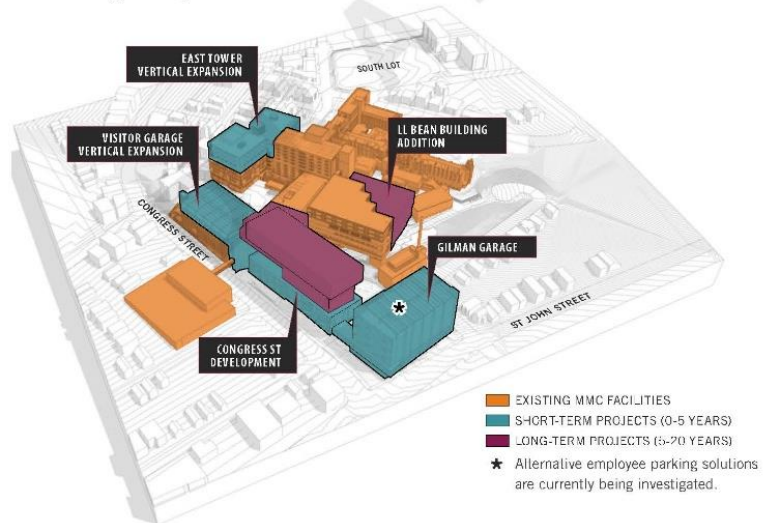
- **Long Term Development Plan (5-20 years) (IDP pg 60)**
 - Additional 420,000 sq ft of floorspace added to Congress Street Phase 1 hospital and LLBean buildings

Long-Term Projects

Congress Street Development, Phases II and III (Vertical Expansion, Approx. 300,000 GSF)
Future vertical expansion to include additional private inpatient beds.

LL Bean Building, MFP Phase III (Addition, 120,000 GSF)
Expansion of diagnostics and treatment, and interventional platforms. If necessary, existing Laundry Building and Engineering Services Building may be modified or removed to facilitate expansion.

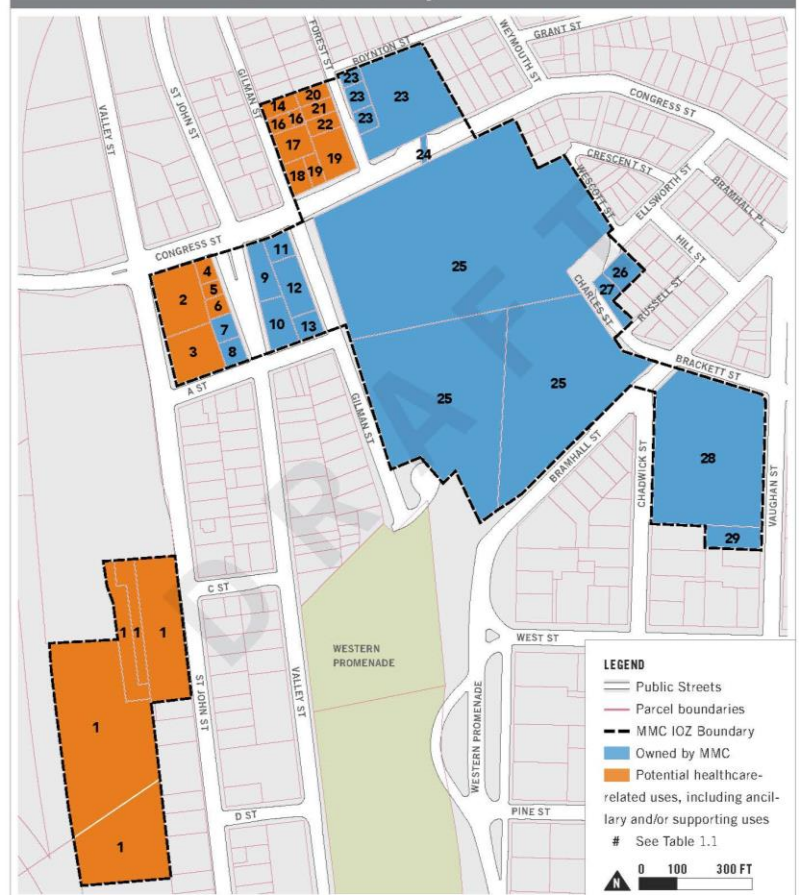
Fig.3.4 MMC Development Plan:
Short- and Long-Term Projects



- **Long Term Redevelopment Zones (IDP pg 110)**
 - Other sites, not all currently in MMC ownership, as shown in IOZ boundary to right, in the Table 1 below and on page 110 of the IDP

1. BOUNDARY

MAP 1.1 Maine Medical Center IOZ Boundary



IV BACKGROUND re ZONING

MMC has a Contract Zone that was finalized in 2005 ([Attachment 1](#)) that includes the MMC main campus on the south side of Congress Street. On the other side of Congress Street (887 Congress Street) MMC has a smaller Contract Zone dating from 1997 that generally changed the zoning from R6 to B2 ([Att. 2](#)).

The main campus Contract Zone allowed for specific developments within a defined area and included a number of other commitments such as a Transportation Demand Management (TDM), helipad management, snow-ban parking and public infrastructure improvements. Some aspects of the modernization and expansion currently proposed or under consideration by MMC could be implemented under the existing Contract Zones, but other elements would require an amendment to the Contract Zone(s). Planning staff have encouraged MMC to pursue the IOZ instead of amending the Contract Zone(s), and MMC began that process in January as outlined above.

The MMC IOZ *Regulatory Framework* and proposed boundaries would, once recommended by the Planning Board and adopted by the City Council, replace the two existing Contract Zone Agreements currently held by MMC. For any areas outside the Contract Zone boundaries that are included in the IOZ boundary, the *Regulatory Framework* would replace the underlying zoning in respect of specified MMC uses and development. The underlying zone would continue to apply to non-MMC properties. The table below illustrates what the proposed MMC IOZ designation (based on the draft MMC IDP in [Att. B](#)) would allow compared to what is allowed under current zoning, unless the Contract Zone Agreement(s) are formally amended:

Table 1: Zoning Comparison

<i>Projects identified in Development Plan (within proposed IOZ boundary)</i>	<i>What allowed by Contract Zone(s)¹</i>	<i>Allowed by Underlying Zone (outside Contract Zone)</i>	<i>Proposed to be allowed by MMC IOZ</i>
SHORT TERM (0-5 YEARS)			
Site of employee garage (to be demolished): New 6 story hospital (285,000 sq ft) building accessed from Congress Street	Expansion of MMC uses allowed ¹ but no additional height allowed unless the Contract Zone is amended		225 ft height – no transition zone
Existing visitor parking garage: Addition of 3 floors to accommodate 225 parking spaces	70 ft height		100 ft height – no transition zone
East Tower: addition of 2 floors (60,000 sq ft) to accommodate 64 inpatient beds and relocated heliport	95 ft height		150 ft height – no additional transition zone
Gilman Street: new 13 story garage to accommodate 1135 parking spaces for employees (alternative employee parking currently being investigated)	Expansion of MMC uses allowed ¹ , but no additional height allowed unless Contract Zone is amended		150 ft height and narrow transition zone
122 St John Street (existing building and open area to rear)	Could be acquired by MMC and used for uses allowed by the underlying zone, except hospital uses, unless the Contract Zone is amended	B2: 45-65 ft.	65 ft height for building; 110 ft height for open area
LONG TERM DEVELOPMENT (5-20 YEARS)			
Congress St new hospital building (on site of former employee garage): to be expanded vertically to add 300,000 sq ft (appears to bring to a total of 12 stories)	Expansion of MMC uses allowed ¹ , but no additional height allowed unless contract Zone is amended.		225 ft height- no transition zone
LL Bean building: infill expansion (120,000 sq ft)	111 feet high (vertical expansion anticipated)		225 ft height – plus transition zone towards Gilman St

Projects identified in Development Plan (within proposed IOZ boundary)	What allowed by Contract Zone(s)¹	Allowed by Underlying Zone (outside Contract Zone)	Proposed to be allowed by MMC IOZ
LONG TERM CONCEPTUAL (NO SPECIFIC PROPOSALS)			
South Parking lot (existing surface lot)	Expansion of MMC uses allowed ¹ but no additional height limit allowed unless the Contract Zone is amended.	(Underlying zone is R6)	75 ft in height plus transition zones on 3 sides
Existing MMC building 887 Congress	Allows 72 feet in height and general, business and professional offices and parking unless Contract Zone (Att 2) is amended		100 ft height plus one transition zone to north
Sportsman Club	Could be acquired by MMC and used for uses allowed by the underlying zone, except hospital uses, unless the Contract Zone is amended	Congress St: B2 45-65 ft. North side: R6 45 ft height	75 ft height plus one transition zone to north
Greyhound Terminal Block	Could be acquired by MMC and used for uses allowed by the underlying zone, except hospital uses, unless the Contract Zone is amended	B2: 45-65 ft.	75 ft height- no transition zone

¹. **Note:** As qualified by this annotated quote from Main Campus (2005) Contract Zone: “MMC will restrict any further expansion of uses (defined as new construction of building(s) and or conversion of existing uses (including residential uses) into hospital related uses and the like. It shall not mean the occupancy of an existing building which contains legally confirming medical related use) in the Western Prom/Parkside/Gilman Street neighborhoods to the property specifically included in the following defined Campus [main campus; existing medical office building opposite main campus; Vaughan Street parking lot and McGeachey Hall; West Street medical Office building; block bounded by Congress Street, Gilman street, Valley Street, and A Street] (qualified by “this provision shall not prohibit MMC from expanding or building in other areas of the City if permitted by zoning)

V. STAFF ANALYSIS

A. IDP Development Process

The IOZ process requires the following actions by the institution that requests an IOZ designation and MMC have met the requirements as follows:

- *Application:* Submitted
- *Required Public Involvement:* Two meetings for the wider neighborhood were held in January and March regarding the IDP/IOZ
- *Required Scoping meeting:* At the time the IOZ designation was requested the required contents for the IDP/Regulatory Framework had not been finalized. The content was discussed at frequent meetings with the Planning Board and staff. The Planning Board confirmed that these meetings would constitute the “Scoping meeting” and provided comments indicating that the emphasis should be on identifying the implications/impacts of the expansion proposals, and to clarifying transportation (including TDM) and transition/edge treatments.

B. IDP Content

The draft IDP ([Attachment B](#)) was received on April 7, 2017. Staff has not prepared detailed comments; the following represents a preliminary analysis.

- *IOZ Content Requirements:*

It is noted above that the Transportation and Design sections are still being developed. Otherwise the content broadly addresses the IDP content sections of the IOZ ordinance (sections headed “Context Information” and “Assessment of Future Institutional Growth and Change”). Staff have met with MMC to discuss transportation aspects where further information is requested, and similar meetings regarding design have been arranged. The staff and reviewers from other departments are reviewing the IDP and will have comments at a subsequent workshop.

The content headings for the Regulatory Framework are “if applicable” and many of these have not yet been addressed.

- *Presentation:*

The draft IDP ([Attachment B](#)) has a significant amount of data and information which is presented in an easily readable and accessible document, using charts, tables, maps, and graphics to visually display data in an effective way. It provides a comprehensive context for consideration of MMC’s proposed changes and development, and represents a major undertaking and a successful step in developing the IDP and Regulatory Framework.

- *Level of Detail:*

The broad approach is excellent although all sections would benefit from additional detail. There some parts of the “needs analysis” that are fairly general, as are the plans for addressing potential impacts. It is understood that additional material is being prepared and staff suggest that additional narrative, tables, and graphics would be helpful to demonstrate both the analysis of needs/impacts and clearly translate these needs into plans for future growth/change. It also would be helpful to have a clearer idea of how proposals have addressed public comments and concerns.

- *Linkage between IDP and Regulatory Framework:*

The Regulatory Framework is intended to clearly relate to and derive from the IDP. For example, in locations where the Regulatory Framework specifies particular heights, the plan would be expected to include massing diagrams or conceptual plans that provide the rationale for the heights requested. Similarly, sidewalk material changes requested in the Regulatory Framework should be firmly grounded in the IDP.

- *Relationship between Regulatory Framework and Site Plan Review:*

Generally, the Regulatory Framework leaves many elements to site plan review (e.g. building envelope design and landscape and public realm design). The site plan review process will follow the approval of the IDP and will implement the hospital’s Regulatory Framework. Thus the Regulatory Framework should articulate development parameters regarding campus-wide strategies that balance the large building envelopes, increased intensity of use, and local impacts of proposed institutional growth and change.

One option might be to add further detail to the Regulatory Framework to establish clear standards or requirements that are over and above those which would be applied to any site plan. The IDP analysis and assessment sections refer to a number of potential impacts and/or proposals to minimize impacts, but these are not reflected in the Regulatory Framework.

VI. PUBLIC COMMENT

During the development of the IOZ Ordinance text (November 2016- March 2017) the Planning Division received many comments that related to the MMC IDP and related IOZ designation process. The Board has previously seen these comments, but they have been brought forward to ensure the Board is aware of the detailed MMC comments that relate to the current review (PC1-PC22).

Since MMC submitted the draft Institutional Development Plan (IDP) on April 7, 2017 the Planning office has received one written comment (PC1 MMC-IOZ). This is from the St John Valley Neighborhood Association, who have prepared extensive comments on the content of the IDP and on how it complies with the new IOZ Ordinance.

Staff are aware that MMC has invited neighborhood representatives to give them comments on the draft IDP and understands that MMC is arranging further public meetings on the IDP.

VII. NEXT STEPS

- MMC to submit additional material
- Clarify subsequent workshop(s) and topics to be covered at these workshop(s)

VIII. ATTACHMENTSMemo Attachments from staff

1. 2005 Contract Zone for Maine Medical Center
2. 1997 Contract Zone for 887 Congress Street
3. Flowchart for IOZ ordinance and designation process

Public Comments

- PC 1- PC22 - (Brought forward) Public Comments from IOZ Ordinance review
PC1 MMC-IOZ - St John Valley Neighborhood Association 4.18.17 on 4.7.17 MMC IDP

Applicants Submittal

- A. MMC Cover letter to Planning Board 4.7.17
- B. Draft MMC Institutional Development Plan submitted 4.7.17

Order 172-04/05

Given 1st reading: 2/23/05 Postponed on 3/7/05

Public Hearing & postponed on 4/4/05

Amended & Passage: 4/25/05 9-0

JILL C. DUSON (MAYOR)(A/L)
PETER O'DONNELL (A/L)
JAMES F. CLOUTIER(A/L)
NICHOLAS M. MAVODONES (A/L)

CITY OF PORTLAND
IN THE CITY COUNCIL

WILLIAM R. GORHAM (1)
KAREN A. GERAGHTY (2)
DONNA J. CARR (3)
CHERYL A. LEEMAN (4)
JAMES I. COHEN (5)

**AMENDMENT TO CITY CODE
SEC. 14-49 (ZONING MAP AMENDMENT)
RE: CONDITIONAL REZONING FOR PROPERTY
IN VICINITY OF WESTERN PROMENADE/ MAINE MEDICAL CENTER**

ORDERED, that the Zoning Map of the City of Portland, dated December 2000 as amended and on file in the Department of Planning & Development, and incorporated by reference into the Zoning Ordinance by Sec. 14-49 of the Portland City Code, is hereby amended to reflect a conditional rezoning as detailed below:

**CONDITIONAL ZONE AGREEMENT
MAINE MEDICAL CENTER**

AGREEMENT made this ____ day of _____, 2005, by **MAINE MEDICAL CENTER**, a Maine corporation with a principal place of business located in the City of Portland, County of Cumberland and State of Maine, its successors and assigns ("MMC").

WITNESSETH:

WHEREAS, MMC is the owner of land and buildings located in Portland at Map 53, Block D, Lots 1, 2 and 7; Map 53, Block E, Lots 1, 2, 10 and 13; Map 53, Block G, Lots 1 and 13; Map 54, Block H, Lot 1; and Map 64, Block C, Lots 1 and 2; and Map 55, Block B, Lot 13 (the "**PROPERTY**"); and

WHEREAS, MMC is the largest provider of obstetrical services in Maine and provides the only statewide fulltime maternal fetal medicine service serving women and newborns at high risk and MMC has the only Level III neonatal intensive care unit in Maine; and

WHEREAS, in order to respond to the changing professional and clinical standards for the care of sick infants within the neonatal intensive care unit and to meet the spatial requirements of today's routine and high risk obstetrical and newborn care, MMC must build an addition comprised of 192,000 square feet (the "Charles Street Addition"); and

WHEREAS, MMC proposes to construct the Charles Street Addition by expanding vertically, on the site of an existing medical building bounded generally by Charles Street, Wescott Street, Ellsworth Street and Crescent Street; and

WHEREAS, in order to avoid a substantial expansion of the footprint of the buildings at MMC and, instead, to construct the Charles Street Addition by vertical expansion, it is necessary to modify the otherwise applicable height requirement in the R-6 Zone; and

WHEREAS, in order to accommodate the needs of the Charles Street Addition and to improve parking and traffic circulation on the MMC campus, MMC proposes to construct a new 512 car capacity parking garage along Congress Street (the "New Parking Garage"); and

WHEREAS, in order to achieve the requisite parking capacity within the available space, MMC needs to build the New Parking Garage at a height taller than the currently applicable height limit in the R-6 Zone and also to locate the New Parking Garage closer to Congress Street than the currently applicable setback requirement in the R-6 zone; and

WHEREAS, in order reduce transport time for critical patients coming to MMC's emergency department, MMC proposes to construct a helicopter landing pad on top of the

existing parking garage which fronts on Congress Street (the "Helicopter Landing Pad" also occasionally referred to as "Heliport or Helistop"); and

WHEREAS, in order to replace currently fragmented heating and cooling systems throughout its campus, MMC intends to construct a central utility plant, built into the hillside between the hospital and Gilman Street (the "Central Utility Plant"); and

WHEREAS, the Central Utility Plant will be built at a proposed height of 45 feet but is also designed to accommodate a future vertical expansion of two additional floors, with a maximum future height of 70 feet; and

WHEREAS, MMC currently has operating rooms, intensive care beds, and adult and pediatric beds in an existing building constructed in 1985 (expanded in 1998) and referred to as the "L. L. Bean Wing;" and

WHEREAS, MMC has no current construction plans for the L. L. Bean Wing, but anticipates that the L. L. Bean Wing will need to be expanded vertically at some time within the next decade; and

WHEREAS, the L. L. Bean Wing was designed structurally to accommodate such vertical expansion by an additional two stories; and

WHEREAS, MMC desires to provide for such eventual vertical expansion within this Agreement and additional vertical expansions, except as noted below, are not included within the scope of this Contract and will be subject to negotiation and approval in the future, when presented; and

WHEREAS, by expanding vertically for the Charles Street Addition rather than horizontally, MMC will need to remove only two residential buildings, and will do so in full

compliance with the housing replacement requirements of section 14-483 of the Portland Code of Ordinances; and

WHEREAS, in addition to such required replacement, **MMC** will divest itself of ownership of nine other buildings (two on Crescent Street, two on Ellsworth Street, one on Hill Street and four on Bramhall Street), enabling others to return them to residential use; and

WHEREAS, **MMC** has requested a rezoning of the **PROPERTY** in order to permit the above-described improvements; and

WHEREAS, the **CITY** by and through its Planning Board, pursuant to 30-A M.R.S.A. §4352(8) and Portland City Code §14-60, *et seq.*, and §14-315.3, after notice and hearing and due deliberation thereon, recommended the rezoning of the **PROPERTY** as aforesaid, subject, however, to certain conditions more specifically set forth below; and

WHEREAS, the **CITY** has determined that because of the unique circumstances of the location of an urban medical center campus in close proximity to historic and densely populated neighborhoods within the R-6 Zone, and in order to balance the interests of **MMC** and its residential neighbors, it is necessary and appropriate to impose the following conditions and restrictions in order to ensure that the rezoning is consistent with the City's Comprehensive Plan; and

WHEREAS, on April 25, 2005, the **CITY** authorized the amendment to its Zoning Map based upon the terms and conditions contained within this Agreement, which terms and conditions become part of the zoning requirements for the **PROPERTY**;

NOW THEREFORE, in consideration of the rezoning, **MMC** covenants and agrees as follows:

1. **MMC** will restrict any further expansion of its uses¹ in the Western Prom/ Parkside/ Gilman Street neighborhoods to the property specifically included in the following defined Campus²:

- (a) The main campus, bounded by the north side of Bramhall Street, the western side of Wescott Street, a portion of the northern side of Crescent Street terminating with the proposed end of the new garage, and the south side of Congress Street between the existing and proposed new garage, and the eastern side of Gilman Street;

- (b) The existing medical office building located on Congress Street across from the main campus;

- (c) The Vaughn Street parking lot and McGeachey Hall;

- (d) The existing West Street Medical Office Building located behind the row houses at the eastern end of West Street (CBL 55-B-13);

- (e) The block bounded on Congress Street, Gilman Street, Valley Street and A Street.

2. The following exhibits are incorporated into and made a part of this Agreement:

Exhibit A: Helistop Overlay Zone Map

Exhibit B: Site Plan

1. Sheet C050: Campus Plan, Revision date: 9/16/04
2. Sheet C100: Site Plan, Revision date: 9/16/04
3. Sheet C101: Site Plan, Revision date: 9/16/04
4. Sheet C102: Site Plan, Revision date: 9/16/04
5. Sheet C103: Site Plan, Revision date: 9/16/04
6. Sheet C400: Landscape Plan, Revision date: 9/16/04
7. Sheet C401: Landscape Plan, Revision date: 9/16/04
8. Sheet C402: Landscape Plan, Revision date: 9/16/04

¹ "Future expansion of its uses" shall mean new construction of building(s) and or conversion of existing uses (including residential uses) into hospital related uses and the like. It shall not mean the occupancy of an existing building which contains a legally conforming medical related use.

² This provision shall not prohibit **MMC** from expanding or building in other areas of the City if permitted by zoning.

9. Sheet C403: Landscape Plan, Revision date: 9/16/04
10. Landscape Plan at Existing Garage, See sheets 401 & 402
11. Pedestrian Connection to Congress Street, 4/14/04
12. Parking Garage Rendered Elevation, North, (Option 1; Exhibit B, p.12, April 25,2005)
13. Parking Garage Rendered Elevation, (Option 1, Exhibit B, p. 12, perspective; April 25, 2005)
14. Parking Garage Rendered Elevation, South, 1/27/05
15. Central Utility Plant Rendered Elevation, 1/27/05
16. Charles Street Addition Rendered Elevation, South 1/27/05
17. Charles Street Addition Rendered Elevation, East 1/27/05
18. Charles Street Addition Rendered Elevation, North 1/27/05
19. Charles Street Material Board 1/27/05
20. Street Vacation/Acceptance and Land Transfer Plan (Sheet 1)
21. Street Vacation/Acceptance and Land Transfer Plan (Sheet 1)
22. Concrete Sidewalk Plan

Exhibit D: Miller Memo 01/06/05 and MMC Helipad Flight Paths, Harris Miller Miller & Hanson Inc., 9/16/04

Exhibit E: Helipad Operating Guidelines (2 pages); source, Lifeflight of Maine

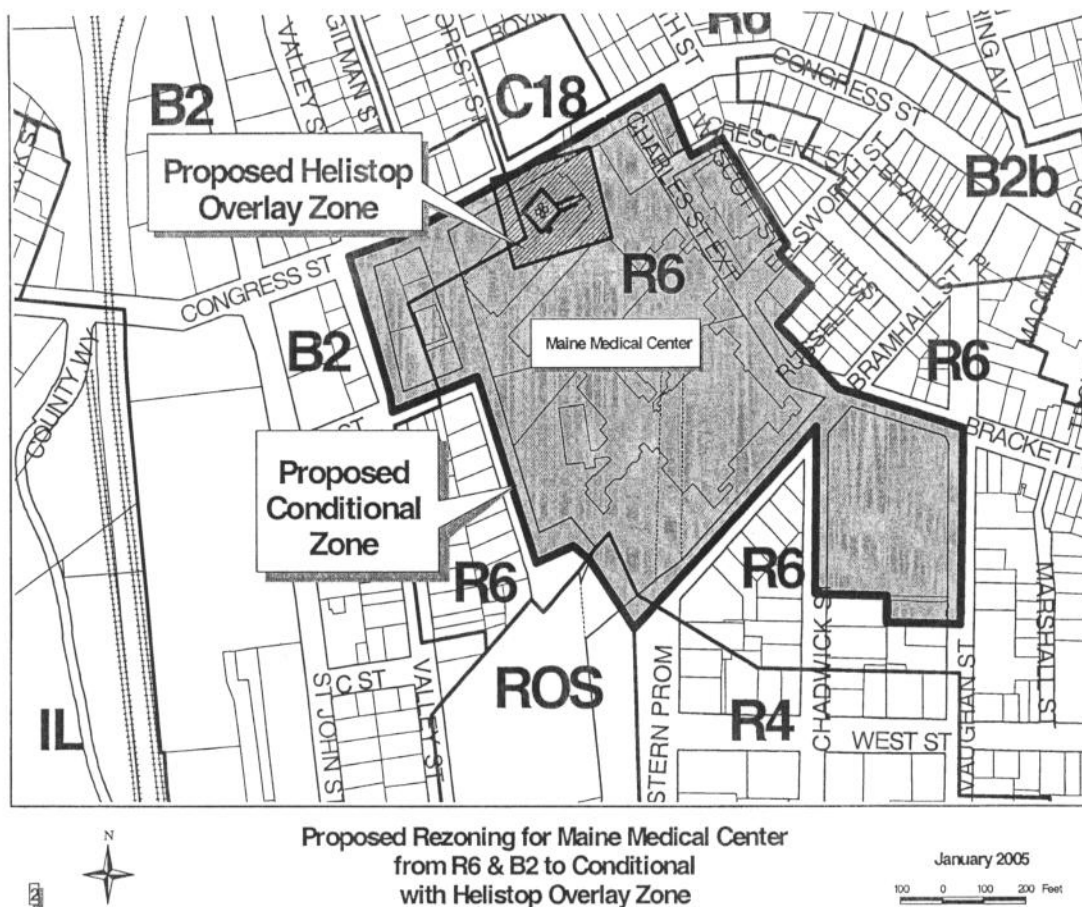
Exhibit F: Helipad Plans

1. Heliport Plan, 1/27/05
2. Heliport Elevation, 1/27/05
3. Heliport Perspective, 1/27/05

Exhibit G: Vaughan Street Parking Lot Landscaping Plan

1. Landscape Plan, 7/8/04
2. Wall Treatment
3. Fence Detail
4. Landscape Section

3. The **CITY** shall amend the Zoning Map of the City of Portland, dated December 2000, as amended from time to time and on file in the Department of Planning and Urban Development, and incorporated by reference into the Zoning Ordinance by Portland City Code §14-49, by adopting the map change amendment below, which map change includes a Helistop Overlay Zone as more particularly depicted on Exhibit A.



4. The **PROPERTY** and site improvements shall be developed and operated substantially in accordance with the site plan shown on Exhibit B (the "Site Plan"), which Site Plan includes but is not limited to street layouts, landscaping, and building elevation drawings for initial construction, subject to the approval of the Site Plan by the City's Planning Board in compliance with the requirements of Chapter 14, Article V. The architectural treatment of the façade of the New Parking Garage may be revised during site plan review and shall meet the site plan standards of 14-526(16). Minor revisions to the Site Plan in the nature of field adjustments may be approved by the Planning Authority, without the need for amendment of this Agreement or further approval by the City Council.

5. No building permits shall be issued unless and until **MMC** receives conditional use approval pursuant to section 14-474 (Expansion of Institutional Use) and section 14-483 (Housing Replacement), site plan approval pursuant to section 14-483(e) of the City Code, approval under the Site Location of Development Act and an MDOT traffic movement permit, if required. No occupancy of the newly constructed buildings shall be permitted unless and until all site plan conditions of approval have been satisfied and the City Council has taken final action on the street discontinuances and street acceptances required for the realignment of certain streets, as shown on the Site Plan (Exhibit B).

6. **MMC** shall provide to the **CITY** a performance guarantee covering all required site improvements under section 14-525(j) of the City Code and the two replacement dwelling units provided under paragraph 6(d) of this Agreement.

7. The **PROPERTY** shall be governed by the zoning provisions, as such may be amended from time to time, applicable in the zoning districts underlying the Conditional Zone except as follows:

(a) Height Limits. The maximum structure height (measured according to the definition of "building, height of" in section 14-47) shall be:

- 95 feet for the Charles Street Addition, as depicted on the Site Plan
- 70 feet for the New Parking Garage, as depicted on the Site Plan
- 45 feet for the Central Utility Plant, as depicted on the Site Plan
- 111 feet for the L. L. Bean Wing, as already constructed.

(a) Setbacks.

- The minimum setback of the New Parking Garage shall be zero (0) feet from the right of way line of Congress Street.
- The minimum setback of the southeast corner of the Charles Street Addition shall be five (5) feet from the relocated right of way line of Ellsworth Street, as depicted on Exhibit B.
- The minimum setback of the Central Utility Plant shall be five (5) feet from Gilman Street.

(d) Replacement Housing. The replacement of the two existing residential structures at 33 Crescent Street (identified as Map 53, Block E, Lot 2) and 37 Crescent Street (identified as Map 53, Block E, Lots 1, 10 and 13) containing a total of seven dwelling units and two single-room occupancies by a portion of the New Parking Garage shall be deemed to meet the requirements of section 14-137(c), provided that **MMC** shall comply fully with the requirements of section 14-483 (Preservation and Replacement of Housing Units). Specifically, **MMC** shall comply with section 14-483 by (i) converting the building at 325-329 Brackett Street identified as Map 54, Block D, Lot 7 (the last approved use of which was office space) into two dwelling units prior to the issuance of a certificate of occupancy for the New Parking Garage and then divesting itself of ownership of the building prior to the issuance of a certificate of occupancy for the Charles Street Addition and (ii) paying Three Hundred Fifteen Thousand Five Hundred Eighty dollars (\$315,580.00) into the **CITY**'s Housing Development Fund (representing five dwelling units and two single-room occupancies) upon

approval of the Site Plan by the **CITY**'s Planning Board. The deadline for divestiture may be extended by the Planning Authority if **MMC** demonstrates that reasonable good faith efforts to market the property instituted at least 6 months prior to the deadline have failed to produce a bona fide offer at or above fair market value and on commercially reasonable terms.

(e) Sidewalks. **MMC** shall comply with the **CITY**'s Brick District Policy Plan, except that, at the time of final site plan review, the Planning Board may approve the use of concrete sidewalk materials, as shown on Exhibit B 22, because of the particular needs or requirements of the hospital use.

(f) Street level uses in garage. The street level of the new parking garage may be used for any use allowed in the B-2 zone.

8. The Helicopter Landing Pad shall not be subject to the provisions of section 14-409 (Heliports), but shall be governed by the provisions of the Helistop Overlay Zone, sections 14-325 through 14-327), except as follows:

(a) Setbacks. Because it is to be located on the roof of an existing structure, the landing pad shall not be required to meet the setback requirements of Section 14-327(3) or the fencing requirements of Section 14-327(4).

(b) Flight routes. **MMC** shall identify preferred flight routes, to be approved by the **CITY**, designed to minimize noise impact of helicopter flights on surrounding residential areas, shall notify all flight providers likely to use the Helicopter Landing Pad of such preferred routes, and shall take the following measures to ensure that such preferred routes are utilized whenever weather conditions, safety considerations and the best interests of the patient being transported permit, with the expectation that this will be the usual case. **MMC** will instruct all providers which regularly use the Helicopter Landing Pad that pilots must file an exception report with the Air Medical Provider Administration of Lifeflight of Maine or its successor entity for operations modified for safety considerations or at the direct request of Approach Control at the Portland International Jetport. Logs of these exception reports will be made available to **MMC** and to the **CITY** every six months. When and if the Portland Jetport has the capacity to maintain and preserve data which specifically identifies flight routes actually taken by aircraft using the Helicopter Landing Pad, the **CITY** shall consult such data to review compliance with this paragraph, and **MMC**, upon request of the **CITY**, will be responsible for the **CITY**'s reasonable costs of translating such data into useable form, but not for the costs of the flight monitoring. Initially, such preferred flight routes shall be as shown on the map attached to this Agreement as Exhibit D. At the initiative of either the **CITY** or **MMC**, the map of preferred flight routes may be amended from time to time by agreement between **MMC** and the City Council. The City Council shall consult with the Portland International Jetport and shall convene a neighborhood meeting to obtain input from residents of any affected residential areas before agreeing to any such amendment. An agreement between the parties to change preferred flight routes under this paragraph shall include noise mitigation measures in addition to those described in paragraph 7(g) below provided the noise mitigation measures are recommended by

an independent noise consultant. In addition, after one full year of operation of the Helicopter Landing Pad (measured from the date of the first patient transport flight to use the Helicopter Landing Pad), the City Council shall review the operation of the preferred flight routes and may initiate amendments to the map of preferred flight routes, following the procedures specified above. In connection with review or amendment of flight routes under this paragraph, the **CITY** may engage the services of an independent consultant and **MMC** will reimburse the **CITY** for its reasonable costs of obtaining such consulting services provided that the **CITY**, in advance of engaging the consultant, affords **MMC** an opportunity to comment on the scope of the consultant's engagement.

(c) Fly Neighborly. In negotiating any contract or agreement with any provider of emergency medical transport by helicopter, **MMC** will require the provider to operate in compliance with the "Fly Neighborly Guide" revised February 1993, (and any subsequent revisions) prepared by the Helicopter Association International Fly Neighborly Committee and published by the Helicopter Association International. **MMC** shall establish a complaint number and a protocol for handling complaints, which shall be publicized within the neighborhood, and the complaints will be reviewed no less than quarterly by the Maine Medical Center Neighborhood Council, noted below.

(d) Helipad operating guidelines. Helicopter landings on the Helipad are approved for emergency patient care only. Any use of the Helicopter Landing Pad for other than emergency patient care transport shall be deemed a violation of this Agreement and shall result in the termination of the Helicopter Overlay. The following standard practices will be incorporated as general policy for operations in and out of the Maine Medical Center Helipad and shall be communicated by **MMC** to providers. At all times, the Pilot in Command (PIC) will determine safety of operations as a first consideration. Under normal operating circumstances, take-offs, landings and standing-by on the Helicopter Landing Pad shall be conducted according to the Operating Guidelines, attached hereto as Exhibit E, subject at all times to the judgment of the helicopter pilot concerning safety and to the judgment of the emergency medical personnel concerning the health of the patient.

(e) Equipment. In generating any specifications in connection with the negotiation of any contract or agreement with any provider of emergency medical transport by helicopter, **MMC** will specify that helicopters utilizing the Helicopter Landing Pad (with the exception of U.S. military or government aircraft) are relatively new turbine powered aircraft meeting requirements under ICAO Annex 16 Chapter 8 for in-flight noise levels and complying with FAA airworthiness standards, 14 CFR part 36.11 and 14 CFR 21 Sub-part D, or any amended or successor requirements or standards.

(f) Design and construction. The Helicopter Landing Pad shall be constructed as shown on Exhibit A.

(g) Mitigation. **MMC** will pay for the installation costs associated with the full installation of soundproofing improvements contained within Exhibit D, except in lieu of central air conditioning **MMC** will also pay for the installation of ventilation improvements to one or more rooms within each such dwelling unit as reasonable and appropriate as determined by the

CITY. The **CITY** shall contract for such work and **MMC** shall be responsible for the costs associated therewith, plus a 10% administrative fee to be paid to the **CITY**. Before entering into any contract for such work, the **CITY** shall notify **MMC** and give **MMC** the opportunity to comment on the scope of the proposed work and the estimated cost thereof. The properties to be included under this provision are as follows: 879 Congress Street (Map 53, Block I, Lot 16), 921 Congress Street (Map 65, Block D, Lot 17), 925 Congress Street (Map 65, Block D, Lot 16) and 929 Congress Street (Map 65, Block, D, Lot 14). Such funds shall only be expended if the present owners of such buildings request such improvements no earlier than six months and no later than eighteen months after commencement of the operation of the Helicopter Landing Pad. For a period of five years from the date of this Agreement, any new owner of the aforementioned properties may request such improvements no later than eighteen months after purchase of said property(s).

(h) Accreditation. The principal provider of air medical transport to **MMC** shall be accredited by the Committee on Accreditation of Medical Transport Systems or its successor agency. Providers using the helicopter landing pad shall be accredited by the Committee on Accreditation of Medical Transport Systems or its successor agency, unless special circumstances warrant a non accredited provider such as the Air National Guard, the U.S. Coast Guard or other users.

9. Signage shall comply with the requirements of sections 14-336 through 14-372.5 of the City Code, except as otherwise approved by the Planning Board under Chapter 14, Article V.

10. For the purpose of keeping surrounding residential areas apprised of its future development plans, and to address any neighborhood issues related to the operations of the **MMC** campus (including but not limited to complaints or operating issues with respect to the helipad and future planning and development programs associated with **MMC**), **MMC** shall, no less than quarterly, and with two weeks written notice, invite representatives of the Maine Medical Center Neighborhood Council to meet with designated representatives of **MMC**. For purposes of this requirement, the Maine Medical Center Neighborhood Council shall consist of two representatives of the Parkside Neighborhood Association, , two representatives of the Western Prom Neighborhood Association, and two representatives of the Gilman/Valley Streets neighborhood. The neighborhood organizations shall designate the persons who shall serve on the Maine Medical Center Neighborhood Council. In the event there is no formal neighborhood organization, the City Council District Councilor shall designate the persons to serve on the Maine Medical Center Neighborhood Council.

11. **MMC**, prior to occupancy of the Charles Street Addition, shall relocate the sewer serving 31 Crescent Street, as depicted on the Site Plan (Exhibit B). In addition, **MMC** shall provide two off-street parking spaces for use by the tenants of 31 Crescent Street for so long as 31 Crescent Street serves as a residential structure.

12. **MMC** agrees that it will make the parking garage contemplated within this Agreement available for use by the public for snow ban purposes in a fashion similar to that

required in its Congress Street/Forest Street parking garage. In addition, **MMC** shall require all of its vendors, contractors and subcontractors to utilize a parking garage or other approved parking area/facility for vehicles and truck parking during construction.

13. **MMC** agrees to divest itself of ownership of the following existing structures owned by **MMC** according to the following schedule:

Prior to the issuance of a certificate of occupancy for the Charles Street Addition:

15 Crescent Street (Map 53, Block F, Lot 6)
25 Crescent Street (Map 53, Block E, Lot 5)
25 Ellsworth Street (Map 53, Block H, Lot 2)
32 Ellsworth Street (Map 54, Block C, Lot 5)
20 Hill Street (Map 54, Block C, Lot 1)

No later than January 1, 2010 or the issuance of a certificate of occupancy for any of the future expansions described in Section 6(b) above, whichever is earlier:

19 Bramhall Street (Map 63, Block A, Lot 4)
23 Bramhall Street (Map 63, Block A, Lot 3)
25 Bramhall Street (Map 63, Block A, Lot 2)
31 Bramhall Street (Map 63, Block A, Lot 1)

The deadline for divestiture of any of such property may be extended by the Planning Authority if **MMC** demonstrates that reasonable good faith efforts to market the property instituted at least 6 months prior to the deadline have failed to produce a bona fide offer at or above fair market value and on commercially reasonable terms.

14 **MMC** agrees that it will remove the existing building located at 261-269 Valley Street (formerly the "Eagles Club") within 12 months after the effective date of this Agreement and that the site of the removed building will be loamed and seeded unless and until otherwise developed pursuant to an approved site plan.

15 **MMC** shall provide landscaping of the area surrounding its Vaughn Street parking lot as shown on the landscaping plan attached hereto as Exhibit G and shall construct, maintain and continue to own the "pocket park" located at Ellsworth and Charles Streets as shown on the Site Plan (Exhibit B). The improvements to the Vaughn Street parking lot shall be completed within 12 months of the effective date of this Agreement.

16. **MMC** agrees to allow public pedestrian access between its campus and Congress Street through a new enclosed stairway to be constructed adjacent to the New Parking Garage, as depicted on Exhibit B.

17.. **MMC** shall contribute \$800,000 to the **CITY** to use for public improvements in the general vicinity of Maine Medical Center.

18.. MMC agrees that it will encourage its employees and visitors to use alternatives to single-occupant automobiles when traveling to and from the **PROPERTY**. In its application under the Site Plan Ordinance, MMC agrees to include among its written statements an Alternative Transportation Plan. The Alternative Transportation Plan will propose strategies to reduce single-occupant automobile trips to the **PROPERTY**. Such strategies shall include, but not be limited to, subsidies and other incentives for employees and visitors to use local and regional mass transportation, share rides (carpools and vanpools), ride bicycles and walk. The Planning Board will include the Alternative Transportation Plan in its consideration of sections 14-526(a)(1) and (2) of the City Code. In addition, an analysis of effectiveness and functioning of the Alternative Transportation Plan shall be provided to the City Council's Transportation Committee on an annual basis.

20.. The above restrictions, provisions and conditions are an essential part of the rezoning, shall run with the **PROPERTY**, shall bind and benefit **MMC**, its successors and assigns, and any party in possession or occupancy of the **PROPERTY** or any part thereof, and shall inure to the benefit of and be enforceable by the **CITY**, by and through its duly authorized representatives. Within 30 days of approval of this Agreement by the City Council, **MMC** shall record a copy of this Agreement in the Cumberland County Registry of Deeds, along with a reference to the book and page of the deeds to the property underlying said **PROPERTY**. Unless otherwise stated within this Agreement, this Agreement governs only the **PROPERTY** expressly covered by this Agreement and applies only within the boundaries of the rezoned area as shown on the map. Nothing in this Agreement shall have any effect on or be construed as having any bearing on the use or development of any other properties owned by **MMC** or its affiliates, all of which shall continue to be governed by the applicable provisions of the Portland Land Use Code, without regard to this Agreement.

21.. If any restriction, provision, condition, or portion thereof, set forth herein is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed as a separate, distinct and independent provision and such determination and shall not affect the validity of the remaining portions hereof.

22.. Except as expressly modified herein, the development, use, and occupancy of the **PROPERTY** shall be governed by and comply with the provisions of the Land Use Code of the City of Portland and any applicable amendments thereto or replacement thereof.

23.. This conditional rezoning agreement shall be enforced pursuant to the land use enforcement provisions of state law (including 30-A MRSA 4452) and **CITY** Ordinance. No alleged violation of this rezoning Agreement may be prosecuted, however, until the **CITY** has delivered written notice of the alleged violation(s) to the owner or operator of the **PROPERTY** and given the owner or operator an opportunity to cure the violation(s) within thirty (30) days of receipt of the notice. Following any determination of a zoning violation by the Court, and in addition to any penalties authorized by law and imposed by the Court, either the Portland Planning Board on its own initiative, or at the request of the Planning Authority, may make a recommendation to the City Council that the Conditional Rezoning be modified or the **PROPERTY** rezoned.

24.. In the case of any issue related to the **PROPERTY** which is specifically addressed by this Agreement, neither **MMC** nor their successors may seek relief which might otherwise be available to them from Portland's Board of Appeals by means of a variance, practical difficulty variance, interpretation appeal, miscellaneous appeal or any other relief which the Board would have jurisdiction to grant, if the effect of such relief would be to alter the terms of this Agreement. In cases that fall outside of the above parameters (i.e., alleged violations of any provisions of Portland's Land Use Code, including, but not limited to, the Site Plan Ordinance, which were neither modified nor superceded by this Agreement), the enforcement provisions of the Land Use Code, including, but not limited to, the right to appeal orders of the Planning Authority, Building Authority and Zoning Administrator shall apply. Nothing herein, however, shall bar the issuance of stop work orders.

WITNESS

MAINE MEDICAL CENTER

By: _____

Its:

STATE OF MAINE
CUMBERLAND, ss.

Date: _____, 2005

Personally appeared before me the above-named _____, in his capacity as _____ of Maine Medical Center, and acknowledged the foregoing instrument to be his free act and deed in his said capacities and the free act and deed of Maine Medical Center.

Before me,

Notary Public/Attorney at Law

O:\OFFICE\PENNY\CONTRACT\rezone\MMC\Geraghty.amendments042205.doc

ORDER 021

ORDER AUTHORIZING AMENDMENT TO CITY CODE
SECTION 14-49 (ZONING MAP AMENDMENT) AND
CONTRACT FOR REZONING FOR OFFICE BUILDING AND
PARKING GARAGE AT 883-903 CONGRESS STREET -
SPONSORED BY THE PLANNING BOARD, CYRUS HAGGE,
CHAIR.

IN THE CITY COUNCIL

JUNE 16, 1997

Attest:


Nadeen M. Daniels, City Clerk

Yeas

Nays

June 16, 1997: This Order received a first reading.

July 7, 1997: Motion made by Councilor Leeman to accept this
Order; seconded by Councilor Rickett. Roll call vote, passed 6-
2 (Councilors Geraghty and Kane).



City of Portland, Maine

IN THE CITY COUNCIL

Order 21
Tab 17 6-16-97

**ORDER AUTHORIZING AMENDMENT TO CITY CODE
§14-49 (ZONING MAP AMENDMENT)
AND CONTRACT FOR REZONING FOR OFFICE BUILDING
AND PARKING GARAGE AT 883-903 CONGRESS STREET**

ORDERED, that the Zoning Map of the City of Portland, dated March 1958, as amended, on file in the Department of Planning & Urban Development and incorporated by reference into the Zoning Ordinance by §14-49 of the Portland City Code, is hereby amended as shown on Attachment 1 of Attachment A hereto to allow an office building and parking garage at 883-903 Congress Street;

BE IT FURTHER ORDERED, that the amendment of the City's Zoning Map is conditioned upon execution of the contract for rezoning attached to this Order as Attachment A;

BE IT FURTHER ORDERED, that the City Manager is hereby authorized to execute the contract attached hereto as Attachment A.

883CONG.REZ
06.11.97

SITE DEVELOPMENT

<u>DATE</u>	<u>BUILDING SQ. FOOTAGE</u>	<u>IMPERVIOUS SURFACE RATIO</u>
Workshop I	26,760 SF	70%
Workshop II	22,800 SF (85%)	60.8%
Workshop III	19,800 SF (75%)	58.7%
Workshop IV	16,800 SF (63%)	58.3%
I~L Allowable		65%

DRAINAGE

The reduced scope has allowed for site runoff in a more environmentally friendly manner. Roof drainage will be guttered and run underground to city storm sewer located beneath Rand Road. Parking Lot sheet run off will be contained by level spreader landscape depressions which provide a natural filtration system for any minor contaminants deposited in parking and circulation areas. Any overflows will be directed to existing drainage courses along Rand Road and the railroad tracks.

SITE LIGHTING

We will employ cut off wall packs exclusively, no pole mounted lighting will be used. Special wall packs will be provided at the rear of Building A to minimize light spillage onto adjacent residential neighbors.

LANDSCAPING

This revised proposal will Allow many of the existing apple, maple, and willow trees to remain. Mr. Holmes already holds 50 certificates for 6' White Pines which he intends to stagger along the residential periphery to create a dense screen. When these trees reach approximately 12' the center growth will be topped to ensure a dense screen. Further, residential neighbors along the North and East sides will have 245 LF of 6' high Cedar stockade fence to create an immediate screen. Keep in mind the eve height of these buildings at 14'-0" and you can imaging a project which virtually disappears from the residential point of view.

CIRCULATION

The reduced space has allowed semi tractor trailer access to the front of each proposed unit. The 25' entrance drive has been repositioned to allow for a 50' turning radius from Rand Road. The new layout has no overlap and therefore clear circulation for vehicles. Light trucks, and plowing. We have located screened dumpsters for ease of access.

SETBACKS

We have repositioned the building eliminating front yard encroachments. Further with the cooperation of The Portland Water District we have eliminated the rear yard encroachment by the Church. The side yard and rear yard setbacks closest to the residential abutters have been respected with the

exception of a reduction at the tail end of Webb Street and a small area at the Rail Road Tracks.

CENTRAL SITE DEVELOPMENT

Mr. Holmes is convinced that the Rand Road interchange with the Maine Turnpike forming Exit 8A will become a reality in the next 5-10 years due to increased activity at Exit 8. Currently at 4 p.m. traffic is backed up to Home Depot. A zone change to a restricted I-L contract zone will create new jobs, add to the tax base and act as a buffer for the existing residential neighborhood.

The careful placement of staggered white pines in front of the 6' cedar stockade fence and the existing apple, maple, and willow trees will soften the impact of this project on the residential neighbors. Further the project will buffer the residential neighbors from semi truck brake and pounding noises when crossing the RR tracks.

A development of this nature will maintain existing property values from the abutters while buffering them from the industrial park. The revised layout faces onto Rand Road with no Webb street access now or in the future. All in all this project is the best possible solution for this sensitive transitional site..

Sincerely,
PORT CITY ARCHITECTURE, PA



Andrew C. Hyland, R.A.
Principal

AH/js

encl. Site Plan J-1

CITY OF PORTLAND, MAINE
CITY COUNCIL AGENDA REQUEST FORM

TO: Nadeen Daniels, City Clerk/Assistant City Manager
Elizabeth Boynton, Associate Corporation Counsel

FROM: Joseph E. Gray, Jr., Director of Planning and Urban Development

DATE: May 30, 1997

SUBJECT: City Council Agenda Request

- 1) Council Meeting at which action is requested: June 16th (first reading); July 7th (final action)
- 2) Can action be taken at a later date? X YES NO

I. SUMMARY OF ISSUE

The Planning Board is forwarding a recommendation to the City Council to approve a contract zone for Maine Medical Center to accommodate a 50,000 sq. ft. office building and 430 space parking garage in the vicinity of 883-903 Congress Street.

II. REASON FOR SUBMISSION (What issue/problem will this address?)

The Maine Medical Center development proposal does not meet all of the R-6 zoning requirements for the project site.

III. INTENDED RESULT (How does it resolve the issue/problem?)

The intended result of this process is to enact a contract zone recommended by the Planning Board which will address the zoning issues of the Maine Medical Center proposal.

IV. FINANCIAL IMPACT

Condition #12 of the contract addresses property tax concerns by requiring a payment in lieu of taxes if portions of the building become tax exempt.

V. STAFF ANALYSIS & RECOMMENDATION

See attached Planning Board report.

MMCCONGRESSREZ.CONPB.FIN
06.11.97

**AGREEMENT BETWEEN
CITY OF PORTLAND
AND
MAINE MEDICAL CENTER**

AGREEMENT made this day of , 1997 by and between the **CITY OF PORTLAND**, a body corporate and politic, located in Cumberland County and State of Maine (hereinafter the "**CITY**") and **MAINE MEDICAL CENTER**, a Maine Corporation (hereinafter "**MAINE MEDICAL**").

W I T N E S S E T H:

WHEREAS, **MAINE MEDICAL** did request a rezoning of property located at 883-903 Congress Street, in Portland, in order to permit the establishment and operation of professional office space, clinics and parking; and

WHEREAS, the Planning Board of the City of Portland, pursuant to 30-A M.R.S.A. §4352(8), and after notice and hearing and due deliberation thereon, recommended the rezoning of the property as aforesaid, subject, however, to certain conditions; and

WHEREAS, the **CITY** by and through its City Council has determined that said rezoning would be pursuant to and consistent with the **CITY'S** comprehensive land use plan and consistent with the existing and permitted uses within the original zone; and

WHEREAS, the **CITY** has determined that because of the unusual nature of the proposed development it is necessary or appropriate

to impose by agreement the following conditions or restrictions in order to insure that the rezoning is consistent with the **CITY's** comprehensive land use plan; and

WHEREAS, the **CITY** authorized the execution of this Agreement on , 1997;

NOW, THEREFORE, in consideration of the mutual promises made by each party to the other, the parties covenant and agree as follows:

1. The **CITY** shall amend the Zoning Map of the City of Portland, dated March 1958, as amended and on file in the Department of Planning and Urban Development, and incorporated by reference into the Zoning Ordinance by §14-49 of the Portland City Code, by adopting the map change amendment shown on Attachment 1.
2. The property shall be developed substantially in accordance with the conceptual site plan and elevations shown on Attachment 2; provided, however, that such plan and elevations shall be subject to full site plan review by the Planning Board and approval of this Agreement shall not imply any approval of any element that must be reviewed pursuant to §14-526 of the Portland City Code.
3. **MAINE MEDICAL** shall be authorized to establish and maintain general, business and professional offices, as defined in section 14-47 of the Portland City Code, for use by **MAINE MEDICAL** and related medical professionals, clinics, as defined in the same section of the Code, and parking on the site.
4. Setbacks shall be as delineated on Attachment 2, but shall in no event exceed ten (10) feet for the front yard and shall not be less than seven (7) feet for the rear yard. The westerly side yard shall be at least ten (10) feet, except the ventilation shaft and the exterior stair tower. The easterly side yard shall be at least fifteen (15) feet, except the ventilation shaft and the exterior stair tower.
5. The maximum height of any structure on the site shall not exceed seventy-two (72) feet.

6. The lease for the proposed skywalk shall be approved by the Portland City Council and the Maine Department of Transportation.
7. **MAINE MEDICAL** shall replace all curb and sidewalks abutting the site on Congress Street, Forest Street, and Boynton Street, as required by the Public Works Department.
8. Signage on the site shall comply with the requirements of the B-2 zone, as set forth in Division 22 of Chapter 14 of the Portland City Code.
9. Development on the site shall comply with the requirements of sections 14-186 and 14-187 of the Portland City Code.
10. **MAINE MEDICAL** shall submit a parking management plan for all of its parking facilities for review and approval by the Planning Board as part of the site plan review of this project.
11. **MAINE MEDICAL** shall provide a landscaped/open space area between the parking garage and Boynton Street. This area shall be reviewed as part of the site plan approval process.
12. In the event that any portion of the premises becomes subject to taxation under the decision in City of Lewiston v. Marcotte Congregate Housing, Inc., 673 A.2d 209 (Me. 1996), or any successor legislation, then **MAINE MEDICAL** or any successors in interest shall be liable for a payment in lieu of taxes if such portion later becomes exempt from taxation. The payment in lieu of taxes shall be in the amount of the taxes that would be assessed in the absence of such exemption.

The above stated restrictions, provisions and conditions are an essential part of the rezoning, shall run with the subject premises, shall bind **MAINE MEDICAL**, its successors and assigns, as permitted by this Agreement, of said property or any part thereof or interest therein, and any party in possession or occupancy of said property or any part thereof, and shall inure to the benefit

of and be enforceable by the CITY, by and through its duly authorized representatives.

If any of the restrictions, provisions, conditions, or portions thereof set forth herein is for any reason held invalid or unconstitutional by any Court of competent jurisdiction, such portion shall be deemed as a separate, distinct and independent provision and such determination shall not affect the validity of the remaining portions hereof.

Except as expressly modified herein, the use and occupancy of the subject premises shall be governed by and comply with the provisions of the Land Use Code of the City of Portland and any applicable amendments thereto or replacement thereof.

In the event that MAINE MEDICAL or any successor fail to continue to utilize the property in accordance with this Agreement, or in the event of a breach of any condition(s) set forth in this Agreement, the Planning Board shall have the authority, after hearing, to resolve the issue resulting in the breach or the failure to operate. The resolution may include a recommendation to the City Council that the site be rezoned to R-6 or any successor zone and that this Agreement be terminated, requiring a cessation of the general, business and professional offices, clinics and parking uses permitted under this terms of this Agreement.

WITNESS:

CITY OF PORTLAND

By _____
Robert B. Ganley
Its City Manager

WITNESS:

MAINE MEDICAL CENTER

By: _____

Its:

STATE OF MAINE
CUMBERLAND, ss.

, 1997

Personally appeared the above-named Robert B. Ganley, in his capacity as City Manager, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of the City of Portland.

Before me,

Notary Public/Attorney at Law

STATE OF MAINE
CUMBERLAND, ss.

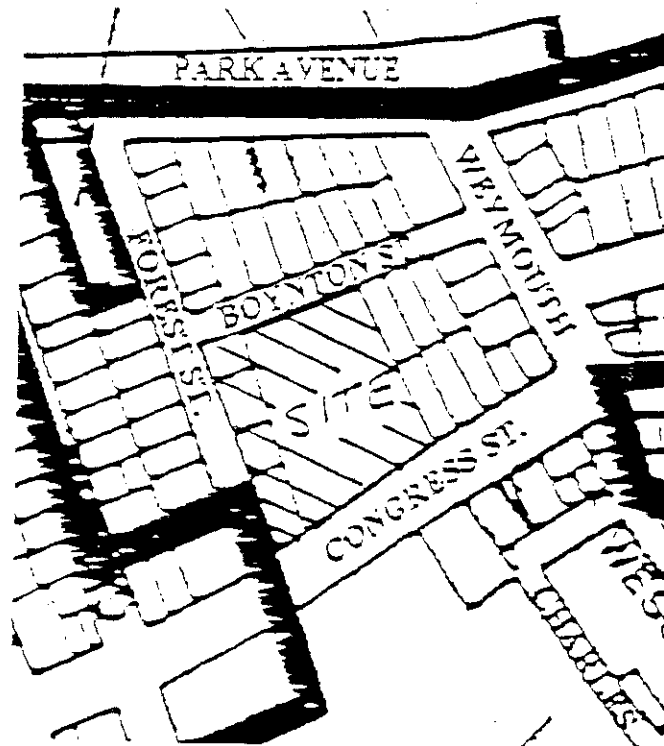
, 1997

Personally appeared the above-named _____, in his/her capacity as _____ of Maine Medical Center and acknowledged the foregoing instrument to be his/her free act and deed and the free act and deed of Maine Medical Center.

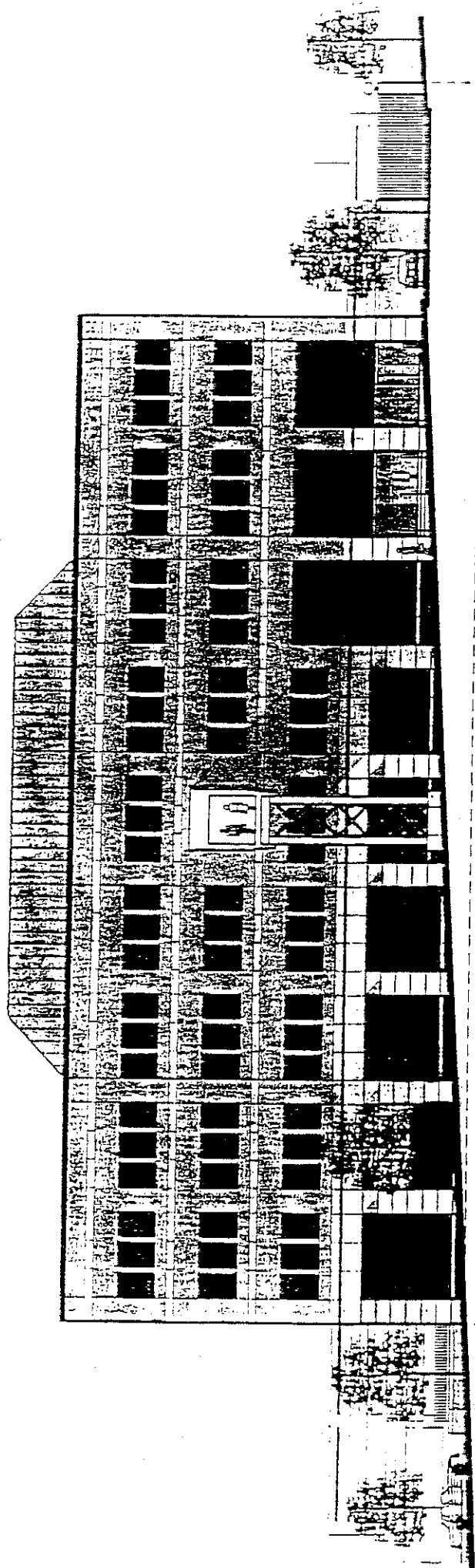
Before me,

Notary Public/Attorney at Law

SITE OF PROPOSED CONTRACT ZONE



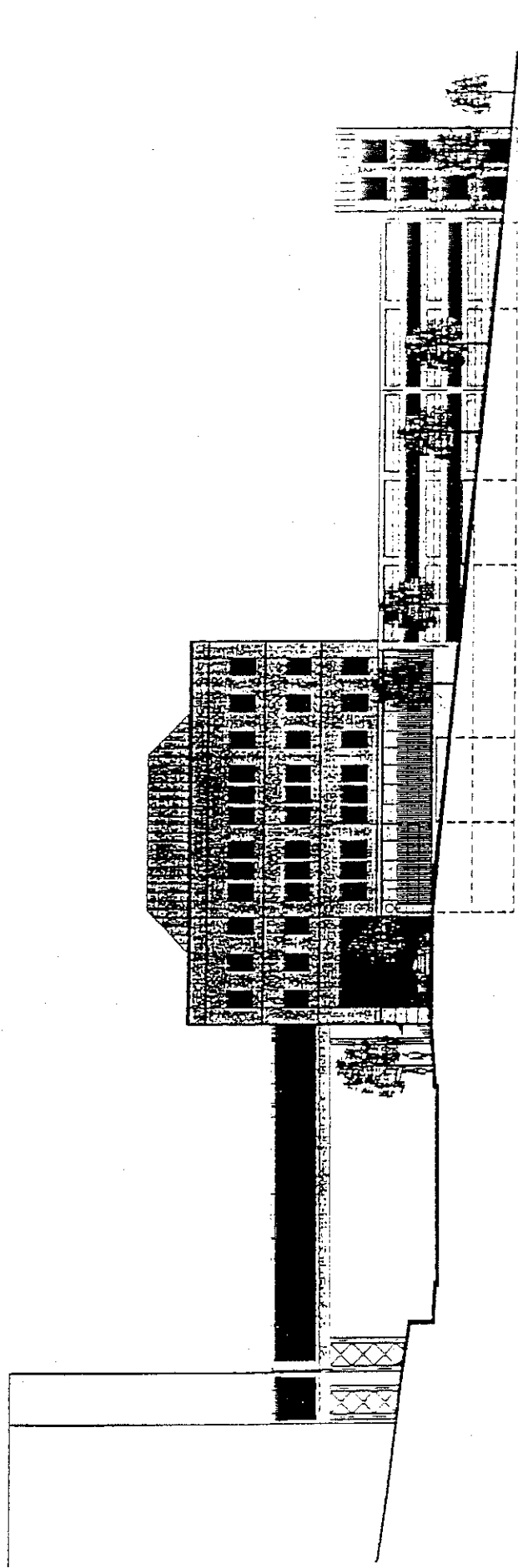




SOUTH ELEVATION

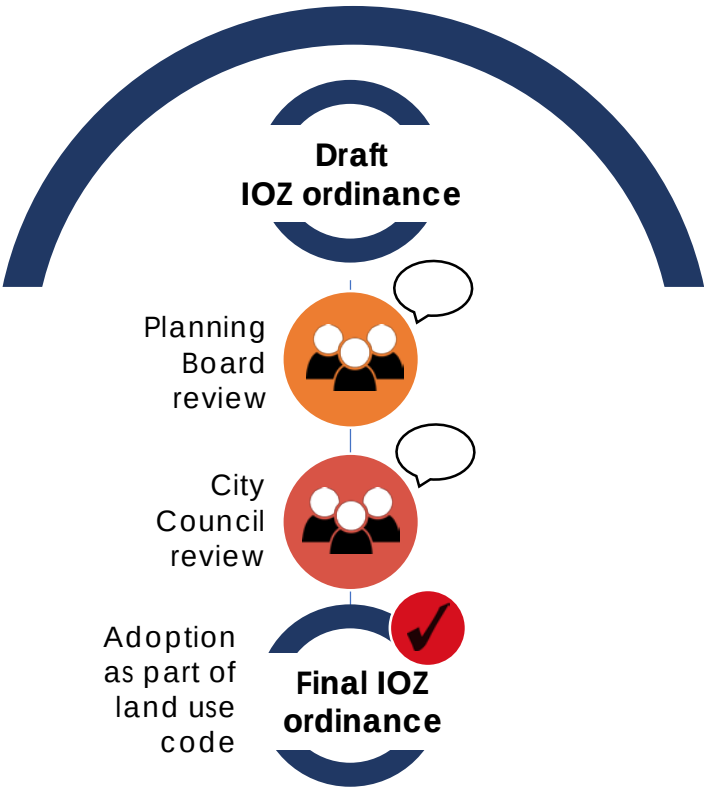
1/8" = 1' 0"



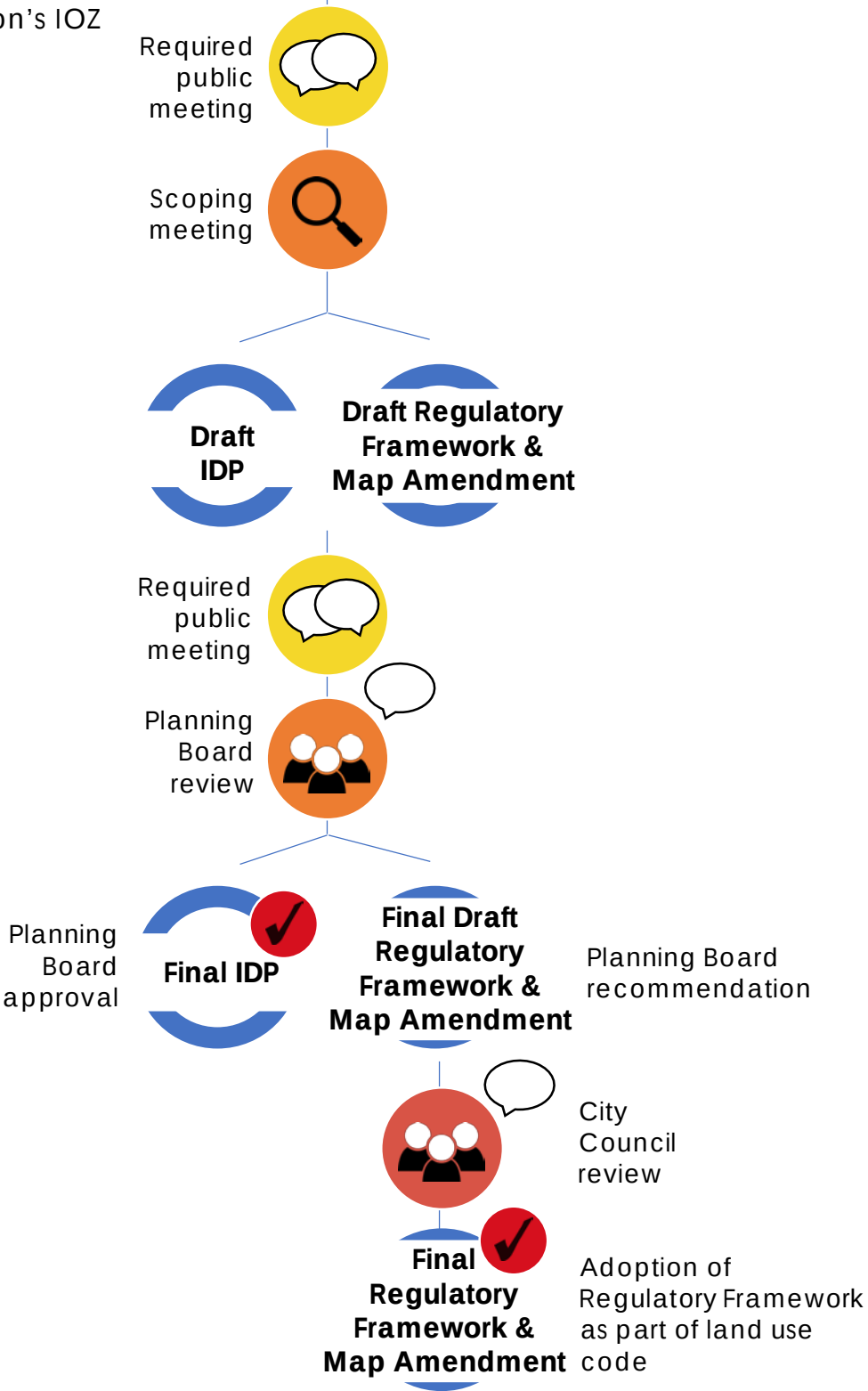


EAST ELEVATION

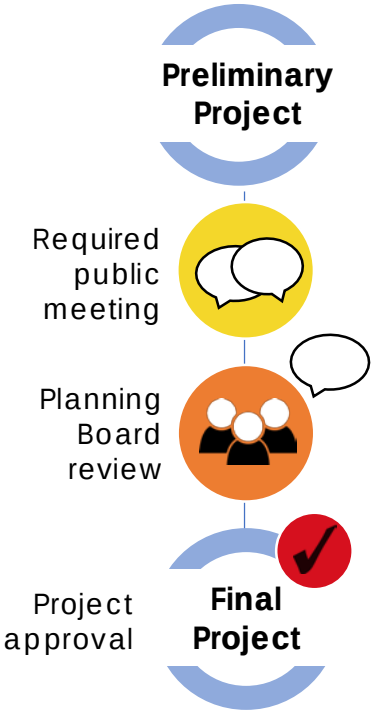
Institutional
Overlay Zone
(IOZ) Enabling
Legislation
Review



Eligible Institution's IOZ
Review



Site Plan Review



 Denotes opportunity for public involvement

Order 221-16/17

Amended to delete, in Section 14-281(g), "Amendments brought forth by the city will require a supermajority of the City Council to take effect.": 9-0 on 5/1/2017

Passage as amended: 9-0 on 5/1/2017

Effective 5/31/2017

ETHAN K. STRIMLING (MAYOR)
BELINDA S. RAY (1)
SPENCER R. THIBODEAU (2)
BRIAN E. BATSON (3)
JUSTIN COSTA (4)

**CITY OF PORTLAND
IN THE CITY COUNCIL**

DAVID H. BRENERMAN (5)
JILL C. DUSON (A/L)
PIOUS ALI (A/L)
NICHOLAS M. MAVODONES, JR (A/L)

**AMENDMENT TO PORTLAND CITY CODE
CHAPTER 14
Re: INSTITUTIONAL OVERLAY ZONE**

BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF PORTLAND, MAINE IN CITY COUNCIL ASSEMBLED AS FOLLOWS:

That Chapter 14, Sections 14-277 to 14-282 of the Portland City Code are hereby amended as follows:

Art. I. In General, § 14-1--14-15
Art. II. Planning Board, § 14-16--14-45
Art. III. Zoning, § 14-46--14-490

...

Div. 16. Waynflete School Overlay Zone, § 14-276--14-276.10

Div. 16.1. Institutional Overlay Zone (IOZ), § 14-277--14-293

Div. 17. B-7 Mixed Development District Zone, § 14-294--14-304

...

DIVISION 16.1. INSTITUTIONAL OVERLAY ZONE (IOZ)

14-277.—~~Reserved.~~ Purpose of the Institutional Overlay Zone

The Institutional Overlay Zone (IOZ) designation provides a regulatory mechanism available to the city's four major medical and higher education campuses where an improved regulatory structure is needed to facilitate a consistent, predictable, and clear growth management process. The purposes of the Institutional Overlay Zone are to:

(a) Acknowledge that the city's major academic and medical institutions play a prominent role in the health and well-being of

the local and regional community, and in order to sustain that role, these institutions need flexibility to change and grow;

(b) Encourage proactive planning for institutional change and growth which identifies and addresses likely long-term institutional needs and cumulative impacts while leveraging potential benefits at the neighborhood, city, and regional level;

(c) Ensure that institutional change and growth both complements and, as appropriate, integrates adjacent or surrounding neighborhoods through carefully planned transitions;

(d) Support the formation and continuation of mutually beneficial public-private cooperation;

(e) Support an ongoing public engagement process that benefits both the institutions and nearby neighborhoods;

(f) Reflect Comprehensive Plan and other policy objectives; and

(g) Provide a consistent regulatory approach to all major institutions which allows unique regulatory requirements that balance the particular needs of institutions with the needs of the surrounding neighborhood and wider community.

14-278.—Reserved. Location and Applicability

The city's four primary medical and higher education institutions are eligible to apply for designation as Institutional Overlay Zones. The Eligible Institutions are the two major hospital institutions of Maine Medical Center and Mercy Hospital and the two major academic institutions of University of Southern Maine and University of New England, their successors and assigns. Designation as an IOZ is the preferred mechanism where the Eligible Institution's proposed development is inconsistent with the existing zoning.

14-279.—Reserved. Establishment of an Institutional Overlay Zone

(a) Application for an Institutional Overlay Zone. Where the Eligible Institution seeks designation as an IOZ, they shall submit a zone change application consisting of two components:

1. An Institutional Development Plan (IDP) (see Section 14-280).
2. A Regulatory Framework (see Section 14-281) that would, when and if adopted, be the text and map amendment to the City's Land Use Code and Zoning Map.

(b) Required Public Involvement. At least two neighborhood meetings shall be required. The first shall be held prior to the formal submission of a zone change application for an Institutional

Overlay Zone and the second shall be held during the City's review. Meetings shall identify the concerns, if any, of affected residents and property owners, and inform the development of the Institutional Development Plan (IDP) and Regulatory Framework. Meetings shall be held in a convenient location proximate to the institution. The applicant shall provide written notification to property owners of record within 500 feet of the proposed IOZ boundary at least ten days prior to the meeting dates and maintain written records of the meetings.

(c) Required Scoping Meeting. The Eligible Institution shall meet with the Planning Authority after the first required neighborhood meeting and prior to submission of the zone change application to confirm the focus of the Institutional Development Plan (IDP) and Regulatory Framework, including associated study areas that may be outside of the proposed IOZ boundary. The IDP and Regulatory Framework will vary in detail and focus depending on the Eligible Institution and its particular context. The content requirements in Sections 14-280 and 14-281 and the comments from neighborhood meeting(s) shall provide direction for the content of the IDP. The Planning Authority or Planning Board may require additional information or modify content requirements as is relevant to the Eligible Institution (see Section 14-280(c)).

(d) Reviewing Authority.

1. The Planning Board shall review the zone change application, including the IDP and Regulatory Framework. At least one public workshop and a public hearing before the Planning Board are required.
2. Upon recommendation of the Planning Board, the City Council shall review and consider adoption of the Institutional Overlay Zone and the accompanying Regulatory Framework as an amendment to the city's code of ordinances.

(e) Future Institutional Development.

1. All new development by the Eligible Institution within the boundary of the IOZ shall be compliant with the IOZ and accompanying Regulatory Framework, consistent with the IDP, consistent with the Comprehensive Plan, and meet applicable site plan standards, unless such standards are superseded by the Regulatory Framework.
2. Any use/development proposed by the Eligible Institution outside the IOZ boundary that complies with the zoning for permitted uses in that location shall be reviewed under the standards of that zone. Any use/development proposed by an Eligible Institution outside of the IOZ boundary that is

proposed in a residential zone and is functionally related to the operations within the IOZ shall be addressed by the IDP and require an amendment to the IDP.

14-280.—Reserved. Institutional Development Plan (IDP)

(a) Purpose. Any use conducted by an Eligible Institution and any construction by an Eligible Institution in an Institutional Overlay Zone shall be consistent with an Institutional Development Plan (IDP) approved by the Planning Board in accordance with this ordinance. The purpose of the IDP is to establish baseline data about institutional land uses, facilities, and services and measure, analyze, and address the anticipated or potential impacts of planned institutional growth and change. The IDP shall serve as a background document that supports the proposed Regulatory Framework and frames subsequent site plan review(s).

(b) Planning Horizon. An IDP shall provide the city and abutting neighborhoods with a clear outline of the anticipated or potential growth and change of the Eligible Institution for the short- to medium-term (e.g. 1-5 and 5-10 years respectively), as well as a conceptual growth plan for the long-term (e.g. 10 years or more); however, the specific planning horizons for each institution will be determined as part of the IDP approval process.

(c) Content. The IDP submission shall address the following elements unless specifically modified by the Planning Authority or Planning Board, with the scope and level of detail to be clarified at the required Scoping Meeting:

1. Context Information

a. The institution's adopted mission, vision, or purpose statement

b. A summary of relevant baseline data on the institution, including:

i. A neighborhood context plan;

ii. An inventory of current programs and services;

iii. A current census of the number of people using the institution (e.g., employees, enrollment, patients), with an indication of maximums and minimums over time;

iv. An inventory and/or plan of all existing property holdings within the main campus

and within the City of Portland, including an indication of functional land use links between off-campus properties and the main campus (e.g. remote parking);

v. An inventory and/or plan of existing facilities, including data on use, floor area, and any existing functional connections between facilities.

c. A summary of the baseline characteristics of the existing campus and context of the institution, based on identified study areas, including:

i. A summary of existing resources, such as historic, open space, and natural resources;

ii. A summary of the existing transportation system, including vehicular, pedestrian, transit, bicycle, and parking supply, demand, and utilization;

iii. A summary of existing public infrastructure supporting the institution, including demand, utilization and any capacity issues;

iv. Relevant municipal plans, projects, and studies that may influence the IDP study area and opportunities for integrating institutional growth.

d. A summary of public involvement in the development of the IDP, including major areas of public concern.

2. Assessment of Future Institutional Growth and Change

a. A description of institutional needs and areas of future institutional growth and change, including:

i. Projected census of users (e.g., enrollment /employment/patient/visitor figures and anticipated variations over time);

ii. Institutional objectives for property both within and outside the IOZ boundary (e.g. acquisition and/or disposition), including an indication of any functional land use connection for sites outside the IOZ boundary to the main campus; and

iii. A Development Plan addressing anticipated or potential institutional needs and

physical improvements, including the proposed boundary of the IOZ and any phasing of the development.

b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the Regulatory Framework:

i. Transportation and access

a. An analysis of the projected changes in parking demand, supply, and impacts to the off-street and on-street parking capacity, including an explanation of the proposed parking plan;

b. An analysis of the projected changes in vehicular, pedestrian, transit, and bicycle access routes and facilities, their capacity, and safety;

c. A transportation, access, and circulation plan, representing the synthesis of the analysis, and including a program of potential improvements or set of guidelines to address access deficiencies to and within the IOZ. The plan should outline proposed mechanisms and potential strategies to meet transportation objectives, including transportation demand management, phasing, and when a Traffic Movement Permit (TMP) may be required.

ii. Environment

a. An analysis of potential cumulative impacts on natural resources and open spaces;

b. An analysis of projected energy consumption, hazardous materials generation, noise generation, and similar issues as relevant;

c. An environmental plan, representing the synthesis of the analysis and including a proposed program or set of guidelines for future preservation,

enhancement, conservation, and/or mitigation.

iii. Infrastructure

- a. An analysis of projected public utility demand and the capacity of associated infrastructure;
- b. An analysis of projected public safety needs and projected impacts to the capacity of these services;
- c. An infrastructure plan, representing the synthesis of the analysis and including a proposed program or set of guidelines to support sustainable growth.

iv. Design

- a. An analysis of projected impacts to neighboring properties and public spaces, including potential shadow, wind, and lighting impacts, impacts of height and massing, and impacts to historic resources;
- b. An analysis of transition areas between the institution and adjoining neighborhoods, including identification of key character defining components of the surrounding context;
- c. An analysis of existing Crime Prevention Through Environmental Design issues and identification of how these principles would be addressed as part of the proposed campus development;
- d. A conceptual built environment/public realm plan, representing the synthesis of the analysis and including a set of guidelines for urban design, landscape, open space, and streetscape treatments, with particular attention to the treatment of edges (both within and abutting the IOZ boundary) to achieve compatible transitions.

v. Neighborhood Engagement

- a. A plan for ongoing community engagement that represents best

practices, promotes collaborative problem solving around community concerns, fosters transparency, and identifies mechanisms for neighborhood feedback and institutional accountability;

b. A property management framework that identifies the institution's process for handling operational property issues with neighbors;

c. Strategies for assuring communication pertaining to property acquisition and disposition in surrounding neighborhoods;

d. A set of construction management principles, to apply to all institutional construction, that represent best practice, aim to minimize short- and long-term construction impacts on surrounding residents and businesses, and ensure a clear communication strategy is in place in advance of construction.

(d) Standards of Review. The IDP shall:

1. Address all content requirements, unless explicitly modified by the Planning Authority or Planning Board;

2. Reflect the issues/topics identified in the required public process;

3. Demonstrate consistency with the city's Comprehensive Plan and the purpose of this ordinance;

4. Demonstrate how the property ownership, proposed growth, and requested Regulatory Framework relate to the institution's mission;

5. Demonstrate that traffic and parking impacts have been anticipated and that the proposed parking provision is justified as based on an assessment of options for reducing traffic and parking demands;

6. Outline an approach to open space, natural, and historic resources that supports preservation and enhancement.

7. Demonstrate that potential cumulative environmental impacts have been anticipated and can be minimized or satisfactorily mitigated;

8. Demonstrate that utility impacts have been anticipated and can be minimized or satisfactorily mitigated;
9. Reflect a comprehensive design approach that ensures appropriate transitions with the existing or future scale and character of the neighboring urban fabric;
10. Promote compatibility with existing or future uses in adjacent neighborhoods, maintain housing, and support local amenities;
11. Anticipate future off-site improvements that would support the integration of the institution into the community and city-wide infrastructure;
12. Conform with Portland's Historic Preservation 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 IDP shall be generally compatible with the major character-defining elements of the landmark or portion of the district in the immediate vicinity; and
13. Incorporate strategies to support clear communication and ongoing public engagement between institutions and nearby neighbors.

(e) Approval. Upon finding that an Eligible Institution's IDP meets the standards of review, the Planning Board shall approve, approve with conditions, or deny an IDP.

(f) Monitoring. The IDP shall establish a schedule for reporting on IDP implementation at regular intervals of not more than ten years from the date of approval of the initial or amended IDP, and identify thresholds for IDP amendments;

(g) Amendments. An approved IDP shall guide campus development unless and until amended. If at any time the Eligible Institutions request minor amendments to an approved IDP, the Planning Authority may approve such minor amendments, provided that they do not constitute a substantial alteration of the IDP and do not affect any condition or requirement of the Planning Board. The applicant shall apply with a written statement of the proposed amendment and proposed amended IDP to the Planning Authority, whose decision as to whether the amendment is minor shall be final. Major amendments shall be reviewed by the Planning Board. When the IDP is amended, the baseline data in the IDP shall be updated as appropriate.

14-281. Regulatory Framework

(a) Purpose. The Regulatory Framework translates the IDP into a set of clear and specific zoning requirements for the IOZ that constitute the text and map amendments to the City's Land Use Code and Zoning Map. The zoning requirements are anticipated to include parameters that guide the growth and change of the institution as well as broad strategies to address potential impacts, with plans and details to be developed under site plan review.

(b) Applicability. The Regulatory Framework shall apply only to properties that are within the IOZ boundary and to which the Eligible Institution holds right, title, or interest. For these properties, the Institutional Overlay Zone shall supersede the underlying zoning, and all new institutional development shall be conducted in compliance with the Regulatory Framework and the approved Institutional Development Plan. Properties located within the Institutional Overlay Zone not subject to right, title, or interest of the Eligible Institution shall continue to be governed by the regulations of the underlying zoning designation.

(c) Uses. Institutional uses, including hospitals and higher education facilities, shall be permitted, as shall uses that are functionally integrated with, ancillary to, and/or substantively related to supporting the primary institutional use, consistent with the applicable approved IDP.

(d) Content. The Regulatory Framework shall reflect the information and analysis of the IDP. The content shall be tailored to address the particular issues associated with the institution and its neighborhoods. The Regulatory Framework should be succinct and use tables and graphics as possible to address the following, if applicable:

1. Zoning boundary of the IOZ: The area to which the regulations apply, as shown on the zoning map, subject to other provisions of this ordinance (i.e. the map amendment to the City's Zoning Map);
2. Phasing and schedules: Requirements that relate to particular proposed phases; a chart showing the schedule or thresholds for submitting an amended IDP (or elements of an IDP, such as a Transportation Demand Management (TDM) Plan);
3. Uses: Clarification, as necessary, on permitted uses.
4. Dimensional Requirements: Graphics, sketches, or standards, including details for transition zones within the IOZ boundary;
5. Transportation: Elements such as TDM trip reduction targets or contribution to area-wide TDM measures; broad parameters for ensuring pedestrian, vehicular, bicycle and transit access and safety; parking ratios

and management strategies; thresholds for access improvements;

6. Environment: The approach to the inclusion of open space and preservation of environmentally-sensitive areas;

7. Mitigation measures: The broad approach to identified mitigation measures, which would be addressed in greater detail in the site plan review process; thresholds for addressing deficiencies; goals for preservation/protection;

8. Design: Graphics and standards to clarify building placement and envelope (height and massing); guidelines for integration of site features; required treatments for transition zones and treatment for all edges (both within and abutting the IOZ boundary); guidelines for establishing campus identity; and

9. Neighborhood Integration: Thresholds and strategies for neighborhood engagement; mitigation of impacts on neighboring properties, including construction impacts; buffering requirements; objectives for pedestrian linkages and safety; other requirements that address community concerns.

10. Monitoring: A schedule for regular monitoring reports on IDP implementation in accordance with the IDP.

(e) Standards of Review: The Regulatory Framework shall:

1. Be consistent with the Comprehensive Plan and the Institutional Development Plan;

2. Provide a clear zoning framework, using graphics and tables as appropriate, to apply to future site plan reviews;

3. Provide specific regulatory statements as appropriate that respond to concerns raised during the required public involvement; and

4. Outline measurable goals and thresholds for improvements or other actions identified in the IDP to be advanced in subsequent site plan applications.

(f) Approval/Adoption. The Planning Board shall review the proposed Regulatory Framework against the standards of review and make a recommendation on the institution's IOZ designation and Regulatory Framework to the City Council for adoption as part of this zoning ordinance.

(g) Amendments. A Regulatory Framework and IOZ boundary as adopted by the City Council shall remain in force unless and until amended. Amendments to a Regulatory Framework and/or IOZ boundary may be brought forth by the city or Eligible Institution. Proposed

amendments to the IOZ boundary or Regulatory Framework shall be reviewed by the Planning Board and adopted by the City Council subject to the provisions of this ordinance.

14-282. Reserved.

* Editor's note. Order No. ____-16/17, adopted May __, 2017, provided that the Regulatory Frameworks, as they are adopted by the City Council for each Eligible Institution, shall be codified within this section.

Below please find the combined comments of City Staff relating to the draft IDP:

1. Existing Conditions

- Tables 2.3 and 3.3: Daily Census: Does this include volunteers serving in the hospital?
- Figure 2.3 Map of MMC Owned parcels: Note that South parking lot, and maybe one other parking lot on Brackett Street, are not shown.
- Figure 3.4: Please revise to show correct location for the Gilman Street Garage.
- Public engagement in IDP: Please expand list of concerns to include that addressed later in IDP, such as heights and construction impacts.

2. Comprehensive Plan Analysis: Please update to reflect the latest version of the Comprehensive Plan.

3. Transportation

• **Alternative Modes and TDM:**

- o *Existing Conditions Analysis:* Please expand existing conditions analysis to more fully describe the range of existing access options, particularly re pedestrians, cycling and public transit, for example:
 - The IDP should include a broader description of walking and conditions for walking (e.g. this might be the place to reference the need for ADA improvements and sidewalk materials);
 - Figure 2.6: Could this be widened to address non-car access by adding bus stops;
 - Are the quoted transit costs weekly?
 - Figure 2.8: Include actual data from “Getting on Board” re mode split (even if data collection is not perfect, survey data seems to be under-representing bike share)
- o *Future TDM Strategies:*
 - Please provide the TRIMMS Model spreadsheets regarding trip reduction estimates;
 - The IDP will need to reevaluate the TDM target based on existing mode split, model, and comps, confirm the target date, and clarify how progress will be monitored to feed into future parking need/adjustments to parking provision;
 - Table 2.9: This graphic could be clarified to provide a better understanding the headings/legend etc.
 - See *Attachment 1* (comments re MMC TDM Concepts).

• **Parking:**

- o *Alternative locations for new parking garage(s):* Please flesh out discussion of Gilman garage/St. John garage options, including what will happen on the Gilman Street site if the garage on St Johns is constructed.
- o *Parking Data Requests:*
 - The IDP would benefit from additional data on existing parking utilization. We understand that a windshield survey was performed, but formal parking occupancy counts were not performed. We suggest that parking occupancy surveys be performed.
 - Please explain how existing and future parking need was derived (i.e. provide the back-up calculations on the current and future projected parking demand estimates (including findings from TRIMMS)?
 - If showing comparables, add some regional examples which seem more 'comparable.' Can comps be shown with different metric (e.g. spaces /employee)?
- **Traffic Generation:** See *Attachment 2* (comments re Traffic (counts and associated data))(Assume Traffic Study Analysis and proposals to be added and reviewed in next submission.)

4. Infrastructure

- **Stormwater and Sewer Capacity:** Please expand and clarify analysis to reflect the fact that there are existing capacity concerns in the combined sewer system, and that any increase in the sewer flow will impact the ability to handle stormwater flows. Given this issue, the IDP should include strategies to achieve a substantial reduction in the anticipated volume of discharge into this system, including:
 - o Routing of stormwater to the separated system, where possible;
 - o Incorporation of storage infrastructure (e.g. Gilman Garage likely to be required to incorporate a subsurface chamber system with a pump system to discharge into A Street storm drain system);

- o Green infrastructure (e.g. green roofing; removal of impervious area, and subsurface chamber system), particularly where the discharge is to a combined system;
- o Reduction in sanitary flows to provide capacity for increases in stormwater flows (e.g. sanitary demands and pollutant loads could be reduced by composting food waste instead of using the current grinder system, installing grease interceptors (large volume or many small) as part of overall upgrades to the system).
- o Note that changing the location of the discharge points would not provide any benefit to the combined system; may have to relocate or install another Downstream Defender or possibly connect to the separated system.
- **Detailed Data Requests:**
 - o Figure 2.15: Can the figure show the general delineation where the 6.3 acres of the campus has been separated and drains to A Street?
 - o Figure 2.15: Consider adding the 5 sampling locations in the Industrial Pre-treatment Permit (IPT) with the City of Portland. Is it possible to identify unknown sewer connections at this time? If not, can these be addressed through future planning efforts?
- **Other Utilities:** Address water supply and Unitol's SURE program (they plan significant work in the area for 2020-2022).
- **Operational Impacts:** Consider expanding to clarify the potential impacts or issues that may need to be addressed, including:
 - o IPT program and sampling locations may need additional sampling points;
 - o Other Impacts to City Infrastructure: Cross reference to other infrastructure covered elsewhere (e.g. roads, sidewalks);
 - o Traffic signal systems and pre-emption for emergency vehicles.
- **Street Lighting:** Expand to note that Congress from St. John to State is included in the Downtown Lighting District, and that MMC may need to install additional Downtown District special street lights when sites (e.g. Gilman Street block) within the IOZ are redeveloped. Mention potential collaboration regarding the City's LED Street Light conversion project.
- **Sustainable Operations:** Consider adding a section regarding proposals for capital investment in sustainable features or goals for energy reduction as part of the expansion program (e.g. reflecting various references to green roofs, possibly solar panels, and LEED accredited buildings).

Historic Resources

- **Western Promenade:** Please clarify how the campus will integrate with/enhance the Western Prom, which abuts the "Upper Campus" (e.g. proposals include building heights that imply new development over what are also identified as protected open spaces around an historic building; the original hospital is shown as "continued investment cautioned" on Figure 2.2 and this is a concern). The Western Promenade is a well-used amenity for the hospital, and the city's objective is to enhance this area including showcasing of existing distant views.
- **Vaughan Street Parking Lot:** Please include this lot in the long term plan (Figure 3.4) and indicate intentions for this site.
- **Detail/data requests:**
 - o Include analysis of how proposed buildings will impact views from the Western Promenade to the west and northwest, based on the proposed maximum building heights;
 - o Figure 2.2: Labelling buildings would be helpful;
 - o Note that the West End Historic District and Western Promenade Historic Landscape District are designated both nationally and locally.

Design

- See Urban Design comments in *Attachment 3*.
- **Neighborhood Transitions:** Clarify the location of "East Upper Campus"; and "Upper Campus" abuts the West End Historic District.
- **CPTED:** Please expand CPTED discussion to fully address local issues and public comments (e.g. loitering etc.) Note that lighting within the campus, and between the campus and any more remote parking facilities, is important.

- **Landscape:** Please add discussion of landscape framework (e.g. Figure 6.2: how will a series of landscape spaces play out in reality?)

Neighborhood Engagement

- **Ongoing engagement**
 - o Consider exploring additional mechanisms to promote healthy relationships with neighbors.
 - o Consider strategies for communication around acquisition and divestment).
 - o Please expand snow ban parking discussion to refer to how current situation under Contract Zone will be continued.
- **Construction engagement**
 - o Please include a commitment to meeting with businesses early to consider how to mitigate impacts.
 - o Define 'MFP Project,' as this is the first time this language is introduced.
 - o Consider ways to mitigate construction impacts and economic hardship for neighbors and businesses.

Regulatory Framework

- **Comments/questions re proposed provisions:**

IDP Regulatory Framework No.	Subject	Comments
1	Boundary	Since housing areas are now within the boundaries, IDP should address intent, also address divestment of existing (formerly) residential properties.
Table 2.1:	Thresholds for Plan amendments	What is the basis of the 800KSF threshold? Is this whichever is first? TDM updates and monitoring (proposed at 5 years for both) are too infrequent and discussion on p. 61 should explain.
3	Uses	Suggest further discussion on extent to which (for example) residential apartments would be limited to medical students only and how uses are linked to current zoning options (eg re guest houses).
Table 4.1	Dimensional Requirements	Is 40 feet on Congress Street too great a build-to line? What is the basis of the 70% of façade facing congress Street? Transition Zones (iii) should include height as well? Also see the <i>Preliminary Design Comments</i> attached.
Map 4.1	Building Heights map	Doublecheck McGeechy Hall height.
Maps 4.1 and 4.2	Building heights and Transition Zones	Look carefully at Gilman height/transition. Public comment pointed out that St John and Valley Street labelling is incorrect to north of Congress.
5 Ai:	Sidewalk material	Define 'alternative material substantially similar to that used along sidewalks abutting Bramhall Street entrance?'
5B	TDM Trip Reduction Target	Target of 65 (presumably SOV) trips in three years needs reconsideration; note PB urging rethink of car culture- MMC leadership re TDM. Strategic initiatives might be mentioned.
5D	Parking provision	Parking numbers should match the demonstrated need shown in the IDP. Perhaps express these as a ratio? Or provide a range?
6	Site Plan review items	As written this could imply that other "usual" site plan requirements would not be considered by the Planning Board during the review.
7A	Other Requirements	Helipad Requirements- these have not been mentioned in the main part of the IDP except re potential issue of noise. How do these regulations relate to the existing ones and are there any issues that have come out of the flight monitoring (required in Contract Zone) that need to be addressed when its relocated?
7	Other Requirements	Does this include all other Contract Zone commitments that might reasonably be brought forward?

- ***Other items suggested to be added/addressed, with specificity and or references back to IDP sections or plans:***
 - Landscape strategy
 - Commitment to activations of Congress St through ground floor mixed uses that serve community and MMC
 - Design standards
 - Clarification of how MMC has RTI re partnerships that construct parking or other facilities for their use
 - Intentions re Chadwick, West, Vaughan/Bramhall where IDP indicates they should be given “additional consideration”
 - Commitment re Construction Mitigation and Communication
 - Commitment to engagement with neighborhood residents and local businesses

The IDP should consider a phased approach to TDM that will allow Maine Med to build and modify the TDM program over time based on sound data and respond to evolving regional thinking on TDM. The goal of the first phase could be to prioritize a few short-term actions meant to build solid baseline data on the hospital population's current travel characteristics, immediately enhance travel options in and around the hospital, and reduce demand for single-occupancy vehicles.

The first phase could build on the prior work of the Get On Board program and include the following:

1. **The hiring of a full-time TDM coordinator** to oversee data collection and promote the TDM program (This appears in the IDP, but the plan does not specify a full-time position.)
2. A comprehensive, continuous effort **to collect and analyze data** on:
 - a. employee, patient, and visitor travel characteristics
 - b. parking demand and utilization, and
 - c. the potential for changes in travel behavior
3. **Improved parking management**, including modified employee pricing to better align with the actual cost of parking and the development of a cash-out option (which provides an incentive not to use parking)
4. **A program to encourage METRO ridership**, including:
 - a. support for service adjustments (e.g. to improve headways or extend hours of operation)
 - b. enhanced employee subsidies
 - c. the development of services that facilitate use (e.g. kiosks in the hospital displaying real time bus information, premium shelter at new hospital entrance, and marketing and promotion)
5. **Infrastructure improvements that support walking and bicycling**, such as:
 - a. the development of bikeways identified in the city's long-range plans
 - b. the integration of additional covered bicycle parking
 - c. and sidewalk, crosswalk, and streetscape improvements on key pedestrian routes

In addition to these, the hospital should review opportunities to enhance carpool/vanpool matching (see the existing IDP language), telecommuting options, satellite parking options, and the Guaranteed Ride Home system (how does this currently work?).

Lastly, the Regulatory Framework should include language that requires reporting within a specified period following implementation of this first phase of the TDM plan, with subsequent plan modification and review.

Comments Related to Traffic Information Provided by Randy Dunton on April 20, 2017

- Please document the duration of the AM and PM peak period counts that were used to determine the peak hours noted.
- The information on reassignment of employee trips only accounts for trips associated with those to be shifted from the employee parking garage. The assignment should be conducted for all parking sources for MMC. If consolidation of parking facilities is occurring (Gateway Garage and surface lots) those should also be included.
- The employee traffic levels at the garage are low considering employee figures. We recognize that shift times are a major factor and the turning movement volumes reflect adjacent street traffic peak volumes conditions, which is an acceptable method. With that said we would like to fully understand employee trip generation over the shift time periods, inclusive of all parking supply locations. We suspect this information has not been collected and would be labor intensive to collect. A method for providing this information should be suggested for review and approval by City staff. Please correlate/cross-check the data of traffic entering and exiting the employee garage with known employee shift data and drive mode share.
- Related to the comment regarding employee garage data for entering/exiting traffic from the employee garage, we'd like to get a better understanding of visitor entering/exiting traffic levels during the AM and PM peak hours. As with employees, visitor traffic levels during the AM and PM peak hours seems low and may reflect specific appointment time variation. Some discussion on how visitor traffic varies throughout the day is suggested. Please correlate this visitor garage traffic data with the other known data on fluctuations of visitor/patients to the hospital.
- Additional counts will be required to address seasonal traffic volume adjustments. As previously discussed, the locations to be re-counted will be identified by City staff following acceptance of an approved trip generation re-assignment exercise. Please provide information to indicate all intersections that meet the TMP-specific thresholds for traffic analysis to be included in the analysis.

Design Goals and Vision

- Design goals listed in draft IDP – Staff supports these goals; they are logical given the context and specific site conditions.
 - o A campus that belongs in Maine and engages the surrounding community
 - o Natural environment is an important source of inspiration for the campus design – the future campus will create a seamless transition between the bucolic character of Western Promenade and the urban condition
 - o The campus extends its reach down from the top of the hill to engage with the community along Congress Street
 - o Holistic design approach that gives coherence to the overall campus
 - o Site plan will give special attention to the neighborhood context
- Because of its topography, building scale, and geographic location, MMC site plays de facto gateway role on two scales – the approach to the city from 295 and the eastbound Congress Street approach. Staff would like to see a goal that acknowledges this gateway function for future design thinking.
- Planning Board commented on the desire to have design goals clearly expressed in the document and lead to resulting regulating framework. Specifically recommended was a goal around quality of design.

Site analysis

- Context Defined - Four contexts identified in draft IDP:
 - o Congress Street
 - o Valley Street
 - o East Upper Campus
 - o Upper Campus
- Analysis: Staff is in the process of evaluating the proposed dimensional regulations – most important is the relationship of potential new development in relationship to the West End neighborhood, Gilman Street, and Congress Street contexts.
- Impacts: Compare existing vs. proposed impacts (height, wind, shadow)
- Issues: Identify any current site or design issues (safety, lighting, grading, circulation/access, sidewalk conditions, etc.) that future plans might address and state them as design goals.

Regulating Framework

- More explicitly describe how the goals and site analysis lead to the design regulatory framework. Include more explanation – visual or written – on how the heights, setbacks, and transition zones were arrived at. Applicant will provide typical sections at Congress, Gilman, and West End South Lot to better explain these height and massing relationships to the context.
- In the instances where existing historic buildings will remain, confirm the heights shown or revert to existing zoning height maximums.

- Clarify the status of the private “Protected Open Spaces” shown in the document and consistently show them in the regulatory framework graphics. Are these spaces never to be built on or is there a different label to describe them?
- Design guidelines: Staff proposes the following strategy for design guidelines to the IOZ:
 - o Developments relating to the West End historic district will be subject to the existing Historic Preservation Board design review process
 - o Staff will work with the applicant to develop design guidelines for developments relating to residential context not protected by the historic district that ensure sensitive transitions. The height, transition areas, and setbacks will be the primary regulations for this context.
 - o Staff will work with the applicant to develop design guidelines for developments relating to Congress Street that meet the goals and intent of the Downtown Vision Plan and Urban Design Guidelines. Staff agrees with applicant that activation of Congress Street frontage is an important goal. There is concern from the Planning Board regarding the placement of several parking structures on Congress Street which should be the most active of the campus’ frontages.



Helen Donaldson <hcd@portlandmaine.gov>

Fwd: MMC Expansion notes for the Planning Board meeting Tuesday night

Jean Fraser <jf@portlandmaine.gov>

Tue, Dec 6, 2016 at 12:45 PM

To: "Donaldson, Helen" <hcd@portlandmaine.gov>

for inclusion in the PB Memo on IOZ

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

From: **Zack Barowitz** <zbarowitz@gmail.com>

Date: Mon, Dec 5, 2016 at 7:01 AM

Subject: MMC Expansion notes for the Planning Board meeting Tuesday night

To: jf@portlandmaine.gov

Cc: Tuck O'Brien <tuckobrien@me.com>, Damon Yakovleff <Damon.yakovleff@gmail.com>, Nikki Anderson

<n.annetteanderson@gmail.com>, Norman Maze <nmaze@shalomhouseinc.org>, Emma Holder

<pna@parksideneighborhood.org>, Anne Pringle <oldmayor@maine.rr.com>, Ian Jacob <iancasperjacob@gmail.com>

Jean,

Please review the following points for the Planning Board to consider in conjunction with the proposal to expand Maine Medical Center:

1. Implementation of the Libbytown traffic study, particularly the **restoration of two-way traffic on Congress Street between 295 and St. John Street**. Currently, the one-way streets are serving to divert through traffic *into* downtown. The current traffic alignment simply would not work. What's more, ambulances get stuck waiting for trains (this is a common enough occurrence that I was able to snap a picture--see attached). Thus, MMC needs to get on board with the traffic study recommendations for the expansion plan to work.

2. I wrote a column for the *Phoenix* outlining how the current agglomeration of **Maine Medical is blighting the surrounding streets and neighborhoods**. Were expansion to continue in the same manner the blight would undoubtedly spread and any economic development would have to be counter-balanced by decrease in value of abutting areas (e.g; tax revenue). You can find the article below or link to it [here](#). My suggestions:

- Improve the streetscape for pedestrians and develop vibrant commercial spaces (24-hour cafe, pharmacy, restaurant, beauty salon) on Congress Street around the new entrance.
- Set backs to create a human-scale feel
- Buildings overhanging sidewalks (like in the wild west, to provide protection from weather)
- Heated sidewalks (currently they salt the heck out of the area with is costly and environmentally destructive)

3. Convert the surface parking lot on Brackett/Vaughn be turned into **housing**.

I have copied members of adjacent neighborhood association on this message.

Thanks,
Zack

Sick Building: The Maine Medical Center's \$512,000,000 Expansion

Maine Medical Center dug through its couch cushions and came up with \$512 million to spend on an expansion of its Portland campus. Although the plan doesn't add any new beds, it does call for 128 new rooms — which the hospital must have in order to meet new demands of patient care and stay competitive in a growing industry.

In addition to being a renowned hospital, Maine Medical Center is one of the largest employers in the state. So when it says it wants to build, it's fairly easy for officials to respond "how high?"

MMC's proposed expansion will create hundreds of jobs in the health care, construction and IT sectors. But those jobs come at a cost, and those that pay are unlikely to reap many benefits; a large hospital's effect on a neighborhood can be akin to having a cement block dropped on a flower pot.

So why is this?

Hospitals are notoriously among the most difficult types of buildings to design. The sheer volume of people, technology and movement, coupled with the turnover of all of the above, make their containment nearly impossible. Throw in the challenge of creating a building that is both sterile and uplifting, and it's enough to drive the most talented designer to review RFPs for wastewatertreatment plants.

Given the difficulties and contingencies of designing a hospital, it's little wonder that their exteriors often appear an afterthought. Situated high upon the Western Promenade, Maine Med's current configuration is an undistinguished agglomeration of stark Modernist edifices and brutalist parking structures crowded around a (somewhat gloomy) original 1874 structure. Fortress-like

facades have rendered blight beyond the castle walls to the boundary streets below. Gilman, Congress, Crescent, Wescott, Bramhall and Forest streets are all fairly run-down and have been for decades despite their proximity to some of the most valuable real estate in Maine.

Portland-area residents have every reason to be concerned with the planned Maine Med expansion; the shadows will loom longer, the winds will whip colder, parking garages will become larger, and the traffic will grow denser — adding to the spread of decay.

Ironically, the westward roll of commercial and residential development along Congress Street from Longfellow Square to Thompson's Point is hot, with hundreds of proposed housing units, restaurants and (of course) breweries. The break in the path is smack in the area designated for the bulk of the expansion. The quarter-mile stretch of Congress Street from Salvage BBQ to Bramhall Square has just two commercial spaces (La Bodega Latina and Portland Glass), not including the permanently "unfinished" storefronts in the MMC parking garage. The blight is attributable to a monotonous pedestrian experience: a steep hill, fast traffic and bleak streetscape of retaining walls and parking garages. It should come as little consolation that a recent beautification effort included hanging banners declaring competency in "Urology," "Gynecology" and "Cancer."

Were this projected expansion slated for an isolated green expanse (such as the MMC Scarborough campus), the peripheral pedestrian experience would be of little consequence. But in a dense urban environment, great care must be taken to scale and form but also to use.

Far from being a monument that sucks in automobiles, the hospital necessarily should learn how to interact with the street, starting with an improved pedestrian experience that heals the neighborhoods on its borders. Street-level commercial development — visitors' cafe, gift shop, pharmacy, restaurant and even a bookstore — will not only better serve hospital customers but make for a healthy bottom line, both for the institution and the city as a whole.

--

[207-838-6120](tel:207-838-6120)

[917-696-5649](tel:917-696-5649)

ZacharyBarowitz.com

ATTENTION:

The information in this electronic mail message is private and confidential, and only intended for the addressee. Should you receive this message by

mistake, you are hereby notified that any disclosure, reproduction, distribution or use of this message is strictly prohibited. Please inform the sender by reply transmission and delete the message without copying or opening it.

--

[207-838-6120](tel:207-838-6120)

[917-696-5649](tel:917-696-5649)

ZacharyBarowitz.com

ATTENTION:

The information in this electronic mail message is private and confidential, and only intended for the addressee. Should you receive this message by mistake, you are hereby notified that any disclosure, reproduction, distribution or use of this message is strictly prohibited. Please inform the sender by reply transmission and delete the message without copying or opening it.

--

Jean Fraser, Planner
City of Portland
874 8728



IMG_0947.JPG
409K



Jean Fraser <jf@portlandmaine.gov>

Notice From City of Portland Regarding - Vicinity of Maine Medical Center Questions

1 message

Karen Snyder <karsny@yahoo.com>

Wed, Dec 7, 2016 at 2:39 PM

Reply-To: Karen Snyder <karsny@yahoo.com>

To: "jf@portlandmaine.gov" <jf@portlandmaine.gov>

Jean,

I have yet again got another notice of more development that affects me in the City of Portland.

This unnecessary yet huge Maine Medical Center project, what streets will this proposed development actually be on and how far and up does it go?

What exactly is an IOZ ordinance and does it actually protect local residents or yet once again allow developers to trample on the quality of life of residents?

Regards,

Property Owner on Gilman St.
K. Snyder

the Saint John Valley Neighborhood Association

Concerns regarding MMC proposed expansion

Project announcement

- Lack of transparency
- MMC is in breach of the current contract zone agreement (CRA) by failing to apprise members of the MMC Neighborhood Council of hospital development plans as mandated by the contract.
- How do we enforce the rules going forward?

Project design

- What will the new structures look like?
- At what point and in what forum will neighborhood input be considered relative to design, location, size and scope of the project?
- Neighborhood integration is important especially height
- How will traffic be affected?
- What will happen to current green space?
- Are there plans for streetscapes?

Proposed 13 story parking structure

- It's too big
- It doesn't compliment the existing buildings in the neighborhood
- Increase in traffic (How will this be managed?)
- Increased pollution
- Increased noise levels
- Reduced property values
- Contrary to neighborhood goals of enhanced livability and walkability
- Negative effect on sunlight and wind patterns
- Why haven't alternatives to this plan been proposed?
- Lack of security in current parking structures which leads to...
- Prostitution
- Drug use and public drinking
- Graffiti
- Suicide attempts
- Littering

Construction management

- How will the demolition of current structures be performed?
- How will demolition effect local residencies and businesses?
- What are the phases of construction? and How long will each phase of construction last?
- How will construction effect local residencies and businesses?
- How will any damage to local residencies and businesses be handled? (Remember the crane that toppled in 2006 crushing a house whilst the new MMC maternity wing was being built?)

- Baseline reads on our properties?
- Where will construction materials be stored?
- How will construction impact street parking?
- Where will construction workers park?
- What are the guidelines for acceptable noise levels during construction?
- Are there any provisions for loss of income to local businesses? and loss of rent due to tenants moving on?

Future planning

- What is MMC's master plan?
- They have already told us that they will need more parking and more beds in the future. What is their plan to accomplish this?

moses sabina <mosessabina@yahoo.com>

Nov 22 (7 days ago)

to Garry, Tuck, stjohnvalleyne., Helen, me

Please add impact to resident parking to that list. As of now, parking is at a premium, and next to impossible to find a spot when there is no parking on one side of the street. Happy Thanksgiving! -Moses

[12.13.16- St John Valley Neighborhood Association confirmed as public comment for 12.13.2016 PB Workshop]



Jean Fraser <jf@portlandmaine.gov>

Hello Jean, If possible pls incude my memo in tonight's Planning Board workshop. Thank you . Sarah Martin

Sarah Martin <BOCCafe@hotmail.com>

Tue, Dec 13, 2016 at 2:30 PM

To: "jf@portlandmaine.gov" <jf@portlandmaine.gov>

Memorandum

To: City of Portland Planning Board

From: Sarah Martin Valley Street, Portland Maine

Re: MMC Expansion

Date December 13, 2016

As an owner and occupant of a two family 1880's era home, I have great concern over the size, the scope and the likely negative impacts of Maine Medical's proposed expansion.

During one of the recent construction projects the constant driving of pilings, disturbed not only our tenants quiet enjoyment but the actual plaster in our home. Additional negative experiences included the use of surface lots in our neighborhood as trash covered construction dumps wrapped in broken and bent chain link often with torn, flapping, often vandalized green mesh. The precious few parking spots available to residents in the neighborhood were diminished by contracted workers and we all had the overall feeling that we were living on a construction job site for many months at a time.

While I agree that there may be some added value to the neighborhood by relocating the main entrance to Congress Street, the mere consideration of a thirteen story parking structure abutting our R6 neighborhood seems completely out of touch with the hospital's spoken commitment to being "good neighbors".

Thirteen stories? I'm sure that the planning board is aware of this but consider for a moment a comparison in size.

The Holiday Inn on Spring Street-Eleven stories.

Peoples United Bank next to the library-Eleven stories.

Deering Pavillion-Eleven stories.

Portland House Condominiums -Eleven stories.

The Westin Portland Harborview(the old Eastland)-Thirteen stories

One City Center-Thirteen stories.

In fact there would only be three buildings in the entire city taller than this proposed structure, Franklin Towers, The Time and Temp building and Back Bay Towers.

I completely understand that the useful life of the existing employee garage is at its end. However, to expect to move 1,280 parking spots across Gilman street into a thirteen story parking structure higher than the treetops and towering over our buildings on Valley, Gilman and A Streets is just too much.

If we estimate a hundred cars per level, then why not dilute the impact a tower would have by relocating spots to other locations? The South lot on Bracket and Vaughn currently holds 400 cars. If the hospital were to go up one deck high in that lot, we have just reduced the tower to nine stories. Two levels brings the Gilman block proposal down to five!

I think the hospital owns the lot known as the Classic Eye lot on the one way section of Congress across from the jail entrance...about a hundred cars. How about developing a couple of stories of parking there? Two levels and we are down to seven stories on the Gilman lot. Another thought would be to lift the constraints of the current Contract zone and allow the hospital to purchase the properties on either side of their 887 Congress Street property to develop office/retail and parking in a structure similar in design to their surrounding buildings. This too would make more sense than pushing the development directly into the shadow of the residential piece(peace) of our neighborhood.

December 11, 2016

To the Portland Planning Board:

We are property owners of 8 A Street and co-owners of two businesses in the area effected by MMC's proposed expansion. We are writing about the impact of Maine Medical Center's construction plans within our neighborhood. We ask for your serious consideration to the many concerns we have about this project.

Parking Garage -

We oppose any changes to the MMC's zoning that would allow building heights to increase, especially as it pertains to the proposed parking garage on the Gilman Street lot. Our home, which we bought in 2006 and have spent considerable time and money renovating, is directly across the street from this lot. The proposed height of this garage would dwarf the residential buildings adjacent to it, encourage more traffic, and detract from the livability of the neighborhood. We feel certain that it will reduce our property values, increase pollution from car exhaust, become a hot spot for criminal activity and encourage further economic decline within the neighborhood.

One of the recommendations from the 2008 Peninsula Traffic Study was to enact parking policies that will decrease traffic volumes and “construct and promote remote parking, connected to downtown by frequent, reliable transit”. Where is MMC's progressive initiative to encourage remote parking and ride-sharing for it's employees? Rather than working with the city to reduce traffic congestion, MMC plans to build a larger garage which will only guarantee an increase in congestion on Portland's roadways. The more parking is made available for MMC's employees, the more its employees will drive into our neighborhood every day. We as residents would like to encourage a new plan that would make use of MMC's Scarborough campus or another remote commuter lot to reduce the congestion we witness every day in this neighborhood. At the very least, we ask that MMC build a replacement garage on the current location, set into the hillside, or increase the size of the existing garage on Forest Street. There are multiple options available that will avoid placing a giant parking garage the center of the neighborhood.

MMC Main Entrance -

We have been working with our neighbors for the last several years to make the neighborhood more livable. We have a vision which includes walkability, traffic calming, residential development, green spaces, and crime reduction. We see the neighborhood as being a distinct area of Portland with it's own appealing character and attractions, including the Inn at St. John, Sea Dogs, Salvage BBQ, and Pizza Villa. Having the main entrance to MMC located here could introduce many new challenges which would run contrary to our vision. There are many questions that will need to be answered before we can support the proposed location for the main entrance. For example, what will the hospital do about visitors and employees on the public streets smoking, littering and using parking spots that would ordinarily be available to residents without driveways? What will the structure look like and will it be in keeping with the scale of surrounding buildings? What will the hospital do to ensure minimal disruption to residents and business owners during the construction phase? How will green spaces be integrated into the design? Whatever plan comes to pass, we encourage MMC to be as transparent as possible and consider the goals of the neighbors who live and work in this neighborhood.

Sincerely,

Jenny MacKenzie and Garry Bowcott
8 A Street

1/10/2017

To the Planning Board,

After reviewing the Institutional development plan presented on 1/10/17, we have noticed some areas of concern regarding the proposed parking structure on the Gilman street block.

- A 13 story parking structure will stand out like a sore thumb in a residential neighborhood where the tallest building is 4 stories.
- There is no proposal for a setback to integrate the parking structure with the surrounding businesses and residencies.
- If fig 4.2 on page 41 is correct and the trend of employees utilizing alternative forms of transport continues then MMC will see a reduction in parking needs moving forward. Will we end up with a parking structure that is obsolete and cannot be used for any other purpose? Why are they proposing a larger parking structure if the demand for parking is decreasing over time?
- MMC has not offered any other solutions to their parking needs. There are numerous options available to them such as construction on the Vaughn Street surface lot, additional levels on the Forest Street lot and footprint expansion. All of these options are supported by the Saint John Valley Neighborhood Association but for some reason MMC refuses to acknowledge them as options.
- As the city is obviously in a state of rapid development, we need to start making wise decisions regarding parking and it's integration with neighborhoods. If we allow MMC to construct this parking behemoth we are destroying the livability of a neighborhood via pollution, traffic congestion, crime, decreased sunlight and street level interaction.

Please take these concerns into account as you consider MMC's institutional development plan.

Sincerely,

Garry Bowcott
8 A Street
Portland, ME
04102

1.9.2017

To whom it may concern,

I am writing to you about the proposed MMC construction project. As a business owner at 919 Congress St, Salvage BBQ I have concerns regarding how this will impact my business. Right now we have tremendous sunlight that illuminates the restaurant from the South and west. Increasing building heights in the neighborhood will block this light and impact our business negatively. We have worked hard to make our business a success in a neighborhood that was neglected and not seen as a viable business center. There was a similar attitude in Longfellow square when we opened Local 188 in 1999 and now Longfellow Square is a bustling mecca of restaurants and bars. I would like to see the same trend continue down Congress Street but the proliferation of institutional buildings impedes the type of pedestrian activity necessary to create such an environment.

I am also concerned about my business being disrupted during a lengthy construction phase. What are the plans for demolition of the existing buildings? How will traffic be impacted? How will pedestrian access be impacted? How will noise levels be managed?

Jay Villani
Salvage BBQ
919 Congress St.

My name is Tim McNamara and I live at 251 Valley Street.

I've read through the draft IDP submitted by Maine Med and have several questions relative to the rhetoric and the data offered in Chapter Four-Parking and Transportation.

My understanding is that the hospital needs to substantiate their request for change of zoning by proving need. I believe that the Chapter Four is an attempt to show that the hospital is doing all they can to reduce the number of vehicles on campus yet prove they still have the need to park 1,100 employees on Gilman Street. I write to challenge the positions taken by the hospital in Chapter Four.

At a December 6th meeting of neighbors, senior hospital management and City staff, we discussed ideas of alternatives or incentives offered by the hospital to employees to reduce the number of single passenger trips to and from campus. Our thought was ...fewer single passenger trips-fewer spots required in the new garage. Minutes from that meeting, recorded by hospital staff, reflect that Maine Med President Rich Peterson *"acknowledged that thought will be given to trying to provide additional incentives to Maine Med employees to car pool, bike or use other means of alternative transportation"*. ...it was even discussed as to whether we are asking the hospital to alter societal norms embedded around car ownership and use or to attempt to change our behaviors.

At that meeting, senior hospital management made no reference to any Alternative Transportation Plan in place and certainly no mention of the "Get on Board" program. "Get on Board" is the program that Chapter Four hails as a *"focus of institutional policy."* and *"an integral part of the fabric and culture of MMC"* (See pages 39/41of Draft IDP)

In the 2005 CRA between Maine Med and the City, Chapter 18 requires that *"an analysis of effectiveness and functioning of the Alternative Transportation Plan shall be provided* (by the hospital)*to the City Council's Transportation Committee on an annual basis.* " I've reviewed agendas and minutes from that committee dating back to 2013.

Nowhere can I find a reference to a hospital report on the functioning or effectiveness of any ATP.

As residents who will be directly impacted by a 13 story garage plopped down in the middle of our neighborhood, we have asked the right questions and made the right suggestions relative to reducing single passenger trips without hearing from the hospital of any plan in place to achieve such. Then out of nowhere, Chapter Four of the IDP asks us to believe that in 2015 the hospital has "incentivized" 35 % of their employees, up from 14% in 2008, to commute to work by means of something other than a single occupancy vehicle trip?

From 14% to 35% in seven years? Pretty spectacular. Where did these numbers come from? If we are to believe these numbers, then can we anticipate that in five years that number will be 50%? then 65% ten years from today?

The problem is we can't believe these numbers.

In 2015 they claim that 1,571 employees participated in the program. They claim that that amounted to 35% of their employees. That would be true if the hospital employed 4,488 people. The Maine Med Website claims that they employ more than 6,000 people. So the real number is closer to 25% participation in the program. The percentages are off from the first year of their reporting. (2008, 648 participants reflected as 14% of all employees. More like 10%)

The number of employees they claim to be riding their bikes to work in 2015 is 229. Yet they only have the capacity to store 184 bikes.

The number of employees using “ride share” in 2015 is 1, 021. Let's say every one of those ride-share participants carpooled to work with two other people, (unlikely as that may be) that would mean according to Chapter Four, that 340 cars would *“be given access to preferred parking in a gated, ID card access only area of the Employee garage that connects directly to the main lobby on the ground floor of the hospital.”* 340 Cars? That's well more than a quarter of the total spots available in the current garage and would be physically impossible to accomplish.

The bottom line on Chapter Four is that the numbers and the stories just don't add up. I would encourage the Planning Board to kick the entire Chapter back to the hospital for a complete overhaul and to demand validation of their data so an accurate and legitimate parking and transportation baseline can be established .

Thank you.

Re: PB Workshop 1-10-2017 Institutional Overlay Zone (IOZ)/MMC Institutional Development Plan

1 message

moses sabina <mosessabina@yahoo.com>

Tue, Jan 10, 2017 at 12:04 PM

Reply-To: moses sabina <mosessabina@yahoo.com>

To: Jean Fraser <jf@portlandmaine.gov>

To the Portland Planning Board:

My name is Moses Sabina, I am an owner/resident at 4 Gilman Street. I have attended MMC Neighborhood Council meetings quarterly since the inception of the council. The purpose of that council is to keep the neighbors of MMC apprised of any and all MMC developments.

In the case of these development plans, the council members were made aware of the plans three days before they were printed in the Press Herald. Neighbors were given no opportunity to be involved in a constructive dialogue to help MMC develop their needs with minimal impact, or even some improvement to the surrounding neighborhoods. Unfortunately, this selfish "close to vest" behaviour is exactly why the neighborhood council was created in the first place, and why it is all the more mockery now that MMC has dismissed including neighborhood representatives in an important discussion which should have included all the options for addressing their parking needs.

I ask you to consider their blatant disregard for their neighbors when you review their plans for the thirteen story dark tower they want us to live next to. I ask that you not give any variance over the height restriction in the current zoning until all other options for parking have been thoroughly vetted, regardless of the cost to MMC to divide the parking between more than one location. Otherwise, it will be the neighbors suffering the the long term price of this development plan.

Respectfully,
Moses Sabina

From: Jean Fraser <jf@portlandmaine.gov>

To: "Fraser, Jean" <jf@portlandmaine.gov>

Sent: Friday, January 6, 2017 5:42 PM

Subject: PB Workshop 1-10-2017 Institutional Overlay Zone (IOZ)/MMC Institutional Development Plan

Hello

I am sending this e-mail to those who sent me written comments on the proposed IOZ zone and/or on the MMC plans for expansion back in December, or who have contacted me about the proposed IOZ ordinance.

MMC have requested a zone change in order to expand/modernize - and the new IOZ ordinance is the City's proposed process - with an aim to provide a clear, predictable growth management structure for institutions that would allow flexibility but also require proactive planning and a more transparent and defined mechanism for understanding and addressing community concerns. As currently drafted, only the main campuses of

Re: UNE

My name is Robert P. Fuller, a resident, taxpayer and owner of #37 College Street. With the possible exception of parking and traffic, it is doubtful that anything planned in the immediate vicinity of College Street would be an issue except to its property owners. But a concern of one should have the same weight as an issue for many.

Back in December 2011 one of the Vice Presidents said that UNE wanted to become more responsible. Hopefully that translated into going to be more responsible and that means to all of us. In theory and in practice leaders of organizations are supposed to reach out into the community and not allow any one subordinate to create an adversarial role with the neighbors. Does anybody want a repeat of the hoo-rah on the Biddeford campus about 15 years ago?

In a 2011 magazine interview, the president of UNE said that they were just about where they wanted to be in terms of size. A year later, as part of an application submission, UNE said that they had been unsuccessful in being able to squeeze any more parking on the main campus.

Based on those two statements, there should be no changes from my bound toward Ginn and McDougall Halls on the west or for at least 25 feet out from the #33-37 College Street north line. Finally, the north side of College Street itself and sidewalk would remain where they are now. This is the way it should be. Remember, the greatest material investment for most of us is our real property. This is true for myself and my sister at #33-35 College Street.

When you review for the overlay and master plan for UNE, do not forget US residents. When you review according to a set of standards, do the parts add up to a whole? Does it look sensible? How does it fit with the human condition? There is no good reason, with proper planning, that UNE and all its neighbors cannot peacefully coexist in the same surroundings.

Robert P. Fuller

January 5, 2017

**Western Promenade Neighborhood Association
Comment to Planning Board re IOZ**

1/10/17

Members of the Board, my name is Anne Pringle and I am commenting on the proposed IOZ framework on behalf of WPNA.

To echo David Eaton, I want to publicly thank MMC for agreeing to be the guinea pig for this new zoning concept and process. As some of you may know, there was a very contentious process when the Conditional Zone was approved. To date, this process and the dialogue has been much more open and we appreciate the early engagement.

Rather than comment on the specifics of the MMC IDP proposal, which will get a lot more scrutiny later and which I do think reflects the IDP framework, I want to comment on a few elements of the proposed IOZ framework:

First **institutional encroachment** has been a big issue in our neighborhood with two major institutions, MMC and Waynflete. The existing zoning protections, I think staff would agree, is inadequate as it gauges the impact of encroachment on a building-by-building basis, rather than on cumulative impact. The Waynflete IOZ recognizes this and precludes, I believe, school uses in buildings outside the zone boundary. So, the school cannot purchase or have donated a building outside the zone. To avoid institutional encroachment, WPNA believes the new IOZ should preclude institutions from purchase or acceptance of donations of properties outside the proscribed zone, except for the sale of properties to free up funds for institutional uses within the IOZ..

If an institution already owns property outside the IDP boundary, those properties should be identified and a plan, even a long-term plan, identified to relocate the institutional uses in those buildings to the IDZ area or a location outside a residential zone.

Second, it is recognized that these institutions have a major traffic and parking component. Since they each exist in already developed contexts, to a large extent

residential, significant and creative efforts should be made to reduce dangerous traffic impacts parking demand and assure that parking does not dominate the area and utilize land that might later be needed for institutional growth, leading to a subsequent request to expand the IDP boundaries.

Third, it has been suggested that MECA be included among institutions subject to the IOZ framework. With more residential housing downtown, the impact of MECA on its context should also be subject to the scrutiny that the proposed IOZ framework sets forth. Similarly, Waynflete should also be subject to the IOZ framework and process, should it at some point wish to revise its Overlay Zone.

Fourth, I have come to understand, through litigation, that purpose statement, no matter how helpful in understanding the basis for legislative action, have no legal import. In the proposed purpose statement I see some very good language that I believe should be pulled forward into the text to provide more explicit definition in the IOZ framework requirement, for example the reference to “carefully planned transitions”

Finally, there is no question that each of these institutions, including the two suggested to be added, are very valuable elements so our community. What the Board is seeking is to establish balance and predictability for both the institution and its neighborhood contact.

Public Comments on MMC Institutional Development Plan

1 message

toddmalexander@gmail.com

Mon, Jan 16, 2017 at 6:54

<toddmalexander@gmail.com>

PM

To: "jf@portlandmaine.gov" <jf@portlandmaine.gov>

Cc: "basak.alkan@perkinswill.com" <basak.alkan@perkinswill.com>, "Western Prom Neighborhood Association <oldmayor@maine.rr.com>" <oldmayor@maine.rr.com>

Jean: Comments on MMC's draft IDP;

Generally, I am supportive of the long-term plan to;

- i) create an IOZ to govern future campus development
- ii) shift development activity to the Congress Street corridor
- iii) allow for greater density and/or building heights along the Congress Street corridor to accommodate the plan

Either as a condition of an IOZ and/or included as a provision within the IOZ, the city should consider requirements for MMC to address the following;

- i) Real estate holdings in abutting residential districts that may not be located in the areas covered by the IOZ. More specifically, the city could require MMC to develop and implement a divestment plan for those non-core properties that most directly impact predominantly residential neighborhoods. Properties that could be addressed in that plan; 19 West Street, 112 West Street, 94 and 98 Chadwick, and 227 and 231 Western Promenade.
- ii) Hospital vehicle traffic in the Western Prom neighborhood generated from users of the South Parking Lot. One possible solution is to create an exit-only ramp/lane from the South Lot onto Vaughn street (far southeast corner of

lot). This will eliminate a high volume of hospital vehicle traffic on Chadwick and West Streets.

iii) Inclusion of residential uses in any future redevelopment plans for the South Lot. This parcel serves as the natural transition from institutional/commercial uses located to the north and west to residential uses to the south and east. Any future development in this location should further reinforce and compliment this transition. The size of the lot allows for an orderly change in property types from commercial/institutional...to mixed use...to residential. The residential development requirement could be structured to directly complement MMC's operations; housing for residents and staff, extended stay housing for visitors, etc.... One way to regulate a requirement for residential uses for the South Lot is through trigger/performance mechanisms, such as; for every X thousands of SF of non-residential space proposed for this lot, MMC is required to create X units of housing.

Respectfully,

Todd M. Alexander

3 Carroll Street

Sent from [Mail](#) for Windows 10

CORRECTION - MMC Neighborhood Meeting Held on January 18, 2017

1 message

Karen Snyder <karsny@yahoo.com>

Thu, Jan 26, 2017 at 5:01 PM

Reply-To: Karen Snyder <karsny@yahoo.com>

To: "Deborah S. Boroyan" <BOROYD@mmc.org>, Jean Fraser <jf@portlandmaine.gov>

Cc: Saint John Valley Neighborhood Association <sjvna1@gmail.com>

There is a correction in point 2 (two) below. I added a sentence to the end of the point. "These window replacements should be paid for by MMC."

Karen

From: Karen Snyder <karsny@yahoo.com>

To: Deborah S. Boroyan <BOROYD@mmc.org>; Jean Fraser <jf@portlandmaine.gov>

Cc: Saint John Valley Neighborhood Association <sjvna1@gmail.com>

Sent: Thursday, January 26, 2017 3:02 PM

Subject: Re: MMC Neighborhood Meeting Held on January 18, 2017

Hi Deborah and Jean,

During this MMC neighborhood meeting, it was said that the construction would span a 5 year time frame. This is not sustainable for the health of property owners and tenants to live through 5 years of construction on Gilman St and Valley St.

As a property owner on Gilman street, the proposed MMC's development proposal is causing quite a lot of stress and concerns amongst the local residents.

Depending on what the final agreed proposal and what is acceptable to property owners, the below needs to be considered for this development proposal to ease the stress, health concerns, and quality of life impact of any construction around Gilman and Valley St.

1) Construction noise should only allowed from Monday to Friday between 9am and 5pm. There should be NO construction on weekends. Residents need the weekend to decompress and destress. If not, the health and quality of life of residents will be compromised.

2) Prior to construction, all houses on Gilman and Valley street, the windows are to be replaced with soundproof windows. If the parking garage is made up of concrete, this means alot of noise and debris will be generated in the air. The properties around this area must not be comprised by hazardous abatement and noise. These window replacements should be paid for by MMC.

3) Because MMC employees use the Gilman street sidewalk constantly, for safety concerns, MMC needs to provide sidewalk lighting on this street.

4) The construction vehicles should be prohibited from parking on Gilman or Valley Street. Construction workers should be required to park in an off site parking lot and bused in just like MMC employees. The parking of construction vehicles is a nuisance for property owners because I have all ready had to experience this for the last 2 years on the East End.

5) There are concerns as to how are the property owners suppose to advertise for future tenants knowing that MMC is proposing a 5 year construction time frame? How are the property owners suppose to retain tenants if tenants don't want to put up with the constant noise and debris that will be generated? When someone buys or rents a property, there is an expectation to be considered and that is the law of NUISANCE "If a nuisance interferes with another persons quiet or peaceful or pleasant use of his/her property" It maybe the basis for a law suit ordering the person or entity causing the nuisance to desist (stop) or limit the activity. This is a huge concern as a property owner renting to tenants. MMC needs to address these concerns.

As indicated above, no matter what the final decision is on this proposal, the above issues must be addressed by MMC with solutions which have to be agreed upon by the neighborhood residents.

Regards,
K. Snyder
24 Gilman

From: Deborah S. Boroyan <BOROYD@mmc.org>
To: "'karsny@yahoo.com'" <karsny@yahoo.com>
Sent: Wednesday, January 18, 2017 12:18 PM
Subject: MMC Neighborhood Meeting

****This e-mail is being sent on behalf of Rich Petersen.****

Dear Neighbor,

Thank you for attending the Maine Medical Center Neighborhood Meeting on January 12, 2017. We hope that you found the meeting informative and we are looking forward to continuing our dialogue about this important project.

The input you provided before the Neighborhood Meeting, relating to traffic patterns, pedestrian and bicycle routes, and the amenities you most value in your neighborhoods, is being reviewed by Basak Alkan, the Urban Planner who is assisting with the development of MMC's project and advising on how that project can best interact with our neighborhood.

MMC is committed to transparency and being a thoughtful neighbor while planning for these important enhancements to our facilities and ability to meet the health care needs of our community.

Please go to <http://www.mmc.org/modernization> for more information and updates about this project, including additional Neighborhood Meetings.

Regards,

Rich Petersen

Deborah S. Boroyan
Executive Assistant to the President
Maine Medical Center
(207) 662-2491
boroyd@mmc.org

CONFIDENTIALITY NOTICE: This email message, including any attachments, is for the use of the intended recipient(s) only and may contain information that is privileged, confidential, and prohibited from unauthorized disclosure under applicable law. If you are not the intended recipient of this message, any dissemination, distribution, or copying of this message is strictly prohibited. If you received this message in error, please notify the sender by reply email and destroy all copies of the original message and attachments.

37 College Street
Portland, ME 04103-2617
January 23, 2017

Neil Donaldson, Senior Planner
City of Portland
Planning Division
389 Congress Street
Portland, ME 04101

Dear Neil Donaldson:

This is my reply to the proposed Text of the Institutional Overlay Zone (IOZ). This was part of a memorandum dated January 6, 2016 (2017).

P.2 Institutional overlay zone text

In the first place, all four institutions concerned, in the spirit of "Total Transparency", should, if not already done so, furnish available as public record all applicable copies of their Charter, articles of incorporation, bylaws, etc., including those still in force from predecessor organizations. In this way the public will know what activities the institutions may or may not do.

P.2 IV 1c purpose - Insert the words "abutting or" before the word "surrounding." In this manner the reading will be - "... integrates abutting or surrounding neighborhoods ...".

The insert is necessary to protect the integrity of the privately owned parcels of #33-37 College Street. These properties are probably in a unique situation where they surround nothing. For the last two years it is UNE that surrounds these parcels of land, unaltered, a minor technicality such as this, could lead to those parcels of land not being recognized as a neighborhood at all and shut out of the planning process. Therefore, a neighborhood is one or more privately owned parcels of land to include those abutting or surrounding an institutional overlay zone.

The remainder of my comments are more general in nature for the time being. It is assumed that you are looking for more headings or amplify existing ones in the Proposed Text.

P.3 Permitted use - this must mean consistent with their articles, charter, etc.

P.5 IDP - Is this the same as the term "Master Plan", which has not appeared in the Proposed Text?

P.5 IV 5d (ii) 3a - What is "TDM"?

IV 5d (ii) 3b - Does this include adding, deleting or altering parking designations on a public street?

IV 5d (ii) 4b - Does this also embrace water draining into naturally occurring soil that is present?

IV 5d (ii) 4f - Assume that this also includes offensive soundwaves along with convergence of soundwaves both as the result of one or more appurtenances such as grates, fans, generators, compressors, circulators emitting

January 23, 2017

a sound that can be detected only in a narrow area, not always at ground level.

IV 5d (ii) 5d - What is "CPTED"?

IV 5d (ii) 5f - Presume any problems to be addressed in Section IV 5e 5 and 9

P. 6 IV 5d (ii) 6c - Construction Management - Does this include liabilities resulting in damage to private property due to construction, demolition, altering, filling, contour changes - Should private property owners pay for institutional damages upon them by the above activities not covered by their insurance? If the expansion of an institution upon a private property owner causes repeated damage claims and the insurance company raises the premium as higher risk, should the institution pay the difference between the rates since it is they who have "thrust" themselves upon the private property owner?

Likewise, where would there be an institutional maintenance clause that would totally protect private property owners against neglect (institutional owned tree falls upon private property house causing damages)?

IV 5e 5 mitigation - assume this covers changes to appurtenances and appliances already in place such as troublesome lighting, noises, soundwaves.

IV 5e 9 - Neighborhood Integration - would this be the heading under which a list of problems would be made item by item to include 5e 5 preceeding - all leading to a resolution?

That is all for now. Hope to receive your reply very soon.

Yours in sensible planning,

Robert P. Fuller

Robert P. Fuller

Fwd: Maine Med IOZ - South Lot Concerns

1 message

Melissa Knoll <melissa.knoll@gmail.com>

Tue, Feb 7, 2017 at 10:24 PM

To: jf@portlandmaine.gov

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

From: **Melissa Knoll** <melissa.knoll@gmail.com>

Date: Tue, Feb 7, 2017 at 10:18 PM

Subject: Maine Med IOZ - South Lot Concerns

To: planningboard@portlandmaine.gov, "Ozgur Basak Alkan, AICP, LEED AP" <Basak.Alkan@perkinswill.com>, jf@portlandmaine.gov

Cc: Anne Pringle <oldmayor@maine.rr.com>, Scott Knoll <scott.knoll@gmail.com>

Dear Jean & Basak,

Thank you for taking neighborhood comment while planning the next Maine Med expansion. We live at the corner of West and Vaughan Street, so are in very close proximity. The move to make the entrance closer to Congress St sounds like a good one. We would like to see the high volume of Maine Med traffic reduced in the west end neighborhood.

We, as well as our neighbors, have two requests as you consider zoning change:

1. Move the exit of the surface lot on Brackett/Chadwick so traffic is directed away from the West End neighborhood. It is a huge safety and traffic congestion concern. I wrote a detailed e-mail regarding our concerns on Jan. 4th which I'll forward to Jean. There is broad west end neighborhood support for such a change.
2. It appears Maine Med is asking for long term approval to put a large 75 foot tall building on this same South Lot surface parking lot (see page 35 of the Maine Med Institutional Development Plan). The height and setback of a potential building on that lot should be kept the same as the surrounding R4 and R6 neighbors. A 75 foot building with a 5 foot setback as proposed on their plan would be enormous. Please keep the maximum height at the same level as the current R-6 & R-4 zone.

We could put together a neighborhood petition if this helps our case. Let us know if you think this would be valuable.

Thank you,
Melissa & Scott Knoll

Fwd: Maine Med Traffic Volume & Safety Concerns from Chadwick Parking Lot

1 message

Melissa Knoll <melissa.knoll@gmail.com>
To: jf@portlandmaine.gov

Tue, Feb 7, 2017 at 10:23 PM

Here is the e-mail detailing the traffic problems caused by the South Lot exit. Frequent high rates of speed can be added to this list.

Thank you,
Melissa

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

From: **Melissa Knoll** <melissa.knoll@gmail.com>

Date: Wed, Jan 4, 2017 at 2:14 PM

Subject: Maine Med Traffic Volume & Safety Concerns from Chadwick Parking Lot

To: Basak.Alkan@perkinswill.com

Cc: Anne Pringle <oldmayor@maine.rr.com>

Hello,

Thank you for taking the neighborhood concerns into consideration in designing Maine Med's next expansion. We have three small children and live on the corner of West & Vaughan Street in Portland, Maine. We and many of our neighbors have expressed concern about the erratic driving and large volume of traffic from the surface lot on Chadwick/Brackett West Street. All of the exiting traffic is directed toward our neighborhood from the one way exit on Chadwick, and 90% turns left down West, and then left on Vaughan.

Major problems include ~

- High traffic volume, especially at busy times of day
- Drivers are unfamiliar with the area, there is no signage back to the highways
- Drivers are distracted - many are on phones, in a hurry, have health problems, or are lost
- Cars frequently drive on West Street as if it is a one way street (like Chadwick) and drive on the left side of the road
- Cars do not come to full stops at Chadwick/West stop sign & West/Vaughan stop sign

- Most drivers have been at the hospital and are not paying full attention to driving safely or the children in the neighborhood
- Both Chadwick & the West Prom are one way streets heading away from the hospital making it difficult to access the hospital entrance, which adds to traffic congestion

Our neighborhood is young and vibrant with 10+ small children that live directly on this block. There have been several close calls already with traffic. It seems like there could be a reasonable solution to direct this unnecessary traffic away from the West Prom neighborhood. I look forward to speaking to you more about this. Please feel free to contact me and I can describe or show you the problem in more detail.

Thank you!

Best,
Melissa & Scott Knoll
83 West St
Portland, ME 04102

Comment on MMC overlay zone

Sara Anne Donnelly <sara@saraannedonnelly.com>

Feb 10, 2017 9:18 AM

Posted in group: **Planning Board**

To the Planning Board:

This letter is in regards to the proposed overlay zone that would allow Maine Medical Center to expand. I do not oppose the zone or the expansion, but as an abutting neighbor I do think it's important to call attention to trouble that we have had in convincing Maine Medical Center to be respectful of our space. I do this in hopes that perhaps provisions could be written into the overlay zone that protect the neighborhood from harm caused by the hospital and its expansion.

I live at 19 Ellsworth Street, which I have owned or managed since 2012. My two-unit home is two doors down from the current main entrance to the hospital on Bramhall Street. Soon after I bought the property, MMC banned smoking on its grounds. Since then, the neighborhood has struggled with patient and employee smokers that have effectively been pushed onto our sidewalks. There are dozens of them, particularly on warm days, smoking throughout the day at a near constant.

The hospital has met with neighborhood reps as far as I know (I was only invited to one meeting) and has reluctantly steered smokers away from some parts of the abutting neighborhood. They refuse, however, to re-establish a smoking space on their grounds, ignoring the reality that unlike other no-smoking hospitals their campus is in the middle of a densely populated area. This leaves us with a policy that is like a balloon pushed on one end that juts out on the other. The smokers that are deterred from one part of our neighborhood only migrate to another.

That's where my house comes in. Across the street, at Hill and Ellsworth, is a popular corner for employees of the hospital to smoke. This is no accident. The hospital about a year ago installed "Buttler" cigarette butt collectors at this corner, which it pays to maintain. These Buttlers are in front of private property. They effectively validate and even encourage smokers from the hospital to come to our neighborhood in front of private property and smoke. Which they do, by the dozens daily on warm days. Sitting on stoops and lounging on the sidewalk in their MMC uniforms.

The Buttlers were pitched by MMC to the neighbors (including me) as a way to collect the smokers away from the windows of those with concerns, and to gather the butts that were so many the rumor was they clogged up the sewer underneath the sidewalk. We were told that the Buttlers would be moved if there was a problem. But this is not the case.

I have spoken with six property owners or tenants around these Buttlers who have serious concerns about the effect of the smokers on our health, our quality of life, and our property value. I relaid this concerns to the hospital. To date, the hospital has done nothing to divert its employee smokers away from our sidewalks. I have particular concerns about the smoke as I work from home, my tenant is also home and is undergoing chemotherapy, and my infant daughter is cared for at home. Next door, my neighbors have a one-year old son who is also home most of the day. The smoke from the MMC employees comes into our windows almost constantly during warmer months. Over a year ago, the young mother next door and I joined a neighborhood meeting with MMC to talk about the smokers. We were listened to but nothing of substance was ultimately done. We were even told by MMC counsel to ask the smokers to move ourselves.

Next week, the owner of the property on the corner and I will finally meet with MMC to discuss the employee smokers at the corner of Hill and Ellsworth. But even if we are successful at resolving our issue, other property owners will suffer as the smokers will only migrate. The only effective way to respect the neighborhood would be to alter this flawed no-smoking policy and return a space for smokers to hospital grounds. But the hospital will not consider this. They seem to hope that we will just go away. This meeting alone is a perfect example -- it was first promised to us in October. It is only now happening, after repeated follow-ups from the neighborhood.

I recognize that the overlay zone and the expansion are a separate issue, but I am concerned that the expansion will bring more smokers to our neighborhood and that the hospital will not be held accountable for its promises to respect our health and our quality of life. I have attended a couple of the neighborhood meetings about the expansion held by MMC, and the rhetoric about respect and concern for the neighborhood is heartwarming. But if the ongoing and very real damage to the neighborhood caused by another of MMC's sweeping changes is any indication, the needs of the neighbors may ultimately be ignored.

I write this letter in hopes that perhaps there is some way the zone can be written to better protect us neighbors.

Thank you for reading, and I'm happy to answer any questions you may have.

Best,
Sara

Sara Anne Donnelly

Writer ◦ Writing Coach

M 207.632.1042 O 207.274.6848

www.saraannedonnelly.com

@SaraADonnelly



Helen Donaldson <hcd@portlandmaine.gov>

Submission of Comment Planning Board re: MMC IOZ

Zack Barowitz <zbarowitz@gmail.com>

Sun, Feb 12, 2017 at 2:57 PM

To: Helen Donaldson <hcd@portlandmaine.gov>, Jean Fraser <JF@portlandmaine.gov>

Cc: Tuck O'Brien <tuckobrien@me.com>, Jeff Levine <JLEVINE@portlandmaine.gov>, Brian Batson <bbatson@portlandmaine.gov>

Submission of Comment to IOZ

In reviewing the memo to the Portland Planning Board Nell Donaldson regarding the Draft Institutional Overlay Zone (IOZ), several items came up as matters of concern.

Section 1c clearly and rightly states that the purpose of the IOZ is to "Ensure that institutional change and growth both complements and, as appropriate, integrates adjacent or surrounding neighborhoods through carefully planned transitions"

However, several elements of the plan run counter to this condition.

Foremost among them is the amount of surface parking, particularly the proposed 13 story lot slated for the Corner of Gilman and Congress Streets. Aside from the fact that parking structures are not typically built to such heights because they can cause dizziness; the placement of an inordinately tall structure will indubitably have a detrimental effect on adjacent properties.

A simple survey of existing garages on Congress, Crescent, and Forest Streets would show adjacent properties adversely affected. So much so, that were it be the cynical policy to erect garages to devalue adjacent properties; it would allow for more cost effective future expansion. In any case; the proposal is in direct conflict with this portion of the IOZ.

Secondly; part and parcel of IOZ for an institution of the type, size, and location of Maine Medical Center is a Traffic Demand Management program (TDM). The memo states that Meghan Houdlette, PE of the firm VHB has been brought on to assist in the fulfillment of this portion of the IOZ. It is however, of some concern that in a private meeting with Penny St. Louis of MMC and Basak Alkan; Ms. Alkan told me that the hospital have "no position" on the recommendations put forth in the [Libbytown Traffic Circulation & Streetscape Study](#). This is concerning for several reasons:

- The hospital will only benefit from the implementation of the recommendations of the study
- MMC had previously endorsed the findings of the study, why the change of position?
- The adoption of the recommendations represents the bare minimum of what a 21st century TDM of a project of this scope should entail. The team should consider a

regional approach to transportation that encompasses all existing and future modes and systems including intercity park and rides, driverless cars, as well as bicycle and pedestrian infrastructure.

Finally, a graphic taken from the Public Meeting/Open House from January 12, 2017 shows a circular "1/4-mile walk radius" from surrounding areas to the MMC campus. However, the perimeter seems to reference an arbitrary center point within the MMC campus. To wit, the distance from a perimeter point on Grant Street to the nearest edge of the campus is twice that of one taken on Saint John Street. As such, the map is not terribly accurate and not as useful a tool as it could be.

Thank you for your kind attention to these matters.

Zack Barowitz,
Huntress Street

--

[207-838-6120](tel:207-838-6120)

[917-696-5649](tel:917-696-5649)

ZacharyBarowitz.com

ATTENTION:

The information in this electronic mail message is private and confidential, and only intended for the addressee. Should you receive this message by mistake, you are hereby notified that any disclosure, reproduction, distribution or use of this message is strictly prohibited. Please inform the sender by reply transmission and delete the message without copying or opening it.

Re: Institutional Overlay Zone (IOZ) PB memo for 2.14.2016

1 message

Timothy wells <welmaurya@gmail.com>

Mon, Feb 13, 2017 at 9:44 PM

To: Jean Fraser <jf@portlandmaine.gov>

Jean,

A couple of comments about the Institutional Overlay Zone draft.

1. I think the city should be more specific about the planning period. I noticed that several cities, including SF, Oakland, Berkley require hospitals and universities to submit 20 year plans every 5 years. I think Portland should adopt the same policy. 20 years actually isn't that long when you are planning large construction projects and forces some rigor and long term thinking about the smartest, most effective way to grow.

2. I think the city should require the institutions to answer the questions:

- a) How will expansion impact economic growth for the city, county and state?
- b) What will be the positive and negative effects on the immediate surrounding neighborhoods? How will the plans impact property prices?
- c) What is the impact on city property taxes?

Thank you for including these for the meeting on Tuesday.

Best regards,

Tim

Tim Wells

[207-807-3876](tel:207-807-3876) MOB

On Feb 10, 2017, at 5:35 PM, Jean Fraser wrote:

Hello all

Please find attached the staff cover Memo for the Planning Board at next Tuesdays meeting, along with the final agenda for the meeting. The Memo contains the "final draft" of the IOZ ordinance text.

My name is Robert P. Fuller, owning and residing at #37 College Street. My sister owns #33-35 College Street. Together our properties comprise a neighborhood, though small in size. For the last two years, save for a public College Street, we are completely surrounded by the UNE campus. This is probably a unique situation, considering the four institutions cited for an overlay zone.

Four generations have lived in the home at #37 College Street, built by my grandfather about 110 years ago. Within our surroundings we are afforded a good view on all four sides, especially out our front window at a historic district. It is relatively safe and peaceful here on a predominately graduate campus. Traffic is usually manageable, except with special events.

Communication between the institutions and the neighborhoods need improvement. Hopefully the overlay zone process will send communications and resultant outcomes to a high level of order that the public should expect and get from an institution.

As part of the total transparency process, it should not be unreasonable to obtain from each institution information about each building and structure as to function, hours of operation, and who uses it. City oversight must insure that any activities of the institution are in keeping with its charter, articles, and by-laws.

In terms of overlay zone and institutional development process, the more details on a plan, the better for the neighborhoods. Without a detail requirement, there is always the temptation for an institution to produce vague plans. Who can say what the impact will be upon a neighborhood with changes in lighting, trees, traffic, impervious surfaces, parking, drainage, surface elevations, air circulators, vents, generators, compressors, construction or maintenance work, kinds of machinery employed, added doorways, trash removal, deliveries, pick-ups, hours of operation, converging sound waves/noises and so forth?

Setbacks, transitions and buffers are of paramount importance to all neighborhoods, no matter the size. Dimensional figures applied to bordering or abutting neighborhoods cannot be uniformly implemented with a fixed set of standards. One size does not fit all. Instead, each jog of the bounds that abut or adjoin an institution must be treated on a case by case basis.

The outcome of the overlay zone process should leave each neighborhood as good or better in terms of protection. Our neighborhood quality of life is at stake and so are our real property values.

February 19, 2017

IOZ2 messages

Anne Pringle <oldmayor@maine.rr.com>

Tue, Mar 7, 2017 at 6:05 PM

To: "Fraser, Jean" <jf@portlandmaine.gov>

Cc: "Watson, Trevor" <trevorewatson@gmail.com>, "O'Brien, Tuck"

<sgo@portlandmaine.gov>, "Sanders, Jeff" <Sandej4@mmc.org>, "Peterson, Rich" <peterri@mmc.org>

Jean,

I have been working like a house afire to get ready to go on vacation tomorrow, but have not focused as well on the IOZ text as I had hoped. My energy level is running down to zero with all that is going on just before I leave...

But see attached proposed changes, comments, and questions on the latest draft of the IOZ. As I will be away I guess they should be sent to the PB, unless staff agrees with everything and incorporates them into a new draft!...

A major concern is that the language seems to focus on accommodating institutional needs. See the language I suggest in the purpose statement to better balance neighborhood impact, **especially encroachment**. As I have noted twice, since I have learned that purpose statements have no legal import, I think this language needs to be pulled into the text. I am not sure what to make of the language in various sections about acquisition and disposition.

Re the process of engagement with the neighbors. I must say I am very impressed with our experience with MMC this time around vs. last time. Maybe it's just because we are dealing with different personalities. Jeff Sanders is very open and I believe he hears us. He is also very clear about the hospital's needs. I feel we are engaged in problem-solving, both theirs and, hopefully, ours. Hiring Basak Alkan was a great commitment on MMC's part. Maybe this kind of hire should be required to bring the institution along on the community planning spectrum...

Anne



2_28_17 revised draft IOZ

INSTITUTIONAL OVERLAY ZONE (IOZ)

I. Purpose of the Institutional Overlay Zone

The Institutional Overlay Zone (IOZ) designation provides a regulatory mechanism available to the city's four major medical and higher education campuses where an improved regulatory structure is needed to facilitate a consistent, predictable, and clear growth management process. The purposes of the Institutional Overlay Zone are to:

- a. Acknowledge that the city's major academic and medical institutions play a prominent role in the health and well-being of the local and regional community, and in order to sustain that role, these institutions need flexibility to change and grow;
- b. Encourage proactive planning for institutional change and growth which identifies and addresses likely long-term institutional needs and potential benefit to the surrounding area, city, and regional levels; and cumulative evaluates the impacts of any proposed encroachment into residential neighborhoods; and leverages while leveraging potential benefits at to the neighborhood, city, and regional level; (NOTE: VERY important to address the issue of potential encroachment. What is meant by "leverages")
- c. Ensure that institutional change and growth both complements and, as is appropriate, integrates adjacent or surrounding neighborhoods through carefully planned transitions;
- d. Support the formation and continuation of mutually beneficial public-private cooperation;
- e. Support an ongoing public engagement process that benefits both the institutions and nearby neighborhoods;
- f. Reflect Comprehensive Plan and other policy objectives; and
- g. Provide a consistent regulatory approach to all major institutions, which allows unique regulatory requirements that balance the particular needs of institutions with the needs of the surrounding neighborhood and wider community.

Formatted: Font: Bold

II. Location and Applicability

The city's four primary medical and higher education institutions are eligible to apply for designation as Institutional Overlay Zones. The Eligible Institutions are the two major hospital institutions of Maine Medical Center and Mercy Hospital and the two major academic institutions of University of Southern Maine and University of New England, their successors and assigns. Designation as an IOZ is the preferred mechanism where the Eligible Institution's proposed development is inconsistent with the existing zoning.

III. Establishment of an Institutional Overlay Zone

- a. *Application for an Institutional Overlay Zone.* Where the Eligible Institution seeks designation as an IOZ, they shall submit a zone change application consisting of two components:
 - i. An Institutional Development Plan (IDP) (see Section IV).
 - ii. A Regulatory Framework (see Section V) that would, when and if adopted, be the text and map amendment to the City's Land Use Code and Zoning Map.
- b. *Required Public Involvement.* Soon after the City becomes aware of any institutional plan to request a zone change, the applicant shall advise any abutting neighborhood association(s) of its plan to request a zone change. (NOTE: earlier notices came up at a recent meeting of about 14 NAs.) At least two neighborhood meetings shall be required. The first shall be held prior to the formal submission of a zone change

Formatted: Font: Not Italic

Formatted: Font: Bold, Not Italic

Formatted: Font: Not Italic

Formatted: Font: Not Italic

2_28_17 revised draft IOZ

application for an Institutional Overlay Zone and the second shall be held during the City's review. Meetings shall identify the concerns, if any, of affected residents and property owners, and inform the development of the Institutional Development Plan (IDP) and Regulatory Framework. Meetings shall be held in a convenient location proximate to the institution. The applicant shall provide written notification to property owners of record within 500 feet of the proposed IOZ boundary at least ten days prior to the meeting dates and maintain written records of the meetings.

- c. *Required Scoping Meeting.* The Eligible Institution shall meet with the Planning Authority after the first required neighborhood meeting and prior to submission of the zone change application to confirm the focus of the Institutional Development Plan (IDP) and Regulatory Framework, including **study areas that may be outside of the proposed IOZ boundary** (NOTE: what does this mean?). The IDP and Regulatory Framework will vary in detail and focus depending on the Eligible Institution and its particular context. The content requirements in Sections IV and V and the comments from neighborhood meeting(s) shall provide direction for the content of the IDP. The Planning Authority or Planning Board may require additional information or modify content requirements as is relevant to the Eligible Institution (see Section IV.c).
- d. *Reviewing Authority.*
- i. The Planning Board shall review the zone change application, including the IDP and Regulatory Framework. ~~A One or more~~ public workshops and a public hearing before the Planning Board are required. (NOTE: Given the size and complexity of these institutions, I think it should be acknowledged up front that it likely than more than one workshop will be required.)
 - ii. Upon recommendation of the Planning Board, the City Council shall review and consider adoption of the Institutional Overlay Zone and the accompanying Regulatory Framework as an amendment to the city's code of ordinances.
- e. *Future Institutional Development.*
- i. All new development by the Eligible Institution within the boundary of the IOZ shall be compliant with the IOZ and accompanying Regulatory Framework, consistent with the IDP, consistent with the Comprehensive Plan, and meet applicable site plan standards, unless such standards are superseded by the Regulatory Framework.
 - ii. Any use/development proposed by the Eligible Institution outside the IOZ boundary that complies with the zoning for permitted uses in that location shall be reviewed under the standards of that zone. Any use/development proposed by an Eligible Institution outside of the IOZ boundary that is a conditional use in the zone in that location shall be addressed by the IDP. NOTE: What about use/development not compliant with underlying zones, e.g the West Street transplant center?)

IV. Institutional Development Plan (IDP)

- a. *Purpose.* Any use conducted by an Eligible Institution and any construction by an Eligible Institution in an Institutional Overlay Zone shall be consistent with an Institutional Development Plan (IDP) approved by the Planning Board in accordance with this ordinance. The purpose of the IDP is to establish baseline data about institutional land uses, facilities, and services and measure, analyze, and address the anticipated or potential impacts of planned institutional growth and

Formatted: Font: Bold

Formatted: Font: Bold

2_28_17 revised draft IOZ

change. The IDP shall serve as a background document that supports the proposed Regulatory Framework and frames subsequent site plan review(s).

- b. **Planning Horizon.** An IDP shall provide the city and abutting neighborhoods with a clear outline of the anticipated or potential growth and change of the Eligible Institution for the short- to medium-term (e.g. 1-5 and 5-10 years respectively), as well as a conceptual growth plan for the long-term (e.g. 10 years plus or more); however, the specific planning horizons for each institution will be determined as part of the IDP approval process.
- c. **Content.** The IDP submission shall address the following elements unless specifically modified by the Planning Authority or Planning Board, with the scope and level of detail to be clarified at the required Scoping Meeting:
 - i. **Context Information**
 1. The institution's adopted mission, vision, or purpose statement
 2. A summary of relevant baseline data on the institution, including:
 - a) A neighborhood context plan;
 - b) An inventory of current programs and services;
 - c) A current census of the number of people using the institution (e.g., employees, enrollment, patients), with an indication of maximums and minimums over time;
 - d) An inventory and/or plan of all existing property holdings within the main campus and within the City of Portland, including an indication of functional land use links between off-campus properties and the main campus (e.g. remote parking);
 - e) An inventory and/or plan of existing facilities, including data on use, floor area, and any existing functional connections between facilities.
 3. A summary of the baseline characteristics of the existing campus and **context of the institution**, based on identified study areas, including:
 - a) A summary of existing resources, such as historic, open space, and natural resources; (Note: does this mean, for example, the Western Prom in the case of MMC? Is the intent that the IDP demonstrate that it will not negatively affect these existing resources?)
 - b) A summary of the existing transportation system, including vehicular, pedestrian, transit, bicycle, and parking supply, demand, and utilization;
 - c) A summary of existing public infrastructure supporting the institution, including demand, utilization and any capacity issues;
 - d) Relevant municipal plans, projects, and studies that may influence the IDP study area and opportunities for integrating institutional growth.
 4. A summary of public involvement in the development of the IDP, including major areas of public concern. Good!
 - ii. **Assessment of Future Institutional Growth and Change**

Formatted: Font: Bold

Formatted: Font: Bold

2_28_17 revised draft IOZ

1. A description of institutional needs and areas of future institutional growth and change, including:
 - a) Projected census of users (e.g., enrollment /employment/patient/visitor figures and anticipated variations over time);
 - b) Institutional objectives for property both within and outside the IOZ boundary **(e.g. acquisition and/or disposition)**, including an indication of any functional land use connection for sites outside the IOZ boundary to the main campus; (NOTE: I think you are trying to address my suggestion that acquisition not be allowed outside that IOZ, but I am not sure this satisfies that suggestion. Again, this is the issue of encroachment, which should NOT be allowed into residential neighborhoods.
 - c) A Development Plan addressing anticipated or potential institutional needs and physical improvements, including the proposed boundary of the IOZ and any phasing of the development.
2. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the Regulatory Framework:
 - a) Transportation and access
 - 1) An analysis of the proposed changes in parking demand, supply, and impacts to the off-street and on-street parking capacity, including an explanation of the proposed parking plan;
 - 2) An analysis of the proposed changes in vehicular, pedestrian, transit, and bicycle access routes and facilities, their capacity, and safety;
 - 3) A transportation, access, and circulation plan, representing the synthesis of the analysis, and including a program of potential improvements or set of guidelines to address access deficiencies to and within the IOZ. The plan should outline proposed mechanisms and potential strategies to meet transportation objectives, including transportation demand management, phasing, and when a Traffic Movement Permit (TMP) may be required.
 - b) Environment
 - 1) An analysis of potential **cumulative impacts** on natural resources and open spaces; (NOTE: impact of individual projects should be analyzed, as well as cumulative impact. Minor individual impacts can build up to a major cumulative impact. This is what happened with Waynflete over the years.
 - 2) An analysis of projected energy consumption, hazardous materials generation, noise generation, and similar issues as relevant;
 - 3) An environmental plan, representing the synthesis of the analysis and including a proposed program or set of guidelines for future preservation, enhancement, conservation, and/or mitigation.

Formatted: Font: Bold

Formatted: Font: Bold

Formatted: Font: Bold

Formatted: Font: Bold

Formatted: Font: Bold

2_28_17 revised draft IOZ

c) Infrastructure

- 1) An analysis of projected public utility demand and the capacity of associated infrastructure;
- 2) An analysis of projected public safety needs and projected impacts to the capacity of these services;
- 3) An infrastructure plan, representing the synthesis of the analysis and including a proposed program or set of guidelines to support sustainable growth.

d) Design

- 1) An analysis of projected impacts to neighboring properties and public spaces, including potential shadow, wind, and lighting impacts, impacts of height and massing, and impacts to natural and historic resources;
- 2) An analysis of transition areas between the institution and adjoining neighborhoods, including identification of key character defining components of the surrounding context;
- 3) An analysis of existing Crime Prevention Through Environmental Design issues and identification of how these principles would be addressed as part of the proposed campus development;
- 4) A conceptual built environment/public realm plan, representing the synthesis of the analysis and including a set of guidelines for urban design, landscape, open space, and streetscape treatments, with particular attention to the treatment of edges (both within and abutting the IOZ boundary) to achieve compatible transitions. Good.

e) Neighborhood Engagement

- 1) A plan for ongoing community engagement that represents best practices, promotes collaborative problem solving around community concerns, fosters transparency, and identifies mechanisms for neighborhood feedback and institutional accountability; Good!
- 2) A property management framework that identifies the institution's process for handling operational property issues with neighbors; Good!
- 3) Strategies for assuring reasonably transparent (NOTE: MMC was not at all transparent about the sale of the residential properties as required the contract zone. They really kept us in the dark for years on this. Need to be more explicit about what is meant by "reasonably transparent"?) communication pertaining to property acquisition and disposition in surrounding neighborhoods (NOTE: This should not be allowed - encroachment! The whole purpose of the IOZ is predictability BOTH for the institution and the neighborhood.);
- 4) A set of construction management principles, to apply to all institutional construction, that represent best practice, aim to minimize short- and long-term construction impacts on surrounding residents and businesses, and ensure a clear

Formatted: Font: Bold

Formatted: Font: Bold

Formatted: Font: Bold

Formatted: Font: Bold

Formatted: Font: Not Bold

Formatted: Font: Not Bold

Formatted: Font: Not Bold

Formatted: Font: Not Bold

Formatted: Font: Not Bold

Formatted: Font: Not Bold

Formatted: Font: Not Bold

2_28_17 revised draft IOZ

communication strategy is in place in advance of construction.

d. *Standards of Review.* The IDP shall:

- i. Address all content requirements, unless explicitly modified by the Planning Authority or Planning Board;
- ii. Reflect the issues/topics identified in the required public process;
- iii. Demonstrate consistency with the city's Comprehensive Plan and the purpose of this ordinance;
- iv. Demonstrate how the property ownership, proposed growth, and requested Regulatory Framework relate to the institution's mission;
- v. Demonstrate that traffic and parking impacts have been anticipated and that the proposed parking provision is justified as based on an assessment of options for reducing traffic and parking demands;
- vi. Outline an approach to open space, natural, and historic resources that supports preservation and enhancement.
- vii. Demonstrate that potential cumulative environmental impacts have been anticipated and can be minimized or satisfactorily mitigated;
- viii. Demonstrate that utility impacts have been anticipated and can be minimized or satisfactorily mitigated;
- ix. Reflect a comprehensive design approach that ensures appropriate transitions with the existing or future scale and character of the neighboring urban fabric;
- x. ~~Promote~~ **Demonstrate** compatibility with surrounding uses in adjacent neighborhoods, maintain housing, and support local amenities;
- xi. **Anticipate future off-site improvements that would support the integration of the institution into the community and city-wide infrastructure; NOTE: What does this mean?**
- xii. Conform with Portland's Historic Preservation 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 IDP shall be generally compatible with the major character-defining elements of the landmark or portion of the district in the immediate vicinity; and
- xiii. Incorporate strategies to support clear communication and ongoing public engagement between institutions and nearby neighbors.

e. *Approval.* Upon finding that an Eligible Institution's IDP meets the standards of review, the Planning Board shall approve, approve with conditions, or deny an IDP.

f. *Monitoring.* The IDP shall establish a schedule for reporting on IDP implementation at regular intervals of not more than ten years from the date of approval of the initial or amended IDP, and identify thresholds for IDP amendments;

g. *Amendments.* An approved IDP shall guide campus development unless and until amended. If at any time the Eligible Institutions request minor amendments (how defined?) to an approved IDP, the Planning Authority may approve such minor amendments, provided that they do not constitute a

Formatted: Font: Bold

Formatted: Font: Bold

Formatted: Font: Bold

2_28_17 revised draft IOZ

substantial alteration (How defined?) of the IDP and do not affect any condition or requirement of the Planning Board. The applicant shall apply with a written statement of the proposed amendment and proposed amended IDP to the Planning Authority, whose decision as to whether the amendment is minor shall be final. Major amendments shall be reviewed by the Planning Board. When the IDP is amended, the baseline data in the IDP shall be updated as appropriate.

Formatted: Font: Bold

V. Regulatory Framework

- a. *Purpose.* The Regulatory Framework translates the IDP into a set of clear and specific zoning requirements for the IOZ that constitute the text and map amendments to the City's Land Use Code and Zoning Map. The zoning requirements are anticipated to include parameters that guide the growth and change of the institution as well as clarify how potential impacts will be addressed, though some details may be more fully developed under site plan review.
- b. *Applicability.* The Regulatory Framework shall apply only to properties that are within the IOZ boundary and to which the Eligible Institution holds right, title, and interest. For these properties, the Institutional Overlay Zone shall supersede the underlying zoning, and all new institutional development shall be conducted in compliance with the Regulatory Framework and the approved Institutional Development Plan. Properties located within the Institutional Overlay Zone not subject to right, title, or interest of the Eligible Institution shall continue to be governed by the regulations of the underlying zoning designation.
- c. *Uses.* Institutional uses, including hospitals and higher education facilities, shall be permitted, as shall uses that are functionally integrated with, ancillary to, and/or substantively related to supporting the primary institutional use, consistent with the applicable approved IDP.
- d. *Content.* The Regulatory Framework shall reflect the information and analysis of the IDP. The content shall be tailored to address the particular issues associated with the institution and its neighborhoods. The Regulatory Framework should be succinct and use tables and graphics as possible to address the following:
 - i. *Zoning boundary of the IOZ:* The area to which the regulations apply, as shown on the zoning map, subject to other provisions of this ordinance (i.e. the map amendment to the City's Zoning Map);
 - ii. *Phasing and schedules:* Requirements that relate to particular proposed phases; a chart showing the schedule or thresholds for submitting an amended IDP (or elements of an IDP, such as a Transportation Demand Management (TDM) Plan);
 - iii. *Uses:* Clarification, as necessary, on permitted uses.
 - iv. *Dimensional Requirements:* Graphics, sketches, or standards, including details for transition zones within the IOZ boundary;
 - v. *Transportation:* Elements such as TDM trip reduction targets or contribution to area-wide TDM measures; broad parameters for ensuring pedestrian, vehicular, bicycle and transit access and safety; parking ratios and management strategies; thresholds for access improvements;
 - vi. *Environment:* The approach to the inclusion of open space and preservation of environmentally-sensitive areas;
 - vii. *Mitigation measures:* The approach to identified mitigation measures, which would be addressed in greater detail in the site

2_28_17 revised draft IOZ

plan review process; thresholds for addressing deficiencies; goals for preservation/protection;

- viii. *Design:* Graphics and standards to clarify building placement and envelope (height and massing); guidelines for integration of site features; required treatments for transition zones and treatment for all edges (both within and abutting the IOZ boundary); guidelines for establishing campus identity; and
 - ix. *Neighborhood Integration:* Thresholds and strategies for neighborhood engagement; mitigation of impacts on neighboring properties, including construction impacts; screening and buffering requirements; objectives for pedestrian linkages and safety; other requirements that address community concerns.
 - x. *Monitoring:* A schedule for regular monitoring reports on IDP implementation in accordance with the IDP.
- e. *Standards of Review:* The Regulatory Framework shall:
- i. Be consistent with the Comprehensive Plan and the Institutional Development Plan;
 - ii. Provide a clear zoning framework, using graphics and tables as appropriate, to apply to future site plan reviews;
 - iii. Provide specific regulatory statements as appropriate that respond to concerns raised during the required public involvement; and
 - iv. Outline measurable goals and thresholds for improvements or other actions identified in the IDP to be advanced in subsequent site plan applications.
- f. *Approval/Adoption.* The Planning Board shall review the proposed Regulatory Framework against the standards of review and make a recommendation on the institution's IOZ designation and Regulatory Framework to the City Council for adoption as part of this zoning ordinance.
- g. *Amendments.* A Regulatory Framework and IOZ boundary as adopted by the City Council shall remain in force unless and until amended. Amendments to a Regulatory Framework and/or IOZ boundary not brought forth by the institution as part of an IDP amendment will require a supermajority of the City Council to take effect. Amendments to the IOZ boundary or Regulatory Framework shall be reviewed by the Planning Board and adopted by the City Council subject to the provisions of this ordinance.

VI. Regulatory Frameworks of Eligible Institutions (The regulatory frameworks adopted by the Council for each Eligible Institution will be codified within this section.)



James Dealaman <jdealaman@portlandmaine.gov>

Neighborhood Concerns over IOZ IDP Process relating to existing Contract Zone Language

1 message

stjohnvalleyneighborhood <stjohnvalley@live.com>

Mon, Mar 27, 2017 at 11:40 PM

To: "planningboard@portlandmaine.gov" <planningboard@portlandmaine.gov>

Cc: "sgo@portlandmaine.gov" <sgo@portlandmaine.gov>, "jf@portlandmaine.gov" <jf@portlandmaine.gov>, stjohnvalleyneighborhood <stjohnvalley@live.com>, moses <mosessabina@yahoo.com>, "garrybowcott@hotmail.com" <garrybowcott@hotmail.com>, Jenny MacKenzie <jenabeat@hotmail.com>, "boccafe@hotmail.com" <boccafe@hotmail.com>, "nmaze@shalomhouseinc.org" <nmaze@shalomhouseinc.org>, "Jacob, Ian" <iancasperjacob@gmail.com>, Zack Zack Barowitz <zbarowitz@gmail.com>, Holder Emma <pna@parksideneighborhood.org>

<http://thebollard.com/2010/02/07/getting-the-institutional-creeps/>

March 27, 2107

To the City of Portland Planning Board:

In reviewing the latest IOZ draft with a group of neighbors yesterday, a couple of questions came up:

Once the IOZ is adopted, are all restrictions and covenants in place under an institution's current Contract Zoning eliminated?

The language in the IOZ, Chapter V Regulatory Framework states that the IOZ shall **supersede the underlying zoning.**

There is also language throughout the IOZ referencing for example that the institution's IDP provide a description of the **Assessment of Future Institutional Growth and Change.**

In the Chapter IV Neighborhood Engagement paragraph there is language that references (**reasonably transparent communication pertaining to property acquisition...**

I'm not sure how we missed this but the language has us very concerned that the new IOZ *completely* removes restrictions currently in place on Maine Med's ability to expand in our neighborhood outside of their current footprint.

Additionally, several other mandates present in the hospital's current contract zoning will apparently go away upon the adoption of the IOZ.

Specifically:

- Reporting requirements for Helicopter landings.
- Reporting requirements for the institutions Alternative Transportation Plan.
- Mandated quarterly meetings for the purpose of keeping the neighbors apprised of future development plans.:)
- Snow ban parking provisions
- Signage compliance

I'm assuming some of the above may be addressed in the MMC IDP, or are already part of city code.

Back to the footprint question...While we as a group agreed to and even suggested loosening expansion restrictions to allow for possible development of-for example the Sportsman's Club lot, we did so with a consideration towards diluting the impact of 1,200 cars being parked by the hospital on the Gilman Street block. An abandoning of the expansion restriction in its entirety is not what we envisioned and puts the neighborhood right back into the path of potentially major institutional creep.

Taking a look at a possible scenario:

The hospital already owns two surface lots on the west side of Valley at A Street.

With a complete removal of restriction against expansion outside the footprint, what keeps them from buying the other four parcels and creating another institutional super-block?

If I understand it correctly, in the case of the super-block, prior to being approved for use, the institution would need to have presented plans for this purchase and expansion in their IDP, and have the IDP approved by the Planning Board and the Council.

This is where I start to get confused.

- How can the institution include in their IDP, their intention to develop that block if they have not yet purchased the other property?
- How **"transparent"** or detailed can an institution possibly be in sharing their plans for acquisition and development in the IDP and still protect their position of confidentiality as a buyer?
- How will an institution be able to present, as required by the IDP, a description of their **"institutional objectives for property both within and outside the IOZ boundary"** and still protect their property buying interests?
- If, in order to protect the confidentiality of the buyer/seller, an institution is not required to present specifics about their **"assessment of future institutional growth and change"** including specific properties to be purchased or sold, how is the neighborhood to protect themselves from potentially unfettered growth by the institution?

Our biggest fear outside the prospect of a thirteen story parking garage, is that of a constant, ever expanding Maine Medical Center presence in our neighborhood.

This was a fear addressed and remedied in Chapter 1 of the 2005 Conditional Zone document and remains an active concern of those who live in this neighborhood. I've attached a copy of the Conditional Zone document along with a link to a story from 2010 relating to our neighborhood's concern over constant institutional expansion.

I'm sure there are parts of this process that many of us still need to understand. I greatly appreciate the patience and clarity that city planning staff, particularly Tuck and Jean, have demonstrated when speaking with me and my neighbors in trying to teach us about the process.

At this point however, I just don't see how the IOZ/IDP process demonstrates enough governance, control or influence over the institutions to protect those who might be negatively impacted by unrestricted expansion.

Before approving this approach, we need to figure out how the IOZ/IDP process can maintain and incorporate the protections provided by the current Conditional Zone Agreement; drafted and included for the long term benefit of our neighborhood, while still allowing consideration for thoughtful and agreed upon expansion by the institutions in our neighborhoods.

Thank you.

Tim McNamara

251 Valley Street

Portland, Maine



FINAL Contract 4.25.05 cra new patient visitor.odt
82K

Order 172-04/05

Given 1st reading: 2/23/05 Postponed on 3/7/05

Public Hearing & postponed on 4/4/05

Amended & Passage: 4/25/05 9-0

JILL C. DUSON (MAYOR)(A/L)
PETER O'DONNELL (A/L)
JAMES F. CLOUTIER(A/L)
NICHOLAS M. MAVODONES (A/L)

**CITY OF PORTLAND
IN THE CITY COUNCIL**

WILLIAM R. GORHAM (1)
KAREN A. GERAGHTY (2)
DONNA J. CARR (3)
CHERYL A. LEEMAN (4)
JAMES I. COHEN (5)

**AMENDMENT TO CITY CODE
SEC. 14-49 (ZONING MAP AMENDMENT)
RE: CONDITIONAL REZONING FOR PROPERTY
IN VICINITY OF WESTERN PROMENADE/ MAINE MEDICAL CENTER**

ORDERED, that the Zoning Map of the City of Portland, dated December 2000 as amended and on file in the Department of Planning & Development, and incorporated by reference into the Zoning Ordinance by Sec. 14-49 of the Portland City Code, is hereby amended to reflect a conditional rezoning as detailed below:

**CONDITIONAL ZONE AGREEMENT
MAINE MEDICAL CENTER**

AGREEMENT made this ____ day of _____, 2005, by **MAINE MEDICAL CENTER**, a Maine corporation with a principal place of business located in the City of Portland, County of Cumberland and State of Maine, its successors and assigns (**"MMC"**).

WITNESSETH:

WHEREAS, **MMC** is the owner of land and buildings located in Portland at Map 53, Block D, Lots 1, 2 and 7; Map 53, Block E, Lots 1, 2, 10 and 13; Map 53, Block G, Lots 1 and 13; Map 54, Block H, Lot 1; and Map 64, Block C, Lots 1 and 2; and Map 55, Block B, Lot 13 (the **"PROPERTY"**); and

WHEREAS, MMC is the largest provider of obstetrical services in Maine and provides the only statewide fulltime maternal fetal medicine service serving women and newborns at high risk and **MMC** has the only Level III neonatal intensive care unit in Maine; and

WHEREAS, in order to respond to the changing professional and clinical standards for the care of sick infants within the neonatal intensive care unit and to meet the spatial requirements of today's routine and high risk obstetrical and newborn care, **MMC** must build an addition comprised of 192,000 square feet (the "Charles Street Addition"); and

WHEREAS, MMC proposes to construct the Charles Street Addition by expanding vertically, on the site of an existing medical building bounded generally by Charles Street, Wescott Street, Ellsworth Street and Crescent Street; and

WHEREAS, in order to avoid a substantial expansion of the footprint of the buildings at **MMC** and, instead, to construct the Charles Street Addition by vertical expansion, it is necessary to modify the otherwise applicable height requirement in the R-6 Zone; and

WHEREAS, in order to accommodate the needs of the Charles Street Addition and to improve parking and traffic circulation on the **MMC** campus, **MMC** proposes to construct a new 512 car capacity parking garage along Congress Street (the "New Parking Garage"); and

WHEREAS, in order to achieve the requisite parking capacity within the available space, **MMC** needs to build the New Parking Garage at a height taller than the currently applicable height limit in the R-6 Zone and also to locate the New Parking Garage closer to Congress Street than the currently applicable setback requirement in the R-6 zone; and

WHEREAS, in order reduce transport time for critical patients coming to **MMC's** emergency department, **MMC** proposes to construct a helicopter landing pad on top of the

existing parking garage which fronts on Congress Street (the “Helicopter Landing Pad” also occasionally referred to as “Heliport or Helistop”); and

WHEREAS, in order to replace currently fragmented heating and cooling systems throughout its campus, **MMC** intends to construct a central utility plant, built into the hillside between the hospital and Gilman Street (the “Central Utility Plant”); and

WHEREAS, the Central Utility Plant will be built at a proposed height of 45 feet but is also designed to accommodate a future vertical expansion of two additional floors, with a maximum future height of 70 feet; and

WHEREAS, **MMC** currently has operating rooms, intensive care beds, and adult and pediatric beds in an existing building constructed in 1985 (expanded in 1998) and referred to as the “L. L. Bean Wing;” and

WHEREAS, **MMC** has no current construction plans for the L. L. Bean Wing, but anticipates that the L. L. Bean Wing will need to be expanded vertically at some time within the next decade; and

WHEREAS, the L. L. Bean Wing was designed structurally to accommodate such vertical expansion by an additional two stories; and

WHEREAS, **MMC** desires to provide for such eventual vertical expansion within this Agreement and additional vertical expansions, except as noted below, are not included within the scope of this Contract and will be subject to negotiation and approval in the future, when presented; and

WHEREAS, by expanding vertically for the Charles Street Addition rather than horizontally, **MMC** will need to remove only two residential buildings, and will do so in full

compliance with the housing replacement requirements of section 14-483 of the Portland Code of Ordinances; and

WHEREAS, in addition to such required replacement, **MMC** will divest itself of ownership of nine other buildings (two on Crescent Street, two on Ellsworth Street, one on Hill Street and four on Bramhall Street), enabling others to return them to residential use; and

WHEREAS, **MMC** has requested a rezoning of the **PROPERTY** in order to permit the above-described improvements; and

WHEREAS, the **CITY** by and through its Planning Board, pursuant to 30-A M.R.S.A. §4352(8) and Portland City Code §14-60, *et seq.*, and §14-315.3, after notice and hearing and due deliberation thereon, recommended the rezoning of the **PROPERTY** as aforesaid, subject, however, to certain conditions more specifically set forth below; and

WHEREAS, the **CITY** has determined that because of the unique circumstances of the location of an urban medical center campus in close proximity to historic and densely populated neighborhoods within the R-6 Zone, and in order to balance the interests of **MMC** and its residential neighbors, it is necessary and appropriate to impose the following conditions and restrictions in order to ensure that the rezoning is consistent with the City's Comprehensive Plan; and

WHEREAS, on April 25, 2005, the **CITY** authorized the amendment to its Zoning Map based upon the terms and conditions contained within this Agreement, which terms and conditions become part of the zoning requirements for the **PROPERTY**;

NOW THEREFORE, in consideration of the rezoning, **MMC** covenants and agrees as follows:

1. **MMC** will restrict any further expansion of its uses¹ in the Western Prom/ Parkside/ Gilman Street neighborhoods to the property specifically included in the following defined Campus²:

- (a) The main campus, bounded by the north side of Bramhall Street, the
- (b) western side of Wescott Street, a portion of the northern side of Crescent Street terminating with the proposed end of the new garage, and the south side of Congress Street between the existing and proposed new garage, and the eastern side of Gilman Street;
- (c) The existing medical office building located on Congress Street across from the main campus;
- (d) The Vaughn Street parking lot and McGeachey Hall;
- (e) The existing West Street Medical Office Building located behind the row houses at the eastern end of West Street (CBL 55-B-13);
- (f) The block bounded on Congress Street, Gilman Street, Valley Street and A Street.

2. The following exhibits are incorporated into and made a part of this Agreement:

Exhibit A: Helistop Overlay Zone Map

Exhibit B: Site Plan

- 1. Sheet C050: Campus Plan, Revision date: 9/16/04
- 2. Sheet C100: Site Plan, Revision date: 9/16/04
- 3. Sheet C101: Site Plan, Revision date: 9/16/04
- 4. Sheet C102: Site Plan, Revision date: 9/16/04
- 5. Sheet C103: Site Plan, Revision date: 9/16/04
- 6. Sheet C400: Landscape Plan, Revision date: 9/16/04

¹ “Future expansion of its uses” shall mean new construction of building(s) and or conversion of existing uses (including residential uses) into hospital related uses and the like. It shall not mean the occupancy of an existing building which contains a legally conforming medical related use.

² This provision shall not prohibit **MMC** from expanding or building in other areas of the City if permitted by zoning.

7. Sheet C401: Landscape Plan, Revision date: 9/16/04
8. Sheet C402: Landscape Plan, Revision date: 9/16/04
9. Sheet C403: Landscape Plan, Revision date: 9/16/04
10. Landscape Plan at Existing Garage, See sheets 401 & 402
11. Pedestrian Connection to Congress Street, 4/14/04
12. Parking Garage Rendered Elevation, North, (Option 1; Exhibit B, p.12, April 25,2005)
13. Parking Garage Rendered Elevation, (Option 1, Exhibit B, p. 12, perspective; April 25, 2005)
14. Parking Garage Rendered Elevation, South, 1/27/05
15. Central Utility Plant Rendered Elevation, 1/27/05
16. Charles Street Addition Rendered Elevation, South 1/27/05
17. Charles Street Addition Rendered Elevation, East 1/27/05
18. Charles Street Addition Rendered Elevation, North 1/27/05
19. Charles Street Material Board 1/27/05
20. Street Vacation/Acceptance and Land Transfer Plan (Sheet 1)
21. Street Vacation/Acceptance and Land Transfer Plan (Sheet 1)
22. Concrete Sidewalk Plan

Exhibit D: Miller Memo 01/06/05 and MMC Helipad Flight Paths, Harris Miller Miller & Hanson Inc., 9/16/04

Exhibit E: Helipad Operating Guidelines (2 pages); source, Lifeflight of Maine

Exhibit F: Helipad Plans

1. Heliport Plan, 1/27/05
2. Heliport Elevation, 1/27/05
3. Heliport Perspective, 1/27/05

Exhibit G: Vaughan Street Parking Lot Landscaping Plan

1. Landscape Plan, 7/8/04
2. Wall Treatment
3. Fence Detail
4. Landscape Section

3. The **CITY** shall amend the Zoning Map of the City of Portland, dated December 2000, as amended from time to time and on file in the Department of Planning and Urban Development, and incorporated by reference into the Zoning Ordinance by Portland City Code §14-49, by adopting the map change amendment below, which map change includes a Helistop Overlay Zone as more particularly depicted on Exhibit A.



4. The **PROPERTY** and site improvements shall be developed and operated substantially in accordance with the site plan shown on Exhibit B (the “Site Plan”), which Site Plan includes but is not limited to street layouts, landscaping, and building elevation drawings for initial construction, subject to the approval of the Site Plan by the City’s Planning Board in compliance with the requirements of Chapter 14, Article V. The architectural treatment of the façade of the New Parking Garage may be revised during site plan review and shall meet the site plan standards of 14-526(16). Minor revisions to the Site Plan in the nature of field adjustments may be approved by the Planning Authority, without the need for amendment of this Agreement or further approval by the City Council.

5. No building permits shall be issued unless and until **MMC** receives conditional use approval pursuant to section 14-474 (Expansion of Institutional Use) and section 14-483 (Housing Replacement), site plan approval pursuant to section 14-483(e) of the City Code, approval under the Site Location of Development Act and an MDOT traffic movement permit, if required. No occupancy of the newly constructed buildings shall be permitted unless and until all site plan conditions of approval have been satisfied and the City Council has taken final action on the street discontinuances and street acceptances required for the realignment of certain streets, as shown on the Site Plan (Exhibit B).

6. **MMC** shall provide to the **CITY** a performance guarantee covering all required site improvements under section 14-525(j) of the City Code and the two replacement dwelling units provided under paragraph 6(d) of this Agreement.

7. The **PROPERTY** shall be governed by the zoning provisions, as such may be amended from time to time, applicable in the zoning districts underlying the Conditional Zone except as follows:

(a) Height Limits. The maximum structure height (measured according to the definition of “building, height of” in section 14-47) shall be:

- 95 feet for the Charles Street Addition, as depicted on the Site Plan
- 70 feet for the New Parking Garage, as depicted on the Site Plan
- 45 feet for the Central Utility Plant, as depicted on the Site Plan
- 111 feet for the L. L. Bean Wing, as already constructed.

(a) Setbacks.

- The minimum setback of the New Parking Garage shall be zero (0) feet from the right of way line of Congress Street.
- The minimum setback of the southeast corner of the Charles Street Addition shall be five (5) feet from the relocated right of way line of Ellsworth Street, as depicted on Exhibit B.
- The minimum setback of the Central Utility Plant shall be five (5) feet from Gilman Street.

(d) Replacement Housing. The replacement of the two existing residential structures at 33 Crescent Street (identified as Map 53, Block E, Lot 2) and 37 Crescent Street (identified as Map 53, Block E, Lots 1, 10 and 13) containing a total of seven dwelling units and two single-room occupancies by a portion of the New Parking Garage shall be deemed to meet the requirements of section 14-137(c), provided that **MMC** shall comply fully with the requirements of section 14-483 (Preservation and Replacement of Housing Units). Specifically, **MMC** shall comply with section 14-483 by (i) converting the building at 325-329 Brackett Street identified as Map 54, Block D, Lot 7 (the last approved use of which was office space) into two dwelling units prior to the issuance of a certificate of occupancy for the New Parking Garage and then divesting itself of ownership of the building prior to the issuance of a certificate of occupancy for the Charles Street Addition and (ii) paying Three Hundred Fifteen Thousand Five Hundred Eighty dollars (\$315,580.00) into the **CITY**'s Housing Development Fund (representing five dwelling units and two single-room occupancies) upon

approval of the Site Plan by the **CITY**'s Planning Board. The deadline for divestiture may be extended by the Planning Authority if **MMC** demonstrates that reasonable good faith efforts to market the property instituted at least 6 months prior to the deadline have failed to produce a bona fide offer at or above fair market value and on commercially reasonable terms.

(e) Sidewalks. **MMC** shall comply with the **CITY**'s Brick District Policy Plan, except that, at the time of final site plan review, the Planning Board may approve the use of concrete sidewalk materials, as shown on Exhibit B 22, because of the particular needs or requirements of the hospital use.

(f) Street level uses in garage. The street level of the new parking garage may be used for any use allowed in the B-2 zone.

8. The Helicopter Landing Pad shall not be subject to the provisions of section 14-409 (Heliports), but shall be governed by the provisions of the Helistop Overlay Zone, sections 14-325 through 14-327), except as follows:

(a) Setbacks. Because it is to be located on the roof of an existing structure, the landing pad shall not be required to meet the setback requirements of Section 14-327(3) or the fencing requirements of Section 14-327(4).

(b) Flight routes. **MMC** shall identify preferred flight routes, to be approved by the **CITY**, designed to minimize noise impact of helicopter flights on surrounding residential areas, shall notify all flight providers likely to use the Helicopter Landing Pad of such preferred routes, and shall take the following measures to ensure that such preferred routes are utilized whenever weather conditions, safety considerations and the best interests of the patient being transported permit, with the expectation that this will be the usual case. **MMC** will instruct all providers which regularly use the Helicopter Landing Pad that pilots must file an exception report with the Air Medical Provider Administration of Lifeflight of Maine or its successor entity for operations modified for safety considerations or at the direct request of Approach Control at the Portland International Jetport. Logs of these exception reports will be made available to **MMC** and to the **CITY** every six months. When and if the Portland Jetport has the capacity to maintain and preserve data which specifically identifies flight routes actually taken by aircraft using the Helicopter Landing Pad, the **CITY** shall consult such data to review compliance with this paragraph, and **MMC**, upon request of the **CITY**, will be responsible for the **CITY**'s reasonable costs of translating such data into useable form, but not for the costs of the flight monitoring. Initially, such preferred flight routes shall be as shown on the map attached to this Agreement as Exhibit D. At the initiative of either the **CITY** or **MMC**, the map of preferred flight routes may be amended from time to time by agreement between **MMC** and the City Council. The City Council shall consult with the Portland International Jetport and shall convene a neighborhood meeting to obtain input from residents of any affected residential areas before agreeing to any such amendment. An agreement between the parties to change preferred flight routes under this paragraph shall include noise mitigation measures in addition to those described in paragraph 7(g) below provided the noise mitigation measures are recommended by

an independent noise consultant. In addition, after one full year of operation of the Helicopter Landing Pad (measured from the date of the first patient transport flight to use the Helicopter Landing Pad), the City Council shall review the operation of the preferred flight routes and may initiate amendments to the map of preferred flight routes, following the procedures specified above. In connection with review or amendment of flight routes under this paragraph, the **CITY** may engage the services of an independent consultant and **MMC** will reimburse the **CITY** for its reasonable costs of obtaining such consulting services provided that the **CITY**, in advance of engaging the consultant, affords **MMC** an opportunity to comment on the scope of the consultant's engagement.

(c) Fly Neighborly. In negotiating any contract or agreement with any provider of emergency medical transport by helicopter, **MMC** will require the provider to operate in compliance with the "Fly Neighborly Guide" revised February 1993, (and any subsequent revisions) prepared by the Helicopter Association International Fly Neighborly Committee and published by the Helicopter Association International. **MMC** shall establish a complaint number and a protocol for handling complaints, which shall be publicized within the neighborhood, and the complaints will be reviewed no less than quarterly by the Maine Medical Center Neighborhood Council, noted below.

(d) Helipad operating guidelines. Helicopter landings on the Helipad are approved for emergency patient care only. Any use of the Helicopter Landing Pad for other than emergency patient care transport shall be deemed a violation of this Agreement and shall result in the termination of the Helicopter Overlay. The following standard practices will be incorporated as general policy for operations in and out of the Maine Medical Center Helipad and shall be communicated by **MMC** to providers. At all times, the Pilot in Command (PIC) will determine safety of operations as a first consideration. Under normal operating circumstances, take-offs, landings and standing-by on the Helicopter Landing Pad shall be conducted according to the Operating Guidelines, attached hereto as Exhibit E, subject at all times to the judgment of the helicopter pilot concerning safety and to the judgment of the emergency medical personnel concerning the health of the patient.

(e) Equipment. In generating any specifications in connection with the negotiation of any contract or agreement with any provider of emergency medical transport by helicopter, **MMC** will specify that helicopters utilizing the Helicopter Landing Pad (with the exception of U.S. military or government aircraft) are relatively new turbine powered aircraft meeting requirements under ICAO Annex 16 Chapter 8 for in-flight noise levels and complying with FAA airworthiness standards, 14 CFR part 36.11 and 14 CFR 21 Sub-part D, or any amended or successor requirements or standards.

(f) Design and construction. The Helicopter Landing Pad shall be constructed as shown on Exhibit A.

(g) Mitigation. **MMC** will pay for the installation costs associated with the full installation of soundproofing improvements contained within Exhibit D, except in lieu of central air conditioning **MMC** will also pay for the installation of ventilation improvements to one or more rooms within each such dwelling unit as reasonable and appropriate as determined by the

CITY. The **CITY** shall contract for such work and **MMC** shall be responsible for the costs associated therewith, plus a 10% administrative fee to be paid to the **CITY**. Before entering into any contract for such work, the **CITY** shall notify **MMC** and give **MMC** the opportunity to comment on the scope of the proposed work and the estimated cost thereof. The properties to be included under this provision are as follows: 879 Congress Street (Map 53, Block I, Lot 16), 921 Congress Street (Map 65, Block D, Lot 17), 925 Congress Street (Map 65, Block D, Lot 16) and 929 Congress Street (Map 65, Block, D, Lot 14). Such funds shall only be expended if the present owners of such buildings request such improvements no earlier than six months and no later than eighteen months after commencement of the operation of the Helicopter Landing Pad. For a period of five years from the date of this Agreement, any new owner of the aforementioned properties may request such improvements no later than eighteen months after purchase of said property(s).

(h) Accreditation. The principal provider of air medical transport to **MMC** shall be accredited by the Committee on Accreditation of Medical Transport Systems or its successor agency. Providers using the helicopter landing pad shall be accredited by the Committee on Accreditation of Medical Transport Systems or its successor agency, unless special circumstances warrant a non accredited provider such as the Air National Guard, the U.S. Coast Guard or other users.

9. Signage shall comply with the requirements of sections 14-336 through 14-372.5 of the City Code, except as otherwise approved by the Planning Board under Chapter 14, Article V.

10. For the purpose of keeping surrounding residential areas apprised of its future development plans, and to address any neighborhood issues related to the operations of the **MMC** campus (including but not limited to complaints or operating issues with respect to the helipad and future planning and development programs associated with **MMC**), **MMC** shall, no less than quarterly, and with two weeks written notice, invite representatives of the Maine Medical Center Neighborhood Council to meet with designated representatives of **MMC**. For purposes of this requirement, the Maine Medical Center Neighborhood Council shall consist of two representatives of the Parkside Neighborhood Association, , two representatives of the Western Prom Neighborhood Association, and two representatives of the Gilman/Valley Streets neighborhood. The neighborhood organizations shall designate the persons who shall serve on the Maine Medical Center Neighborhood Council. In the event there is no formal neighborhood organization, the City Council District Councilor shall designate the persons to serve on the Maine Medical Center Neighborhood Council.

11. **MMC**, prior to occupancy of the Charles Street Addition, shall relocate the sewer serving 31 Crescent Street, as depicted on the Site Plan (Exhibit B). In addition, **MMC** shall provide two off-street parking spaces for use by the tenants of 31 Crescent Street for so long as 31 Crescent Street serves as a residential structure.

12. **MMC** agrees that it will make the parking garage contemplated within this Agreement available for use by the public for snow ban purposes in a fashion similar to that

required in its Congress Street/Forest Street parking garage. In addition, **MMC** shall require all of its vendors, contractors and subcontractors to utilize a parking garage or other approved parking area/facility for vehicles and truck parking during construction.

13. **MMC** agrees to divest itself of ownership of the following existing structures owned by **MMC** according to the following schedule:

Prior to the issuance of a certificate of occupancy for the Charles Street Addition:

15 Crescent Street (Map 53, Block F, Lot 6)
25 Crescent Street (Map 53, Block E, Lot 5)
25 Ellsworth Street (Map 53, Block H, Lot 2)
32 Ellsworth Street (Map 54, Block C, Lot 5)
20 Hill Street (Map 54, Block C, Lot 1)

No later than January 1, 2010 or the issuance of a certificate of occupancy for any of the future expansions described in Section 6(b) above, whichever is earlier:

19 Bramhall Street (Map 63, Block A, Lot 4)
23 Bramhall Street (Map 63, Block A, Lot 3)
25 Bramhall Street (Map 63, Block A, Lot 2)
31 Bramhall Street (Map 63, Block A, Lot 1)

The deadline for divestiture of any of such property may be extended by the Planning Authority if **MMC** demonstrates that reasonable good faith efforts to market the property instituted at least 6 months prior to the deadline have failed to produce a bona fide offer at or above fair market value and on commercially reasonable terms.

14 **MMC** agrees that it will remove the existing building located at 261-269 Valley Street (formerly the “Eagles Club”) within 12 months after the effective date of this Agreement and that the site of the removed building will be loamed and seeded unless and until otherwise developed pursuant to an approved site plan.

15 **MMC** shall provide landscaping of the area surrounding its Vaughn Street parking lot as shown on the landscaping plan attached hereto as Exhibit G and shall construct, maintain and continue to own the “pocket park” located at Ellsworth and Charles Streets as shown on the Site Plan (Exhibit B). The improvements to the Vaughn Street parking lot shall be completed within 12 months of the effective date of this Agreement.

16. **MMC** agrees to allow public pedestrian access between its campus and Congress Street through a new enclosed stairway to be constructed adjacent to the New Parking Garage, as depicted on Exhibit B.

17.. **MMC** shall contribute \$800,000 to the **CITY** to use for public improvements in the general vicinity of Maine Medical Center.

18.. MMC agrees that it will encourage its employees and visitors to use alternatives to single-occupant automobiles when traveling to and from the **PROPERTY**. In its application under the Site Plan Ordinance, MMC agrees to include among its written statements an Alternative Transportation Plan. The Alternative Transportation Plan will propose strategies to reduce single-occupant automobile trips to the **PROPERTY**. Such strategies shall include, but not be limited to, subsidies and other incentives for employees and visitors to use local and regional mass transportation, share rides (carpools and vanpools), ride bicycles and walk. The Planning Board will include the Alternative Transportation Plan in its consideration of sections 14-526(a)(1) and (2) of the City Code. In addition, an analysis of effectiveness and functioning of the Alternative Transportation Plan shall be provided to the City Council's Transportation Committee on an annual basis.

20.. The above restrictions, provisions and conditions are an essential part of the rezoning, shall run with the **PROPERTY**, shall bind and benefit **MMC**, its successors and assigns, and any party in possession or occupancy of the **PROPERTY** or any part thereof, and shall inure to the benefit of and be enforceable by the **CITY**, by and through its duly authorized representatives. Within 30 days of approval of this Agreement by the City Council, **MMC** shall record a copy of this Agreement in the Cumberland County Registry of Deeds, along with a reference to the book and page of the deeds to the property underlying said **PROPERTY**. Unless otherwise stated within this Agreement, this Agreement governs only the **PROPERTY** expressly covered by this Agreement and applies only within the boundaries of the rezoned area as shown on the map. Nothing in this Agreement shall have any effect on or be construed as having any bearing on the use or development of any other properties owned by **MMC** or its affiliates, all of which shall continue to be governed by the applicable provisions of the Portland Land Use Code, without regard to this Agreement.

21.. If any restriction, provision, condition, or portion thereof, set forth herein is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed as a separate, distinct and independent provision and such determination and shall not affect the validity of the remaining portions hereof.

22.. Except as expressly modified herein, the development, use, and occupancy of the **PROPERTY** shall be governed by and comply with the provisions of the Land Use Code of the City of Portland and any applicable amendments thereto or replacement thereof.

23.. This conditional rezoning agreement shall be enforced pursuant to the land use enforcement provisions of state law (including 30-A MRSA 4452) and **CITY** Ordinance. No alleged violation of this rezoning Agreement may be prosecuted, however, until the **CITY** has delivered written notice of the alleged violation(s) to the owner or operator of the **PROPERTY** and given the owner or operator an opportunity to cure the violation(s) within thirty (30) days of receipt of the notice. Following any determination of a zoning violation by the Court, and in addition to any penalties authorized by law and imposed by the Court, either the Portland Planning Board on its own initiative, or at the request of the Planning Authority, may make a recommendation to the City Council that the Conditional Rezoning be modified or the **PROPERTY** rezoned.

24.. In the case of any issue related to the **PROPERTY** which is specifically addressed by this Agreement, neither **MMC** nor their successors may seek relief which might otherwise be available to them from Portland's Board of Appeals by means of a variance, practical difficulty variance, interpretation appeal, miscellaneous appeal or any other relief which the Board would have jurisdiction to grant, if the effect of such relief would be to alter the terms of this Agreement. In cases that fall outside of the above parameters (i.e., alleged violations of any provisions of Portland's Land Use Code, including, but not limited to, the Site Plan Ordinance, which were neither modified nor superceded by this Agreement), the enforcement provisions of the Land Use Code, including, but not limited to, the right to appeal orders of the Planning Authority, Building Authority and Zoning Administrator shall apply. Nothing herein, however, shall bar the issuance of stop work orders.

WITNESS

MAINE MEDICAL CENTER

By:

Its:

STATE OF MAINE
CUMBERLAND, ss.

Date: _____, 2005

Personally appeared before me the above-named _____, in his capacity as _____ of Maine Medical Center, and acknowledged the foregoing instrument to be his free act and deed in his said capacities and the free act and deed of Maine Medical Center.

Before me,

Notary Public/Attorney at Law



James Dealaman <jdealaman@portlandmaine.gov>

Fwd: PB hearing on IOZ new ordinance

1 message

Jean Fraser <jf@portlandmaine.gov>

Tue, Mar 28, 2017 at 2:18 PM

To: James Dealaman <jdealaman@portlandmaine.gov>

This is PC 22 and the one I have already copied (paper copies) for the Board meeting- just needs to go into your other system. thanks, Jean

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

From: **moses sabina** <mosessabina@yahoo.com>

Date: Tue, Mar 28, 2017 at 1:16 PM

Subject: Re: PB hearing on IOZ new ordinance

To: Jean Fraser <jf@portlandmaine.gov>

Jean,

Here are some comments for the planning board meeting:

Portland Planning Board,

My name is Moses Sabina, I am an owner/resident of 4 Gilman St. I have the unique perspective of participating in the MMC Neighborhood Council since its inception, longer than any other neighbor or MMC staff. I am concerned that the language in the IOZ regarding neighborhood engagement is too vague. The IOZ calls for a plan for neighborhood engagement. Who decides what is acceptable? What is the mechanism for institutional accountability?

Here are some examples of instances when MMC has either exploited a loophole in the CRA or attempted to with little to no accountability.

1. The Retail Space: The current CRA required MMC to create a retail space as part of the new visitor garage on Congress St. The retail space was called for by neighbors and the planning board. After sitting vacant and completely undeveloped (it has a dirt floor to this day), I made it a point to check in on the progress of finding a tenant for it nearly every quarterly meeting. MMC reported that they had many interested parties over the years, but no lease was ever signed. MMC conducted a survey of their staff asking what type of business would be beneficial. One meeting their real estate listing agent, Mark Malone, told us that the asking price was too high. After many years of updates on the retail space, neighbors and I finally had the opportunity to ask Rich Peterson about it; he informed us that MMC had no intention of leasing the space, and never had. In this case, MMC fulfilled their obligation in the CRA by creating the space, but ignored the intentions of the community and opportunity to house a neighborhood business.

2. Snow Ban Parking: MMC is required by the city to provide snow ban parking in both the new visitors garage and the Forest St Garage. The record as to how many spaces they are required to provide is unclear, yet MMC has manufactured their own number. MMC has closed a nearly empty Forest St garage during parking bans, prohibiting neighbors from parking there. This is an issue we thought we had worked out in the quarterly meetings, but it occurred again this winter. To their credit, after phone calls were made, the garage was re-opened.

3. Sportsman's Lot: Though the CRA prohibits MMC from expanding their footprint, they attempted to buy the lot across the street from the employee garage, formerly the site of the Sportsmans restaurant. This decision was announced to the Neighborhood Council in a meeting. After reviewing the CRA, I brought the issue to Penny Littell, who at that time was on the Portland City legal department. MMC was disallowed from purchasing the property. They claimed that they didn't understand the CRA. It's pretty clear. It draws a line which says, across this you do not! [chapter 1, page 5]. The fact that they made the attempt speaks volumes to the need for regulation and enforcement. If I had not raised the issue, I'm not sure whether anyone else would have. Where today stands a thriving neighborhood restaurant in Salvage BBQ, could be another MMC owned building, another dune in the urban desert, which contributes nothing to the neighborhood street scape.

4. The Current Proposed Expansion Project: The IOZ calls for neighborhood engagement, and one shape that could take is a quarterly meeting like the one I have been engaged in with MMC for roughly ten years. That's a lot of my time donated to hospital neighborhood relations; time that I would like to think has not been wasted. It's hard to think that

when I hear Jeff Sanders from MMC state that they've been working on the current proposed expansion project for a year and a half; that six quarterly meetings that nary a whisper of this project was uttered in meetings which are required by the CRA for the express purpose of "surrounding residential areas apprised of future development plans" [CRA chapter 10, page 11]. They have an urgent need for single occupancy rooms, there is no denying that. I want my local hospital to be the best it can be, who doesn't? It is, however, hard to hear the cries for urgency in the city planning process when they ignored the opportunity for neighborhood feedback in mandated meetings with neighbors who they know and have been engaging with regularly for years. Somewhere, in the IOZ or not, there needs to be very specific language regarding neighborhood engagement, and oversight of the engagement, otherwise we will continue the pattern of wasted time and missed opportunity. We now hear MMC is looking at some alternative to the proposed project; how much time and money was wasted getting to that decision? Whether they wanted to hear it from us or not, neighbors and MMC could have had that discussion a year and a half ago.

5. TDM Reports: The CRA [chapter 18, page 13] calls for annual TDM reports to be submitted to the city. We haven't had any discussion of TDM in our quarterly meetings in a long time.

Please consider making the IOZ more specific with regard to neighborhood engagement.

Respectfully,

Moses Sabina

From: Jean Fraser <jf@portlandmaine.gov>
To: "Fraser, Jean" <jf@portlandmaine.gov>
Sent: Thursday, March 23, 2017 2:29 PM
Subject: PB hearing on IOZ new ordinance

Hello

Further to my e-mail on March 13 (which advised about the postponement of this hearing to March 28th because of the storm) I am writing to advise you:

- the PB hearing will be at **4:30pm on Tuesday March 28th**;
- the agenda is attached for information;
- and that a very slightly revised text of the IOZ will be presented to the Board for consideration on Tuesday, and the final version will be placed on the City's website tomorrow by the end of the day at the following link:

https://me-portland.civicplus.com/AgendaCenter/ViewFile/Agenda/_03282017-2001?html=true

[Please note that we have not yet received any further MMC submissions, and I will let you know when that specific project will next be discussed at a Planning Board meeting.]

Thank you - and please do not hesitate to contact me if you have any questions.

Jean

--

Jean Fraser, Planner
City of Portland
874 8728

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.

April 18, 2017

Tuck O'Brien
Jean Fraser
City of Portland Planning Department

Re: Neighborhood Review of MMC IDP

Hello Tuck and Jean,

We write to share with you our group's review of the MMC IDP submitted April 7, 2017.

We've all spent multiple hours over the last several weeks focusing on the new IOZ with the goal of understanding its function and its intended benefit to the institutions, the city and the neighborhoods.

We then proceeded to the IDP. Each of us read the document on our own then divided up chapters for individual review. We convened and shared our understanding, our confusion and where appropriate our objection to language, data and positions taken by the hospital in the IDP.

We then drafted a two part document to cross reference and list our concerns.

The first part of the document examines the IDP on its own- *unrelated to the demands of the IOZ*. We've listed our objections, our questions and our concerns in the areas of height and massing, institutional expansion into our neighborhood, policies regarding snow ban parking, smoking, construction impact mitigation and the lack of involvement the neighbors have been allowed relating to design, construction management and infrastructure impact.

Next, we returned to the IOZ and highlighted those areas where we found the IDP failed to meet the demands of the IOZ. From that highlighted IOZ, we drafted a list of questions and observations calling attention *by paragraph* to the IOZ demands that we believe are unmet.

(In addition to the two part document, we've attached our highlighted version of the IOZ including our notes.)

While we have submitted a list of questions to the hospital for discussion at the April 19 expansion meeting, (several of which cover topics found in our document here,) we feel this more in depth review of our concerns should be directed to you in the Planning Department.

Some of these questions may be answered at the Expansion Group meeting on Wednesday. Pending the outcome of that meeting perhaps we can get together the following week and speak to what questions and concerns may remain.

Thank you,

Tim McNamara
Sarah Martin
Moses Sabina
Garry Bowcott
Brian Stickney
Tricia Bisson
Jenny Mackenzie

The IDP on its own:

1.

We object to the one hundred and fifty foot height proposal for the Gilman block. Page 116

No matter what is built there and no matter how it is designed or setback, one hundred and fifty feet is too high for that block. Current zoning height allows for sixty five feet. Considering the homes along A Street that will sit directly opposite any construction on that block, the height restriction of sixty five feet should be maintained.

2.

We object to the boundaries outlined in the IDP extending to the two commercial blocks on Valley at Congress and Congress at Forest street. Pg 110

Further hospital expansion into these blocks would be detrimental to the neighborhood.

Development by the hospital of these two pivotal blocks would eliminate more than twenty residential units in a town desperately in need of housing units. Additionally, hospital development here would either displace or negatively impact existing businesses that serve as a draw and an attraction to our neighborhood.

Best case scenario would in fact be for the hospital to divest itself of the two lots it owns on Valley at A Street. This would free up that corner for possible mixed use housing/retail development by private ownership.

To include these two blocks in the sphere of potential expansion hurts this neighborhood at a time when we are beginning to become a more attractive destination for retail, hospitality, housing and other development.

We realize that property owners have the right to sell to whomever they choose. However, the removal of restrictions on hospital expansion in our neighborhood, exposes us to more of the institutional creep that the current zoning was crafted to prevent.

With the exception of those who would benefit from the sale of their property to a bidder of such resources as Maine Med, those of us who live here will suffer if the hospital is allowed to expand onto these two blocks.

The hospital has managed to budget over half a billion dollars for an expansion that takes place within their current footprint. In the event they see the need for further expansion we would suggest they consider the area of St John Street between Congress and Park Avenue as an alternative to the two blocks proposed.

3.

When will the public be able to view the drawings and plans for the expansion?

Page 94 references a "transparent bridge" connecting the Gilman garage to the main entrance. There is a drawing on page 91 showing what appears to be a span over the top of Gilman Street. We have asked for months about drawings and have been told there are none available. We've been assured that we would be involved in the discussion of design. The IDP is now showing conceptual drawings of a bridge over Gilman Street. This bridging of Gilman street has seen much discussion among neighbors and there are several concerns over the concept. We need to be in that conversation before plans are finalized.

4.

Parking garage demolition.

Page 99 schedules the demolition of the garage from June to December 2019.

We have been asking for months how and when the garage will be removed and how we might prepare for this event. From a *construction impact* point of view, the demolishing of that structure will have the greatest *impact* on the surrounding neighbors quality of life. Seven months of demolition will pose the greatest risk of damage to our buildings and months of disruption, vibration, dust and noise will most likely result in losses to business and great difficulties leasing or re-leasing to tenants. We have asked if the garage would be imploded or taken down with wrecking balls and jackhammers. We've asked how long the demo might take. Businesses and landlords in the area have expressed great concern over potential hardships resulting from this action. This too is a conversation we need to be involved in and apparently we are not.

5.

Smoking

The language prepared by the hospital on page 102 and the actions they claim to be taking fall well short of addressing this problem. The campus wide ban on smoking has resulted in hospital patients, visitors and staff leaving campus for the purpose of smoking on our city streets and sidewalks as well as oftentimes our private property. This is a dynamic that has

many neighbors unhappy. Exposure to second hand smoke and piles of cigarette butts on our streets and sidewalks is the result of the hospital policy forcing their people to smoke off campus. We are told by the hospital that all across the city people are dealing with unwanted smoke and we are asked to believe that the hospital isn't even sure if the people smoking around its facility are associated with MMC. We are asked to believe that proactive walkabouts are taking place and that a vendor is working 4 to 6 hours every Monday, Wednesday and Friday to pick up butts. If this IDP document is to be considered credible, this piece needs to be completely redone.

6.

Snow Ban Parking

Pages 93 and 102 address the issue of Snow Ban Parking. To be clear, current zoning states that "MMC agrees that it will make the parking garage contemplated within this Agreement available for use by the public for snow ban purposes in a fashion similar to that required in its Congress Street/Forest Street parking garage." The hospital has failed to meet this commitment in the past and often times has locked people out of accessing either garage during a snow ban. Page 93 references abuse by neighbors in the past. We know of no one in any of our organizations who were part of the group "abusing" the free use of the MMC garage. We fully agreed with MMC when we heard about unauthorized cars having been removed from their garages. We heard of the towing well after the fact and MMC never asked us if we knew who might be illegally parking in the lots. As far as we "neighbors" know...those vehicles could have been employees, or visitors or any opportunist with an eye on using a wide open, un-monitored parking garage to store their vehicle.

The language on page 122 essentially says that the hospital will offer neighbors space in the 887 Forest Street garage during snow ban parking so long as such spaces are not needed to service MMC. This is not good enough. When both 887 Congress Street and the new patient and visitor garages were built, the understanding between the city and the hospital was that snow ban parking would be made available in both. To put a condition such as the hospital has on use by neighbors runs counter to what has been a long standing mandate.

7.

Page 66

I'm not sure what is trying to be said in the bottom half of the text on the left side of the page but it does not make sense.

8.

Page 34

The two charts on this page we find misleading and confusing. Shouldn't peer comparisons involve institutions of similar size, geographical location, demographics, etc? Why aren't Dartmouth Hitchcock and UMass Memorial included? Also, since the purpose of the charts are to prove MMC's need for parking, shouldn't they both include the same "peer" institutions when referencing inpatient parking demand and employee parking demand?

9.

Pages 116, 117,60

The Gilman garage is shown on page 60 as extending down to St John Street. I think this is just an error in labeling Valley Street as St John. Valley and St John streets are flip flopped on pages 116 and 117 as well.

10.

Page 83

Table 5.1 references potential on site roof top energy production? We've not heard about this. Will this generate noise or vibration? Is this wind power? Solar?

As the IDP relates to the demands of the IOZ

14-277 (c)(g)Purpose of the Institutional Overlay Zone

According to the purpose statement on page 1 the IOZ intends to ensure that institutional growth "complements" and "integrates " as well as looks to the "need" of adjacent neighborhoods through carefully planned transitions and unique regulatory requirements. We don't see that the IDP accomplishes that. In fact while the IDP speaks of transitions there is no example demonstrating how such transitions will be achieved.

14-280 (b) IDP Planning Horizon

Other than the plan that has been proposed for development within the current footprint, the only other outline of the

anticipated growth is the drawn boundary lines around the two lots discussed above. Isn't the IDP supposed to be more specific as to what the institution's actual plans for future development are?

14-280(c)1b v

The square footage of the parking garages has been omitted from the IDP.

14-280 (c)1 c ii

14-280(c) 2 b i b/c

This calls for a traffic study and the IDP does not contain a traffic study. If the institution is able to defer this study until the Site Plan review then why does the IOZ demand it?

14-280 (c)1d

Third on our list of public concerns behind a thirteen story garage and unfettered hospital expansion is mitigation of the construction impact on our buildings, our tenancies and our businesses. We had expressed the need for baseline engineering reads on properties that might suffer damage from demolition vibration, pile driving and all other related construction impact. We had also asked for remedies to business interruption owing to construction impact. These concerns are not reflected in the IDP. (see page 51)

14-280 (c) 2 b 1 b, c

Traffic study required to meet this demand.

14-280 (c) 2 b ii b Environment

We cannot find language in the IDP addressing the generating and the effect of vehicle exhaust on the neighbors from the new proposed parking structure.

14-280 (c) 2 b iii Infrastructure

More is needed to provide baseline information on the conditions of the surrounding roadways and how they will hold up under the additional traffic -both during construction and long term.

14-280 (c) 2 b iv a, b, c, d Design

a. Wind and shadow issues insufficiently addressed in the IDP. We should see the studies relative to wind and shadows as they relate to the new construction.(see pages 90, 91)

b. Transition areas? Unclear where in the IDP this is addressed.

c. CPTED-This chapter should be modified to include commitment by the hospital to staffing the entrances to parking areas, providing a visible security presence on the grounds and in the garages and adding language specifically addressing the problems of prostitution, vagrancy and suicide on hospital property. (page 94)

d. Environment /public realm plan on page 95 consists of two drawings. It is unclear what the drawings are supposed to represent.

14-280 (c) 2 b v Neighborhood Engagement

a. The language on page 98 is the same language present in the current Conditional Rezone Agreement. This language failed to work as intended. For example, neighborhood representatives were not told of the five hundred million dollar expansion until a day before the news was released to the press. This project had been in motion for months or years before neighbors were informed of its scope or its scheduling. The question of how the hospital is to be held to its commitments, its mandates and the terms of the city code has been asked in front of the Planning Board by neighbors. This chapter needs refining with language that can actually hold the hospital accountable for performance.

c. The question of assuring communication pertaining to property acquisition continues to perplex us. How is it that an institution is to share acquisition /disposition info and still protect itself as a buyer or seller? We are unsure where or if this is addressed in the IDP.

d. Relating to construction management, our obvious concerns over the demolition of the garage are expressed earlier in this document. Pages 99-101 are an attempt at a construction management plan but really say nothing. For example construction will take place Monday through Friday seven am to six pm... Unless there is a need to work after six pm or on Saturdays or Sundays.

Or this example..."MMC is committed to mitigating construction noise impacts. Increased community sound levels,

however, are an inherent consequence of construction activities. When these events are scheduled, advance notice will be provided." This paragraph requires much more in the way of detailed mitigation measures to be undertaken by the hospital during construction.

14-280 (d) Standards of Review

5. We don't see how traffic impacts have been anticipated without a traffic study on hand.
7. What are the potential cumulative environmental impacts and where are they addressed in the IDP
9. As we have not seen anything in the way of a comprehensive design it is impossible to discuss transitions within the neighborhood.
10. In the event the hospital boundary is expanded to include the two blocks in question then compatibility, maintaining housing and the support of local amenities will not be possible.
11. Ditto

14-281 Regulatory Framework

(d)

4. Without graphics, sketches or plans it is impossible to speak to the transition zones.
5. Requires traffic study.
8. This paragraph in the IOZ addresses the requirement of clarifying building placement and massing and again discusses the transition zones. Without plans or drawings, it is impossible to do any of this.
9. Pages 99-101 offer insufficient detail as asked by the IOZ. Buffering is not addressed neither is mitigating the impact of construction on neighboring properties.



DIVISION 16.1. INSTITUTIONAL OVERLAY ZONE (IOZ)

14-277. Purpose of the Institutional Overlay Zone

The Institutional Overlay Zone (IOZ) designation provides a regulatory mechanism available to the city's four major medical and higher education campuses where an improved regulatory structure is needed to facilitate a consistent, predictable, and clear growth management process. The purposes of the Institutional Overlay Zone are to:

- (a) Acknowledge that the city's major academic and medical institutions play a prominent role in the health and well-being of the local and regional community, and in order to sustain that role, these institutions need flexibility to change and grow;
- (b) Encourage proactive planning for institutional change and growth which identifies and addresses likely long-term institutional needs and cumulative impacts while leveraging potential benefits at the neighborhood, city, and regional level;
- (c) Ensure that institutional change and growth both complements and, as appropriate, integrates adjacent or surrounding neighborhoods through carefully planned transitions;
- (d) Support the formation and continuation of mutually beneficial public-private cooperation;
- (e) Support an ongoing public engagement process that benefits both the institutions and nearby neighborhoods;
- (f) Reflect Comprehensive Plan and other policy objectives; and
- (g) Provide a consistent regulatory approach to all major institutions which allows unique regulatory requirements that balance the particular needs of institutions with the needs of the surrounding neighborhood and wider community.

14-278. Location and Applicability

The city's four primary medical and higher education institutions are eligible to apply for designation as Institutional Overlay Zones. The Eligible Institutions are the two major hospital institutions of Maine Medical Center and Mercy Hospital and the two major academic institutions of University of Southern Maine and University of New England, their successors and assigns. Designation as an IOZ is the preferred mechanism where the Eligible Institution's proposed development is inconsistent with the existing zoning.



14-279. Establishment of an Institutional Overlay Zone

(a) *Application for an Institutional Overlay Zone.* Where the Eligible Institution seeks designation as an IOZ, they shall submit a zone change application consisting of two components:

1. An Institutional Development Plan (IDP) (see Section 14-280).
2. A Regulatory Framework (see Section 14-281) that would, when and if adopted, be the text and map amendment to the City's Land Use Code and Zoning Map.

(b) *Required Public Involvement.* At least two neighborhood meetings shall be required. The first shall be held prior to the formal submission of a zone change application for an Institutional Overlay Zone and the second shall be held during the City's review. Meetings shall identify the concerns, if any, of affected residents and property owners, and inform the development of the Institutional Development Plan (IDP) and Regulatory Framework. Meetings shall be held in a convenient location proximate to the institution. The applicant shall provide written notification to property owners of record within 500 feet of the proposed IOZ boundary at least ten days prior to the meeting dates and maintain written records of the meetings.

(c) *Required Scoping Meeting.* The Eligible Institution shall meet with the Planning Authority after the first required neighborhood meeting and prior to submission of the zone change application to confirm the focus of the Institutional Development Plan (IDP) and Regulatory Framework, including associated study areas that may be outside of the proposed IOZ boundary. The IDP and Regulatory Framework will vary in detail and focus depending on the Eligible Institution and its particular context. The content requirements in Sections 14-280 and 14-281 and the comments from neighborhood meeting(s) shall provide direction for the content of the IDP. The Planning Authority or Planning Board may require additional information or modify content requirements as is relevant to the Eligible Institution (see Section 14-280(c)).

(d) *Reviewing Authority.*

1. The Planning Board shall review the zone change application, including the IDP and Regulatory Framework. At least one public workshop and a public hearing before the Planning Board are required.
2. Upon recommendation of the Planning Board, the City Council shall review and consider adoption of the Institutional Overlay Zone and the accompanying Regulatory Framework as an amendment to the city's code of ordinances.



(e) *Future Institutional Development.*

1. All new development by the Eligible Institution within the boundary of the IOZ shall be compliant with the IOZ and accompanying Regulatory Framework, consistent with the IDP, consistent with the Comprehensive Plan, and meet applicable site plan standards, unless such standards are superseded by the Regulatory Framework.
2. Any use/development proposed by the Eligible Institution outside the IOZ boundary that complies with the zoning for permitted uses in that location shall be reviewed under the standards of that zone. Any use/development proposed by an Eligible Institution outside of the IOZ boundary that is proposed in a residential zone and is functionally related to the operations within the IOZ shall be addressed by the IDP and require an amendment to the IDP.

14-280. Institutional Development Plan (IDP)

(a) *Purpose.* Any use conducted by an Eligible Institution and any construction by an Eligible Institution in an Institutional Overlay Zone shall be consistent with an Institutional Development Plan (IDP) approved by the Planning Board in accordance with this ordinance. The purpose of the IDP is to establish baseline data about institutional land uses, facilities, and services and measure, analyze, and address the anticipated or potential impacts of planned institutional growth and change. The IDP shall serve as a background document that supports the proposed Regulatory Framework and frames subsequent site plan review(s).

(b) *Planning Horizon.* An IDP shall provide the city and abutting neighborhoods with a clear outline of the anticipated or potential growth and change of the Eligible Institution for the short- to medium-term (e.g. 1-5 and 5-10 years respectively), as well as a conceptual growth plan for the long-term (e.g. 10 years or more); however, the specific planning horizons for each institution will be determined as part of the IDP approval process.

(c) *Content.* The IDP submission shall address the following elements unless specifically modified by the Planning Authority or Planning Board, with the scope and level of detail to be clarified at the required Scoping Meeting:



1. Context Information

- a. The institution's adopted mission, vision, or purpose statement
- b. A summary of relevant baseline data on the institution, including:
 - i. A neighborhood context plan (pgs. 92-93);
 - ii. An inventory of current programs and services;
 - iii. A current census of the number of people using the institution (e.g., employees, enrollment, patients), with an indication of maximums and minimums over time;
 - iv. An inventory and/or plan of all existing property holdings within the main campus and within the City of Portland, including an indication of functional land use links between off-campus properties and the main campus (e.g. remote parking);
 - v. An inventory and/or plan of existing facilities, including data on use, floor area, and any existing functional connections between facilities. (pg 22. garage sq. footage?)
- c. A summary of the baseline characteristics of the existing campus and context of the institution, based on identified study areas, including:
 - i. A summary of existing resources, such as historic, open space, and natural resources;
 - ii. A summary of the existing transportation system, including vehicular, pedestrian, transit, bicycle, and parking supply, demand, and utilization;
 - iii. A summary of existing public infrastructure supporting the institution, including demand, utilization and any capacity issues;
 - iv. Relevant municipal plans, projects, and studies that may influence the IDP study area and opportunities for integrating institutional growth.
- d. A summary of public involvement in the development of the IDP, including major areas of public concern. (pgs. 51, 102)

2. Assessment of Future Institutional Growth and Change



- a. A description of institutional needs and areas of future institutional growth and change, including:
 - i. Projected census of users (e.g., enrollment /employment/patient/visitor figures and anticipated variations over time);
 - ii. Institutional objectives for property both within and outside the IOZ boundary (e.g. acquisition and/or disposition) (**Pizza Villa and Salvage?**), including an indication of any functional land use connection for sites outside the IOZ boundary to the main campus; and iii. A Development Plan addressing anticipated or potential institutional needs and physical improvements, including the proposed boundary of the IOZ and any phasing of the development.
- b. Analysis and associated plans that address the following elements in terms of anticipated growth or potential impacts within the identified study area, and support the development parameters as set out in the Regulatory Framework:
 - i. Transportation and access
 - a. An analysis of the projected changes in parking demand, supply, and impacts to the off-street and on-street parking capacity, including an explanation of the proposed parking plan;
 - b. An analysis of the projected changes in vehicular, pedestrian, transit, and bicycle access routes and facilities, their capacity, and safety; (**pg. 93**)
 - c. A transportation, access, and circulation plan, representing the synthesis of the analysis, and including a program of potential improvements or set of guidelines to address access deficiencies to and within the IOZ. The plan should outline proposed mechanisms and potential strategies to meet



transportation objectives, including transportation demand management, phasing, and when a Traffic Movement Permit (TMP) may be required.

ii. Environment

- a. An analysis of potential cumulative impacts on natural resources and open spaces;
- b. An analysis of projected energy consumption, hazardous materials generation, noise generation, and similar issues (car exhaust) as relevant;
- c. An environmental plan, representing the synthesis of the analysis and including a proposed program or set of guidelines for future preservation, enhancement, conservation, and/or mitigation.

iii. Infrastructure

- a. An analysis of projected public utility demand and the capacity of associated infrastructure; (pg. 45 roads, storm drains, etc.)
- b. An analysis of projected public safety needs and projected impacts to the capacity of these services;
- c. An infrastructure plan, representing the synthesis of the analysis and including a proposed program or set of guidelines to support sustainable growth.

iv. Design

- a. An analysis of projected impacts to neighboring properties and public spaces, including potential shadow, wind, and lighting impacts, impacts of height and massing, and impacts to historic resources;
- b. An analysis of transition areas between the institution and adjoining neighborhoods, including identification of key character



defining components of the surrounding context;

c. An analysis of existing Crime Prevention Through Environmental Design issues and identification of how these principles would be addressed as part of the proposed campus development; (**prostitution, suicide, vagrancy, and graffiti**)

d. A conceptual built environment/public realm plan, representing the synthesis of the analysis and including a set of guidelines for urban design, landscape, open space, and streetscape treatments, with particular attention to the treatment of edges (both within and abutting the IOZ boundary) to achieve compatible transitions.

v. Neighborhood Engagement

a. A plan for ongoing community engagement that represents best practices, promotes collaborative problem solving around community concerns, fosters transparency, and identifies mechanisms for neighborhood feedback and institutional accountability;

b. A property management framework that identifies the institution's process for handling operational property issues with neighbors; (**graffiti policy, trash, cigarette butts, prostitution, vandalism, vagrancy, suicides**)

c. Strategies for assuring communication pertaining to property acquisition and disposition in surrounding neighborhoods;

d. A set of construction management principles, to apply to all institutional construction, that represent best practice, aim to minimize short- and long-term construction impacts on surrounding residents and businesses, and ensure a



clear communication strategy is in place in advance of construction.

(d) *Standards of Review.* The IDP shall:

1. Address all content requirements, unless explicitly modified by the Planning Authority or Planning Board;
2. Reflect the issues/topics identified in the required public process;
3. Demonstrate consistency with the city's Comprehensive Plan and the purpose of this ordinance;
4. Demonstrate how the property ownership, proposed growth, and requested Regulatory Framework relate to the institution's mission;
5. Demonstrate that traffic and parking impacts have been anticipated and that the proposed parking provision is justified as based on an assessment of options for reducing traffic and parking demands;
6. Outline an approach to open space, natural, and historic resources that supports preservation and enhancement.
7. Demonstrate that potential cumulative environmental impacts have been anticipated and can be minimized or satisfactorily mitigated;
8. Demonstrate that utility impacts have been anticipated and can be minimized or satisfactorily mitigated;
9. Reflect a comprehensive design approach that ensures appropriate transitions with the existing or future scale and character of the neighboring urban fabric;
10. Promote compatibility with existing or future uses in adjacent neighborhoods, **maintain housing**, and support local amenities;
11. Anticipate future off-site improvements that would support the integration of the institution into the community and city-wide infrastructure;
12. Conform with Portland's Historic Preservation 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 IDP shall be generally compatible with the major character-defining elements of the landmark or portion of the district in the immediate vicinity; and



13. Incorporate strategies to support clear communication and ongoing public engagement between institutions and nearby neighbors.

(e) *Approval.* Upon finding that an Eligible Institution's IDP meets the standards of review, the Planning Board shall approve, approve with conditions, or deny an IDP.

(f) *Monitoring.* The IDP shall establish a schedule for reporting on IDP implementation at regular intervals of not more than ten years from the date of approval of the initial or amended IDP, and identify thresholds for IDP amendments;

(g) *Amendments.* An approved IDP shall guide campus development unless and until amended. If at any time the Eligible Institutions request minor amendments to an approved IDP, the Planning Authority may approve such minor amendments, provided that they do not constitute a substantial alteration of the IDP and do not affect any condition or requirement of the Planning Board. The applicant shall apply with a written statement of the proposed amendment and proposed amended IDP to the Planning Authority, whose decision as to whether the amendment is minor shall be final. Major amendments shall be reviewed by the Planning Board. When the IDP is amended, the baseline data in the IDP shall be updated as appropriate.

14-281. Regulatory Framework

(a) *Purpose.* The Regulatory Framework translates the IDP into a set of clear and specific zoning requirements for the IOZ that constitute the text and map amendments to the City's Land Use Code and Zoning Map. The zoning requirements are anticipated to include parameters that guide the growth and change of the institution as well as broad strategies to address potential impacts, with plans and details to be developed under site plan review.

(b) *Applicability.* The Regulatory Framework shall apply only to properties that are within the IOZ boundary and to which the Eligible Institution holds right, title, or interest. For these properties, the Institutional Overlay Zone shall supersede the underlying zoning, and all new institutional development shall be conducted in compliance with the Regulatory Framework and the approved Institutional Development Plan. Properties located within the Institutional Overlay Zone not subject to right, title, or



interest of the Eligible Institution shall continue to be governed by the regulations of the underlying zoning designation.

(c) *Uses.* Institutional uses, including hospitals and higher education facilities, shall be permitted, as shall uses that are functionally integrated with, ancillary to, and/or substantively related to supporting the primary institutional use, consistent with the applicable approved IDP.

(d) *Content.* The Regulatory Framework shall reflect the information and analysis of the IDP. The content shall be tailored to address the particular issues associated with the institution and its neighborhoods. The Regulatory Framework should be succinct and use tables and graphics as possible to address the following, if applicable:

1. *Zoning boundary of the IOZ:* The area to which the regulations apply, as shown on the zoning map, subject to other provisions of this ordinance (i.e. the map amendment to the City's Zoning Map);
2. *Phasing and schedules:* Requirements that relate to particular proposed phases; a chart showing the schedule or thresholds for submitting an amended IDP (or elements of an IDP, such as a *Transportation Demand Management (TDM) Plan*);
3. *Uses:* Clarification, as necessary, on permitted uses.
4. *Dimensional Requirements:* Graphics, sketches, or standards, including details for transition zones within the IOZ boundary;
5. *Transportation:* Elements such as TDM trip reduction targets or contribution to area-wide TDM measures; broad parameters for ensuring pedestrian, vehicular, bicycle and transit access and safety; parking ratios and management strategies; thresholds for access improvements;
6. *Environment:* The approach to the inclusion of open space and preservation of environmentally-sensitive areas;
7. *Mitigation measures:* The broad approach to identified mitigation measures, which would be addressed in greater detail in the site plan review process; thresholds for addressing deficiencies; goals for preservation/protection;
8. *Design:* Graphics and standards to clarify building placement and envelope (height and massing); guidelines for integration of site features; required treatments for transition zones and treatment for all edges (both within and abutting the IOZ boundary);



guidelines for establishing campus identity; and **(no detail!)**

9. **Neighborhood Integration:** Thresholds and strategies for neighborhood engagement; mitigation of impacts on neighboring properties, including construction impacts; buffering requirements; objectives for pedestrian linkages and safety; other requirements that address community concerns. **(no detail!)**
10. **Monitoring:** A schedule for regular monitoring reports on IDP implementation in accordance with the IDP.

(e) **Standards of Review:** The Regulatory Framework shall:

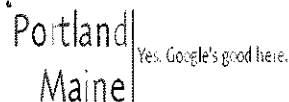
1. Be consistent with the Comprehensive Plan and the Institutional Development Plan;
2. Provide a clear zoning framework, using graphics and tables as appropriate, to apply to future site plan reviews;
3. **Provide specific regulatory statements as appropriate that respond to concerns raised during the required public involvement; and (construction mitigation)**
4. Outline measurable goals and thresholds for improvements or other actions identified in the IDP to be advanced in subsequent site plan applications.

(f) **Approval/Adoption.** The Planning Board shall review the proposed Regulatory Framework against the standards of review and make a recommendation on the institution's IOZ designation and Regulatory Framework to the City Council for adoption as part of this zoning ordinance.

(g) **Amendments.** A Regulatory Framework and IOZ boundary as adopted by the City Council shall remain in force unless and until amended. Amendments to a Regulatory Framework and/or IOZ boundary may be brought forth by the city or Eligible Institution. Amendments brought forth by the city will require a supermajority of the City Council to take effect. Proposed amendments to the IOZ boundary or Regulatory Framework shall be reviewed by the Planning Board and adopted by the City Council subject to the provisions of this ordinance.

14-282. Regulatory Frameworks of Eligible Institutions as adopted by the City Council

4/25/17 1st workshop item



PC 2 MMC-10Z

PC2

Jean Fraser <jf@portlandmaine.gov>

Comments re: Maine Medical Center IDP

1 message

Christian MilNeil <c.neal.milneil@gmail.com>

Tue, Apr 25, 2017 at 11:55 AM

To: Jean Fraser <JF@portlandmaine.gov>, Stuart O Brien <sgo@portlandmaine.gov>

Cc: Greg Jordan <gjordan@gpmetrobus.com>, "zbarowitz@gmail.com"

<zbarowitz@gmail.com>

Hi Jean and Tuck,

Please share the attached memo with the planning board as a public comment re: the Maine Medical Center IDP.

The tl;dr version: MMC's parking subsidies are roughly four times greater than its subsidies for transit riders. It's no wonder they've got a parking "problem" – they're spending millions of dollars to encourage their car-owning employees to get themselves stuck in traffic.

If the city's new Institutional Development Framework is to be successful, we, as a city, need to hold institutions accountable to bearing the full cost of their transportation policies. This plan falls far short of that standard: it harms the hospital's bottom line with grotesque parking garage subsidies, it harms the surrounding neighborhood with more pollution and traffic risk, and it does a disservice to METRO's capabilities.

The Planning Board has an excellent opportunity to help them find a better solution at a lower cost to everyone, and I look forward to following your progress.

Christian MilNeil

double u double u double u dot christianmilneil dot com

 **MMCIDPcomments.pdf**
80K

To the Planning Department and the Portland Planning Board:

The current IDP for Maine Medical Center proposes a massive investment in new parking garages – which, presumably, will be financed by the health care expenditures of you, me, and our neighbors.

As you know, structured parking is extremely expensive. The Maine Medical Center IDP strategy to manage parking demand includes asking employees to pay “no less than \$3 per paycheck” for a parking space (page 77) and continuing their current transit pass program (page 39).

Let’s break that down into a budget:

Subsidies for parking in the MMC IDP:

<i>EXPENSES</i>		
Annualized capital cost per space:	(\$1,605)	(based on a \$20,000/space capital cost amortized over a 20-year term at 5%)
Annual maintenance costs per space:	(\$500)	
<i>REVENUES</i>		
Annual employee payments	\$156	(assumes 2 employees per space, paying \$3 biweekly)
NET ANNUAL SUBSIDY PER PARKING SPACE	(\$1,949)	Total costs minus employee payments
NET ANNUAL SUBSIDY FOR DRIVING EMPLOYEES	(\$974)	Per-space subsidy, divided by two employees

Subsidies for transit in the MMC IDP:

<i>EXPENSES</i>		
Total cost of 49 10-ride METRO passes for one employee	(\$662)	\$13.50 per 10-ride pass, good for one week’s worth of commute trips
<i>REVENUES</i>		
Employee payments for 49 10-ride passes	\$392	
NET ANNUAL SUBSIDY FOR TRANSIT-RIDING EMPLOYEES	(\$270)	

Employees face a choice between paying \$156 annually for a parking space, or \$392 for transit passes. From the worker’s point of view, the cost of transit is more than double the cost of

parking, even though the hospital's *true* cost of parking is roughly double the cost of an annual transit pass.

It's no wonder Maine Medical Center has a parking problem – they're paying each and every one of their car-owning employees nearly a thousand dollars a year to make it harder for everyone else to find parking.

And please bear in mind that the hospital's fiscal costs of building and maintaining parking garages, as huge as they are, don't come anywhere near to matching the public costs of the additional traffic that those parking spaces generate:

- Kilograms of additional airborne toxics spewed into the neighborhood's air every day (in direct violation of the hospital's public health mission)
- Hundreds of potential work hours lost to additional traffic congestion
- Higher risk of traffic crashes, which lead to higher insurance rates
- Additional pavement maintenance demands on local streets.

These parking subsidies aren't just a bad deal for local health care consumers, they're a bad deal for Portland taxpayers.

I understand that the hospital's management is committed to car ownership and driving to work, and that is why they believe that parking is important.

But for the workers who are actually providing health care, spending long long hours in a stressful work environment, the idea of spending another hour every day doing the unpaid labor of a long commute is exceedingly unattractive. Many employees would welcome the opportunity to let somebody else drive them to and from work. Indeed, workplace satisfaction research suggests that providing those choices could be crucial to the hospital's ability to recruit and retain young workers.

If the city's new Institutional Development Framework is to be successful, we, as a city, need to hold institutions accountable to bearing the full cost of their transportation policies.

This plan falls far short of that standard: it harms the hospital's bottom line with grotesque parking garage subsidies, it harms the surrounding neighborhood with more pollution and traffic risk, and it does a disservice to METRO's capabilities. The Planning Board has an excellent opportunity to help them find a better solution at a lower cost to everyone, and I look forward to following your progress.

Yours,
Christian MilNeil
45 Smith Street

Western Prom Neighborhood Association
Comments re MMC IDP

4/25/17

I am Anne Pringle, speaking for WPNA and am part of the MMC Expansion Group, representing WPNA,

First, this is a tremendous piece of work, well-drafted and clearly-expressed.

Many of the comments and suggestions made by WPNA during the monthly Expansion Group meetings have been incorporated, so I will not reiterate them here. At last week's meeting, the Group reviewed all comment made on the draft IDP before you and I believe most of those made by WPNA will be incorporated in future drafts.

But I do want to note a few key issues for our neighborhood:

The TDM is a major project element and includes some creative approaches. And in particular, we appreciate the statement about finding ways to discourage employee on-street parking in our neighborhood. WPNA and others have suggested that cash incentives for not bringing employee cars to the campus need to be further explored, in order to limit the need for parking and reduce traffic.

Parking need is a major topic of concern for the neighborhood and we have had very open discussions in the Expansion Group meetings. While nothing is yet settled, as noted in the draft IDP, we really appreciate that MMC is actively exploring options to a massive parking structure within the IDP boundary. We do want to state, as we have to MMC, that WPNA opposes any plan to construct a multi-level parking garage on the Vaughan Street surface lot. We believe that such a structure would be incompatible with our residential neighborhood, would bring more traffic into the area, and that this valuable piece of real estate would be better used for hospital-related offices or housing for hospital residents or

employees.

And finally, we have identified five properties owned by the hospital in our residential neighborhood. These are inventoried in the IDP (page 24) and one of them, the Vaughan Street surface parking lot (the “South Lot”) previously noted, would be covered under “long-term redevelopment zones” (p.61). As you know, encroachment into residential neighborhoods has long been an issue of tension with institutions and the IDP should encourage reversal of past encroachment. Three of the five properties WPNA has identified (two mansions on the Western Prom and a carriage house operating as a maintenance garage on Chadwick Street) would be prime opportunities for redevelopment as housing. They should be part of a plan by the MMC to divest, capture their significant value, and reinvest the proceeds in hospital-related facilities in another suitable location. Perhaps the heading in the IDP should be “long term divestment opportunities”...

WPNA appreciates your consideration of these comments and again thanks MMC for its open engagement with its neighbors.

Another comment re: the MMC institutional development plan

1 message

Christian MilNeil <c.neal.milneil@gmail.com>

Thu, Apr 27, 2017 at 4:32 PM

To: "zbarowitz@gmail.com" <zbarowitz@gmail.com>, Stuart O'Brien

<sgo@portlandmaine.gov>, Jean Fraser <JF@portlandmaine.gov>

From the Urban Land Institute, another approach that a nonprofit hospital might consider taking towards its parking policies:

In 2010, the city council adopted Seattle Children's major institutional master plan guiding the expansion of the 250-bed hospital to 500 to 600 beds by 2030.

The master plan also required that the hospital **reduce its employees' drive-alone rate from 40 percent to 30 percent by 2030**. With a 72 percent drive-alone rate in 1995, the hospital had pulled out the stops to get the drive-alone rate down to 40 percent. In 2010, they promised to go even lower, **despite a residential location served by only two bus routes and a light-rail station 1.5 miles (2.4 km) away**.

Jamie Cheney, Seattle Children's director of transportation, knows that getting to 30 percent will take innovation and leadership. "The low-hanging fruit is gone; the mid-hanging fruit is gone," she says. Her zeal is not driven by state laws and city regulations—although those are important—but **by the sobering reality that dollars spent on structured parking are dollars that will not be spent on restoring children to health**. "Building surface parking is not the highest and best use of scarce land," she says. **For each year the hospital avoids building structured parking—at \$60,000 a stall—they estimate a cost avoidance of \$25 million**.

Seattle Children's opened the first phase of the expansion in 2013: **238,000 square feet (22,000 sq m) of clinical space with no net new parking**. The second phase breaks ground in 2018 and will eventually add up to another 293,000 square feet (27,000 sq m) of clinical space with only 100 net new parking spaces. The hospital hosts up to 6,000 workers and 1,000 patients daily with only 1,400 parking spaces on campus.

One difference: the Seattle Children's neighborhood, Laurelhurst, has a population density of 5,910 people/sq. mile; as the article notes, only 2 bus routes serve their campus; the combined density of the West End/Parkside neighborhoods is about 8,700 people/sq. mile and MMC has got 8 regional bus routes with stops within 2 blocks of their campus.

Christian MilNeil

double u double u double u dot christianmilneil dot com

Local Residents Concerns NOT Being Addressed by Portland Planning Department Re MMC Proposed Development

1 message

Karen Snyder <karsny@yahoo.com>

Tue, May 9, 2017 at 1:33 PM

Reply-To: Karen Snyder <karsny@yahoo.com>

To: Jeff Levine <jlevine@portlandmaine.gov>

Cc: Belinda Ray <bsr@portlandmaine.gov>, Saint John Valley Neighborhood Association <sjvna1@gmail.com>, Jean Fraser <jf@portlandmaine.gov>, Ian Jacob <iancasperjacob@gmail.com>, Paula Agopian <pagopian1@yahoo.com>, Planning Board <planningboard@portlandmaine.gov>, "planning@portlandmaine.gov" <planning@portlandmaine.gov>

Hi Jeff,

I have been to two MMC neighborhood workshops and 2 IOZ planning meetings and in all these meetings, I have consistently brought up the concerns of quality of life issues for the est. 300 residents that live around the MMC who would potentially have to suffer through this extremely long 5 to 20 year construction plan besides the out of context proposal for a 13th story parking garage at the corner of Congress and Gilman.

These concerns have not been addressed still by MMC or the Portland Planning Department or the Planning Board.

Can you please answer the below two questions.

1) How will the City of Portland planning department manage the quality of life concerns for local residents during a long term proposed MMC construction project: Quality of Life issues such as noise, vibration, foundation damage, dust abatement, etc.

When buying property, there is a level of expectation of enjoyment of his/her property and comfort within their residence. When one buys a property within city limits, there is a level of expectation of "development construction" but 5 to 20 years per MMC projections is unreasonable and damages the quality of life of residents.

As a landlord interviewing new tenants and they ask is this building a quiet street? It puts me as a landlord in an awkward position as how NOT to mislead these potential candidates which would be illegal. However, this awkward position that landlords on Gilman/Valley face would be directly caused by the Portland planning department's agenda.

Speaking from experience, I have all ready had to suffer through 3 years of a botched never ending renovation across the street from me on the East End and that was intolerable. To expect over 300 local residents to live through 5 to 20 years of construction is unacceptable.

2) It is rumored that the Planning department personnel actually went to MMC and encouraged them to do additional construction in order to develop the IOZ. Isn't this counter intuitive of a city's planning department to deliberately encourage quality of life issues for numerous residents and

especially a long term construction proposed projects? Where is the livability for these Portland residents that is considered in the Portland Planning Department's mission statement?

In conclusion, it is quite disconcerting to see the Portland city planning department avoid and evade answering quality of life concerns for local residents when your department's mission statement on the website specifically says the following: **"The Planning and Urban Development Department promotes and plans for the future vitality, livability and prosperity of this remarkable city and all its people."**

How is this specific situation livable for local residents?

I would appreciate a response to these questions that have been consistently asked and never provided a response.

Regards,
Karen Snyder
24 Gilman St.

May 15, 2017

Dear Mr. O'Brien:

The Portland Bicycle Pedestrian Advisory Committee (PBPAC) has reviewed Maine Medical Center's draft Institutional Development Plan and respectfully requests that the Transportation Demand Management plan be released as soon as possible.

The timely release of the TDM plan is critical to informing the proposed development, especially as it relates to parking demand, traffic routes, sustainability, connectivity, neighborhood livability, and congestion.

Furthermore, a complete and thorough TDM plan will allow for meaningful public review and input; and should take into account the integration of pedestrian, transit, and bicycle access to the facility.

Additionally, PBPAC recommends:

- o Comprehensive assessment of existing bus use (among patients and staff) and potential effect of increased frequency and expanded service
- o Full coverage of transit passes for employees and an easy program for obtaining passes
- o Consideration of Bike Share Program
- o Consideration of restoring two way traffic between I-295 & St. John Street
- o Funding towards increased frequency and extended hours of bus service (METRO routes 1, 8, 9A, and 9B)
- o Improvements to bus shelters (incorporation of transit tracker app information at shelter, heat, etc.)
- o Consideration of transfers for those using buses besides Routes 1, 8, 9A, and 9B

Thank you for your attention. If you would like to discuss this with members of PBPAC, we would be happy to arrange that.

Yours kindly,

Alex Pine, Vice Chair on behalf of PBPAC

The Portland Bicycle and Pedestrian Advisory Committee is an ad-hoc group of Portland-area residents working to make the city and region a better place to walk, bicycle, and wheelchair. We advocate and educate for bicycle, transit, and pedestrian issues, including handicap accessibility.

PLANNING BOARD REPORT PORTLAND, MAINE



504 Unit Self-Storage Facility
547 Riverside Street
Level III Site Plan and Site Location of Development
2017-025

Submitted to: Portland Planning Board
Date: May 19, 2017
Public Hearing Date: May 23, 2017

Prepared by: Matthew Grooms, Planner
CBL: 045-E-021
Project #: 2017-025

I. INTRODUCTION

Developer Robert LeBlanc has requested a final Level III site plan review of a 504-unit self-storage facility located at 547 Riverside Street immediately west of Interstate 95, and north of Leighton Street. The proposed development involves the reuse of 504 recycled shipping containers as individual self-storage units with a separate shipping container, located towards the front of the property, serving as a small administrative office. This site would be accessed via an existing curb-cut located between a single-family structure and the Phoenix Welding site. Ten (10) surface parking spaces are proposed, each located adjacent to the small office unit, with further site access being restricted by a security gate and fence. This site is located within the I-M Industrial zone, a zone where the use 'self-storage' is not explicitly permitted or prohibited. The applicant is requesting that this use be classified as a performance based use, as outlined in Section 14-248.



Figure 1: Aerial View

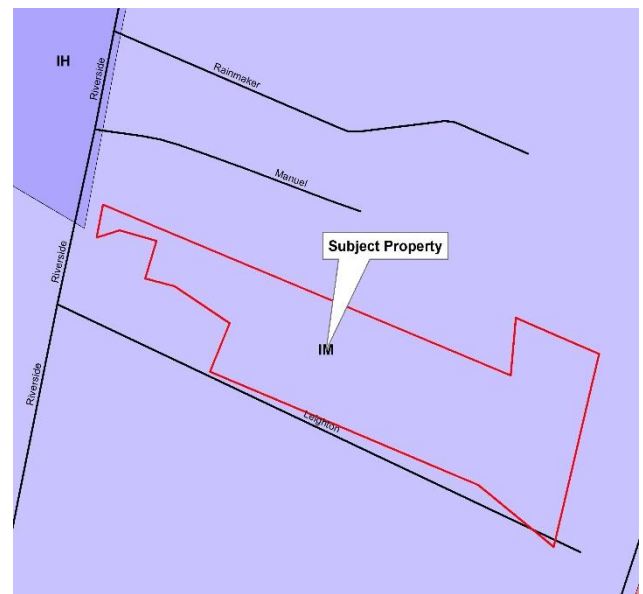
Given the extent of new impervious surface proposed for this project, this development is subject to review under the Site Location of Development Act.

The Planning Board will review the application for compliance with the site plan standards and the Site Location of Development Act requirements.

A total of 87 notices were sent to property owners within 500 feet of the site and a legal ad ran on May 15th and 16th, 2017. No public comments have been received by the Planning Office.

Applicant: Robert LeBlanc

Consultants: Will Savage, Acorn Engineering INC, Owen Haskell, Tom Jewell, Sam Lebel, Acorn Engineering, INC, Olivia Dawson, Acorn Engineering INC



II. REQUIRED REVIEWS

<i>Waiver Requests</i>	<i>Applicable Standards</i>
Vehicle Parking – To allow ten (10) parking spaces, a reduction of seventy-one (71) parking spaces from the required total of eighty-one (81) parking spaces. <u>Staff Comments:</u> The Traffic Engineer recommends waiving this standard.	Division 20, Section 14-332 (l) (Off-Street Parking), requires that one (1) parking space for every one thousand (1,000) square feet of floor area be provided for business, manufacturing and industrial space not specifically catering to retail trade.
Driveway Spacing – To waive the required one hundred and fifty (150) feet of separation between existing driveways and permit a minimum separation of eighty-five (85) feet. <u>Staff Comments:</u> The Traffic Engineer recommends waiving this standard.	Technical Manual, Section 1.7.2.7, requires that along arterial, collector streets or local streets, the minimum acceptable spacing between multiple driveways for driveways on adjacent lots shall be one hundred and fifty (150) feet where the speed limit is thirty-five (35) mph.
<i>Review</i>	<i>Applicable Standards</i>
Site Plan	Section 14-526
Site Location of Development Act	

III. PROJECT DATA

Existing Zoning	Industrial I-M
Existing Use	Vacant
Proposed Use	Commercial, Self-Storage Facility
Proposed Development Program	504-units
Parcel Size	290,448 SF

	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint/Floor Area	0 SF	80,960 SF	80,960 SF
Impervious Surface Area	11,460 SF	156,865 SF	145,405 SF
Parking Spaces (on site)	0	10	10
Bicycle Parking Spaces	0	0	0
Estimated Cost of Project	\$1,000,000.00		

IV. EXISTING CONDITION

The proposed project site is located on the east side of Riverside Street, west of Interstate-95, south of Manuel Drive and north of Leighton Avenue. This section of Riverside Street is characterized as being predominantly industrial, with several automotive repair operations being located to the west across Riverside Street and to the north, a building materials supplier, a roofing company, a car detailing service and a welding workshop. To the south of this site, there are several pre-existing residential structures. This section of Riverside Street is zoned I-M Industrial, with surrounding zones being I-H Industrial and I-L Industrial.

V. PROPOSED DEVELOPMENT

The applicant is proposing to develop a 504-unit self-storage facility on a vacant parcel located at 547 Riverside Street, served by an existing 47-foot curb cut located on the east side of Riverside Street between the Phoenix Welding

site to the north and a single-family residential structure to the south. With this proposal, the existing curb cut would be reduced from 47 feet down to 31 feet, increasing the delineation between the roadway and sidewalk for added pedestrian safety. The existing gravel and sand driveway will be improved to meet city standards for a two-way driveway, and shall be 24 feet in width and composed of dense bituminous pavement. It is proposed that internal access to this site will be restricted by a 6-foot-high security fence and gate, accessible only during certain hours and with a management

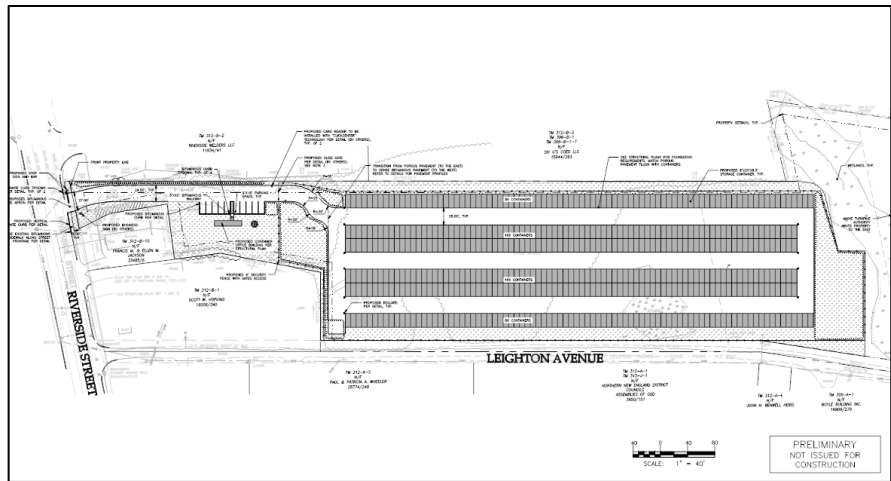


Figure 3: 547 Riverside Site

provided code. Within the rear portion of the site, where self-storage units are to be located, the driveway material will transition from dense bituminous pavement to porous pavement, so as to reduce impervious surface and assist with stormwater management. Drive aisles within this portion of the site shall be increased to a minimum of 25 feet in width so as to accommodate the loading and unloading of vehicles and site circulation.

A total of 504 recycled shipping containers will be arrayed into four separate rows, with the two central rows being two units deep. These individual units will be welded together to form cohesive, joint rows. Protective bollards will be installed at the exposed corners of each row to prevent vehicular damage. It is proposed that an existing wetland measuring 6,350 square feet in area will be filled in to facilitate site development while a larger wetland, measuring 31,390 square feet will be preserved to support wildlife habitat. The applicant has received and provided a Tier 1 NRPA permit issued by Maine DEP.

Parking for ten (10) vehicles is proposed on-site, with a waiver being sought for the additional seventy-one (71) parking spaces required under Section 14-332 (I). The applicant's waiver request states that there is sufficient space for the loading and unloading of vehicles within the drive aisle without additional need for striped parking spaces. The proposed on-site parking spaces are to be located adjacent to a small administrative office structure housed inside of a recycled shipping container and connected via a bituminous pavement walkway.

As this is currently a vacant site, several new utility line extensions are being proposed to service this development. These include a new 1-inch water line, a 12-inch storm drain, a 6-inch sewer line and an electric conduit. These lines will be run from the proposed office structure out to existing lines located within Riverside Street.

At the workshop, the Planning Board suggested that the applicant consider painting or adding some visual interest to the recycled shipping containers. The applicant sought a more uniform look has not altered their plans per this suggestion. It is important to note that the I-M zone does not have design guidelines and therefore the applicant is not required to meet design-based suggestions. has not altered their plans to make the units stand out more visually. The applicant has submitted revised plans showing additional landscaping elements, including a mixture of perennials, shrubs and trees, in response to the City Arborist's request for additional on-site buffering between the property and both residential uses and the Leighton Avenue right-of-way. The driveway has also been reconfigured to meet the minimum pavement separation requirement of 10' feet past the geographic bottleneck.

VI. PUBLIC COMMENT

As of the writing of this report, no public comment has been received by the Planning Office.

VII. RIGHT, TITLE, & INTEREST AND FINANCIAL & TECHNICAL CAPACITY

a. The owner of the property is 547 Riverside Street, LLC, a Maine limited liability company. The applicant has provided a deed for the 6 parcels comprising this site recorded with the Cumberland County Registry of Deeds on November 18, 2016.

b. The estimated cost of the development is \$1,000,000. The applicant has submitted a letter from Androscoggin Bank, dated January 6, 2017, as demonstration of their financial and technical capacity to complete the proposed development.

VIII. ZONING ANALYSIS

The proposed self-storage facility is to be located within the I-M Industrial zone. This use is not explicitly permitted or prohibited within this zoning district, and as a result, the applicant has requested that this use be classified as a performance based use. According to Section 14-248, Performance Based Uses, use that are not expressly permitted under Section 14-247 or prohibited under Section 14-249, may be permitted as a performance based use so long as the use meets the following conditions and standards;

- A. The proposed development is consistent with the purposes of this zone;
- B. The proposed development is designed and operated so that it will prevent undue adverse environmental impacts, substantial diminution of the value or utility of neighboring structures, or significant hazards to the health or safety of neighboring residents by controlling noise levels, emissions, traffic, lighting, odor and any other potential negative impacts of this proposal.

In response to these conditions and standards, the applicant has provided the following rationale for why this use should be classified as performance based;

- A. *Warehousing including outdoor storage is a permitted use in the I-M zone. Self-storage is a similar land use and is consistent with the overall purpose of the moderate impact industrial zone.*
- B. *The proposed development has been designed to minimally impact the existing wetlands and wildlife. Additionally, the project will not cause adverse effects to neighbors or surrounding land value. Noise, emissions, lighting, and odor will all have a minimal effect. Lastly, traffic is not expected to cause an adverse effect. Riverside Street is an arterial that handles an average of 17,000 vehicles per day and can support the infrequent vehicle trips that will access the self-storage facility.*

Per Division 14, Section 14-246, the intent of the I-M Industrial zone is to allow for an area where light and moderate impact industries can coexist with transportation-related uses. These zones are specifically located along arterial and collector streets so as to protect residential neighborhoods from drive-through traffic. Similarly, this zone is intended for development where there is limited or controlled use of areas outside of structures for storage of material, similar in nature to a self-storage facility in terms of operation. Given the similarity between the self-storage use and purpose statement for the I-M Industrial zone, as well as the intensity of surrounding uses located within this district, (i.e. building material supplier, welding operation, automotive sales and repair etc.) staff considers this use to be an appropriate performance based use for this zone.

With the applicant's initial submittal, plans showed a pavement separation of less than 10 feet, which is required by the ordinance. The applicant has since revised their plans to demonstrate greater than 10 feet of pavement separation.

IX. DEVELOPMENT REVIEW

A. 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- In reviewing this proposal for site access and traffic impact, the City's consulting traffic engineer, Tom Errico, states;
 - *The project is not expected to generate a significant amount of traffic generation and thus the project would not be expected to create traffic congestion or safety deficiencies. A Traffic Movement Permit is not required.*

b. Construction Management Plan

A construction management plan has been submitted by the applicant for review. All the construction is proposed within the limits of the property lines. Tom Errico has reviewed the plan and found the plan to be acceptable as submitted (Attachment 1).

c. Sidewalks

The applicant is proposing to repave the existing bituminous sidewalk along their frontage. An additional five (5) foot by ten (10) foot bituminous walkway will also be constructed between the parking area and office structure. Mr. Errico has reviewed the plans and found them to be acceptable as submitted (Attachment 1).

d. Public Transit Access

The public transit requirements do not apply to this project.

e. Parking

Section 14-332 (l) requires that one (1) parking space for every one thousand (1,000) square feet of floor area be provided for business, manufacturing and industrial space not specifically catering to retail trade. Total floor area for this development amounts to 80,960 square feet, hence requiring under this ordinance a total of 81 parking spaces. The applicant has requested a waiver of this requirement and is proposing ten (10) on-site parking spaces with extensive space for loading and unloading located within the drive aisles adjacent to the self-storage units. Tom Errico has reviewed the plans and supports the requested waiver given the expected use of this site. The Planning Board may determine that this is the reduced number of spaces is the required number of spaces under Section 14-332.2, which allows the following:

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.

f. Bicycle Parking

Section 14-526 (a) requires that the applicant provide two (2) bicycle spaces for every ten (10) vehicle parking spaces up to a total of 100 required parking spaces. The applicant has offered to place a bike rack adjacent to the proposed administrative building.

2. Environmental Quality Standards

a. Preservation of Significant Natural Features

Two on-site wetlands totaling 6,350 square feet and 31,390 square feet were identified by the applicant. The applicant is proposing to fill the smaller of the two wetlands and preserve the other wetland as natural habitat space and has indicated that they are in the process of securing a Tier 1 NRPA permit with the Maine DEP. A copy of this permit has been submitted (Attachment U).

b. Landscaping and Landscape Preservation

A landscaping plan was submitted as part of the application. The original plan showed minimal landscaping given the size of the site, and it was determined by the City Arborist that additional plantings should be added for buffering. The applicant has supplied a revised landscaping plan which shows additional plantings in proximity to the office building, around the perimeter of the site and specifically along Leighton Avenue to provide additional buffering. The City Arborist, Jeff Tarling, has reviewed the plans and has verbally indicated that the plans as submitted are acceptable.

c. Water Quality, Storm Water Management and Erosion Control

The proposed development site measures 290, 248 square feet, and of that total, 11,460 square feet

is currently impervious surface. Grades on site range from between 68' feet and 75' feet with several defined high points. At present the site is composed largely of mature tree growth, vegetation, and exposed soil. The project will result in a net increase of impervious area above 1,000 sf, with the total being brought to 145,405 square feet or approximately 3.5 acres, as such, this project is required to include stormwater management features for stormwater quality & quantity control.

The site will feature porous pavement across the majority of newly paved surface, with filter media and underdrains below the surface. Collected stormwater will then outlet on site into the undeveloped eastern portion of the lot. This system will account for water quality treatment of greater than 95% of the new impervious area and no less than 80% of the developed area. The applicant is also proposing the installation of a berm and a sedimentation barrier at low grades to prevent erosion control.

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. Lauren Swett, P.E. with Woodard and Curran Engineering, has reviewed the plans and finds them to be acceptable. (Attachment 5).

3. *Public Infrastructure and Community Safety Standards*

a. Public Safety and Fire Prevention

Keith Gautreau, Assistant Fire Chief, has reviewed the plans for public safety and fire prevention and has indicated that he finds them acceptable. (Attachment 1).

b. Availability and Adequate Capacity of Public Utilities

The project will be served by the Portland Water District, City Department of Public Works, and underground/power/cable/communications. Confirmation letters have been supplied.

4. *Site Design Standards*

a. Snow and Ice Loading

The applicant has indicated areas around the exterior of the site intended for snow storage on the site plan.

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.

d. Exterior Lighting

The applicant states that photometric plans and detail cut sheets shall be provided at the time of final plan submission.

e. Noise and Vibration

Excessive noise or vibration are not anticipated with this development.

f. Signage and Wayfinding

This standard does not apply to the proposal.

XII. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Division staff recommends that the Planning Board approve the proposed self-storage facility development at 547 Riverside Street.

XIII. 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 May 23, 2017 for application 2017-025 relevant to Portland's technical and design standards and other regulations; and the testimony presented at the Planning Board hearing:

1. Based upon the Consulting Traffic Engineer's review, the Planning Board **waives/does not waive** the Division 20, Section 14-332 (l) (Off-Street Parking) to allow ten (10) parking spaces as depicted in the plan, permitted by the Planning Board under Section 14-332.2 which states that 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;
2. The Planning Board **finds/does not find**, 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 1.7.2.7) which requires that along arterial, collector streets or local streets, the minimum acceptable spacing between multiple driveways for driveways on adjacent lots shall be one hundred and fifty (150) feet where the speed limit is thirty-five (35) mph, that substantial justice and the public interest are secured with the proposed variation in this standard, and that the variation is consistent with the intent of the ordinance. The Planning Board **waives/does not waive** the *Technical Manual* standard (Section 1.7.2.7) to allow a minimum separation of 85' feet.

B. SITE PLAN AND SITE LOCATION OF 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 May 23, 2017 for application 2017-025 relevant to the Portland's site plan standards and the Site Location of Development Act 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 provide a photometric plan which demonstrate acceptable light trespass.
2. The applicant shall provide a maintenance agreement for the stormwater drainage system, which shall be submitted, signed and recorded prior to the issuance of a Certificate of Occupancy. A copy shall be submitted to the Department of Public Works.

XIII. ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

1. Development Review Comments with Applicant Responses (3.22.2017)
2. Woodard and Curran Memo (3.22.2017)
3. Waiver Comments Email (3.30.2017)
4. City Arborist Comments Email (3.31.2017)
5. Woodard and Curran Memo (05.16.2017)
6. T.Y. Lin Response (05.17.2017)

APPLICANT'S SUBMITTALS

- A. Cover Letter
- B. Preliminary Site Plan Application
- C. Right, Title, Interest
- D. Conformity with Applicable Zoning Standards
- E. Written Easements
- F. Request for Waivers
- G. Technical & Financial Capacity
- H. Stormwater Management Report
- I. Erosion & Sedimentation Control Report
- J. Fire Department Letter
- K. Solid Waste
- L. Utility Cover
- M. Construction Management Plan
- N. Lighting
- O. Wetland Report
- P. Stormwater Maintenance Agreement
- Q. Final Application Cover
- R. Final Application
- S. Comment Response Letter
- T. Class B Soil Survey
- U. NRPA Permit
- V. Fence Details & Cut Sheets

PLANS

- Plan 1. Cover Sheet & Legend
- Plan 2. General Notes
- Plan 3. Existing Conditions
- Plan 4. Construction Management Plan
- Plan 5. Site Plan
- Plan 6. Landscape Plan
- Plan 7. Utility Plan
- Plan 8. Grading & Drainage Plan
- Plan 9. Site Details 1
- Plan 10. Site Details 2
- Plan 11. Utility Details 1
- Plan 12. Utility Details 2
- Plan 13. Drainage Details
- Plan 14. Container & Porous Pavement Sections
- Plan 15. Erosion & Sedimentation Control Details
- Plan 16. Structural Cover Sheet
- Plan 17. Structural Site Plan
- Plan 18. Structural Details
- Plan 19. Office Floor Plan
- Plan 20. Office Elevations
- Plan 21. Office Details
- Plan 22. Erosion & Sedimentation Control Notes

Planning and Urban Development Department Planning Division



March 22, 2017

Bob LeBlanc
547 Riverside, LLC
59 Moody Street
Portland, ME 04101

Will Savage, P.E.
Acorn Engineering, INC.
158 Danforth Street
Portland, ME 04102

RE: Staff Review Comments for 547 Riverside Self-Storage Containers (2017-025)

Project Name: 547 Riverside Self-Storage Containers
Project ID: (2017-025)
Project Address: 547 Riverside Street
CBL: 12-P-018, 12-P-007
Applicant: Robert LeBlanc
Planner: Matthew Grooms

Dear Mr. LeBlanc,

Thank you for submitting a Level III Site Plan and Site Location of Development application for the development of a 504-unit self-storage facility located at 547 Riverside Street within the I-M Industrial Zone. This proposal is being reviewed as a preliminary plan subject to review by the Planning Board under the following applicable Land Use Code provisions:

- I-M, I-Ma and I-Mb Industrial Zones, Division 14, Article III
- Off-Street Parking, Division 20, Article III
- Site Plan Ordinance, Article V

Final Plan for Planning Board Review: Staff Review Comments

Traffic Engineering

1. The project is not expected to generate a significant amount of traffic generation and thus the project would not be expected to create traffic congestion or safety deficiencies. A Traffic Movement Permit is not required.
2. The applicant should determine if a waiver is required for driveway separation on Riverside Street. If conditions do not meet City Standards, the applicant should provide supporting documentation for a waiver request.
3. I have reviewed the construction management plan and generally find it to be acceptable.
4. The driveway shall be designed such that a maximum cross-slope of 2% is provided along the sidewalk accessible route.

Site Plan Review

5. Per Section 14-250(h), the pavement setback from lot boundaries shall be a minimum of 10' feet. Past the choke point, approximately 140' feet east of the property line along Riverside Street, it appears that the edge of pavement is just 6' feet from the northerly property line. Past this bottleneck, the driveway shall be relocated to meet the city's 10' feet standard.
6. The City's off-street parking standards require a minimum of 1 parking space/1,000 sf of floor space for self-storage uses, for a total of 81 parking spaces for this project. Ten parking spaces have been provided. Please submit a written waiver request for a reduction in required parking.
7. Designated snow storage locations shall be called out on the site plan.
8. How will waste on site be managed? Will there be any exterior refuse containers? If so, these shall be adequately identified and screened per Sections 14-527(f) and 14-526(b) respectively.
9. What are the intended hours of operation for this facility?
10. The applicant has stated that separate lighting detail cut sheets and associated photometric will be supplied with the final plan submittal. Please note that the location of any exterior lighting shall be called out on the proposed site plan.
11. On Sheet C-10, Site Plan, a proposed sliding gate is called out with reference to a separate detail and "Note 3". There does not appear to be a "Note 3" and in looking at the two site detail sheets, there does not appear to be a detail for either the 6' foot security fence or gate. These items shall be included with the subsequent submission.

Fire Department Review

1. Are there going to be any proposed hydrants? Location and distance for the nearest hydrant?
2. Premises Identification:
 - a. The main entrance of the building must be the address for the property. This should be consistent with 911, tax assessor, Inspections Division and future mailing address.
 - b. Street addresses shall be marked on the structure and shall be as approved by the City E-911 Addressing Officer.
 - c. If the building entry faces a different street, both the street name and number should be large enough to read from the street.
 - d. Address numbers must be a minimum of 4 inches high.
 - e. The number should be in Arabic numerals rather than spelled out (for example, "130" instead of "One Hundred and Thirty").
 - f. Color: Addresses should be in a color that contrasts with the background.
 - g. Whenever possible, should be illuminated.
 - h. Provide additional address signs at entrances to the property when the building address is not legible from the public street.
 - i. 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.

Additional Submittals Required:

Please upload the digital plans and documents to address staff comments. Upon receipt of the revised material, the City of Portland will review the additional plans and information for conformance with applicable ordinances. Please be aware that an application expires within 120 days of the date upon which this written request for additional information was made and only one set of revised plans may be submitted for review. This item has been scheduled for a Planning Board Workshop on Thursday, April 6, 2017. Once reviews are complete, the Planning Board will approve, approve with conditions, or deny the final site plan and site location of development.

If you have any questions, feel free to contact me at (207) 874-8725 or by email at mgrooms@portlandmaine.gov.

Sincerely,

Matthew Grooms
Planner

Electronic Distribution:

Tuck O'Brien, Planning Division Director
Barbara Barhydt, Development Review Services
Manager
Victoria Morales, Associate Corporation
Counsel

Anne Machado, Zoning Administrator
Captain Keith Gautreau, Fire
Jeff Tarling, City Arborist
Tom Errico, P.E., TY Lin Associates
Lauren Swett, P.E., Woodard & Curran

MEMORANDUM



TO: Matt Grooms, Planner
FROM: Lauren Swett, PE & Craig Sweet, EIT
DATE: March 22, 2017
RE: 547 Riverside Street, Level III Site Plan Application

Woodard & Curran has reviewed the Level III Site Plan Application for the proposed Development located at 547 Riverside Street in Portland, Maine. The project involves the construction of a self storage facility which will include approximately 500 recycled shipping containers and increase the impervious area by approximately 3.5 acres.

Documents Reviewed by Woodard & Curran

- Level III Site Plan Application and attachments, dated February 2, 2017, prepared by Acorn Engineering, Inc, on behalf of 547 Riverside LLC.
- Engineering Plans, Sheets C-01, C-02, EX, C-03, C-10, L-1, C-20, C-30, C-40, C-41, C-42, C-43, C-44, C-45, and C-46, dated February 2, 2017, prepared by prepared by Acorn Engineering, Inc, on behalf of 547 Riverside LLC.
- Structural Plans, Sheets S1.0, S1.1, and S1.2 prepared by Structural Integrity, on behalf of 547 Riverside, LLC.

Comments

- 1) The Applicant has indicated that a Tier 1 NRPA permit has been filed with the MaineDEP to fill approximately 6,350 square feet of wetland, and noted that a copy will be forwarded to the City upon approval.
- 2) Per Section 13 of the City's Technical Manual, the Applicant is required to submit a Boundary Survey that has been Stamped by a Maine Licensed Professional Surveyor.
- 3) 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. We are currently assuming that the City of Portland will have delegated review of stormwater for this project, but understand that the City is currently waiting for confirmation from the MaineDEP. 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 accordance with Appendix A, B, & C of MaineDEP Chapter 500.
 - It is noted that the plans call for the use of an erosion control berm, but the detail provided is for silt fence. The Applicant should clarify.
 - Based on proposed grading, it appears that the sedimentation barrier should extend along the northern and southern edges of the property, in addition to the areas currently shown.
 - We recommend that the Applicant consider erosion control blanket on proposed perimeter slopes, to help prevent erosion onto adjacent properties.
 - b) General Standard: The project will result in an increase in impervious area of approximately 3.5 acres and is required to include specific stormwater management features for stormwater quality control. The Applicant is proposing to treat stormwater using a pervious concrete stormwater filter system.
 - Per the Maine DEP Stormwater BMP Manual, the Applicant should verify that adequate separation between the base of the filter and the groundwater elevation is provided. In addition, the existing subsurface infiltration rate should also be confirmed.
 - Calculations verifying that the filter layer will provide for adequate storage of 1-inch of rainfall from the area draining to the pervious concrete should be provided, per the requirements of the Maine DEP Stormwater BMP Manual.



- Additional specification should be provided for the Type D gravel specified for the Gravel Filter Course to ensure that adequate fines will be included in the material. The material specified is the MaineDOT Type D gravel which, per the MaineDOT specification, could have between 0 and 7% fines content. The Maine DEP Stormwater BMP requires that the filter material contain between 4% and 7% fines.
- c) Flooding Standard: The project will result in an increase in impervious area of approximately 3.5 acres. The stormwater management plan indicates that the project will reduce flows from the pre-development to the post-development condition in accordance with the Flooding Standard. The Applicant should clarify the following additional stormwater questions, and verify that following any changes to the model that the Flooding Standard will continue to be met.
- Additional information is required on the stormwater system proposed for the western side of the site. The plans indicate that pipe lengths and slopes are to be determined. The stormdrain connection is shown tying into an underdrain pipe within Riverside Street. This type of connection is not typical (note that we are forwarding our comments to the Water Resources Division at Public Works for consideration). In addition, the HydroCAD model for this area of the project indicates that the drainage structures will be in a flooding condition with water elevations above the rim during all modeled storm events. The Applicant should review this section of the stormwater management system and provide additional clarification on design intent.
 - Post-development subcatchment 2S includes the grassed and wetland areas surrounding the proposed porous pavement however, the grading plan shows that these areas are graded away from the porous pavement. These areas are not being impacted by construction, and should not be directed to the pervious pavement in the post-development model so that the pre- and post-development modeling of the area remains consistent.
- 4) It is noted that grading is proposed to the property boundary. The Applicant should consider the potential need for temporary construction easements, or include notation that construction is not to extend onto abutting properties.



Matthew Grooms <mgrooms@portlandmaine.gov>

547 Riverside Waivers (2017-025)

Tom Errico <thomas.errico@tylin.com>

Thu, Mar 30, 2017 at 8:41 AM

To: Matthew Grooms <mgrooms@portlandmaine.gov>, Bruce Hyman <bhyman@portlandmaine.gov>

Hi Matt – I have reviewed the request for waivers provided by the applicant and I have the following comments.

- Bicycle Parking – I will let Bruce provide final guidance on this. One option would be to provide a few bicycle parking spaces at the office building for employees.
- Parking Aisle Width – I support a waiver from the City's Technical Standards given expected use of the site.
- Driveway Separation – The applicant should locate the driveway on Riverside Street to maximize separation to the abutting northerly driveway. I am generally supportive of a waiver given low traffic generating characteristics. Although I suspect not feasible, the applicant should discuss access to Leighton Avenue as an option.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director
TYLIN INTERNATIONAL

12 Northbrook Drive

Falmouth, ME 04105

207.781.4721 (main)

207.347.4354 (direct)

207.400.0719 (mobile)

207.781.4753 (fax)

thomas.errico@tylin.com

Visit us online at www.tylin.com

[Twitter](#) | [Facebook](#) | [LinkedIn](#) | [YouTube](#)

"One Vision, One Company"

Please consider the environment before printing.

From: Matthew Grooms [mailto:mgrooms@portlandmaine.gov]
Sent: Wednesday, March 29, 2017 3:05 PM
To: Tom Errico <thomas.errico@tylin.com>; Bruce Hyman <bhyman@portlandmaine.gov>
Subject: 547 Riverside Waivers (2017-025)

Hi Tom and Bruce,

[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.



Matthew Grooms <mgrooms@portlandmaine.gov>

547 Riverside Waivers (2017-025)

Bruce Hyman <bhyman@portlandmaine.gov>
To: Tom Errico <thomas.errico@tylin.com>
Cc: Matthew Grooms <mgrooms@portlandmaine.gov>

Thu, Mar 30, 2017 at 9:10 AM

Bicycle Parking: Concur with Tom that at a minimum 1 bicycle rack with a capacity for 2 bikes should be placed near the entrance to the office on a firm and stable surface of sufficient size.

Bruce

On Thu, Mar 30, 2017 at 8:41 AM, Tom Errico <thomas.errico@tylin.com> wrote:

[Quoted text hidden]

--

Bruce Hyman
Transportation Program Manager
Transportation Division

Department of Planning & Urban Development
389 Congress Street
Portland, Maine 04101
(207) 874-8717 phone

bhyman@portlandmaine.gov
<http://www.portlandmaine.gov/1363/Transportation-Division>
Yes! Transportation's Good Here



Matthew Grooms <mgrooms@portlandmaine.gov>

547 Riverside Street

Jeff Tarling <jst@portlandmaine.gov>

Fri, Mar 31, 2017 at 9:03 AM

To: Matthew Grooms <mgrooms@portlandmaine.gov>, Barbara Barhydt <bab@portlandmaine.gov>

Matt -

I have reviewed the proposed 547 Riverside Street (Self Storage Project) and offer the following comments:

Due to the scale of the project it would be recommended to see more in the way of landscape buffering. The project shows some undersized Taxus or Yews up near Riverside Street which would not offer much in the way of buffering and uses perennials which are nice up close but do little in the way of adding the landscape needed for a project of this size. These plants should be upgraded to Arborvitae 5-6' height.

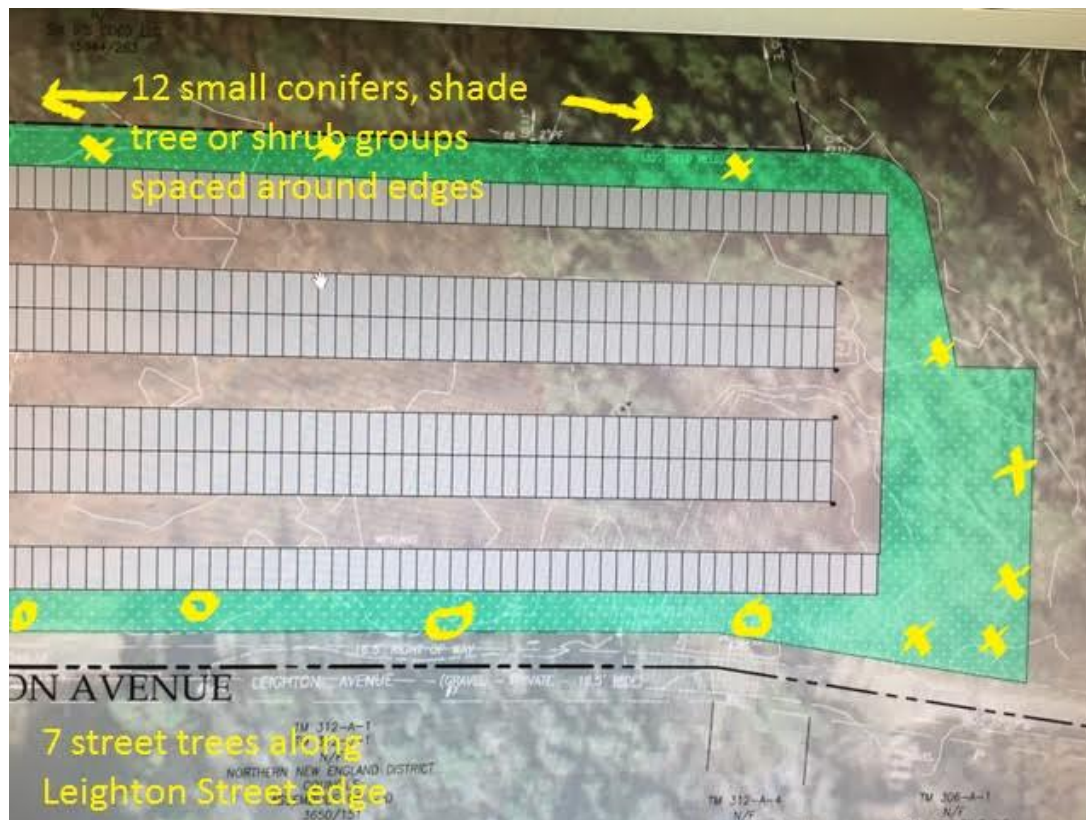
Additional Recommendations:

- 1) Street & Parking Lot shade trees - plant two threes near the entrance on Riverside Street, five Red Maple trees (2" caliper) near the parking lot, see attached photo.
- 2) Landscape buffer along Leighton Avenue - Recommended to have seven street trees (2" caliper) perhaps with landscape features or shrubs along Leighton Avenue.
- 3) Buffer planting along edges - with future development potentials unknown on adjacent properties the northeast and southern or Turnpike side edge would benefit with the planting of 12 conifers - could be one species or a mix of White Spruce, Larch, or hardwoods adaptable to the site conditions. These might be Red Maple, Tupelo. Trees in this area could be smaller 1.5" size. Shrub grouping of Viburnum, Alder, or Winterberry would be acceptable as well.

Overall the project covers a substantial area similar to a large warehouse the landscape treatment should be similar. Recommended tree and landscape features are reasonable additions and will help this project fit into the surrounding Riverside neighborhood landscape.

Thanks,

Jeff Tarling
City Arborist - City of Portland Maine
Parks, Recreation & Facilities Department
Forestry & Horticulture
212 Canco Road
Portland, ME. 04103
(207) 808-5446
jst@portlandmaine.gov





MEMORANDUM

TO: Matt Grooms, Planner
FROM: Lauren Swett, PE & Craig Sweet, EIT
DATE: May 16, 2017
RE: 547 Riverside Street, Level III Site Plan Response to Comments

Woodard & Curran has reviewed the Level III Site Plan Response to Comments for the proposed Development located at 547 Riverside Street in Portland, Maine. The project involves the construction of a self-storage facility which will include approximately 500 recycled shipping containers and increase the impervious area by approximately 3.5 acres.

Documents Reviewed by Woodard & Curran

- Level III Site Plan Application response to comments and attachments, dated April 19, 2017, prepared by Acorn Engineering, Inc, on behalf of 547 Riverside LLC.
- Engineering Plans, , dated April 18, 2017, prepared by Acorn Engineering, Inc, on behalf of 547 Riverside LLC.

Comments

- 1) 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. We are currently assuming that the City of Portland will have delegated review of stormwater for this project, but understand that the City is currently waiting for confirmation from the MaineDEP. 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 accordance with Appendix A, B, & C of MaineDEP Chapter 500.
 - b) General Standard: The project will result in an increase in impervious area of approximately 3.5 acres and is required to include specific stormwater management features for stormwater quality control. The Applicant is proposing to treat stormwater using a pervious concrete stormwater filter system.
 - c) Flooding Standard: The project will result in an increase in impervious area of approximately 3.5 acres. The stormwater management plan indicates that the project will reduce flows from the pre-development to the post-development condition in accordance with the Flooding Standard.
- 2) We have reviewed the stormwater connection in Riverside Street with Public Works. The connection to the existing underdrain pipe is acceptable. City data indicates that the existing underdrain pipe is 18 inches in diameter. The City has noted that an insert-a-tee connection may not be possible as the size of the new pipe is more than half the diameter of the connecting pipe, and a saddle connection may be necessary.
- 3) All other comments have been addressed.



Matthew Grooms <mgrooms@portlandmaine.gov>

547 Riverside Street - Final Traffic Comments

Tom Errico <thomas.errico@tylin.com>

Wed, May 17, 2017 at 4:36 PM

To: Matthew Grooms <mgrooms@portlandmaine.gov>

Cc: Katherine Earley <kas@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>, Lauren Swett <lswett@woodardcurran.com>, Jeff Tarling <jst@portlandmaine.gov>

Hi Matt – I have reviewed the updated application materials and offer the following final traffic comments as a status update of my March 21, 2017 comments.

- The project is not expected to generate a significant amount of traffic generation and thus the project would not be expected to create traffic congestion or safety deficiencies. A Traffic Movement Permit is not required.

Status: I have no further comment.

- The applicant should determine if a waiver is required for driveway separation on Riverside Street. If conditions do not meet City Standards, the applicant should provide supporting documentation for a waiver request.

Status: The applicant has provided documentation in support of this design waiver. Given low traffic volumes and driveway width adjustments, I support a waiver from the City's Technical Standards for driveway separation.

- I have reviewed the construction management plan and generally find it to be acceptable.

Status: I have no further comment.

- The driveway shall be designed such that a maximum cross-slope of 2% is provided along the sidewalk accessible route.

Status: The applicant has noted that the plans include this requirement and therefore I have no further comment.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE

Senior Associate

Traffic Engineering Director

TYLIN INTERNATIONAL

12 Northbrook Drive

Falmouth, ME 04105

+1.207.781.4721 main

+1.207.347.4354 direct

+1.207.400.0719 mobile

+1.207.781.4753 fax

5/19/2017

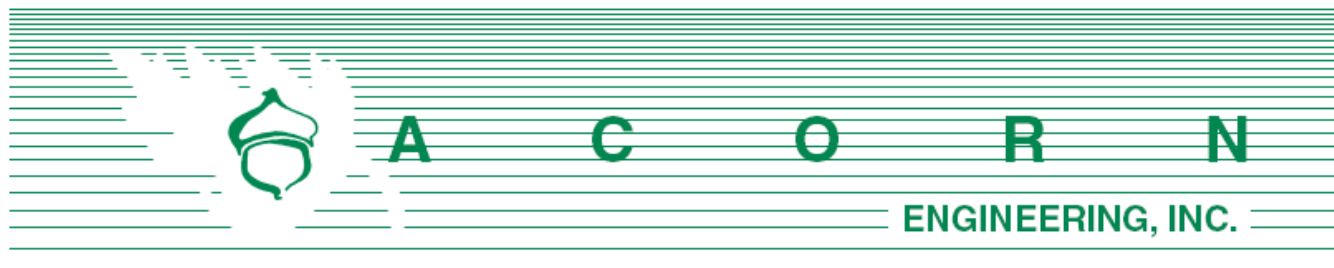
City of Portland Mail - 547 Riverside Street - Final Traffic Comments

thomas.errico@tylin.com

Visit us online at www.tylin.com

[Twitter](#) | [Facebook](#) | [LinkedIn](#) | [Google+](#)

"One Vision, One Company"



Planning Division
City of Portland, Maine
389 Congress Street, 4th Floor
Portland, ME 04101

February 2, 2017

Subject: Level III Site Plan Application
Riverside Self-Storage Containers

To Whom It May Concern,

547 Riverside LLC is pleased to submit the accompanying package of submission materials related to the proposed development of self-storage containers at 547 Riverside Street.

This submission package is intended to meet the City's Submission Requirements as outlined in the Level III Application procedures. The proposed project site is located at 547 Riverside Street (Chart, Book, Lots 312, B, 008-012) next to Leighton Avenue and Interstate 95 in the I-M Zone. The proposed development includes approximately 500 recycled shipping containers reused as self-storage units. The drive aisles will be comprised of porous pavement with filter media and underdrains. The stormwater will be attenuated and slowly discharged into the undeveloped land within the site. Porous pavement was chosen for its environmental benefits including water quality control as well as runoff reduction. Furthermore, Acorn has had success with porous pavement at the Maine Department of Transportation's International Marine Terminal Yard Paving project in the Fall of 2016.

The site contains two delineated wetlands of varying size. The smaller wetland (approximately 6,350 sq. ft.) is proposed to be filled in to facilitate the project. This process is subject to a Tier 1 NRPA permit from the Maine Department of Environmental Protection. The permitting will be submitted to the City once finalized. The larger wetland (approximately 31,390 sq. ft.) shall remain undisturbed to support wildlife habitat.

Section 14-247 in the City Ordinance does not explicitly permit self-storage as an approved use for the I-M Zone. Furthermore, Section 14-249 does not prohibit self-storage as a land use in the I-M Zone. It is proposed that self-storage be classified as a performance based use as outlined in Section 14-248. The justification for the self-storage use is as follows:

- (a) Warehousing including outdoor storage is a permitted use in the I-M Zone. Self-Storage is a similar land use and is consistent with the overall purpose of the moderate impact industrial zone.
- (b) The proposed development has been designed to minimally impact the existing wetlands and wildlife. Additionally, the project will not cause adverse effects to neighbors or surrounding land value. Noise, emissions, lighting, and odor will all have a minimal effect. Lastly, traffic is not expected to cause an adverse effect. Riverside

Street is an arterial that handles an average of 17,000 vehicles per day and can support the infrequent vehicles trips that will access the self-storage facility.

The following documents and drawings will be uploaded onto the City's electronic submission site per the procedure outlined in the application:

Documents:

- A. Cover Letter
- B. Level III Site Plan Application
- C. Evidence of Right, Title, and Interest
- D. Conformity with Applicable Design Standards
- E. Summary of Easements
- F. Written Request for Waivers
- G. Evidence of Financial Capacity
- H. Stormwater Report
- I. Erosion and Sedimentation Control Report
- J. Fire Department Letter
- K. Solid Waste
- L. Utility Cover
- M. Construction Management Plan
- N. Lighting
- O. Wetland Report
- P. Stormwater Maintenance Agreement

Drawings:

- Civil Site Plan Set, Dated 2/2/2017
- Structural Plan Set, Dated 2/10/2017

547 Riverside LLC and the design team look forward to your review of this project and are requesting to be placed on the next available workshop meeting with the Planning Board. If you have any questions regarding these materials or the completeness of the application materials, please contact us within the next five (5) days.

Sincerely,



William H. Savage, P.E.
Principal - Project Manager
Acorn Engineering, Inc.





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
p.m. (207) 874-8719

planning@portlandmaine.gov

Office Hours

Monday thru Friday
8:00 a.m. – 4:30

PROJECT NAME:

Riverside Self-Storage Containers

PROPOSED DEVELOPMENT ADDRESS:

547 Riverside Street, Portland, ME 04103

PROJECT DESCRIPTION:

Development of self-storage facility utilizing recycled shipping containers. The units will be accessed through drive aisles comprised of porous pavement.

CHART/BLOCK/LOT: 312/B/008-012**PRELIMINARY PLAN
FINAL PLAN**

2/2/2017

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Bob LeBlanc Business Name: 547 Riverside LLC Address: 59 Moody St. City/State : Portland, Maine Zip Code: 04101	Applicant Contact Information Work #: (207) 879 - 2222 Home #: Cell #: Fax#: e-mail: robertleblanc1@me.com
Owner – (if different from Applicant) Name: N/A Address: City/State : Zip Code:	Owner Contact Information Work #: Home #: Cell #: Fax#: e-mail:
Agent/ Representative Name: Acorn Engineering, Inc. Will Savage, P.E. Address: 158 Danforth Street City/State : Portland, Maine Zip Code: 04102	Agent/Representative Contact information Work #: (207) 775-2655 Home #: Cell #: (207) 317-1884 e-mail: wsavage@acorn-engineering.com
Billing Information Name: See applicant information Address: City/State : Zip Code:	Billing Contact Information Work #: Home #: Cell #: Fax#: e-mail:

Engineer Name: See agent information Address: City/State : Zip Code:	Engineer Contact Information Work #: Home #: Cell #: Fax#: e-mail:
Surveyor Name: Owen Haskell, Inc. Address: 390 Route 1 Falmouth, Maine City/State : Falmouth, Maine Zip Code: 04105	Surveyor Contact Information Home #: Work #: (207) 774-0424 Cell #: Fax#: e-mail: ebrewer@owenhaskell.com
Architect Name: Structural Integrity Consulting Engineers, Inc. Address: 77 Oak Street City/State : Portland, Maine Zip Code: 04101	Architect Contact Information Work #: (207) 774-4614 Home #: Cell #: Fax#: e-mail: aaron@structuralinteg.com
Attorney Name: Tom Jewell Address: 477 Congress Street City/State : Portland, Maine Zip Code: 04101	Attorney Contact Information Work #: (207) 774 - 6665 Home #: Cell #: Fax#: e-mail: tjewell@jewellbulder.com
Designated person/person(s) for uploading to e-Plan: Name: Sam Lebel, E.I. (Acorn Engineering, Inc.) e-mail: slebel@acorn-engineering.com Name: Olivia Dawson, E.I. (Acorn Engineering, Inc.) e-mail: odawson@acorn-engineering.com Name: Will Savage, P.E. (Acorn Engineering, Inc.) e-mail: wsavage@acorn-engineering.com	

APPLICATION FEES:

Level III Development (check applicable reviews) ☐ Less than 50,000 sq. ft. (\$750.00) ☐ 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 (\$50.00 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 (\$1,500) ☒ Stormwater Quality (\$250) ☐ Subdivisions (\$500 + \$25/lot) # of Lots ☒ \$25/lot = _____ ☒ Site Location (\$3,500, 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
--	---

INSTRUCTIONS FOR ELECTRONIC SUBMISSION:

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

1. Fill out the application completely and e-mail the **application only** to planning@portlandmaine.gov
(Please be sure to designate a person who will be responsible for uploading documents and drawings.)
This step will generate the project ID number for your project.
2. An invoice for the application fee will be e-mail to you. Payments can be made on-line at [Pay Your Invoice](#) , by mail or in person at City Hall, 4th Floor. Please reference the Application Number when submitting your payment which is located in the upper left hand corner of the invoice.
3. The designated person responsible for uploading documents and drawings will receive an email from eplan@portlandmaine.gov with an invitation into the project. At this time, you will upload all corresponding documents and plans into the project. For first time users you will receive a temporary password which you must change on entry. Make note of your username and password for any future projects.

Reminder: Before the project can move forward, the application fee shall be paid in full and all required documents and drawings shall be uploaded into e-plan correctly.

4. Follow the link below (Applying Online Instructions) for step by step instructions on how to do the following:
Tab 1 - Setting up the appropriate compatibility settings for your PC and getting started in e-plan.
Tab 2 - Preparing your drawings, documents and photos for uploading using the correct naming conventions
Tab 3 - Preparing and uploading revised drawings and documents

[Applying Online Instructions](#)

5. When ready, upload your files and documents into the following folders:
"Application Submittal – Drawings"
"Application Submittal – Documents"

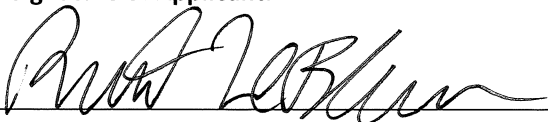
6. Once a preliminary check has been made of the submittal documents and drawings, staff will move them to permanent folders labeled Drawings and Documents. As the process evolves you will be able to log in and see markups, comments and upload revisions as requested into these folders.

APPLICANT SIGNATURE:

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.

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: 2/2/17
---	------------------------

PROJECT DATA

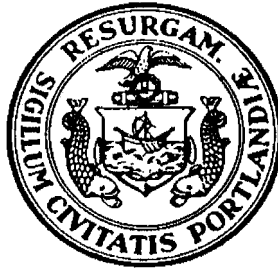
The following information is required where applicable, in order to complete the application.

Total Area of Site	290,448 sq. ft.
Proposed Total Disturbed Area of the Site	172,220 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)	11,460 sq. ft.
Impervious Area (Total Proposed)	156,865 sq. ft.
Building Ground Floor Area and Total Floor Area	
Building Footprint (Total Existing)	0 sq. ft.
Building Footprint (Total Proposed)	80,960 sq. ft.
Building Floor Area (Total Existing)	0 sq. ft.
Building Floor Area (Total Proposed)	80,960 sq. ft.
Zoning	
Existing	I-M
Proposed, if applicable	
Land Use	
Existing	Vacant
Proposed	Commercial - Self-Storage
Residential, If applicable	
# of Residential Units (Total Existing)	
# of Residential Units (Total Proposed)	
# of Lots (Total Proposed)	
# of Affordable Housing Units (Total Proposed)	
Proposed Bedroom Mix	
# 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)	0
# of Parking Spaces (Total Proposed)	10
# of Handicapped Spaces (Total Proposed)	0
Bicycle Parking Spaces	
# of Bicycle Spaces (Total Existing)	0
# of Bicycle Spaces (Total Proposed)	0
Estimated Cost of Project	\$1 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
N/A		1	Traffic Analysis (may be preliminary, in nature, during the preliminary plan phase)
Applicant Checklist	Planner Checklist	# of Copies	SITE PLAN SUBMISSIONS CHECKLIST
X		1	Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
X		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;
X			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;
N/A			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.

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

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



Bradley Roland, P.E.
Water Resources Division

Date: 2/2/2017

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

Site Address: 547 Riverside St

Chart Block Lot Number: 044-B-007

Proposed Use: Industrial - Self storage

Previous Use: Vacant

Existing Sanitary Flows: 0 GPD

Existing Process Flows: 0 GPD

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

Proposed connection to the existing sewer system in Riverside St.

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: TBD Phone: TBD

Owner/Developer Name: 547 Riverside, LLC

Owner/Developer Address: 59 Moody Street Portland, Maine 04101

Phone: (207) 879 - 2222 E-mail: robertleblanc1@me.com

Engineering Consultant Name: Will Savage, P.E. - Acorn Engineering, Inc.

Engineering Consultant Address: 158 Danforth Street, Portland Maine 04102

Phone: (207) 775-2655 Fax: E-mail: wsavage@acorn-engineering.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: 24 GPD

Peaking Factor/ Peak Times: Diurnal flow pattern

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) State of Maine Subsurface Wastewater Disposal Rules, Effective 8/3/15

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
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.

Wastewater Flow Calculations Source: State of Maine Subsurface Wastewater Disposal Rules

Existing Flow:

0 GPD

Proposed Flow:

Employees at place of employment with no showers

Equation: $Q = 12 \text{ GPD} \times \text{Employees}$

*It is assumed there will be at most two employees working

$Q = 12 \times 2$

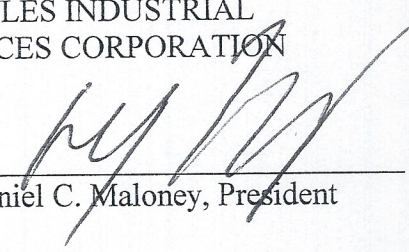
$Q = 24 \text{ GPD}$

QUITCLAIM WITH COVENANT DEED

KNOW ALL BY THESE PRESENTS, that KNOWLES INDUSTRIAL SERVICES CORPORATION, a Maine corporation with a mailing address of 295 New Portland Road, Gorham, ME 04038, for consideration paid, hereby GRANTS unto 547 RIVERSIDE STREET, LLC, a Maine limited liability company with a mailing address of 59 Moody Street, Portland, ME 04101, WITH QUITCLAIM COVENANT, all of those certain lots or parcels of land located at and near 547 Riverside Street, in the City of Portland, County of Cumberland and State of Maine, being more particularly described on Exhibit A attached hereto and made a part hereof.

DATED: November 18, 2016

KNOWLES INDUSTRIAL
SERVICES CORPORATION

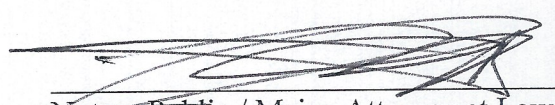
By: 

Daniel C. Maloney, President

STATE OF MAINE
COUNTY OF CUMBERLAND

November 18, 2016

Personally appeared before me DANIEL C. MALONEY, as President of KNOWLES INDUSTRIAL SERVICES CORPORATION, and acknowledged the foregoing instrument to be his free act and deed in said capacity and the free act and deed of said corporation.


~~Notary Public~~ / Maine Attorney at Law

Print Name: Richard N. Bryant, Esq.

My Commission Expires: _____

EXHIBIT A

GRANTOR: KNOWLES INDUSTRIAL SERVICES CORPORATION

GRANTEE: 547 RIVERSIDE STREET, LLC

DATE: November 18, 2016

PROPERTY: 547 Riverside Street, Portland, Maine

PARCEL 1:

A certain lot or parcel of land, with the buildings thereon, situated in said Portland, on what is known as Auburn Place (also known as Leighton Avenue), southerly of Riverside Street, and bounded and described as follows:

Beginning at a point on the southwesterly side line of land formerly owned by Swanson, now or formerly owned by Andrews, which point is eight (8) rods northwesterly from the southerly corner of said Swanson land;

Thence southeasterly by said Swanson land, eight (8) rods to the southerly corner of said Swanson land;

Thence northeasterly by said Swanson land and land now or formerly of Carrie M. Palmer, seven and one-half (7½) rods to land now or formerly of Charles Dunn and formerly owned by Charles B. Gordon;

Thence southeasterly by said Dunn land, eight (8) rods to a point;

Thence on a line about south 25½ degrees west directly across said lot to land or passageway known as Auburn Place;

Thence northwesterly on said Auburn Place, sixteen (16) rods to the southerly side line of a lot conveyed by Nellie E. Burnell to Edgar Bradbury, et al, by deed, dated June 27, 1910;

Thence northeasterly in a line directly across said lot to the point of beginning.

Containing about one acre and one hundred and forty-eight square rods.

Together with a right of way between the lot hereby conveyed and Riverside Street along the easterly side of said Auburn Place to said Riverside Street, the right of way being the same as was conveyed to Wesley B. Wyer and George H. Dowling by James E. Miner, by his warranty deed, dated June 30, 1927, and recorded in the Cumberland County Registry of Deeds, in Book 1269, Page 191, together with any additional rights which may have been thereafter acquired.

Being the same premises conveyed to Knowles Industrial Services Corporation by deed of Marion E. Brooks dated November 15, 2010 and recorded in the Cumberland County Registry of Deeds in Book 28286, Page 329.

PARCEL 2:

A certain lot or parcel of land, with the buildings thereon, situated on easterly side of Riverside Street, in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Beginning on the said easterly side of Riverside Street at an iron rod located one hundred twenty and thirty-three hundredths (120.33) feet northeasterly from the northerly line of Leighton Avenue;

Thence North 28° 41' East by said Riverside Street one hundred thirty-four and seven-tenths (134.7) feet to an iron rod at land formerly of Betty Swanson;

Thence South 53¼° East by said Swanson land fifty-six (56) rods to an iron rod eight (8) rods northwesterly from the southerly corner of said Swanson land;

Thence South 28° 44' West two hundred fifty-five and forty-two hundredths (255.42) feet to Leighton Avenue, formerly known as Auburn Place;

Thence northwesterly by said Leighton Avenue five hundred ninety-nine (599) feet, more or less, to a point opposite and South 40° West sixteen and five-tenths (16.5) feet from an iron rod situated on land of Effie M. Minster and Annie May Chase (325) feet southeasterly from Riverside Street;

Thence North 40° East passing through said iron rod a distance of one hundred and sixteen and five-tenths (116.5) feet to an iron rod;

Thence North 39° 9' West one hundred forty-nine and three-tenths (149.3) feet to an iron rod;

Thence North 57° 34' West two hundred (200) feet to said Riverside Street at the rod and point of beginning.

This conveyance is subject to a right of way reserved in deed from Nellie E. Burnell to Edgar Bradbury et al.; dated June 27, 1910 and recorded in said Registry of Deeds in Book 861, Page 297 and further described in Agreement dated August 27, 1938 and recorded in said Registry of Deeds in Book 1549, Page 158.

Also conveying a right of way over a strip of land adjacent to, and sixteen and five-tenths (16.5) feet in width northeasterly from and parallel with said Leighton Avenue, being the right of way hereinbefore mentioned.

Excepting and reserving from the above described premises that part thereof taken by the City of Portland by condemnation which is recorded in the Cumberland County Registry of Deeds in Book 3191, Page 123.

Excepting and reserving the above-described premises that certain lot or parcel of land described in warranty deed from Ellen M. Knowles to Howland Corp., Inc., dated June 26, 1978 and recorded in

the Cumberland County Registry of Deeds in Book 4247, Page 227.

PARCEL 3:

The real property and improvements thereon, including appurtenances thereto, described in a deed from the City of Portland, a body politic and corporate located in the City of Portland, County of Cumberland and State of Maine, to Ellen M. Knowles, dated June 20, 1978 and recorded in the Cumberland County Registry of Deeds in Book 4243, Page 310;

PARCEL 4:

The real property and improvements thereon, including appurtenances thereto, described in a deed from the City of Portland, a body politic and corporate located in the City of Portland, County of Cumberland and State of Maine, to Ellen M. Knowles dated June 20, 1978 and recorded in the Cumberland County Registry of Deeds in Book 4243, Page 313.

The above described Parcels 2-4 is the same premises conveyed to Knowles Industrial Services Corporation by deed of Ellen Mary Knowles dated August 25, 2011 and recorded in the Cumberland County Registry of Deeds in Book 29589, Page 70.

PARCEL 5:

A certain parcel of land situated on the easterly side of Riverside Street in the City of Portland, County of Cumberland, State of Maine being bounded and described as follows:

Commencing on the easterly sideline of Riverside Street at land now or formerly of Scott W. Hopkins as described in a deed recorded in Book 16008, Page 340 in the Cumberland County Registry of Deeds (CCRD);

Thence N 11° 10' 09" E, by and along the easterly sideline of Riverside Street, a distance of 60.00 feet to the Point of Beginning;

Thence continuing N 11° 10' 09" E, by and along the easterly sideline of Riverside Street, a distance of 75.30 feet to an angle point at land now or formerly of Riverside Welders Limited Liability Company as described in a deed recorded in Book 11934, Page 41 CCRD;

Thence S 68° 02' 13" E, by and along land of Riverside Welders Limited Liability Company, a distance of 348.58 feet to an angle point at land now or formerly of Knowles Industrial Services Corporation as described in a deed recorded in Book 29589, Page 70 CCRD;

Thence S 12° 18' 45" W, by and along land of Knowles Industrial Services Corporation, a distance of 142.69 feet to a 1-1/2 inch iron pipe found and land of said Scott W. Hopkins;

Thence N 56° 08' 43" W, by and along land of Hopkins, a distance of 149.30 feet to an angle point;

Thence N 74° 33' 43" W, by and along land of Hopkins, a distance of 68.80 feet to an angle point;

Thence N 15° 19' 18" E a distance of 81.12 feet to an angle point;

Thence N 76° 39' 35" W a distance of 86.32 feet to an angle point;

Thence S 86° 05' 10" W a distance of 54.71 feet to the Point of Beginning.

Bearings are Grid North.

The parcel contains approximately 32,426 square feet.

Reference is made to a survey by Survey Inc. dated July 2015.

EXCEPTING AND RESERVING to the Grantors a Septic System Easement for the installation, use, maintenance and repair (but not replacement of all or any substantial portion) of a subsurface septic system and leach field on that portion of premises conveyed above by Grantors to Grantee hereinafter described (the "Easement Area") and the right to enter upon said Easement Area to install, maintain, use and repair said subsurface septic system and leach field, but not to replace all or any substantial portion thereof.

The Easement Area being described as follows:

Situated easterly of, but not adjacent to, the easterly side of Riverside Street in the City of Portland, County of Cumberland, State of Maine being bounded and described as follows:

Commencing on the easterly sideline of Riverside Street at land now or formerly of Scott W. Hopkins as described in a deed recorded in Book 16008, Page 340 in the Cumberland County Registry of Deeds (CCRD);

Thence N 11° 10' 09" E, by and along the easterly sideline of Riverside Street, a distance of 60.00 feet to an angle point;

Thence N 86° 05' 10" E a distance of 33.70 feet to the Point of Beginning;

Thence N 13° 30' 52" E a distance of 5.41 feet;

Thence N 3° 57' 54" E a distance of 9.78 feet;

Thence S 81° 35' 34" E a distance of 17.43 feet;

Thence S 78° 42' 45" E a distance of 35.16 feet;

Thence S 67° 41' 32" E a distance of 20.53 feet;

Thence S 26° 26' 44" E a distance of 10.89 feet;

Thence N 76° 39' 35" W a distance of 58.02 feet;

Thence S 86° 05' 10" W a distance of 21.01 feet to the Point of Beginning.

Bearings are Grid North.

The encumbered parcel contains approximately 837 square feet.

Reference is made to a survey by Survey Inc. dated July 2015.

Said easement area shall be for the use and benefit of Grantors' retained premises, its successors and assigns, for the purposes described herein. The provisions described herein shall be deemed covenants running with the land, burdening and benefitting the respective premises, and this easement with the covenants therein shall be binding on the respective heirs, devisees and assigns of the Parties herein.

Following Grantors' use of this Easement, Grantors, their successors and assigns, shall restore the Grantee's real estate to its previous condition to the extent reasonably feasible. Grantors shall indemnify and hold Grantee harmless from and against any and all loss and/or damage caused by the exercise of its easement rights as set forth herein.

This easement shall terminate when the Grantors' current septic system fails, at which time Grantors will be required to connect to the City sewer system.

The above described Parcel 5 is the same premises conveyed to Knowles Industrial Services Corporation by deed of Christopher P. Pirone, Michael D. Pirone and Gregory J. Pirone dated December 9, 2015 and recorded in the Cumberland County Registry of Deeds in Book 32792, Page 247.

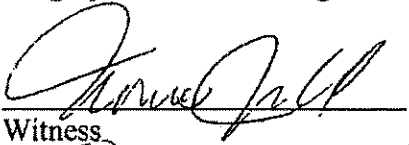
WARRANTY DEED

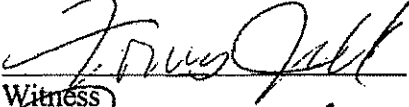
KNOW ALL PERSONS BY THESE PRESENTS, that we, **CHRISTOPHER P. PIRONE, MICHAEL D. PIRONE and GREGORY J. PIRONE** of Portland, Maine, for consideration paid, grant to **KNOWLES INDUSTRIAL SERVICES CORPORATION**, a Maine corporation, with a mailing address 295 New Portland Road, Gorham, Maine 04038, with **WARRANTY COVENANTS**, the premises situated on or about 543 Riverside Street, in the City of Portland, County of Cumberland and State of Maine, described on Exhibit A, attached hereto and made a part hereof.

Being a portion of the premises conveyed to Christopher P. Pirone by Deed of Joseph D. Pirone, dated November 4, 2015, recorded in the Cumberland County Registry of Deeds in Book 32719, Page 178.

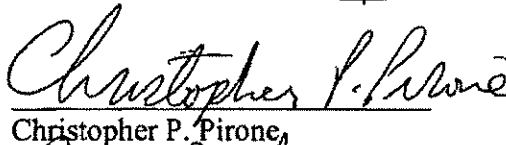
Reference is made to the Deed from Peoples Heritage Savings Bank to Joseph D. Pirone, Christopher P. Pirone, Michael D. Pirone and Gregory J. Pirone, dated January 6, 1994, recorded in the Cumberland County Registry of Deeds in Book 11224, Page 334.

IN WITNESS WHEREOF, the said Christopher P. Pirone, Michael D. Pirone and Gregory J. Pirone have signed and sealed this instrument on December 9, 2015.

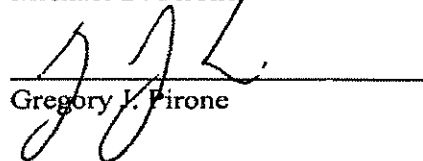

Witness


Witness


Witness


Christopher P. Pirone


Michael D. Pirone


Gregory J. Pirone

STATE OF MAINE
COUNTY OF CUMBERLAND

December 9, 2015

Then personally appeared Christopher P. Pirone, Michael D. Pirone and Gregory J. Pirone and acknowledged the foregoing instrument to be their free act and deed

Before me,

Notary Public,
Thomas Tenell
Attorney at Law

MAINE REAL ESTATE TAX PAID

EXHIBIT A

A certain parcel of land situated on the easterly side of Riverside Street in the City of Portland, County of Cumberland, State of Maine being bounded and described as follows:

Commencing on the easterly sideline of Riverside Street at land now or formerly of Scott W. Hopkins as described in a deed recorded in Book 16008, Page 340 in the Cumberland County Registry of Deeds (CCRD);

Thence N 11° 10' 09" E, by and along the easterly sideline of Riverside Street, a distance of 60.00 feet to the Point of Beginning;

Thence continuing N 11° 10' 09" E, by and along the easterly sideline of Riverside Street, a distance of 75.30 feet to an angle point at land now or formerly of Riverside Welders Limited Liability Company as described in a deed recorded in Book 11934, Page 41 CCRD;

Thence S 68° 02' 13" E, by and along land of Riverside Welders Limited Liability Company, a distance of 348.58 feet to an angle point at land now or formerly of Knowles Industrial Services Corporation as described in a deed recorded in Book 29589, Page 70 CCRD;

Thence S 12° 18' 45" W, by and along land of Knowles Industrial Services Corporation, a distance of 142.69 feet to a 1-1/2 inch iron pipe found and land of said Scott W. Hopkins;

Thence N 56° 08' 43" W, by and along land of Hopkins, a distance of 149.30 feet to an angle point;

Thence N 74° 33' 43" W, by and along land of Hopkins, a distance of 68.80 feet to an angle point;

Thence N 15° 19' 18" E a distance of 81.12 feet to an angle point;

Thence N 76° 39' 35" W a distance of 86.32 feet to an angle point;

Thence S 86° 05' 10" W a distance of 54.71 feet to the Point of Beginning.
Bearings are Grid North.

The parcel contains approximately 32,426 square feet.

Reference is made to a survey by Survey Inc. dated July 2015.

EXCEPTING AND RESERVING to the Grantors a Septic System Easement for the installation, use, maintenance and repair (but not replacement of all or any substantial portion) of a subsurface septic system and leach field on that portion of premises conveyed above by Grantors to Grantee

hereinafter described (the "Easement Area") and the right to enter upon said Easement Area to install, maintain, use and repair said subsurface septic system and leach field, but not to replace all or any substantial portion thereof.

The Easement Area being described as follows:

Situated easterly of, but not adjacent to, the easterly side of Riverside Street in the City of Portland, County of Cumberland, State of Maine being bounded and described as follows: Commencing on the easterly sideline of Riverside Street at land now or formerly of Scott W. Hopkins as described in a deed recorded in Book 16008, Page 340 in the Cumberland County Registry of Deeds (CCRD);

Thence N 11° 10' 09" E, by and along the easterly sideline of Riverside Street, a distance of 60.00 feet to an angle point;

Thence N 86° 05' 10" E a distance of 33.70 feet to the **Point of Beginning**;

Thence N 13° 30' 52" E a distance of 5.41 feet;

Thence N 3° 57' 54" E a distance of 9.78 feet;

Thence S 81° 35' 34" E a distance of 17.43 feet;

Thence S 78° 42' 45" E a distance of 35.16 feet;

Thence S 67° 41' 32" E a distance of 20.53 feet;

Thence S 26° 26' 44" E a distance of 10.89 feet;

Thence N 76° 39' 35" W a distance of 58.02 feet;

Thence S 86° 05' 10" W a distance of 21.01 feet to the Point of Beginning.

Bearings are Grid North.

The encumbered parcel contains approximately 837 square feet.

Reference is made to a survey by Survey Inc. dated July 2015.

Said easement area shall be for the use and benefit of Grantors' retained premises, its successors and assigns, for the purposes described herein. The provisions described herein shall be deemed covenants running with the land, burdening and benefiting the respective premises, and this easement with the covenants therein shall be binding on the respective heirs, devisees and assigns of the Parties herein.

Following Grantors' use of this Easement, Grantors, their successors and assigns, shall restore the Grantee's real estate to its previous condition to the extent reasonably feasible. Grantors shall indemnify and hold Grantee harmless from and against any and all loss and/or damage caused by the exercise of its easement rights as set forth herein.

This easement shall terminate when the Grantors' current septic system fails, at which time Grantors will be required to connect to the City sewer system.

Received
Recorded Register of Deeds
Dec 14, 2015 11:50:56A
Cumberland County
Nancy A. Lane

WARRANTY DEED

Corporate Grantee

Know All by these Presents,

That I, Marion E. Brooks, of Jensen Beach, State of Florida, for consideration paid, grant to:

Knowles Industrial Services Corporation

a corporation organized and existing under the laws of the State of Maine, whose mailing address is: 295 New Portland Road, Gorham, Maine 04038, with **warranty covenants**, the land in Portland, County of Cumberland, and State of Maine, described as follows:

A certain lot or parcel of land, together with any buildings and improvements thereon, situated in the City of Portland, County of Cumberland, and State of Maine as set forth in Exhibit A attached hereto and made a part hereof.

Witness my hand and seal this 15 day of November, 2010.

Signed, Sealed and Delivered
in presence of

Marion E. Brooks

Marion E. Brooks FAX 800-545-3664
2004/23/13

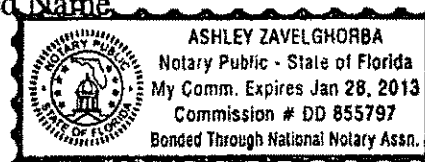
State of Florida, County of Martin ss. November 15, 2010

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

Before me,

[Signature]
~~Attorney at Law~~/Notary Public

Printed Name



MAINE REAL ESTATE TAX PAID

EXHIBIT A
Leighton Avenue, Portland, Maine

A certain lot or parcel of land, with the buildings thereon, situated in said Portland, on what is known as Auburn Place (also known as Leighton Avenue), southerly of Riverside Street, and bounded and described as follows:

Beginning at a point on the southwesterly side line of land formerly owned by Swanson, now or formerly owned by Andrews, which point is eight (8) rods northwesterly from the southerly corner of said Swanson land;

Thence southeasterly by said Swanson land, eight (8) rods to the southerly corner of said Swanson land;

Thence northeasterly by said Swanson land and land now or formerly of Carrie M. Palmer, seven and one-half (7½) rods to land now or formerly of Charles Dunn and formerly owned by Charles B. Gordon;

Thence southeasterly by said Dunn land, eight (8) rods to a point;

Thence on a line about south 25½ degrees west directly across said lot to land or passageway known as Auburn Place;

Thence northwesterly on said Auburn Place, sixteen (16) rods to the southerly side line of a lot conveyed by Nellie E. Burnell to Edgar Bradbury, et al, by deed, dated June 27, 1910;

Thence northeasterly in a line directly across said lot to the point of beginning. Containing about one acre and one hundred and forty-eight square rods.

Together with a right of way between the lot hereby conveyed and Riverside Street along the easterly side of said Auburn Place to said Riverside Street, the right of way being the same as was conveyed to Wesley B. Wyer and George H. Dowling by James E. Miner, by his warranty deed, dated June 30, 1927, and recorded in the Cumberland County Registry of Deeds, in Book 1269, Page 191, together with any additional rights which may have been thereafter acquired.

Being the same premises conveyed to the Grantor herein by Deed of Distribution from Marion E. Brooks, Personal Representative of the Estate of Irma E. Batty dated August 27, 1997 and recorded in Cumberland County Registry of Deed in Book 13305 Page 183.

Received
Recorded Register of Deeds
Nov 22, 2010 09:19:30A
Cumberland County
Pamela E. Lovley

8K9744 0083

WARRANTY DEED

019453

KNOW ALL MEN BY THESE PRESENTS THAT Breakwater Condominium Associates, a Massachusetts Partnership having a usual place of business at 21 Merchants Row, Boston, Massachusetts, 02109, which is a joint venture between Springwater Corp., a Massachusetts Corporation, and Breakwater Limited Partnership, a Massachusetts Partnership, the sole General Partner of which is Waterview, Inc., a Massachusetts Corporation, in consideration of One Dollar (\$1.00) and other valuable consideration paid by Knowles Industrial Services Corporation, of 103 Devon Street, Portland, Maine 04102, the receipt whereof is hereby acknowledged, does give, grant, bargain, sell and convey unto the said Knowles Industrial Services Corporation, its heirs and assigns forever the following premises:

Slip Unit Number B-24 (which is forty-two (42) feet in length and fifteen (15.0) feet in width) in Breakwater at Spring Point, a Condominium, located in the City of South Portland, County of Cumberland and State of Maine, together with an undivided common interest in the common areas and facilities in said condominium, the Declaration of which is dated August 20, 1987 and is recorded in the Cumberland County Registry of Deeds in Book 7936, Page 290 as amended on September 15, 1988 and recorded on September 27, 1988 which Amendment to Declaration (First Amendment) is recorded in the Cumberland County Registry of Deeds in Book 8490, Page 274, and as further amended on December 13, 1988 and recorded on December 14, 1988 (Second Amendment) which is recorded in the Cumberland County Registry of Deeds in Book 8589, Page 304.

BK8744 0084

This conveyance is subject to the terms, provisions, conditions, covenants, restrictions, obligations, developer's rights and easements as set forth and referred to in the Declaration, including all schedules and amendments thereto. This conveyance is also subject to any easements, exceptions, restrictions, and encumbrances affecting title as set forth or referred to in the Declaration or in the schedules thereto, including the plats of Breakwater Condominium Associates dated March 25, 1986, Amended April 18, 1986, August 25, 1986, July 28, 1988, and October 25, 1988, and Floor Plans of the Breakwater at Spring Point Condominium Prepared by H.I. and E.C. Jordan Company and Terrien Architects. Said Plats and Plans are recorded in said Registry of Deeds in Plan Book 154, Page 39 and Plan Book 164, Page 55, and Plan Book 176, Page 12.

TO HAVE AND TO HOLD the aforementioned and bargained premises with all the privileges and appurtenances thereof, to the said Knowles Industrial Services Corporation, its heirs and assigns, to them and their use and behoof forever.

The said Grantor does hereby covenant with the said Grantee, its heirs and assigns, that it is lawfully seized in fee of the premises, that they are free of all encumbrances except as aforesaid, that it has good right to sell and convey the same to the said Grantee to hold as aforesaid and that it and its successors shall and will warrant and defend, the same to the Grantee, its heirs and assigns forever against the lawful claims and demands of all persons.

BK 8744 0085

IN WITNESS WHEREOF, Breakwater Condominium Associates has caused this instrument to be executed by its duly authorized Agent (pursuant to an Appointment of Agent recorded in the Cumberland County Registry of Deeds in Book 7937, Page 1) this Fourth day of May, 1989.

WITNESSES

BY: BREAKWATER CONDOMINIUM ASSOCIATES

John F. ...

BY:

Scott D. Bertazzoni
Scott D. Bertazzoni
Its Duly Authorized Agent

COMMONWEALTH OF MASSACHUSETTS

Suffolk, ss.

May 4, 1989

Then personally appeared the above named Scott D. Bertazzoni, duly authorized agent for Breakwater Condominium Associates as aforesaid and acknowledged the foregoing instrument to be his free act and deed in his capacity and the free act and deed of Breakwater Condominium Associates, before me,

Cheryl A. Galante
Cheryl A. Galante, Notary Public

My commission expires: April 8, 1994

CUMBERLAND COUNTY

RECEIVED
RECORDED REGISTRY OF DEEDS
1989 MAY -5 AM 11:47

SEAL

[Signature]

WARRANTY DEED

Corporate Grantee

Know All by these Presents,

That I, Marion E. Brooks, of Jensen Beach, State of Florida, for consideration paid,
grant to:

Knowles Industrial Services Corporation

a corporation organized and existing under the laws of the State of Maine, whose
mailing address is: 295 New Portland Road, Gorham, Maine 04038, with **warranty**
covenants, the land in Portland, County of Cumberland, and State of Maine,
described as follows:

A certain lot or parcel of land, together with any buildings and
improvements thereon, situated in the City of Portland, County of
Cumberland, and State of Maine as set forth in Exhibit A attached
hereto and made a part hereof.

Witness my hand and seal this 15 day of November, 2010.

Signed, Sealed and Delivered
in presence of

Marion E. Brooks

Marion E. Brooks FAX 800-545-3664
2004/23/13

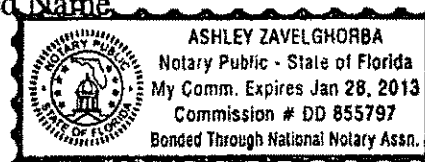
State of Florida, County of Martin ss. November 15, 2010

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

Before me,

[Signature]
~~Attorney at Law~~/Notary Public

Printed Name



MAINE REAL ESTATE TAX PAID

EXHIBIT A
Leighton Avenue, Portland, Maine

A certain lot or parcel of land, with the buildings thereon, situated in said Portland, on what is known as Auburn Place (also known as Leighton Avenue), southerly of Riverside Street, and bounded and described as follows:

Beginning at a point on the southwesterly side line of land formerly owned by Swanson, now or formerly owned by Andrews, which point is eight (8) rods northwesterly from the southerly corner of said Swanson land;

Thence southeasterly by said Swanson land, eight (8) rods to the southerly corner of said Swanson land;

Thence northeasterly by said Swanson land and land now or formerly of Carrie M. Palmer, seven and one-half (7½) rods to land now or formerly of Charles Dunn and formerly owned by Charles B. Gordon;

Thence southeasterly by said Dunn land, eight (8) rods to a point;

Thence on a line about south 25½ degrees west directly across said lot to land or passageway known as Auburn Place;

Thence northwesterly on said Auburn Place, sixteen (16) rods to the southerly side line of a lot conveyed by Nellie E. Burnell to Edgar Bradbury, et al, by deed, dated June 27, 1910;

Thence northeasterly in a line directly across said lot to the point of beginning. Containing about one acre and one hundred and forty-eight square rods.

Together with a right of way between the lot hereby conveyed and Riverside Street along the easterly side of said Auburn Place to said Riverside Street, the right of way being the same as was conveyed to Wesley B. Wyer and George H. Dowling by James E. Miner, by his warranty deed, dated June 30, 1927, and recorded in the Cumberland County Registry of Deeds, in Book 1269, Page 191, together with any additional rights which may have been thereafter acquired.

Being the same premises conveyed to the Grantor herein by Deed of Distribution from Marion E. Brooks, Personal Representative of the Estate of Irma E. Batty dated August 27, 1997 and recorded in Cumberland County Registry of Deed in Book 13305 Page 183.

Received
Recorded Register of Deeds
Nov 22, 2010 09:19:30A
Cumberland County
Pamela E. Lovley

Transaction ID: AL0ADCAA8D62

Customer Name: James Barns

Date: 9/14/2016

Number of Indexes: 1

Number of Documents: 1

Number of Pages: 3

Total Charge: \$1.50

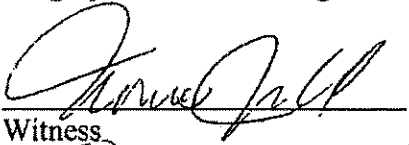
WARRANTY DEED

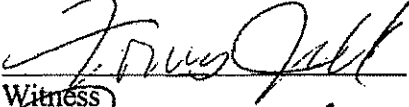
KNOW ALL PERSONS BY THESE PRESENTS, that we, **CHRISTOPHER P. PIRONE, MICHAEL D. PIRONE** and **GREGORY J. PIRONE** of Portland, Maine, for consideration paid, grant to **KNOWLES INDUSTRIAL SERVICES CORPORATION**, a Maine corporation, with a mailing address 295 New Portland Road, Gorham, Maine 04038, with **WARRANTY COVENANTS**, the premises situated on or about 543 Riverside Street, in the City of Portland, County of Cumberland and State of Maine, described on Exhibit A, attached hereto and made a part hereof.

Being a portion of the premises conveyed to Christopher P. Pirone by Deed of Joseph D. Pirone, dated November 4, 2015, recorded in the Cumberland County Registry of Deeds in Book 32719, Page 178.

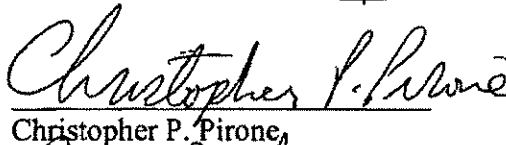
Reference is made to the Deed from Peoples Heritage Savings Bank to Joseph D. Pirone, Christopher P. Pirone, Michael D. Pirone and Gregory J. Pirone, dated January 6, 1994, recorded in the Cumberland County Registry of Deeds in Book 11224, Page 334.

IN WITNESS WHEREOF, the said Christopher P. Pirone, Michael D. Pirone and Gregory J. Pirone have signed and sealed this instrument on December 9, 2015.

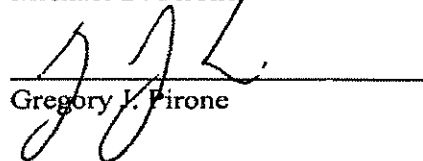

Witness


Witness


Witness


Christopher P. Pirone


Michael D. Pirone


Gregory J. Pirone

STATE OF MAINE
COUNTY OF CUMBERLAND

December 9, 2015

Then personally appeared Christopher P. Pirone, Michael D. Pirone and Gregory J. Pirone and acknowledged the foregoing instrument to be their free act and deed

Before me,


Notary Public

Thomas Tenell
Attorney at Law

MAINE REAL ESTATE TAX PAID

EXHIBIT A

A certain parcel of land situated on the easterly side of Riverside Street in the City of Portland, County of Cumberland, State of Maine being bounded and described as follows:

Commencing on the easterly sideline of Riverside Street at land now or formerly of Scott W. Hopkins as described in a deed recorded in Book 16008, Page 340 in the Cumberland County Registry of Deeds (CCRD);

Thence N 11° 10' 09" E, by and along the easterly sideline of Riverside Street, a distance of 60.00 feet to the Point of Beginning;

Thence continuing N 11° 10' 09" E, by and along the easterly sideline of Riverside Street, a distance of 75.30 feet to an angle point at land now or formerly of Riverside Welders Limited Liability Company as described in a deed recorded in Book 11934, Page 41 CCRD;

Thence S 68° 02' 13" E, by and along land of Riverside Welders Limited Liability Company, a distance of 348.58 feet to an angle point at land now or formerly of Knowles Industrial Services Corporation as described in a deed recorded in Book 29589, Page 70 CCRD;

Thence S 12° 18' 45" W, by and along land of Knowles Industrial Services Corporation, a distance of 142.69 feet to a 1-1/2 inch iron pipe found and land of said Scott W. Hopkins;

Thence N 56° 08' 43" W, by and along land of Hopkins, a distance of 149.30 feet to an angle point;

Thence N 74° 33' 43" W, by and along land of Hopkins, a distance of 68.80 feet to an angle point;

Thence N 15° 19' 18" E a distance of 81.12 feet to an angle point;

Thence N 76° 39' 35" W a distance of 86.32 feet to an angle point;

Thence S 86° 05' 10" W a distance of 54.71 feet to the Point of Beginning.
Bearings are Grid North.

The parcel contains approximately 32,426 square feet.

Reference is made to a survey by Survey Inc. dated July 2015.

EXCEPTING AND RESERVING to the Grantors a Septic System Easement for the installation, use, maintenance and repair (but not replacement of all or any substantial portion) of a subsurface septic system and leach field on that portion of premises conveyed above by Grantors to Grantee

hereinafter described (the "Easement Area") and the right to enter upon said Easement Area to install, maintain, use and repair said subsurface septic system and leach field, but not to replace all or any substantial portion thereof.

The Easement Area being described as follows:

Situated easterly of, but not adjacent to, the easterly side of Riverside Street in the City of Portland, County of Cumberland, State of Maine being bounded and described as follows: Commencing on the easterly sideline of Riverside Street at land now or formerly of Scott W. Hopkins as described in a deed recorded in Book 16008, Page 340 in the Cumberland County Registry of Deeds (CCRD);

Thence N 11° 10' 09" E, by and along the easterly sideline of Riverside Street, a distance of 60.00 feet to an angle point;

Thence N 86° 05' 10" E a distance of 33.70 feet to the **Point of Beginning**;

Thence N 13° 30' 52" E a distance of 5.41 feet;

Thence N 3° 57' 54" E a distance of 9.78 feet;

Thence S 81° 35' 34" E a distance of 17.43 feet;

Thence S 78° 42' 45" E a distance of 35.16 feet;

Thence S 67° 41' 32" E a distance of 20.53 feet;

Thence S 26° 26' 44" E a distance of 10.89 feet;

Thence N 76° 39' 35" W a distance of 58.02 feet;

Thence S 86° 05' 10" W a distance of 21.01 feet to the Point of Beginning.

Bearings are Grid North.

The encumbered parcel contains approximately 837 square feet.

Reference is made to a survey by Survey Inc. dated July 2015.

Said easement area shall be for the use and benefit of Grantors' retained premises, its successors and assigns, for the purposes described herein. The provisions described herein shall be deemed covenants running with the land, burdening and benefiting the respective premises, and this easement with the covenants therein shall be binding on the respective heirs, devisees and assigns of the Parties herein.

Following Grantors' use of this Easement, Grantors, their successors and assigns, shall restore the Grantee's real estate to its previous condition to the extent reasonably feasible. Grantors shall indemnify and hold Grantee harmless from and against any and all loss and/or damage caused by the exercise of its easement rights as set forth herein.

This easement shall terminate when the Grantors' current septic system fails, at which time Grantors will be required to connect to the City sewer system.

Received
Recorded Register of Deeds
Dec 14, 2015 11:50:56A
Cumberland County
Nancy A. Lane

WARRANTY DEED
Maine Statutory Short Form

Know All by these Presents,

That I, Ellen Mary Knowles, of Standish, Maine, for consideration paid, grant to:

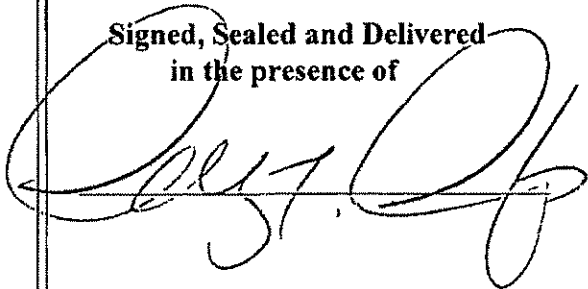
Knowles Industrial Services Corporation

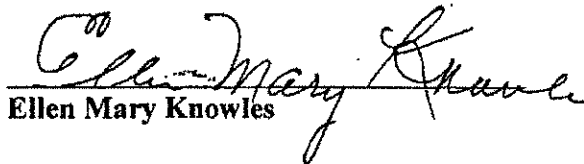
a corporation organized and existing under the laws of the State of Maine, of Gorham, in the County of Cumberland, and State of Maine, whose mailing address is: 295 New Portland Road, Gorham, Maine 04038, with **warranty covenants**, the land in Portland, County of Cumberland, and State of Maine, described as follows:

A certain lot or parcel of land, together with any buildings and improvements thereon, situated in the City of Portland, County of Cumberland, and State of Maine being more particularly described in Exhibit A attached hereto and made a part hereof.

Witness my hand and seal this 25th day of August, 2011.

Signed, Sealed and Delivered
in the presence of

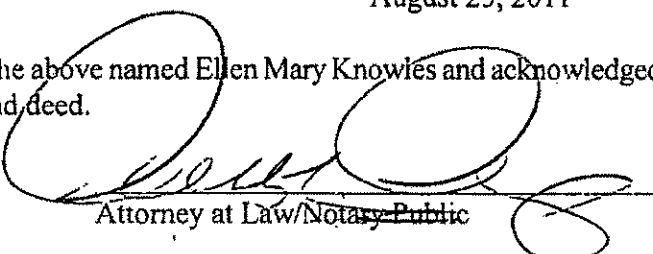



Ellen Mary Knowles

State of Maine,
County of Cumberland ss.

August 25, 2011

Then personally appeared before me the above named Ellen Mary Knowles and acknowledged the foregoing instrument to be her free act and deed.


Attorney at Law/Notary Public

Printed Name: Donnelly S Douglas

MAINE REAL ESTATE TAX PAID

EXHIBIT A
Leighton Avenue, Portland, Maine

Parcel 1:

A certain lot or parcel of land, with the buildings thereon, situated on easterly side of Riverside Street, in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

Beginning on the said easterly side of Riverside Street at an iron rod located one hundred twenty and thirty-three hundredths (120.33) feet northeasterly from the northerly line of Leighton Avenue;

Thence North $28^{\circ} 41'$ East by said Riverside Street one hundred thirty-four and seven-tenths (134.7) feet to an iron rod at land formerly of Betty Swanson;

Thence South $53 \frac{1}{4}^{\circ}$ East by said Swanson land fifty-six (56) rods to an iron rod eight (8) rods northwesterly from the southerly corner of said Swanson land;

Thence South $28^{\circ} 44'$ West two hundred fifty-five and forty-two hundredths (255.42) feet to Leighton Avenue, formerly known as Auburn Place;

Thence northwesterly by said Leighton Avenue five hundred ninety-nine (599) feet, more or less, to a point opposite and South 40° West sixteen and five-tenths (16.5) feet from an iron rod situated on land of Effie M. Minster and Annie May Chase (325) feet southeasterly from Riverside Street;

Thence North 40° East passing through said iron rod a distance of one hundred and sixteen and five-tenths (116.5) feet to an iron rod;

Thence North $39^{\circ} 9'$ West one hundred forty-nine and three-tenths (149.3) feet to an iron rod;

Thence North $57^{\circ} 34'$ West two hundred (200) feet to said Riverside Street at the rod and point of beginning.

This conveyance is subject to a right of way reserved in deed from Nellie E. Burnell to Edgar Bradbury et al.; dated June 27, 1910 and recorded in said Registry of Deeds in Book 861, Page 297 and further described in Agreement dated August 27, 1938 and recorded in said Registry of Deeds in Book 1549, Page 158.

Also conveying a right of way over a strip of land adjacent to, and sixteen and five-tenths (16.5) feet in width northeasterly from and parallel with said Leighton Avenue, being the right of way hereinbefore mentioned.

Excepting and reserving from the above described premises that part thereof taken by the City of Portland by condemnation which is recorded in the Cumberland County Registry of Deeds in Book 3191, Page 123.

Excepting and reserving the above-described premises that certain lot or parcel of land described in warranty deed from Ellen M. Knowles to Howland Corp., Inc., dated June 26, 1978 and recorded in the Cumberland County Registry of Deeds in Book 4247, Page 227.

Parcel 2:

The real property and improvements thereon, including appurtenances thereto, described in a deed from the City of Portland, a body politic and corporate located in the City of Portland, County of Cumberland and State of Maine, to Ellen M. Knowles, dated June 20, 1978 and recorded in the Cumberland County Registry of Deeds in Book 4243, Page 310;

Meaning and intending to convey and hereby conveying the premises described in said deed.

Parcel 3:

The real property and improvements thereon, including appurtenances thereto, described in a deed from the City of Portland, a body politic and corporate located in the City of Portland, County of Cumberland and State of Maine, to Ellen M. Knowles dated June 20, 1978 and recorded in the Cumberland County Registry of Deeds in Book 4243, Page 313;

Meaning and intending to convey and hereby conveying the premises described in said deed.

Received
Recorded Register of Deeds
May 16, 2012 09:34:48A
Cumberland County
Pamela E. Lovley

D. Conformity with Applicable Zoning Standards

The following outline is made in accordance with the City of Portland Code of Ordinances, Chapter 14 Land Use, Article V Section 14-526 as well as the City of Portland Technical Manual, Chapter 14 Standards for Local Site Location of Development Review.

OVERVIEW

This project conforms with all applicable design standards of Section 14-526 as demonstrated in the following narrative.

(a) Transportation Standards

1. Impact on Surrounding Street Systems:

The site is located on 547 Riverside Street which is a principal arterial and supports a high traffic volume. A minimal traffic increase is expected for this project due the low turnover of items being held in storage. Based on a statistical analysis, the project is anticipated to generate a peak volume of 10 trips per weekday and 20 trips per Saturday. This is based on a ratio of 0.02 trips per unit on a weekday and 0.04 trips per unit on a Saturday.

2. Access and Circulation:

a. Site Access and Circulation:

This project conforms with all applicable design standards of Section 14-526 as demonstrated in the following narrative.

- (i) The development will provide safe access and internal circulation for both pedestrians and vehicles.
- (ii) There is a proposed driveway that will be located perpendicular to Riverside Street and will serve as the means of ingress and egress. The driveway will be 24 wide to accommodate for two-way traffic.
- (iii) The site does not feature drive up services as mentioned in this requirement.

b. Loading and Servicing:

- (i) The site has been designed with 25-foot drive aisles within the storage area and will provide plenty of space and adequate turning radii for trucks and vehicles with trailers.

c. Sidewalks:

- (i) The existing sidewalk along Riverside Street is comprised of bituminous pavement and granite curb. During utility trenching, some parts of the Riverside Street sidewalk will be disturbed as seen on the plans. The sidewalk and curb will be reconstructed to City standards.
- (ii) The sidewalks are currently in adequate condition and will not need repair in areas other than where there is utility trenching.



- (iii) There will be a 5'x10' walkway to provide access to the office building. Due to an existing septic easement and the proximity of the abutters, it is not feasible to provide a sidewalk from Riverside Street to the proposed office building. Furthermore, the renters of the storage containers will likely be transporting with a motor vehicle.

3. Public Transit Access:

- a. The proposed development is not located along an existing public transit route.
- b. A new transit stop is not proposed as part of the project.
- c. A new transit stop is not proposed as part of the project.

4. Parking:

a. Location and Required Number of Vehicle Parking Spaces:

- (i) The proposed project will provide ten striped parking spaces next to the office as well as ample space for loading and unloading within the storage area drive aisles to meet the required number of parking spaces (81). A waiver has been requested.
- (ii) A parking study is not required.
- (iii) It is not proposed to exceed the parking requirement by 10% or more.
- (iv) The parking dimensions are such that the plans are in conformance with the City of Portland Technical Manual.
- (v) The entrance road and entry parking area will be constructed with traditional dense bituminous pavement. The drive aisles in between the storage units will be constructed with porous pavement. Neither type of pavement is subject to ponding or erosion.

b. Location and Required Number of Bicycle Parking Spaces:

- (i) The site plan includes a bicycle hitch for at least two bikes.

c. Motorcycles and Scooter Parking:

- (i) The project will provide motorcycle and scooter parking within the striped parking area.

d. Snow Storage:

- (i) The snow storage areas can be seen on the site plan. In addition to these snow storage areas, the Owner will contract with a snow removal company to remove snow when necessary.
- (ii) Snow storage shall not be located where it will adversely impact the functionality of the stormwater management system.



5. Transportation Demand Management (TDM):

- a. A TDM plan is not required for this project.
- b. A TDM plan is not required for this project.
- c. A TDM plan is not required for this project.

(b) Environmental Quality Standards

1. Preservation of Significant Natural Features:

- a. The significant natural features that exist on site include two freshwater wetlands. A Professional Wetland Scientist and consulting ecologist surveyed the site and determined there were no other significant natural features such as endangered animals or plants. The wetland boundaries can be seen on the Construction Management Plan, C-03.
- b. Not applicable.

2. Landscaping and Landscaping Preservation:

a. Landscape Preservation.

- (i) The disturbance of trees and vegetation on the easterly portion of the site will be limited.
- (ii) A minimum of 30% of existing trees ten inches DBH or greater within the setback area will be preserved.
- (iii) Measures will be taken to protect trees in accordance with Section 4 of the Technical Manual.
- (iv) A waiver is not requested.
- (v) Not applicable.

b. Site Landscaping.

(i) Landscaped Buffers:

- a. The storage facility will be screened from public sidewalks.
- b. The project has 72 linear feet of frontage along Riverside Street; per requirement, it is required that a minimum of six shrubs or shrub alternatives per 45 feet of frontage are planted. The requirement is met through a combination of landscaping within the setbacks and within the site and is described in greater detail on sheet L-1.
- c. Not applicable.
- d. Not applicable.

(ii) Parking Lot Landscaping:

- a. The two tree or one tree & three shrubs per five parking space requirement is met within the site.



- b. There is no proposed area with greater than 40 parking spaces without interrupted pavement.
- c. Not applicable.
- d. Not applicable.
- e. Not applicable.
- f. Not applicable.

(iii) Street Trees:

- a. Street trees are to be provided every 30 to 45 feet along the street frontage. This ratio equates to two street trees. This requirement is met by the proposed street tree, the numerous trees that will be maintained on site, and the proposed trees within the site.
- b. Not applicable.

3. Water Quality, Stormwater Management and Erosion Control:

a. Stormwater:

- (i) The site drainage will not be directed to flow or pond onto adjacent lots. The bulk of the stormwater will percolate through the porous pavement and outlet onto the east end of the subject property where there is undeveloped land. The majority of the remaining stormwater will flow into the proposed catch basin on site and outlet into the storm system in Riverside Street.
 - (ii) Any stormwater that flows onto adjacent lots will not exceed the pre-development flows.
 - (iii) The runoff from the site into the City property will not increase from the pre-development condition.
 - (iv) The outlet from the porous pavement and storage areas will be directed to the undeveloped land on the subject property. The outlet from the catch basin will be directed to the storm system in Riverside Street. The flow into the City's system will not cause an adverse effect to the system.
- b. A site specific Stormwater Management Plan has been developed for the project to show compliance with Section 5 of the Technical Manual, including the basic, general, and flooding standards of MEDEP Chapter 500. Please refer to the Stormwater Management Plan for more information.
 - c. The project is not located in a watershed of an urban impaired stream as listed by the MEDEP.
 - d. Not applicable.
 - e. The development is not anticipated to pose a contamination risk to groundwater during or after construction. The project will be serviced by a public wastewater system.
 - f. The development will provide for adequate and sanitary disposal of sewage in accordance with



Section 2 of the Technical Manual.

(c) Public Infrastructure and Community Safety Standards

1. Consistency with City Master Plans:
 - a. The project has been designed to be consistent with the City's Zoning Ordinance and off-site infrastructure.
 - b. Not applicable.
2. Public Safety and Fire Prevention:
 - a. The site has been designed to promote safe and inviting public access. An access gate and chain-link fence will be installed just past the main office. This gate will be controlled by automatic card readers and access cards that each renter will have upon renting a storage unit. These card readers will be built with "Click2Enter" technology in which emergency vehicles and personnel will be able to enter the gated area using a radio transceiver.
 - b. Adequate emergency access will be provided. The turning radii of the driveway are large enough to allow for emergency vehicles to enter and exit.
 - c. A fire hydrant is located along Riverside Street approximately 270 feet from the proposed office building.
3. Availability and Adequate Capacity of Public Utilities:
 - a. Public utilities in the vicinity of the site will likely have capacity to serve the project. Ability to Serve letters have been sent to the respective utility companies.
 - b. The electrical service will be routed underground.
 - c. The new sewer and stormwater infrastructure will meet the provisions of the Technical Manual.
 - d. The project will be served by connection to the public sewer system within Riverside Street.
 - e. The sanitary sewer collection system meets all applicable sections of the Technical Manual. The stormwater management system is designed to meet the standards of Chapter 500.
 - f. The self-storage facility is not expected to create a large volume of solid waste.

(d) Site Design Standards

1. Massing, Ventilation and Wind Impact:
 - a. Not applicable.
 - b. Not applicable.
 - c. Not applicable.



2. Shadows:
 - a. The self-storage units and office will be 8.5 and 17 feet high, respectively and will not cast shadows upon publicly accessible space.
3. Snow and Ice Loading:
 - a. The structures will not distribute snow and ice onto adjacent properties.
4. View Corridors:
 - a. The project site is located outside the Downtown Vision View Corridor Protection Plan.
5. Historic Resources:
 - a. The development is not located in a historic district, historic landscape district or City designated landmark.
 - b. The development is not located adjacent to designated landmarks, historic district, or historic landscape district.
 - c. There are no known archaeological resources on the site.
6. Exterior Lighting:
 - a. Site Lighting.
 - (i) Exterior lighting has been designed to meet the requirements of Section 12 of the Technical Manual. A photometric plan is included with this submission.
 - (ii) Any lighting that may adversely impact the abutting residential properties will feature house-side shielding.
 - b. Architectural and Specialty Lighting.
 - (i) No architectural or specialty lighting is proposed.
 - (ii) No up-lighting is proposed.
 - c. Street Lighting.
 - (i) No new street lights are proposed.
7. Noise and Vibration:
 - a. There is no HVAC system proposed.
8. Signage and Wayfinding:
 - a. All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.



- (i) The project is not located in a historic district or subject to Article IX.
- (ii) Not applicable.
- (iii) All street and wayfinding signage shall meet the requirements of the Manual on Uniform Traffic Devices (MUTCD) and Division 22 of the City Code.

9. Zoning Related Design Standards:

- a. The project will be designed to meet the design standards within the I-M Zone.

The following section outlines Chapter 14 of the City of Portland Technical Manual: Standards for local site location of development review.

14.3. Standards

1. Financial and technical capacity.

The developer has the financial capacity and the technical ability to develop the project in a manner consistent with the state environmental standards and with the provisions of Portland's Code of Ordinances. Please see Attachment G. for a written letter.

2. Traffic movement.

The development is not expected to generate 100 or more passenger car equivalents at peak hour. The expected rates are based on statistical data and yield 0.02 trips per unit on a weekday and 0.04 trips per unit on a Saturday. These ratios equate to 10 and 20 peak trips, respectively. Thus, the trip generation is well below the 100-trip limit. The project is not expected to cause an adverse effect to traffic congestion or circulation.

3. No adverse effect on the natural environment.

The proposed project has been designed to fit into the natural environment in a harmonious, non-intrusive manner. The majority of the wetlands area is proposed to remain as is to protect any possible wildlife habitat. The development will not adversely affect existing uses, scenic character, air quality, water quality, or other natural resources in the municipality or in neighboring municipalities.

4. Soil types.

The proposed development will be built on soil types that suitable to the nature of the undertaking. On top of the native subgrade, there will be a minimum base of 2 feet for structural fill and water storage.

5. Ground water.

The proposed project will not pose an unreasonable risk that a discharge to a significant ground water aquifer will occur.



6. Infrastructure.

Adequate provisions of utilities, including water supplies, sewerage facilities, solid waste disposal, and roadways required for the development have been made. The project will not result in an unreasonable adverse effect on the existing or proposed utilities and roadways in the municipality or areas served by those services. All utility connections are in accordance with each utility company/department's specifications and construction methods.

7. Flooding.

The activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties nor create an unreasonable flood hazard to any structure. The site has been graded to discourage runoff onto adjacent properties. Furthermore, the peak flowrates in the post-development analysis are lower than the pre-development analysis due to the underdrained porous pavement filter media and stone.

8. Storm water management and erosion and sedimentation control.

The proposed development meets the standards for storm water management in 38 MRSA S. 420-D as amended from time to time and the standard for erosion and sedimentation control in 38 MRSA S. 420-C as amended from time to time. Details, notes, and reports have been provided to ensure the compliance with these regulations.



E. Summary of Written Easements

- **Existing Easements** – The Existing Conditions Plan developed by Owen Haskell, Inc. identified two existing easements:
 - A septic easement which abuts Francis M. & Ellen M. Jackson's property. The easement contains two PVC outfalls. The description of this easement is further detailed on Pages 5 & 6 of Attachment C in the deeds. This easement will expire once the property owner connects into the City sewer within Riverside.
 - The Leighton Avenue Right-of-Way Easement which extends 16.5 feet into the southerly property line and runs the entire span east to west.
- **Proposed Easements** – There are no proposed easements at this time.



F. Written Request for Waivers

The following is a list of known project related waivers.

1. **Parking (Chp. 14 Land Use 14-332 (l))** – The facility provides 25-foot drive aisles for customers to park their vehicles adjacent to their storage units and to load and unload storage items. Therefore, the only utilization of designated parking spaces will be carried out by the 1–2 employees as well as a customer who may infrequently stop at the office. Ten designated spaces are proposed in addition to the generous driveway aisles in lieu of 81 painted 9' X 18' spaces (1 parking space per 1,000 square feet of floor area).
2. **Spacing of Driveways (Technical Manual 1.7.2.7)** – The property exceeds the minimum frontage requirement along Riverside Street, however it is not possible to meet the standard of 150 feet of separation between existing driveways. The proposed separation is approximately 110 feet to the northerly abutter and 85 feet to the southerly abutter. The proposed driveway is located within the center of the property's frontage and adjacent to the proposed business signage. The following reasons justify this proposal as a safe and functional driveway location:
 - **Sight Distance** – With the proposed layout, there is adequate sight distance for vehicles to exit the site. Per Section 1.6 of the Technical Manual vehicular site distance exceeds the minimum requirement of 305 ft. There are no obstructions such as trees or structures to interfere with motorists' view. The design team does not foresee any issues with exiting the proposed facility as traffic gaps and adequate sight distance will make turning onto Riverside Street a safe and simple movement.
 - **Low Traffic Volume** – The anticipated trip generations based on data for a facility of this size is minimal. The peak traffic volumes are: ten vehicles per weekday and twenty vehicles per Saturday. Thus, the demand onto Riverside Street from the proposed driveway is low.
 - **Curb closure** – There is a 47-foot curb cut that exists along the property's Riverside frontage. The proposed layout decreases the curb cut from 47 feet to 31 feet. This is a benefit to the City and pedestrians as the curb will cut be decreased by a third. This allows for more delineation between the roadway and sidewalk as well as a longer gutter line for stormwater to flow along.

For the reasons listed, it is Acorn's professional opinion that the City and all project stakeholders would benefit from the proposed driveway as currently shown on Riverside Street.





Att. G

30 Lisbon Street
PO Box 1407
Lewiston, Maine 04243
1.800.966.9172
androscogginbank.com

January 6, 2017

Re: 547 Riverside Street LLC

To Whom It May Concern:

I am pleased to say that 547 Riverside Street LLC, Robert and Carrie LeBlanc, have made application to Androscoggin Bank regarding the financing for the development of property located at 547 Riverside Street, Portland, Maine. The LeBlanc's and 547 Riverside Street LLC are well established customers of the bank and have always handled their accounts in an excellent manner. Subject to full and complete underwriting, 547 Riverside Street LLC appears to have the financial capacity to undertake the contemplated development.

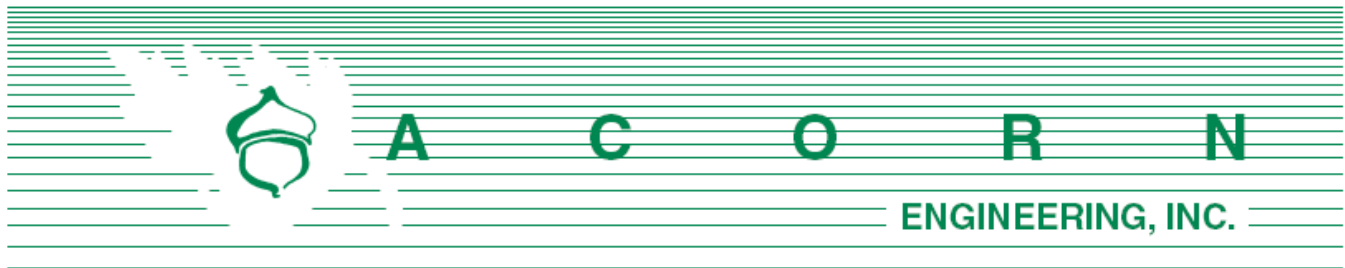
Please feel free to contact me should a verbal authentication be desired.

Thank you,

A handwritten signature in blue ink, appearing to read 'Eric Hansen', written over the printed name.

Eric Hansen

Vice President, Commercial Lending



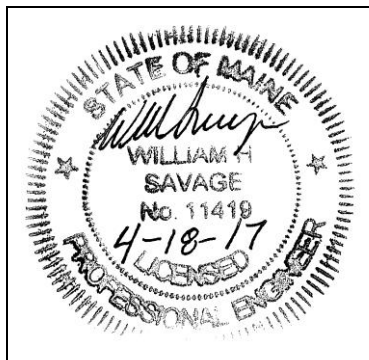
STORMWATER MANAGEMENT **REPORT**

Prepared For:

**547 Riverside LLC
59 Moody Street
Portland, Maine 04101**

Prepared By:

**Acorn Engineering, Inc.
PO Box 3372
Portland, Maine 04104**



**February 2017
Rev. April 2017**

INTRODUCTION

Acorn Engineering, Inc. has been retained by 547 Riverside LLC to provide civil engineering services for the proposed development of a self-storage facility with porous pavement drive aisles. The project is at 547 Riverside Street which is an undeveloped parcel of nearly 7 acres.

A stormwater analysis will be prepared to demonstrate that the project will meet the following requirements of the City of Portland (the City):

- City of Portland Land Use Ordinance Chapter 14, Article V. Site Plan Section 14-523. Required Approvals and Applicability (E) Level III Site Plan Review.
- City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and Maine DEP Chapter 500 Stormwater Management Amended January 11, 2015.

The proposed project will include the development of over 3.5 acres of impervious area. Therefore, the project is required to include stormwater management features for both stormwater quality and quantity control. The stormwater analysis is documented with supporting calculations and reports attached to this narrative.

The current course of action is to provide primary water quality and quantity control through a Best Management Practice (BMP) approved by the Maine Department of Environmental Protection (MDEP). The majority of the pavement on site will be porous pavement with filter media and underdrains below the surface. This stormwater will outlet on site into the undeveloped part of the lot. The implemented BMP will provide water quality treatment for no less than 95% of the new impervious area and no less than 80% of the developed area.

The design of this BMP was sourced from both Chapter 7.7 of the MDEP Stormwater BMP Manual and the University of New Hampshire Stormwater Center's (UNHSC) research and design specifications.

EXISTING CONDITIONS

The proposed redevelopment project is located in between Schnitzer Recycling and Interstate-95, abutting Leighton Avenue to the north. A boundary plan has been prepared by Owen Haskell, Inc. of Falmouth, Maine dated December 16, 2016.

The property is in the I-M Industrial Zone. Abutting Uses include:

- | | |
|---------|---|
| ➤ North | I-M Zone – Industrial and Commercial Businesses |
| ➤ West | I-M Zone – Single and Multi-Family Residential |
| ➤ South | I-M Zone – Single and Multi-Family Residential |
| ➤ East | I-M Zone – Maine Turnpike |

The existing property consists primarily of brush and small trees. There is a gravel driveway off of Riverside Street that extends into the property approximately 250 feet. There are also two separate wetlands that have been delineated by a Wetland Scientist. The smaller of the two is proposed to be filled in to facilitate the development pending a Tier 1 NRPA permit. The wetland report is under separate cover as attachment O. The Leighton Avenue Right-of-Way maintains an easement



approximately 17 feet into the property along the entire southerly property line. The roadway is comprised of compacted gravel. The grades on the site slope gradually down-gradient towards the northeast corner where the larger wetland exists. The site is not within a watershed classified as an Urban Impaired Stream.

PROPOSED DEVELOPMENT

The proposed project includes 500 fenced-in recycled shipping containers that will be repurposed as self-storage containers. The drive aisles that will provide access to these units will be comprised of porous pavement with filter media and stone beneath. Underdrains will drain the system to the easterly part of the site that will remain undeveloped. There will also be a small parking area by the office which will consist of recycled shipping containers. Access to the site will be provided from Riverside Street.

The development will be served by the Portland Water District, Central Maine Power, and the municipal sewer and storm systems. The project proposes to incorporate the MDEP approved porous pavement BMP to meet the General and Flooding Standards.

GENERAL STANDARDS - WATER QUALITY

The porous pavement subsurface media was sized to meet or exceed the requirement set forth within the MDEP Volume III BMPs Technical Design Manual, Chapter 7.7. The system has proven to be effective at filtering and removing a wide range of pollutants contained in stormwater runoff.

Impervious Treatment Area

The majority of the runoff will be generated by the roofs of the shipping containers. These units will be sloped down-gradient towards the porous drive aisles and catch basins. The stormwater will percolate through the pavement where it will then filter through several layers of media before being collected by an underdrain and transported to the undeveloped area of the site. Stormwater will also percolate between the storage containers and into the porous base. For the purposes of modeling the stormwater, the porous pavement will be considered impervious area in all calculations and tables throughout the report.

The stormwater that is collected in the dense bituminous parking area will flow to a catch basin where it will outlet into the existing underdrain within Riverside St.

The treatment of the impervious surfaces by the Porous Pavement BMP is summarized in Table 1.

Table 1: New Impervious Area Treatment					
Existing Impervious Area (SF)	Proposed Total Impervious Area (SF)	Net change in Impervious Area (SF)	Proposed Impervious Area with Treatment (SF)	% Overall New Imp. Area Treated	MDEP Requirement
11,460	156,865	145,405	138,955*	96%	95%

*This area was derived from the subcatchment that will drain to or directly on the porous pavement



As shown in Table 1, the project anticipates to exceed the required treatment for new impervious surfaces through the utilization of the porous pavement filter media BMP.

Furthermore, the MDEP defines developed area as “Disturbed area” excluding area that within one calendar year of being disturbed is returned to a condition with the same drainage pattern that existed prior to the disturbance and is revegetated, provided the area is not mowed more than once per year.

Based upon this definition, Table 2 summarizes the proposed disturbance and treatment areas.

Table 2: Developed Area Treatment			
Proposed Total Developed Area (SF)	Proposed Developed Area with Treatment (SF)	% Overall Developed Area Treated	MDEP Requirement
172,219	138,955	81%	80%

As shown in Table 2, the project anticipates exceeding the required treatment for the total developed area through the utilization of the porous pavement filter media BMP.

Filter Area Depth

Per the requirement for porous pavement in Chapter 7.7 of the MDEP Stormwater BMP manual, the filter depth shall be a minimum of 4 inches. The proposed design incorporates a filter depth of 10 inches with a void ratio of 5%.

FLOODING STANDARD – WATER QUANTITY

To evaluate the project with respect to the Flooding Standard, the proposed development was modeled using HydroCAD to verify that the post-development conditions do not exceed the pre-development conditions. A 24-hour SCS Type III storm distribution for the 2, 10, and 25-year storm events were used. The corresponding rainfall amounts for these storms are 3.10”, 4.60”, and 5.80”, respectively. Rainfall amounts are sourced from the Northeast Regional Climate Center website (<http://precip.eas.cornell.edu>), Extreme Precipitation Tables.

Storage Capacity

Per the MDEP Stormwater BMP Manual Section 7.7, 1 inch of rainfall needs to be stored in either the filter layer or the subbase and base layers. The following condition is met:

Surface Area of Stormwater System x (Subbase depth x porosity + Base Depth x porosity) must be greater than 1 inch of rainfall x Drainage Area. The following condition is calculated as such:

$57,500 \text{ SF} \times (.67' \times .4 + .33' \times .4) = 23,000 \text{ CF}$ which is greater than $(.083' \times 139,000 \text{ SF}) = 11,580 \text{ CF}$

Thus, the available storage exceeds the requirement. An average depth of 8 inches for the subbase was used which is a conservative dimension based on the varying depth.



Time of Concentration (Tc)

The times of concentration for subcatchments in both the pre and post conditions were calculated by entering the flow path with the associated ground cover and slopes. HydroCAD then calculated the Tc's and incorporated the total Tc for each subcatchment into the model. The only subcatchment that this method was not used for was subcatchment 2 in the post condition. The Tc's were derived as outlined in Post-development Calculations section.

Curve Number (CN)

Conservative curve number runoff values were used within the subcatchments. Namely, the pre condition vegetated areas have a rating of “good” to reduce the CN. Additionally, the porous pavement was modeled as impervious pavement with a high CN in the post condition.

The wetlands were modeled with a CN of 85 based on the fact that they are not fully saturated and will be able to absorb stormwater. This was kept consistent between both the pre and post conditions.

Pre-development Calculations

The pre-development condition was modeled as two subcatchments including:

- Subcatchment 1: the westerly part of the site which contains a gravel driveway, pavement, concrete, grass, and brush.
- Subcatchment 2: the easterly part of the site which contains part of Leighton Avenue, two wetlands, grass, brush, and some tree growth.

A Pre-development Watershed Map developed for this project showing the subcatchments is included as Attachment A.

The peak flow rates for the 2, 10, and 25-year storm events at POI #1, Riverside St. are presented in Table 3 below, and a full copy of the HydroCAD calculations is included within Attachment D of this report.

Table 3: Pre - Development Peak Stormwater Flows			
Drainage Area	2-yr Storm (CFS)	10-yr Storm (CFS)	25-yr Storm (CFS)
POI #1 (Riverside St.)	1.2	2.3	3.2
POI #2 (Wetland)	4.3	8.3	11.8

Post-development Calculations

The post-development condition was modeled as three subcatchments including:

- Subcatchment 1: the westerly part of the site which is proposed to contain a traditional dense bituminous driveway with 10 parking spaces, the office building (shipping containers), and a mix of grasses and landscaping.
- Subcatchment 2: the porous pavement and storage containers..



- Subcatchment 3: the easterly part of the parcel – a mix of short and long grasses, part of the existing Leighton Avenue gravel roadway, the existing wetland, and the embankments sloping down from the proposed storage facility.

Furthermore, two different analyses of POI #2 were produced. This process was undertaken to produce results using two different modeling techniques with a varying time of concentration. The first method, A, features a time of concentration based on the UNHSC's research in which the time of concentration for porous pavement is equal to following ratio:

$$T_c = 790 \text{ minutes} / 41'' \text{ of base above the underdrain}$$

Taking a conservative approach, the T_c was calculated using only the depth of the filter course while excluding the stone layers. The equivalent ratio yielded a T_c of 193 minutes based upon the 10" filter course.

The second method, B, features a time of concentration of 5 minutes to simulate the worst-case scenario in which the voids within the porous pavement and base layers become clogged resulting in stormwater that is not able to filter at the design rate. Stormwater would become restricted by the 12" outlet, flooding the underdrains and crushed stone base. In both analyses, the post-development resulted in a lower peak flowrate than the pre-development.

A post-development Watershed Map for this project showing the subcatchments is included as Attachment B.

Post-development peak flow rates for the 2, 10, and 25 storm events are summarized below for each of the subcatchments. The HydroCAD calculations are included within Attachment D.

Table 4: Post - Development Peak Stormwater Flows			
Drainage Area	2-yr Storm (CFS)	10-yr Storm (CFS)	25-yr Storm (CFS)
POI #1 (Riverside St.)	0.9	1.5	2.1
POI #2 (Wetland) A	2.2	3.8	5.1
POI #2 (Wetland) B	3.3	5.3	7.1

The post-development flowrates are then compared to the pre-development flowrates in the table below.

Table 5: Pre & Post - Development Comparison						
Drainage Area	2-yr Storm Event (CFS)		10-yr Storm Event (CFS)		25-yr Storm Event (CFS)	
	Pre	Post	Pre	Post	Pre	Post
POI #1	1.2	0.9	2.3	1.5	3.2	2.1
POI #2 A	4.3	2.2	8.3	3.8	11.8	5.1
POI #2 B	4.3	3.3	8.3	5.3	11.8	7.1

As shown in Table 5, the post-development peak flows from the property are well below the pre-development levels due to the attenuating effect of the proposed underdrained storage and filter



layers beneath the porous pavement. Per Chapter 7.7 of the MDEP Stormwater BMP manual, the underdrain shall be surrounded by 12 inches of stone. This additional storage was not modeled in the HydroCAD analysis in order to represent a conservative peak flowrate and water elevation. Peak water elevations for a 25-year storm remain below pavement elevations for both A and B scenarios. A Post-Development Watershed Map developed for this project is included as Attachment B.

A maintenance agreement in accordance with Chapter 7.7 and UNHSC specifications will be established with a third-party service as part of the final application. Maintenance activities may include inspections, sweeping, vacuuming, and the limiting of salt and sediment transport to the porous pavement.

SOILS

Onsite soil information includes the following:

- Class B High Intensity Soil Survey performed by Mark Hampton Associates.

Please refer to Document T for the report and explorations that accompany the attached Soil Map.

The majority of the site is comprised of Lamoine soils which are in the hydrologic soil group D, yielding poor drainage. This soil has a moderate to moderately slow permeability in surface of the horizon with a slower permeability in the lower part.

A small part of the site consists of Buxton soils which is characterized by moderately well drained soils. Permeability is moderately slow in the surface horizon, and is slower in the lower regions.

Lastly, two wetlands with scantic soils exist on site which are poorly drained and has a saturated hydraulic conductivity of the surface and subsurface horizons that are moderately high or high and low or moderately low in the subsoil and substratum.

These existing soils were modeled in their respective hydrologic groups in both the pre and post conditions.

The susceptibility of soil erosion is indicated on a relative “K” scale of values over a range of 0.02 to 0.69. Higher “K” values indicate more erodible soils.

Table 6: K Value		
Soils Type	Subsurface	Substratum
Lamoine	.37	.37
Buxton	.49	.49
Scantic Silt Loam	.49	.49

The soil “K” values for the soils, listed above, indicate a moderate susceptibility to erosion. The site’s susceptibility to erosion is sourced from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County and the USDA Soil Survey.



Conclusion

The proposed development was designed to meet the requirements implemented by the MDEP under the Stormwater Management Statute (38 M.R.S.A. § 420-D) as well as the City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards. The proposed project as designed is anticipated to improve upon the existing stormwater management by providing significant storage through the use of the porous pavement BMP. Water quality will be provided for 96% of the new impervious area while also reducing the peak flowrates across the entire site. Furthermore, the design does not anticipate to create erosion, drainage, or runoff problems for the development, the city, or abutting properties.

Attachments

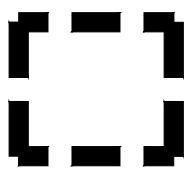
Attachment A: Pre – Development Watershed Map
Attachment B: Post – Development Watershed Map
Attachment C: Class B High Intensity Soils Map
Attachment D: HydroCAD Calculations



GENERAL NOTES:
1. REFER TO STORMWATER REPORT FOR MORE INFORMATION

1

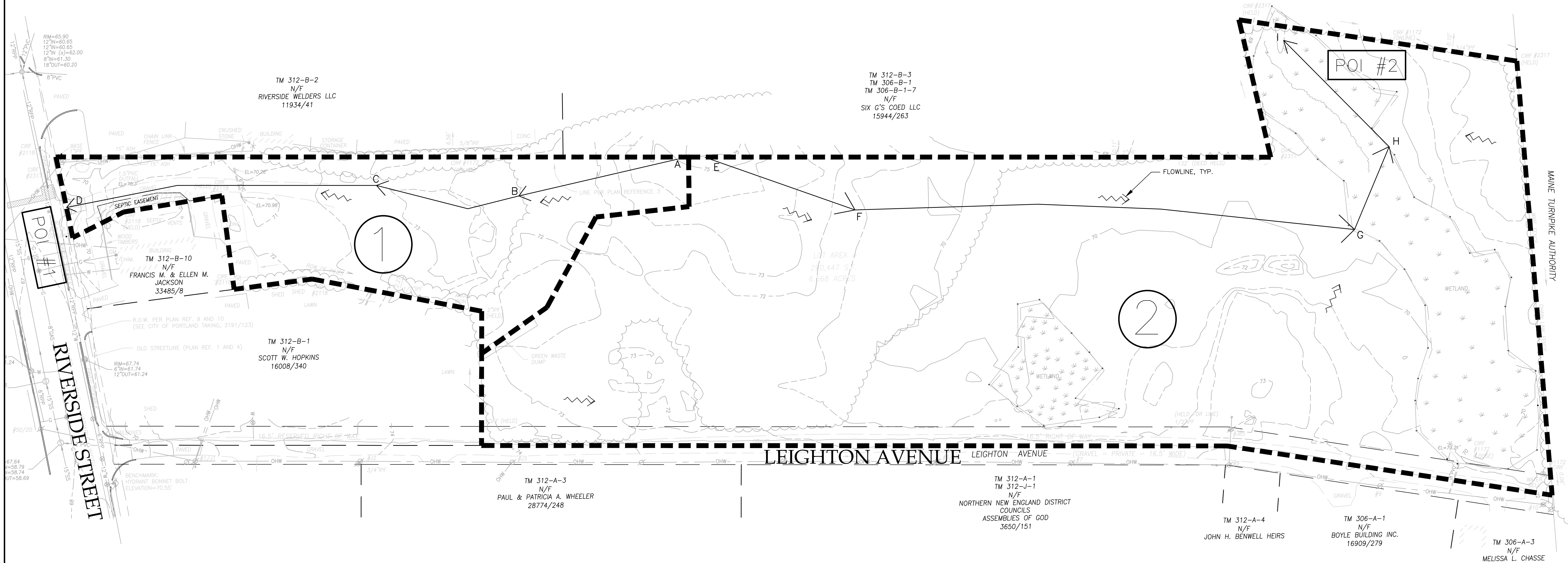
SUBCATCHMENT NUMBER



SUBCATCHMENT EXTENTS

POI #1

POINT OF INTEREST (POI)



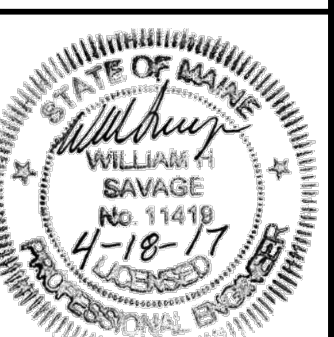
ISSUED FOR	BY
PRELIM. APP.	WHS
SLODA APP.	WHS
FINAL APP.	WHS

DRAWING NAME:	PRE - DEVELOPMENT STORMWATER PLAN
PROJECT NAME:	RIVERSIDE SELF-STORAGE CONTAINERS
CLIENT:	547 RIVERSIDE LLC 59 MOODY STREET, PORTLAND, MAINE 04101

ACCOR ENGINEERING, INC.
158 DANFORTH ST. PORTLAND, MAINE 04102
(207) 775-2655

FOR ANY AND ALL USES, THE USER OF THIS DRAWING IS ADVISED THAT THE USER IS NOT TO BE RESPONSIBLE FOR ANY AND ALL ERRORS, OMISSIONS, OR INADEQUACIES IN THE DESIGN OR CONSTRUCTION OF THE PROJECT. THE USER'S SOLE RISK AND LIABILITY SHALL REMAIN WITH THE USER.

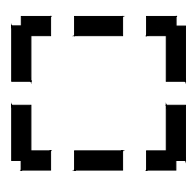
FILE:	1080_CIVIL
JN:	1080
SCALE:	NTS
DESIGNED BY:	WHS
DRAWN BY:	SJL
CHECKED BY:	WHS



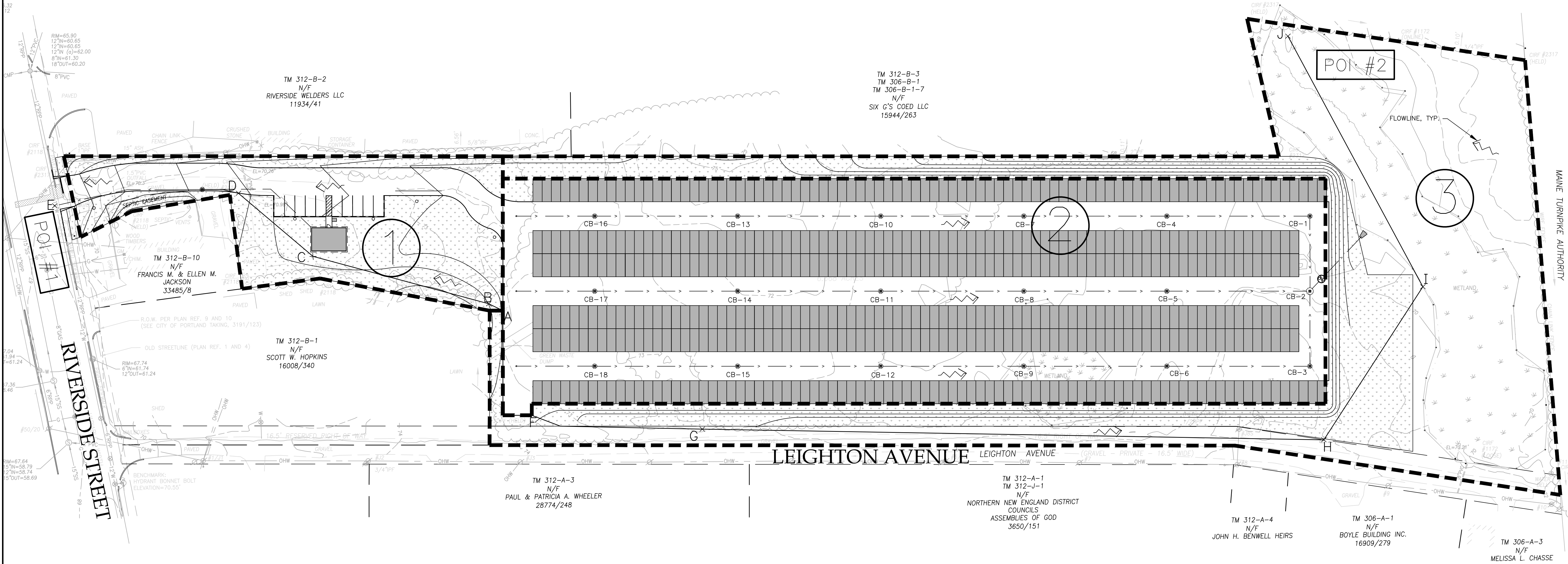
DRAWING NO.
PRE

GENERAL NOTES:
1. REFER TO STORMWATER REPORT FOR MORE INFORMATION

1
SUBCATCHMENT NUMBER


SUBCATCHMENT EXTENTS

POI #1
POINT OF INTEREST (POI)



PRELIMINARY
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
PRELIM. APP.	WHS
SLODA APP.	WHS
FINAL APP.	WHS

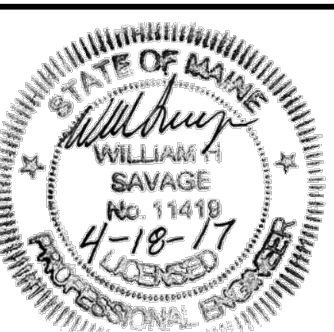
DRAWING NAME: POST - DEVELOPMENT STORMWATER PLAN
PROJECT NAME: RIVERSIDE SELF-STORAGE CONTAINERS
CLIENT: 547 RIVERSIDE LLC
59 MOODY STREET, PORTLAND, MAINE 04101

ACORN ENGINEERING, INC.

158 DANFORTH ST. PORTLAND, MAINE 04102
(207) 775-2655

FOR THE STATE OF MAINE, I HEREBY CERTIFY THAT I AM A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF MAINE, AND THAT I AM THE DESIGNER OF THE ABOVE WORK.

FILE: 1080_CIVIL
JN: 1080
SCALE: NTS
DESIGNED BY: WHS
DRAWN BY: SJL
CHECKED BY: WHS



DRAWING NO.
POST

GENERAL NOTES:

1. REFER TO STORMWATER REPORT FOR MORE INFORMATION
2. THIS DATA HAS BEEN TRANSFERRED FROM A PLAN MARKED UP BY MARK HAMPTON ASSOCIATES.
3. EXPLORATIONS PERFORMED BY MARK HAMPTON ASSOCIATES. REFER TO CLASS B HIGH INTENSITY SOIL SURVEY FOR MORE INFORMATION.



EXPLORATION SYMBOL



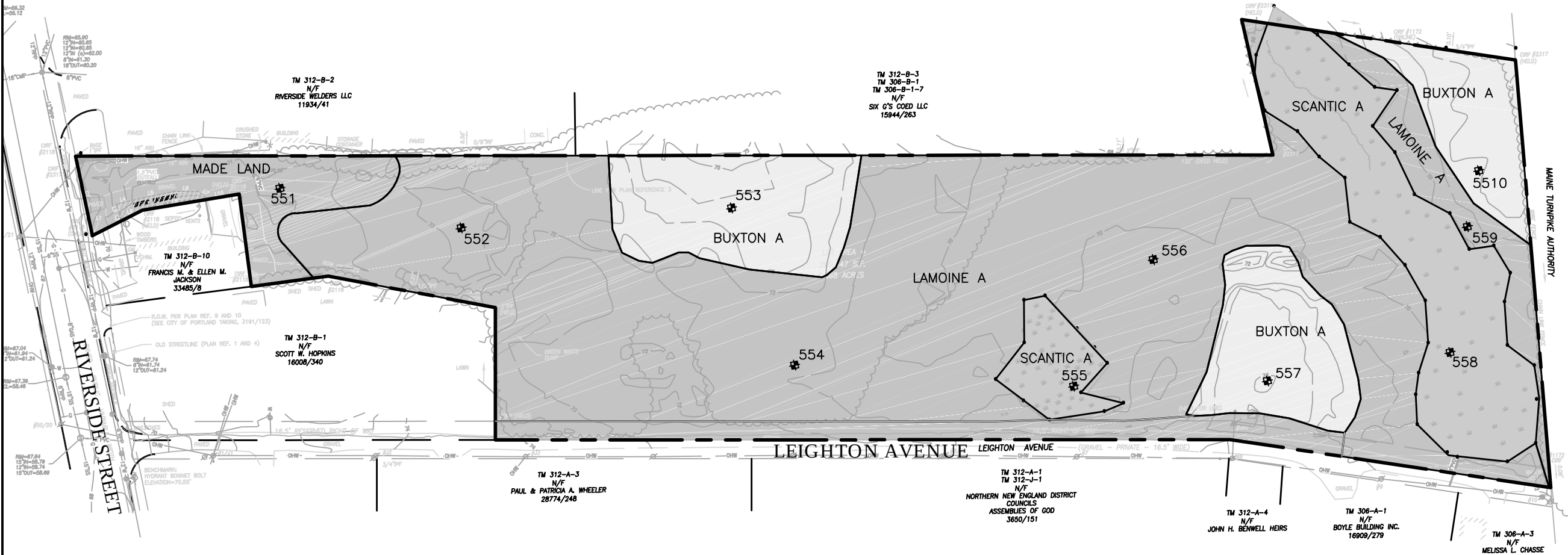
HYDROLOGIC GROUP C SOIL



HYDROLOGIC GROUP D SOIL



HYDROLOGIC GROUP D SOIL & WETLAND



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY DATE
FINAL APP.	WHS 4/18/2017
REVISION	REV. DATE

DRAWING NAME:	CLASS B HIGH INTENSITY SOIL SURVEY
PROJECT NAME:	RIVERSIDE SELF-STORAGE CONTAINERS
CLIENT:	547 RIVERSIDE, LLC 59 MOODY STREET PORTLAND, MAINE 04102

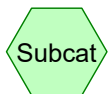
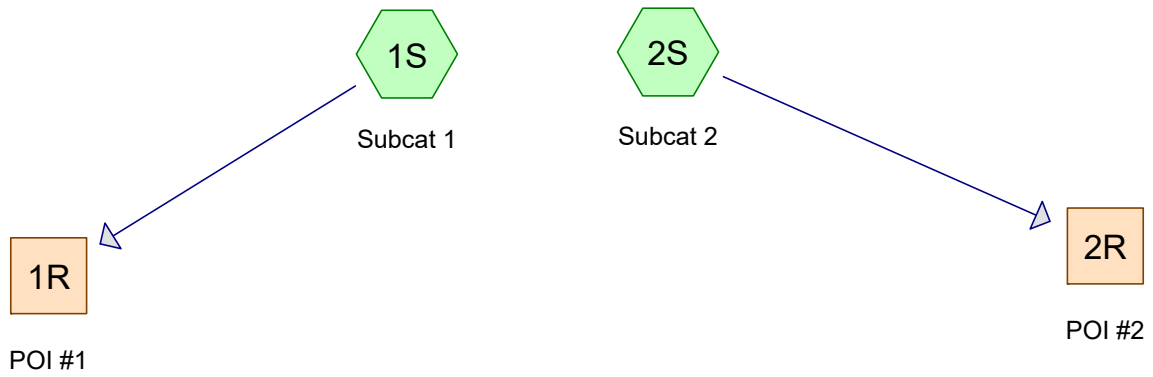


158 DANFORTH ST
PORTLAND, MAINE 04104
(207) 775-2655

FILE:	1080_CIVIL
JN:	1080
SCALE:	NTS
DESIGN BY:	SJL
DRAWN BY:	SJL

CHECKED BY: WHS
THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

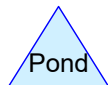
DRAWING NO.
PRE-SOILS



Subcat



Reach



Pond



Link

Drainage Diagram for PRE_1-18-17

Prepared by Acorn Engineering, Printed 4/19/2017
HydroCAD® 9.10 s/n 06436 © 2010 HydroCAD Software Solutions LLC

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.393	70	Brush, Fair, HSG C (1S, 2S)
0.847	76	Woods/grass comb., Fair, HSG C (1S, 2S)
1.979	77	Brush, Fair, HSG D (1S, 2S)
2.080	82	Woods/grass comb., Fair, HSG D (2S)
0.866	85	Wetland (2S)
0.324	96	Gravel roads, HSG D (1S)
0.147	96	Gravel surface, HSG A (2S)
0.012	98	Concrete (1S)
0.019	98	Pavement (1S)
6.668		TOTAL AREA

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.147	HSG A	2S
0.000	HSG B	
1.241	HSG C	1S, 2S
4.383	HSG D	1S, 2S
0.898	Other	1S, 2S
6.668		TOTAL AREA

Summary for Subcatchment 1S: Subcat 1

Runoff = 1.21 cfs @ 12.33 hrs, Volume= 0.136 af, Depth= 1.46"

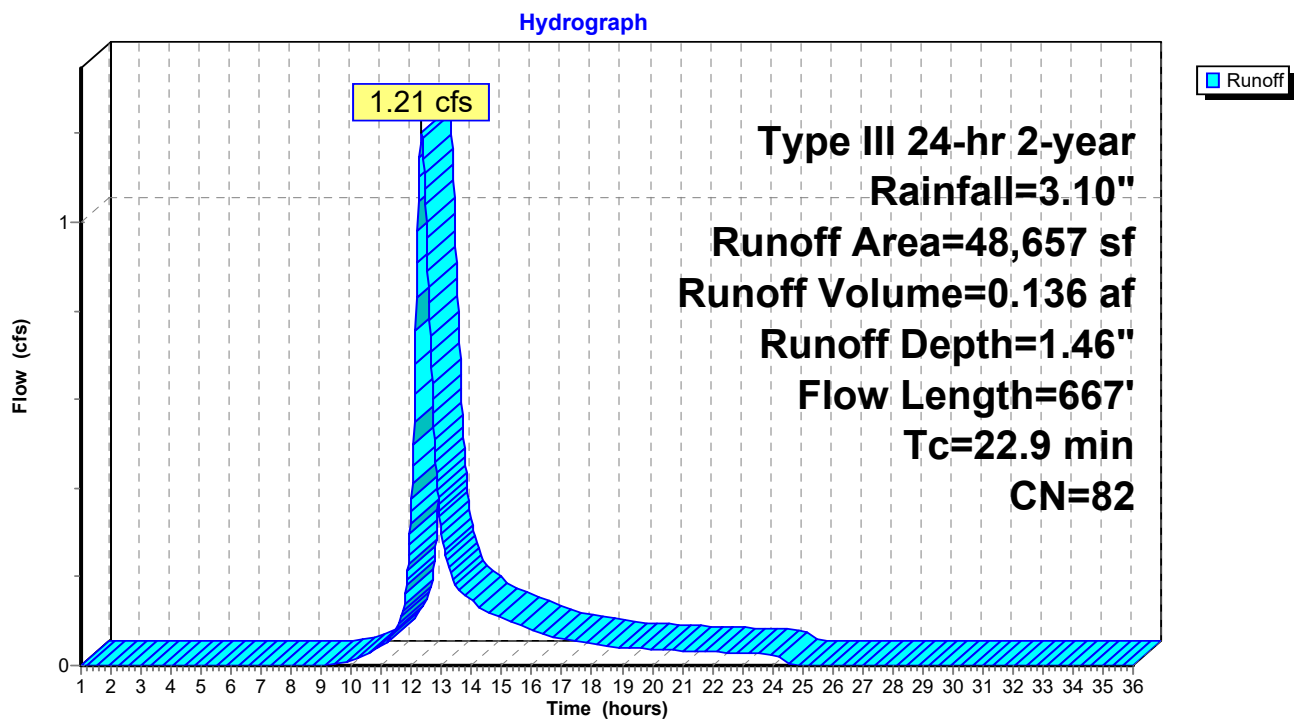
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.02 hrs

Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	837	98	Pavement
*	523	98	Concrete
*	14,122	96	Gravel roads, HSG D
	5,000	70	Brush, Fair, HSG C
	25,775	77	Brush, Fair, HSG D
	2,400	76	Woods/grass comb., Fair, HSG C
	48,657	82	Weighted Average
	47,297		97.20% Pervious Area
	1,360		2.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.2	150	0.0240	0.14		Sheet Flow, A to B Grass: Dense n= 0.240 P2= 3.27"
1.1	126	0.0140	1.90		Shallow Concentrated Flow, B to C Unpaved Kv= 16.1 fps
3.6	391	0.0123	1.79		Shallow Concentrated Flow, C to D Unpaved Kv= 16.1 fps
22.9	667	Total			

Subcatchment 1S: Subcat 1



Summary for Subcatchment 2S: Subcat 2

Runoff = 4.28 cfs @ 12.55 hrs, Volume= 0.613 af, Depth= 1.33"

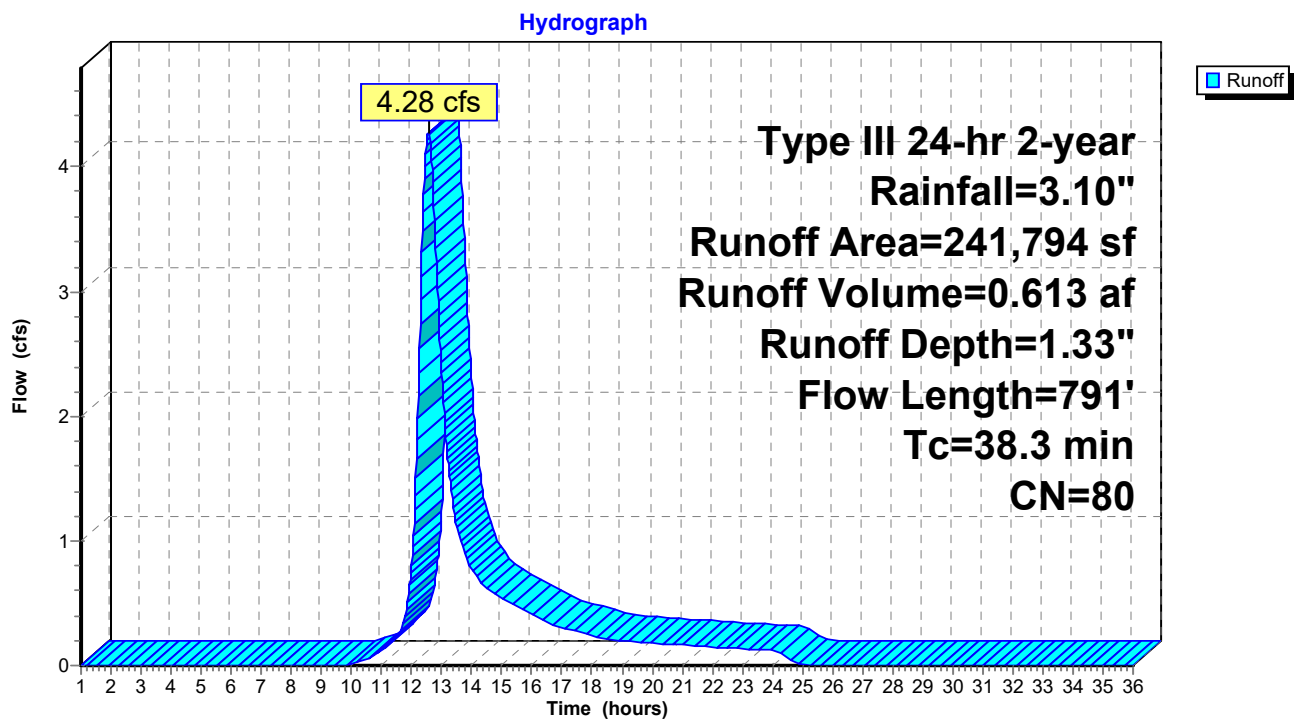
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.02 hrs

Type III 24-hr 2-year Rainfall=3.10"

Area (sf)	CN	Description
6,385	96	Gravel surface, HSG A
34,500	76	Woods/grass comb., Fair, HSG C
90,620	82	Woods/grass comb., Fair, HSG D
* 37,737	85	Wetland
60,412	77	Brush, Fair, HSG D
12,140	70	Brush, Fair, HSG C
241,794	80	Weighted Average
241,794		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.5	150	0.0230	0.14		Sheet Flow, E to F Grass: Dense n= 0.240 P2= 3.27"
16.6	433	0.0076	0.44		Shallow Concentrated Flow, F to G Woodland Kv= 5.0 fps
1.6	78	0.0028	0.79		Shallow Concentrated Flow, G to H Grassed Waterway Kv= 15.0 fps
1.6	130	0.0084	1.37		Shallow Concentrated Flow, H to I Grassed Waterway Kv= 15.0 fps
38.3	791	Total			

Subcatchment 2S: Subcat 2



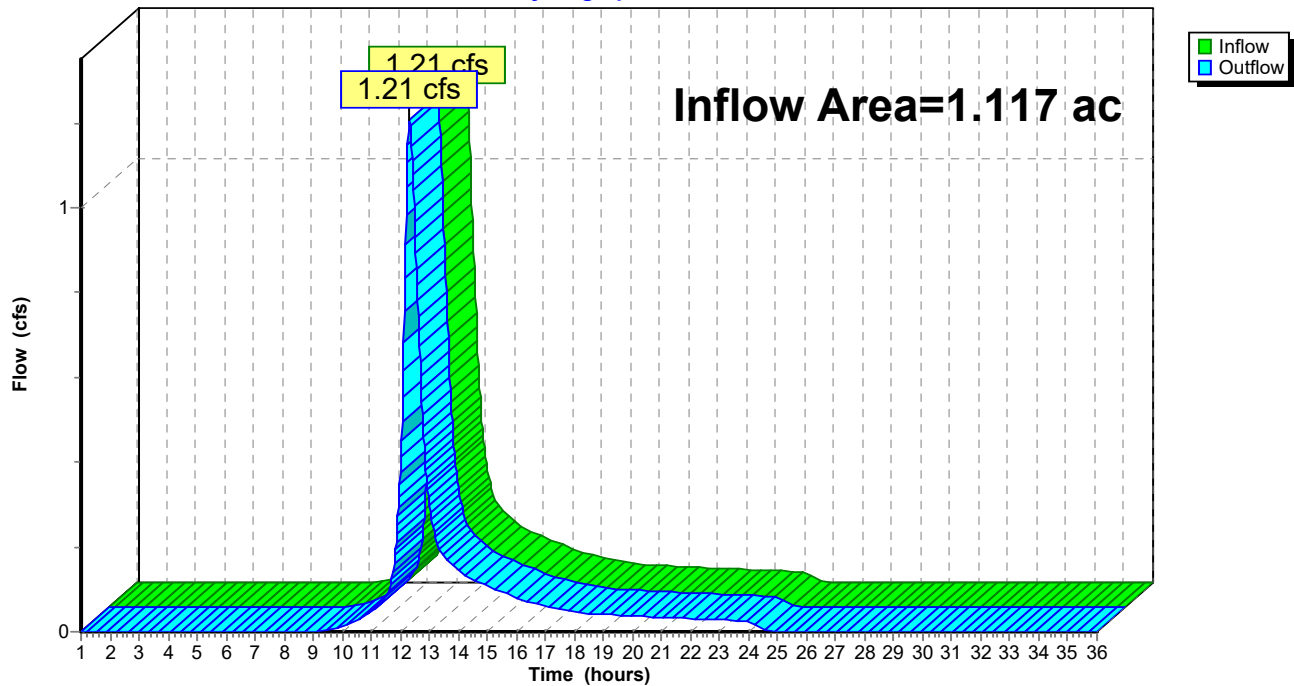
Summary for Reach 1R: POI #1

Inflow Area = 1.117 ac, 2.80% Impervious, Inflow Depth = 1.46" for 2-year event
Inflow = 1.21 cfs @ 12.33 hrs, Volume= 0.136 af
Outflow = 1.21 cfs @ 12.33 hrs, Volume= 0.136 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-36.00 hrs, dt= 0.02 hrs

Reach 1R: POI #1

Hydrograph



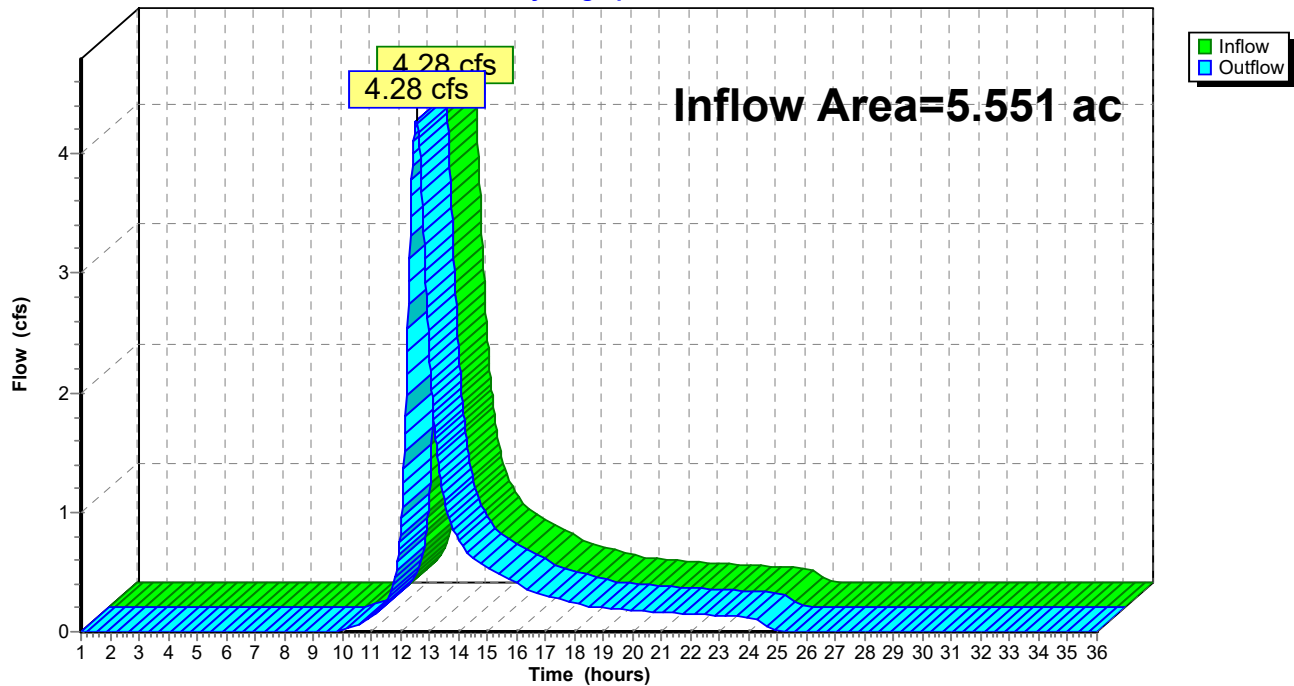
Summary for Reach 2R: POI #2

Inflow Area = 5.551 ac, 0.00% Impervious, Inflow Depth = 1.33" for 2-year event
Inflow = 4.28 cfs @ 12.55 hrs, Volume= 0.613 af
Outflow = 4.28 cfs @ 12.55 hrs, Volume= 0.613 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-36.00 hrs, dt= 0.02 hrs

Reach 2R: POI #2

Hydrograph



Summary for Subcatchment 1S: Subcat 1

Runoff = 2.27 cfs @ 12.31 hrs, Volume= 0.254 af, Depth= 2.72"

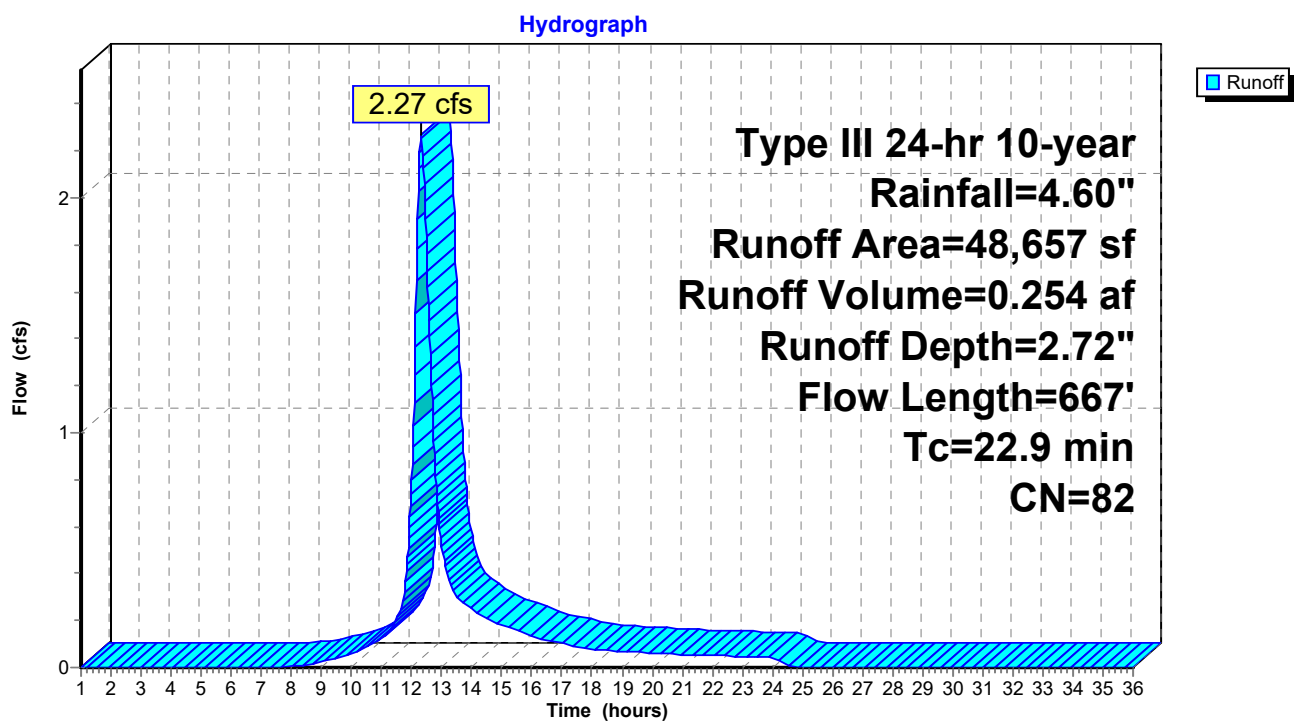
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.02 hrs

Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	837	98	Pavement
*	523	98	Concrete
*	14,122	96	Gravel roads, HSG D
	5,000	70	Brush, Fair, HSG C
	25,775	77	Brush, Fair, HSG D
	2,400	76	Woods/grass comb., Fair, HSG C
	48,657	82	Weighted Average
	47,297		97.20% Pervious Area
	1,360		2.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.2	150	0.0240	0.14		Sheet Flow, A to B Grass: Dense n= 0.240 P2= 3.27"
1.1	126	0.0140	1.90		Shallow Concentrated Flow, B to C Unpaved Kv= 16.1 fps
3.6	391	0.0123	1.79		Shallow Concentrated Flow, C to D Unpaved Kv= 16.1 fps
22.9	667	Total			

Subcatchment 1S: Subcat 1



Summary for Subcatchment 2S: Subcat 2

Runoff = 8.34 cfs @ 12.54 hrs, Volume= 1.178 af, Depth= 2.55"

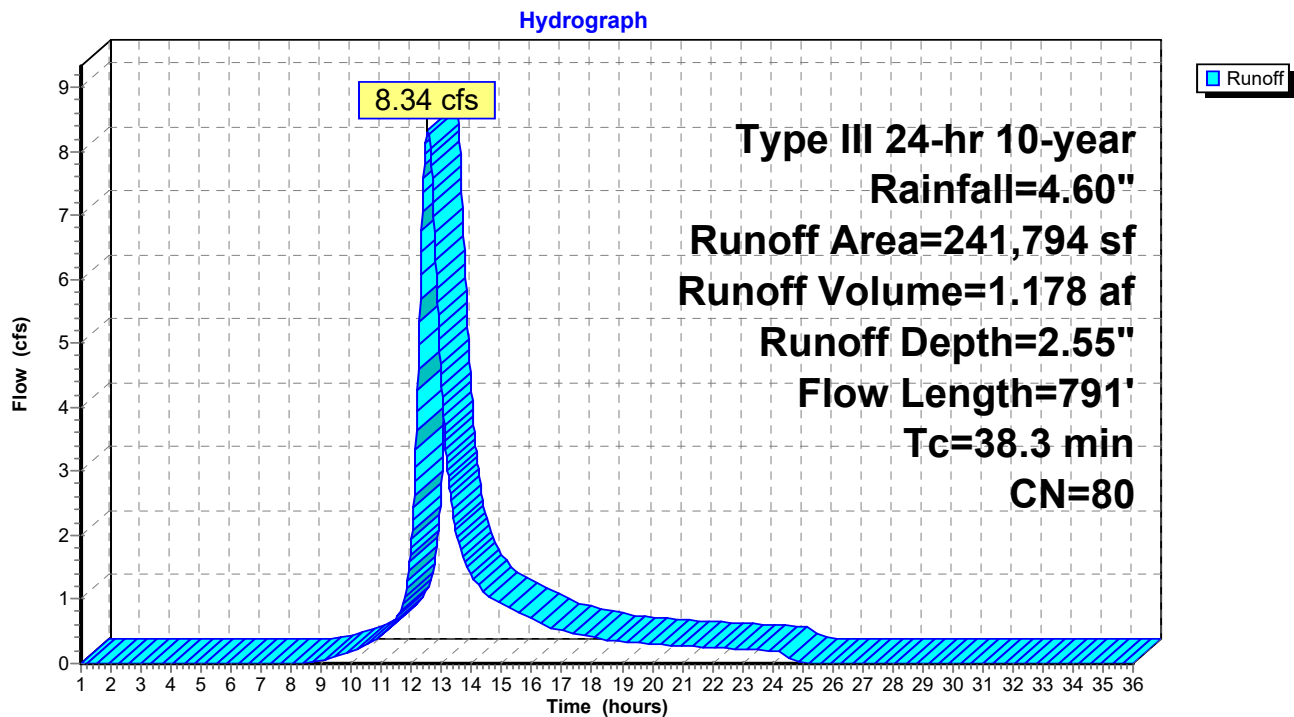
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.02 hrs

Type III 24-hr 10-year Rainfall=4.60"

Area (sf)	CN	Description
6,385	96	Gravel surface, HSG A
34,500	76	Woods/grass comb., Fair, HSG C
90,620	82	Woods/grass comb., Fair, HSG D
* 37,737	85	Wetland
60,412	77	Brush, Fair, HSG D
12,140	70	Brush, Fair, HSG C
241,794	80	Weighted Average
241,794		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.5	150	0.0230	0.14		Sheet Flow, E to F Grass: Dense n= 0.240 P2= 3.27"
16.6	433	0.0076	0.44		Shallow Concentrated Flow, F to G Woodland Kv= 5.0 fps
1.6	78	0.0028	0.79		Shallow Concentrated Flow, G to H Grassed Waterway Kv= 15.0 fps
1.6	130	0.0084	1.37		Shallow Concentrated Flow, H to I Grassed Waterway Kv= 15.0 fps
38.3	791	Total			

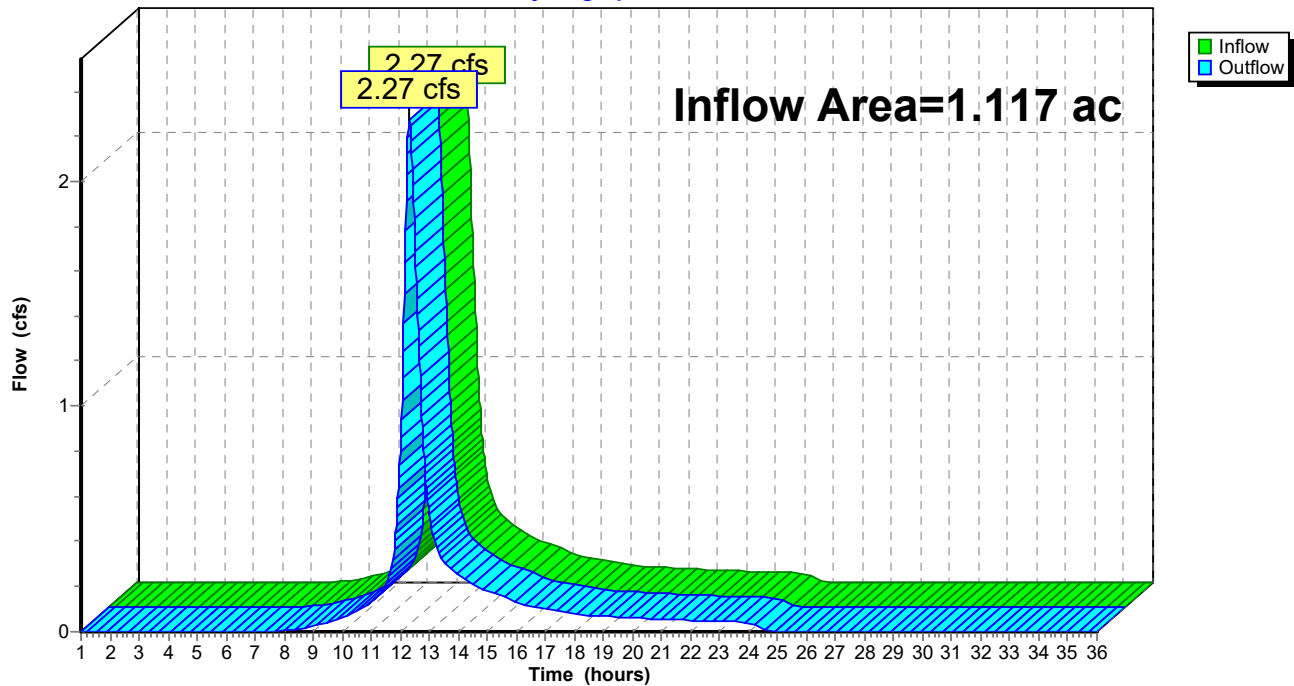
Subcatchment 2S: Subcat 2



Summary for Reach 1R: POI #1

Inflow Area = 1.117 ac, 2.80% Impervious, Inflow Depth = 2.72" for 10-year event
Inflow = 2.27 cfs @ 12.31 hrs, Volume= 0.254 af
Outflow = 2.27 cfs @ 12.31 hrs, Volume= 0.254 af, Atten= 0%, Lag= 0.0 min

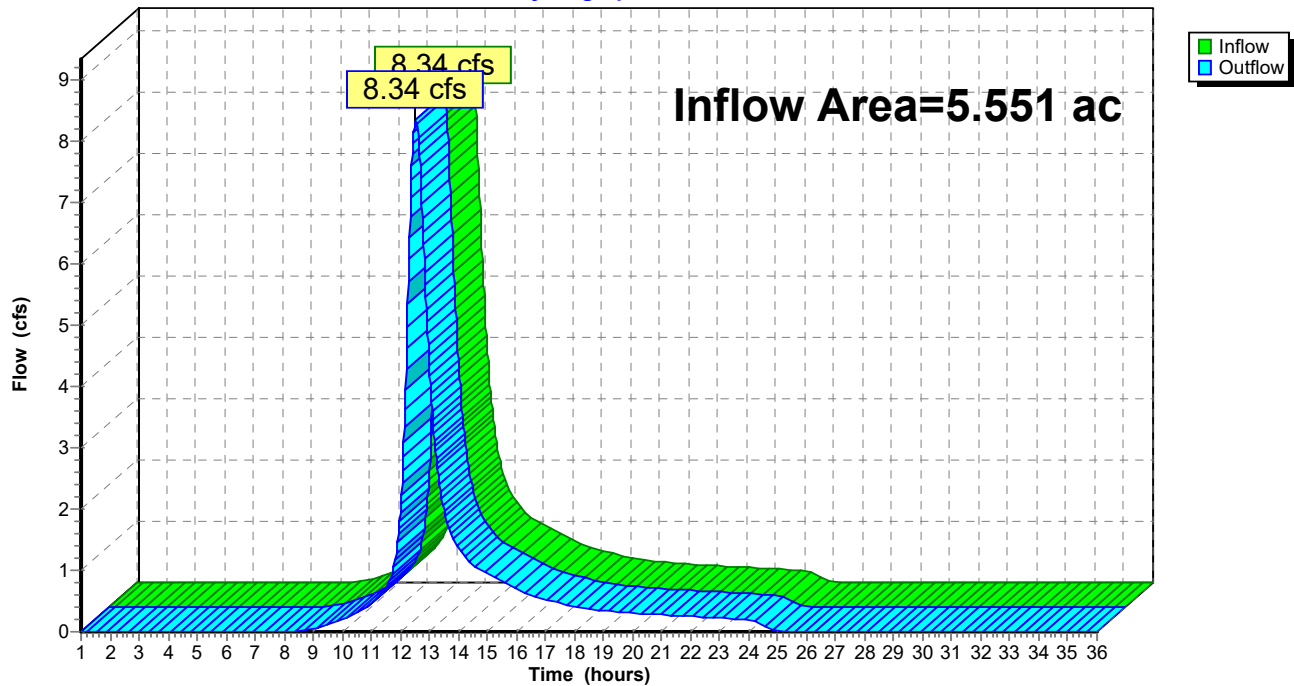
Routing by Stor-Ind+Trans method, Time Span= 1.00-36.00 hrs, dt= 0.02 hrs

Reach 1R: POI #1**Hydrograph**

Summary for Reach 2R: POI #2

Inflow Area = 5.551 ac, 0.00% Impervious, Inflow Depth = 2.55" for 10-year event
Inflow = 8.34 cfs @ 12.54 hrs, Volume= 1.178 af
Outflow = 8.34 cfs @ 12.54 hrs, Volume= 1.178 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-36.00 hrs, dt= 0.02 hrs

Reach 2R: POI #2**Hydrograph**

Summary for Subcatchment 1S: Subcat 1

Runoff = 3.16 cfs @ 12.31 hrs, Volume= 0.354 af, Depth= 3.80"

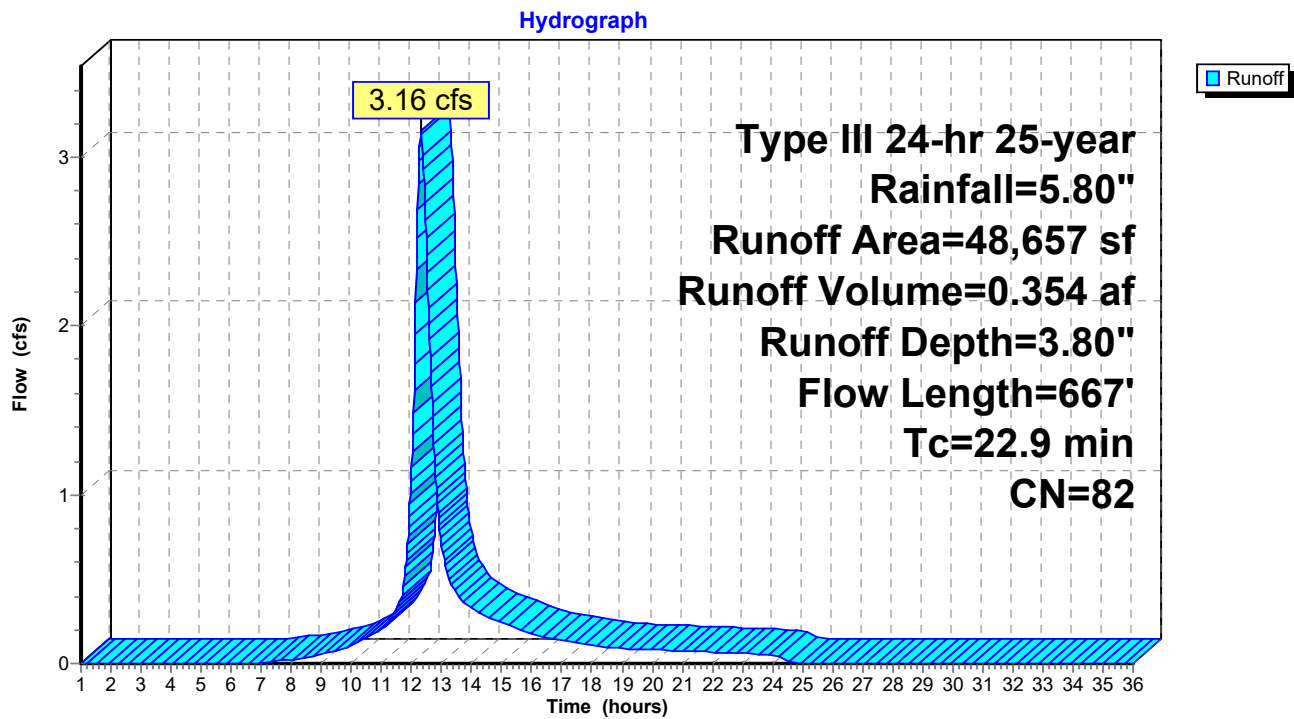
Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.02 hrs

Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	837	98	Pavement
*	523	98	Concrete
*	14,122	96	Gravel roads, HSG D
	5,000	70	Brush, Fair, HSG C
	25,775	77	Brush, Fair, HSG D
	2,400	76	Woods/grass comb., Fair, HSG C
	48,657	82	Weighted Average
	47,297		97.20% Pervious Area
	1,360		2.80% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.2	150	0.0240	0.14		Sheet Flow, A to B Grass: Dense n= 0.240 P2= 3.27"
1.1	126	0.0140	1.90		Shallow Concentrated Flow, B to C Unpaved Kv= 16.1 fps
3.6	391	0.0123	1.79		Shallow Concentrated Flow, C to D Unpaved Kv= 16.1 fps
22.9	667	Total			

Subcatchment 1S: Subcat 1



Summary for Subcatchment 2S: Subcat 2

Runoff = 11.77 cfs @ 12.53 hrs, Volume= 1.666 af, Depth= 3.60"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 1.00-36.00 hrs, dt= 0.02 hrs

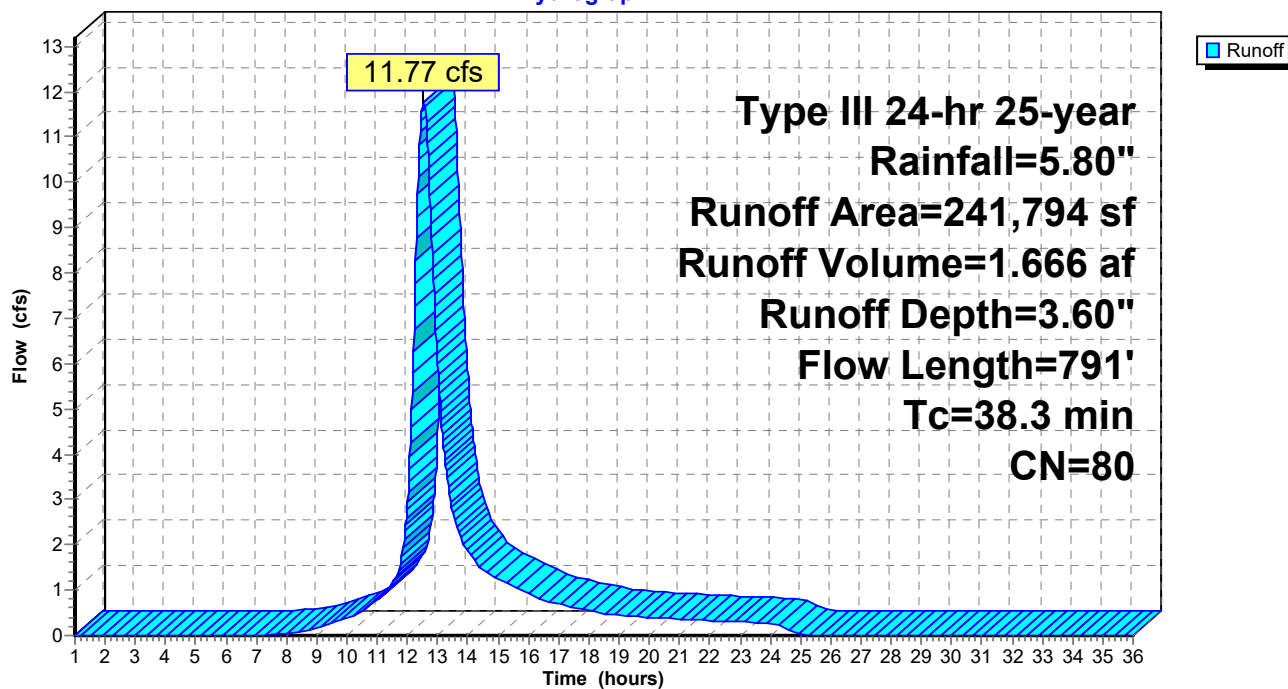
Type III 24-hr 25-year Rainfall=5.80"

Area (sf)	CN	Description
6,385	96	Gravel surface, HSG A
34,500	76	Woods/grass comb., Fair, HSG C
90,620	82	Woods/grass comb., Fair, HSG D
* 37,737	85	Wetland
60,412	77	Brush, Fair, HSG D
12,140	70	Brush, Fair, HSG C
241,794	80	Weighted Average
241,794		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.5	150	0.0230	0.14		Sheet Flow, E to F Grass: Dense n= 0.240 P2= 3.27"
16.6	433	0.0076	0.44		Shallow Concentrated Flow, F to G Woodland Kv= 5.0 fps
1.6	78	0.0028	0.79		Shallow Concentrated Flow, G to H Grassed Waterway Kv= 15.0 fps
1.6	130	0.0084	1.37		Shallow Concentrated Flow, H to I Grassed Waterway Kv= 15.0 fps
38.3	791	Total			

Subcatchment 2S: Subcat 2

Hydrograph



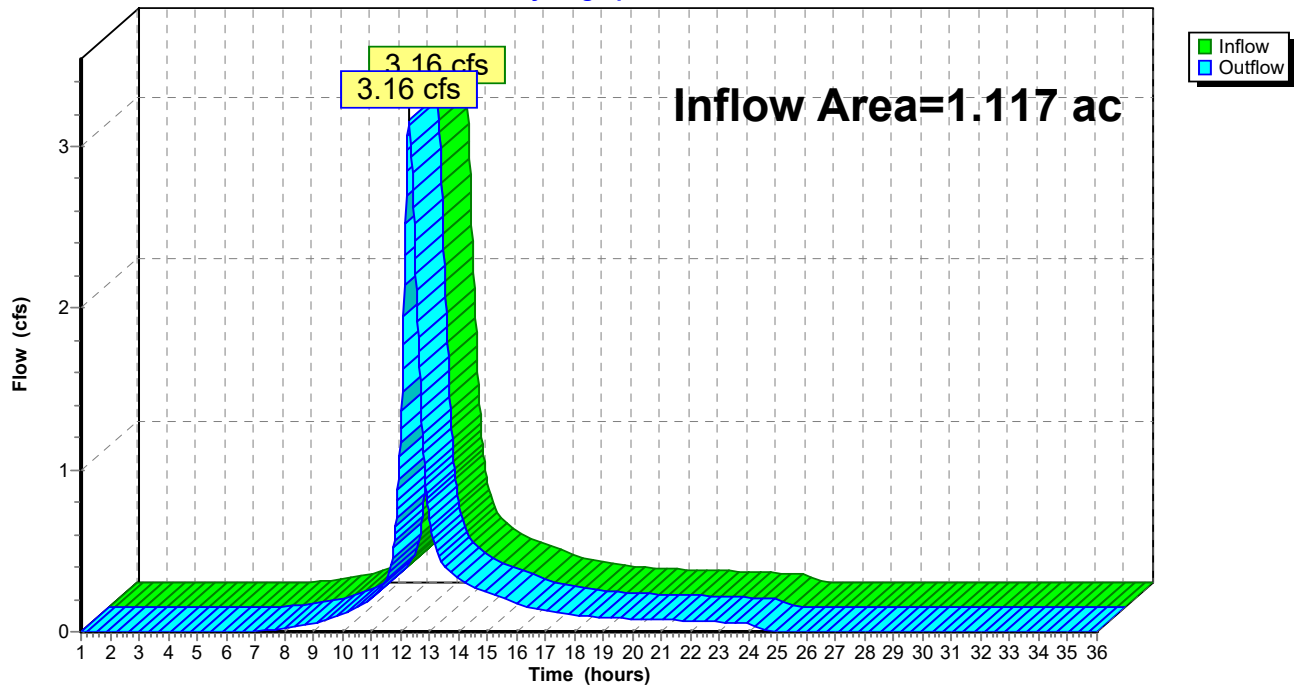
Summary for Reach 1R: POI #1

Inflow Area = 1.117 ac, 2.80% Impervious, Inflow Depth = 3.80" for 25-year event
Inflow = 3.16 cfs @ 12.31 hrs, Volume= 0.354 af
Outflow = 3.16 cfs @ 12.31 hrs, Volume= 0.354 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-36.00 hrs, dt= 0.02 hrs

Reach 1R: POI #1

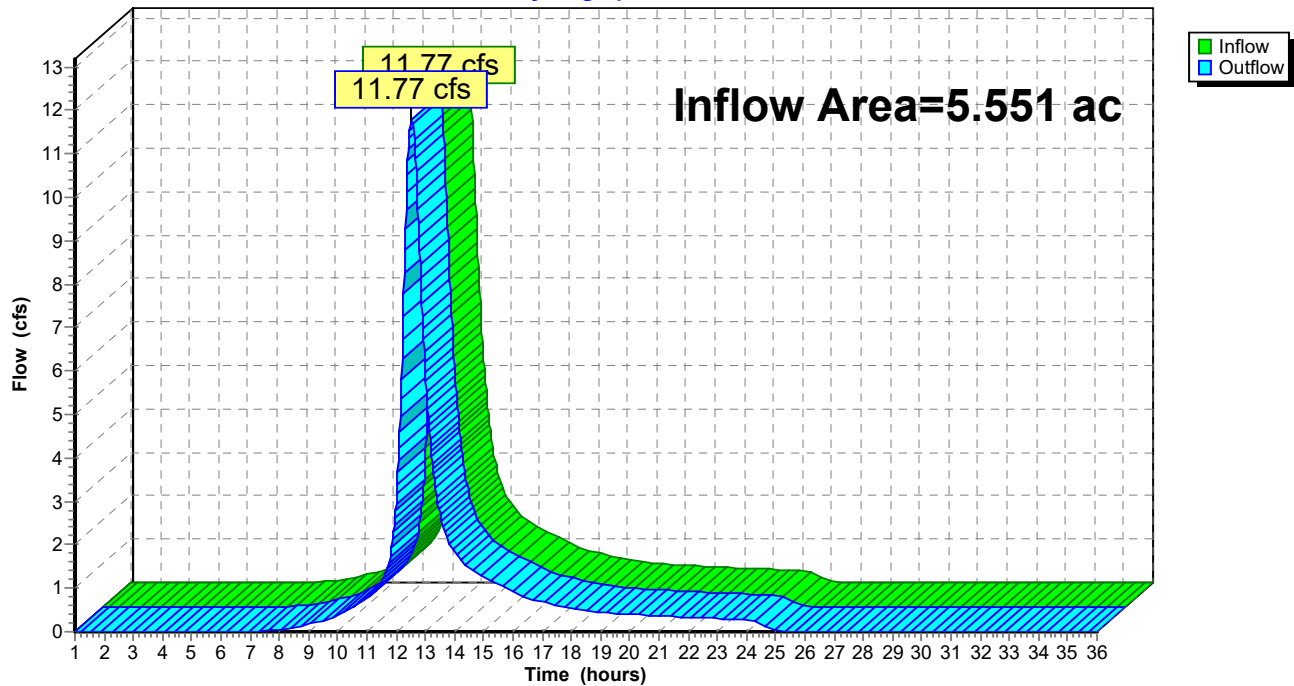
Hydrograph

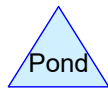
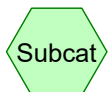
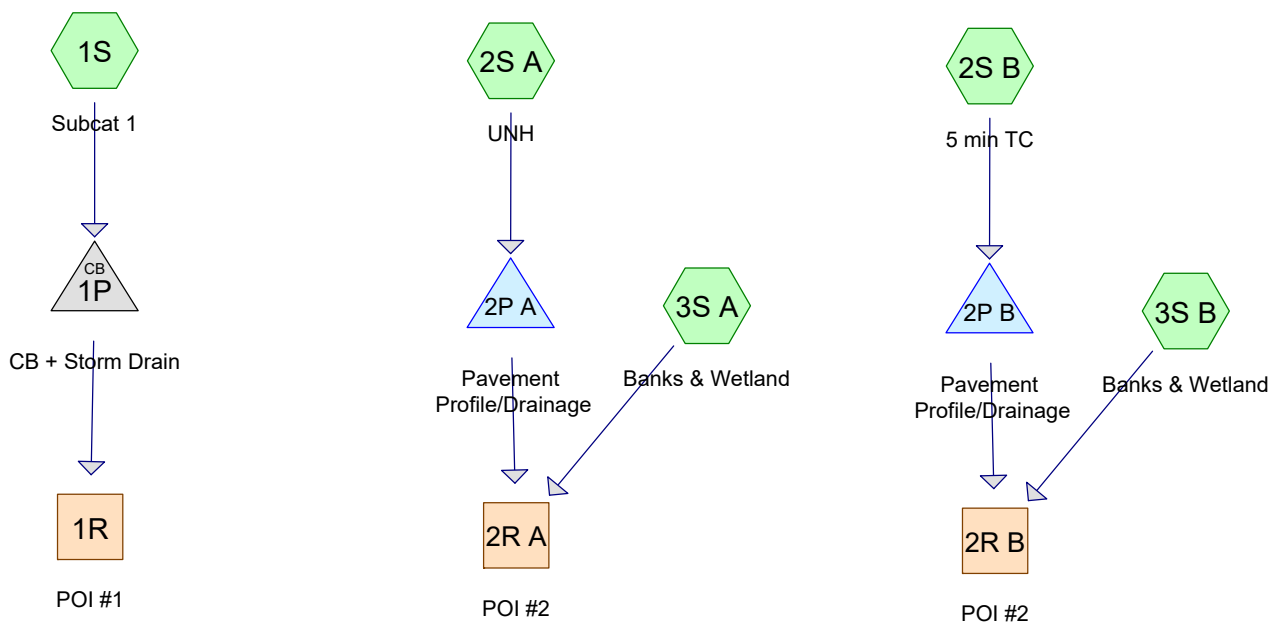


Summary for Reach 2R: POI #2

Inflow Area = 5.551 ac, 0.00% Impervious, Inflow Depth = 3.60" for 25-year event
Inflow = 11.77 cfs @ 12.53 hrs, Volume= 1.666 af
Outflow = 11.77 cfs @ 12.53 hrs, Volume= 1.666 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 1.00-36.00 hrs, dt= 0.02 hrs

Reach 2R: POI #2**Hydrograph**



Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.413	70	Brush, Fair, HSG C (3S A, 3S B)
0.537	74	>75% Grass cover, Good, HSG C (3S A, 3S B)
0.279	76	Woods/grass comb., Fair, HSG C (3S A, 3S B)
0.555	77	Brush, Fair, HSG D (3S A, 3S B)
0.034	79	Woods/grass comb., Good, HSG D (1S)
1.636	80	>75% Grass cover, Good, HSG D (1S, 3S A, 3S B)
0.689	82	Woods/grass comb., Fair, HSG D (3S A, 3S B)
1.441	85	Wetland (Not fully saturated) (3S A, 3S B)
0.293	91	Gravel roads, HSG D (3S A, 3S B)
0.257	98	Paved roads w/curbs & sewers, HSG D (1S)
2.704	98	Porous (2S A, 2S B)
3.716	98	Roofs, HSG C (1S, 2S A, 2S B)
12.555		TOTAL AREA

POST_4-17-17

Prepared by Acorn Engineering

Printed 4/19/2017

HydroCAD® 9.10 s/n 06436 © 2010 HydroCAD Software Solutions LLC

Page 3

Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
4.945	HSG C	1S, 2S A, 2S B, 3S A, 3S B
3.464	HSG D	1S, 3S A, 3S B
4.146	Other	2S A, 2S B, 3S A, 3S B
12.555		TOTAL AREA

POST_4-17-17

Prepared by Acorn Engineering

Printed 4/19/2017

HydroCAD® 9.10 s/n 06436 © 2010 HydroCAD Software Solutions LLC

Page 4

Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Fill (inches)
1	1P	68.00	60.90	130.0	0.0546	0.010	10.0	0.0	0.0
2	2P A	69.30	69.25	10.5	0.0048	0.010	12.0	0.0	0.0
3	2P B	69.30	69.25	10.5	0.0048	0.010	12.0	0.0	0.0

Summary for Subcatchment 1S: Subcat 1

Runoff = 0.88 cfs @ 12.44 hrs, Volume= 0.114 af, Depth= 1.75"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

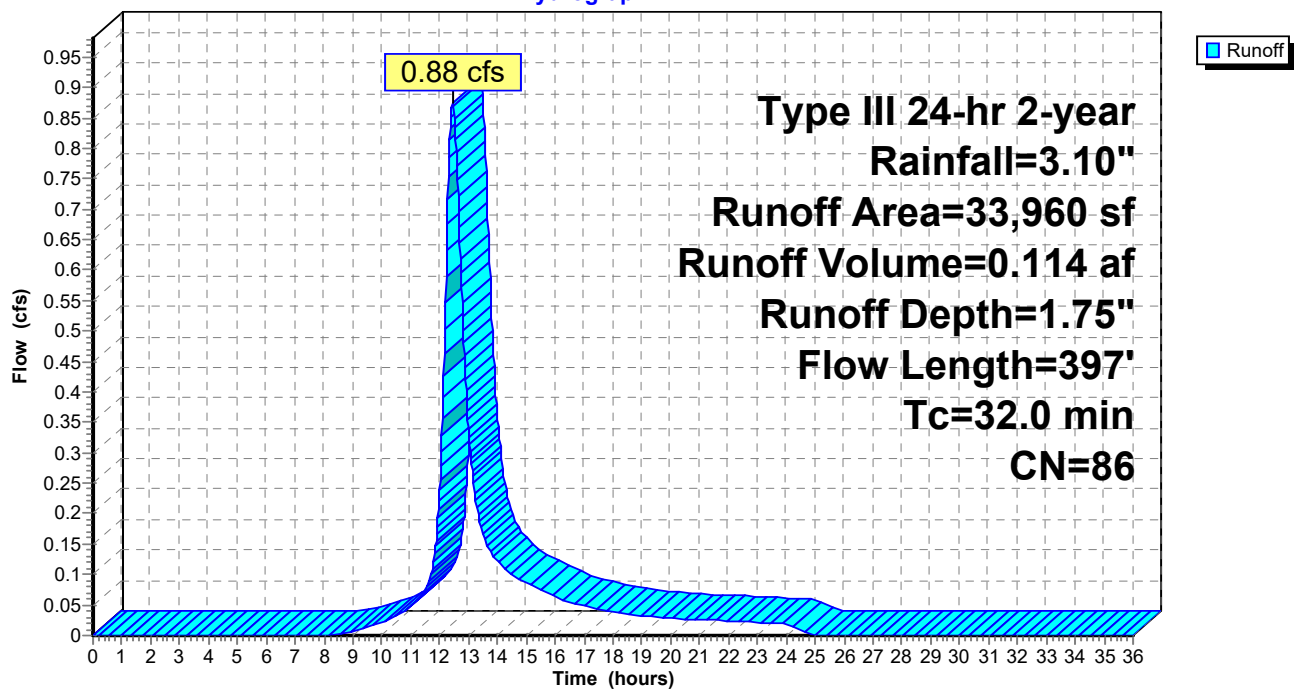
Type III 24-hr 2-year Rainfall=3.10"

Area (sf)	CN	Description
11,205	98	Paved roads w/curbs & sewers, HSG D
600	98	Roofs, HSG C
20,655	80	>75% Grass cover, Good, HSG D
1,500	79	Woods/grass comb., Good, HSG D
33,960	86	Weighted Average
22,155		65.24% Pervious Area
11,805		34.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	14	0.0730	0.19		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.27"
28.5	137	0.0065	0.08		Sheet Flow, B to C Grass: Dense n= 0.240 P2= 3.27"
1.6	105	0.0234	1.07		Shallow Concentrated Flow, C to D Short Grass Pasture Kv= 7.0 fps
0.7	141	0.0244	3.17		Shallow Concentrated Flow, D to E Paved Kv= 20.3 fps
32.0	397	Total			

Subcatchment 1S: Subcat 1

Hydrograph



Summary for Subcatchment 2S A: UNH

Runoff = 1.82 cfs @ 14.37 hrs, Volume= 0.766 af, Depth= 2.87"

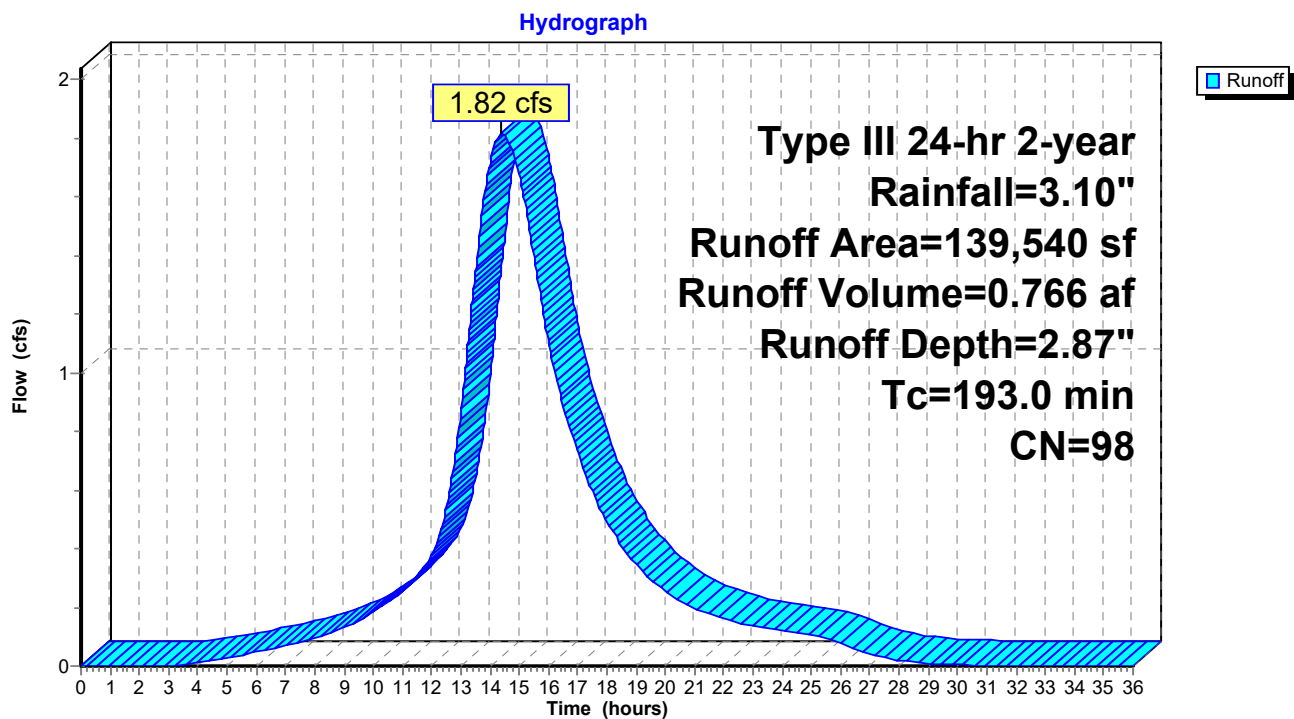
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	58,900	98	Porous
	80,640	98	Roofs, HSG C
	139,540	98	Weighted Average
	139,540		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
193.0					Direct Entry, Filter Depth Calc

Subcatchment 2S A: UNH



Summary for Subcatchment 2S B: 5 min TC

Runoff = 9.94 cfs @ 12.07 hrs, Volume= 0.766 af, Depth= 2.87"

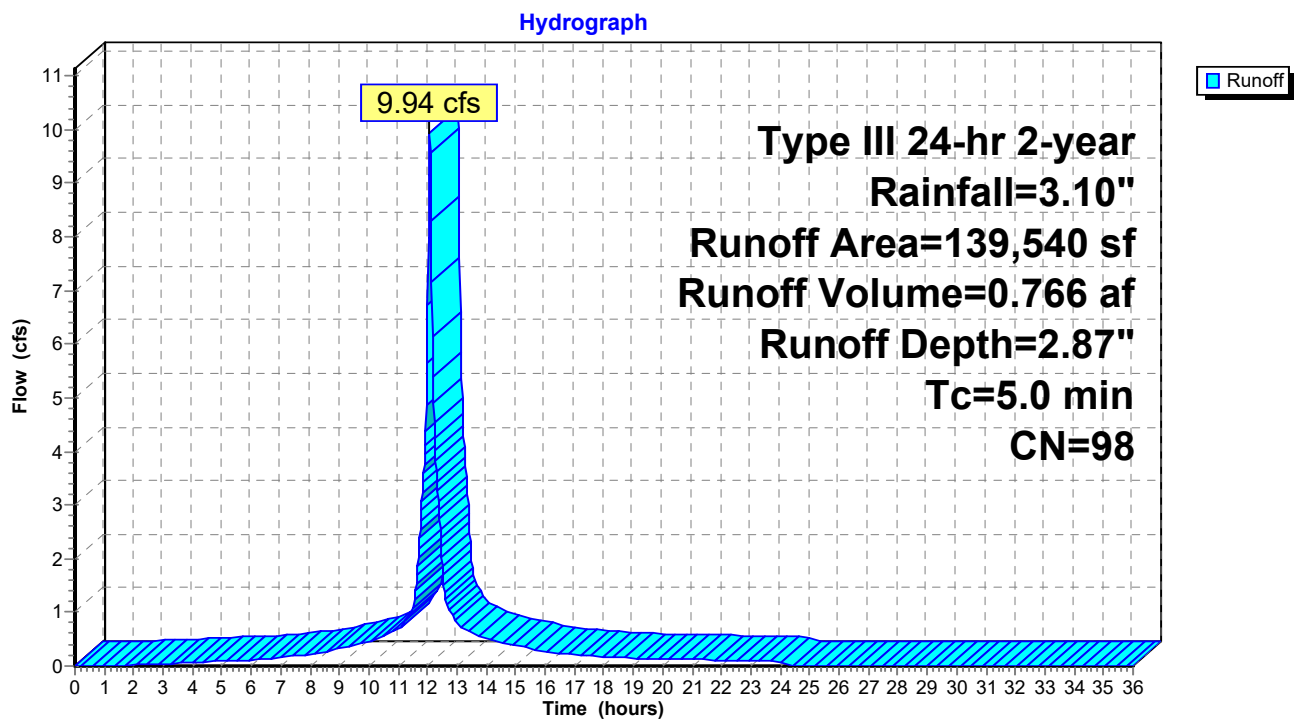
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Type III 24-hr 2-year Rainfall=3.10"

	Area (sf)	CN	Description
*	58,900	98	Porous
	80,640	98	Roofs, HSG C
	139,540	98	Weighted Average
	139,540		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 5 Min Tc

Subcatchment 2S B: 5 min TC



Summary for Subcatchment 3S A: Banks & Wetland

Runoff = 1.30 cfs @ 13.15 hrs, Volume= 0.297 af, Depth= 1.33"

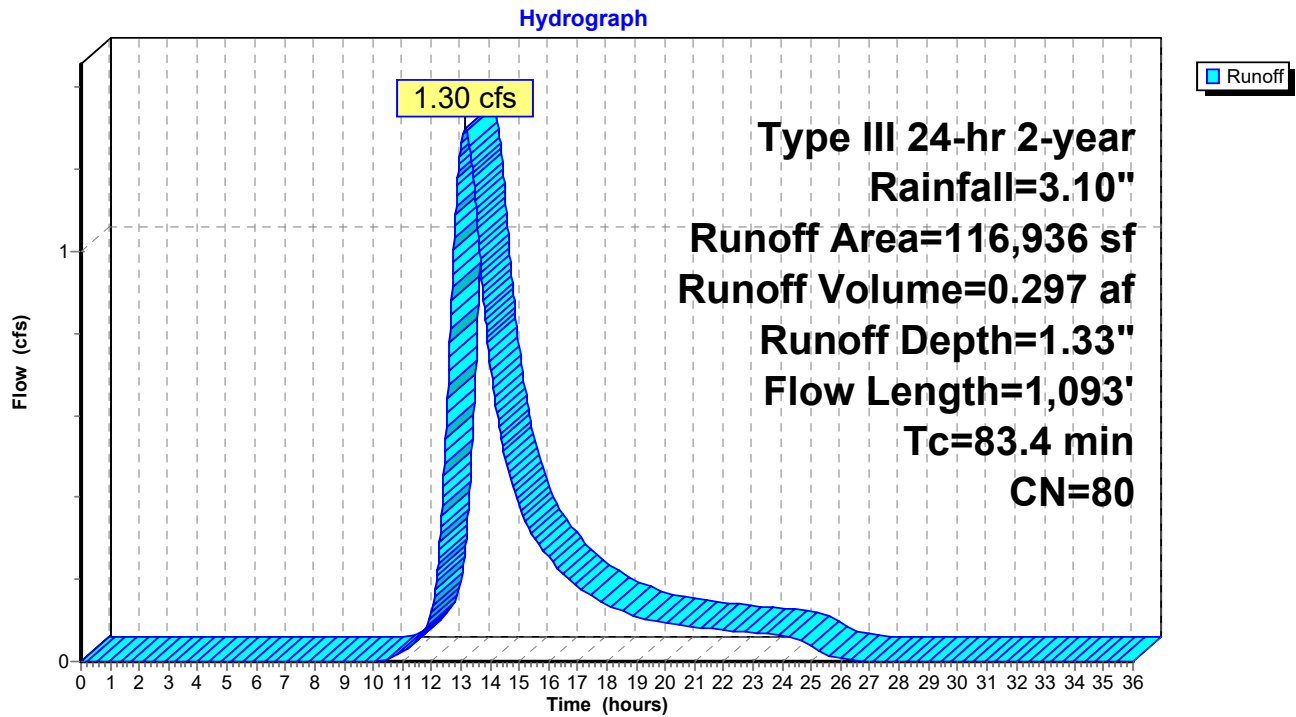
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Type III 24-hr 2-year Rainfall=3.10"

Area (sf)	CN	Description
6,385	91	Gravel roads, HSG D
* 31,390	85	Wetland (Not fully saturated)
25,300	80	>75% Grass cover, Good, HSG D
11,700	74	>75% Grass cover, Good, HSG C
12,080	77	Brush, Fair, HSG D
9,000	70	Brush, Fair, HSG C
15,010	82	Woods/grass comb., Fair, HSG D
6,071	76	Woods/grass comb., Fair, HSG C
116,936	80	Weighted Average
116,936		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
51.2	150	0.0050	0.05		Sheet Flow, F to G (forested ditch) Woods: Light underbrush n= 0.400 P2= 3.27"
25.6	538	0.0025	0.35		Shallow Concentrated Flow, G to H Short Grass Pasture Kv= 7.0 fps
2.7	158	0.0200	0.99		Shallow Concentrated Flow, H to I Short Grass Pasture Kv= 7.0 fps
3.9	247	0.0050	1.06		Shallow Concentrated Flow, I to J Grassed Waterway Kv= 15.0 fps
83.4	1,093	Total			

Subcatchment 3S A: Banks & Wetland



Summary for Subcatchment 3S B: Banks & Wetland

Runoff = 1.30 cfs @ 13.15 hrs, Volume= 0.297 af, Depth= 1.33"

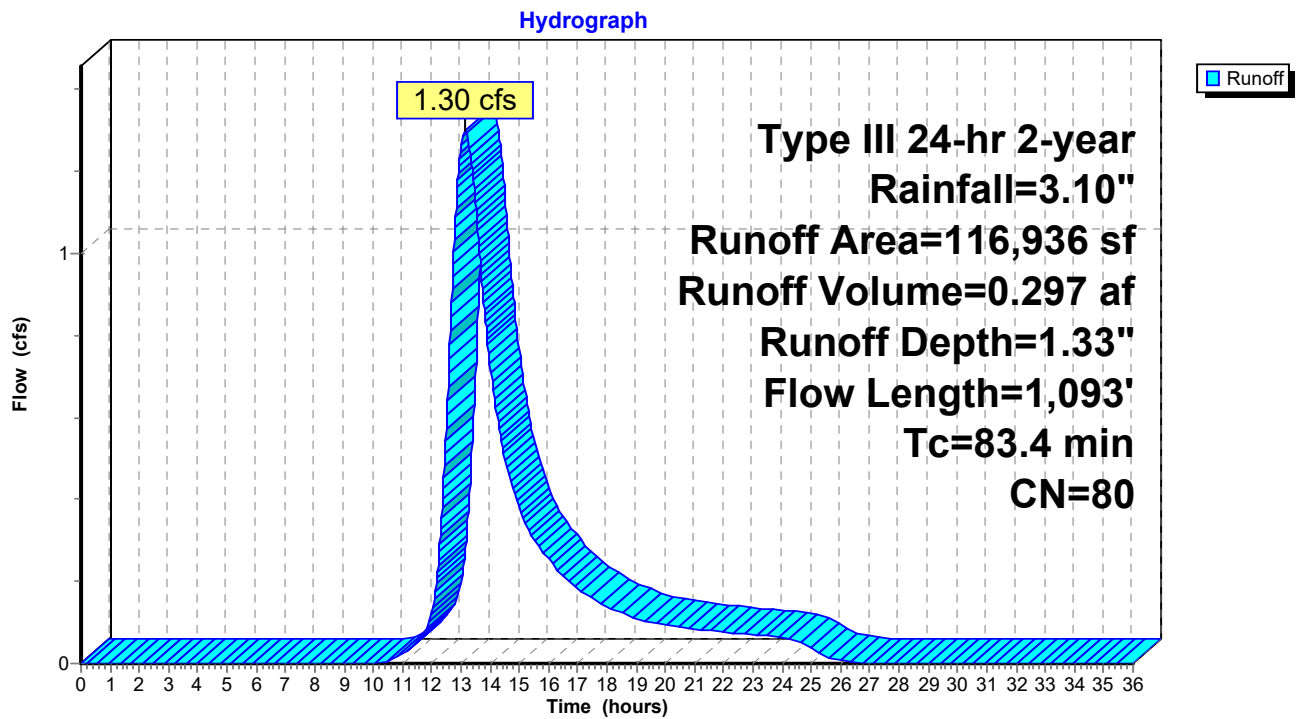
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Type III 24-hr 2-year Rainfall=3.10"

Area (sf)	CN	Description
6,385	91	Gravel roads, HSG D
* 31,390	85	Wetland (Not fully saturated)
25,300	80	>75% Grass cover, Good, HSG D
11,700	74	>75% Grass cover, Good, HSG C
12,080	77	Brush, Fair, HSG D
9,000	70	Brush, Fair, HSG C
15,010	82	Woods/grass comb., Fair, HSG D
6,071	76	Woods/grass comb., Fair, HSG C
116,936	80	Weighted Average
116,936		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
51.2	150	0.0050	0.05		Sheet Flow, F to G (forested ditch) Woods: Light underbrush n= 0.400 P2= 3.27"
25.6	538	0.0025	0.35		Shallow Concentrated Flow, G to H Short Grass Pasture Kv= 7.0 fps
2.7	158	0.0200	0.99		Shallow Concentrated Flow, H to I Short Grass Pasture Kv= 7.0 fps
3.9	247	0.0050	1.06		Shallow Concentrated Flow, I to J Grassed Waterway Kv= 15.0 fps
83.4	1,093	Total			

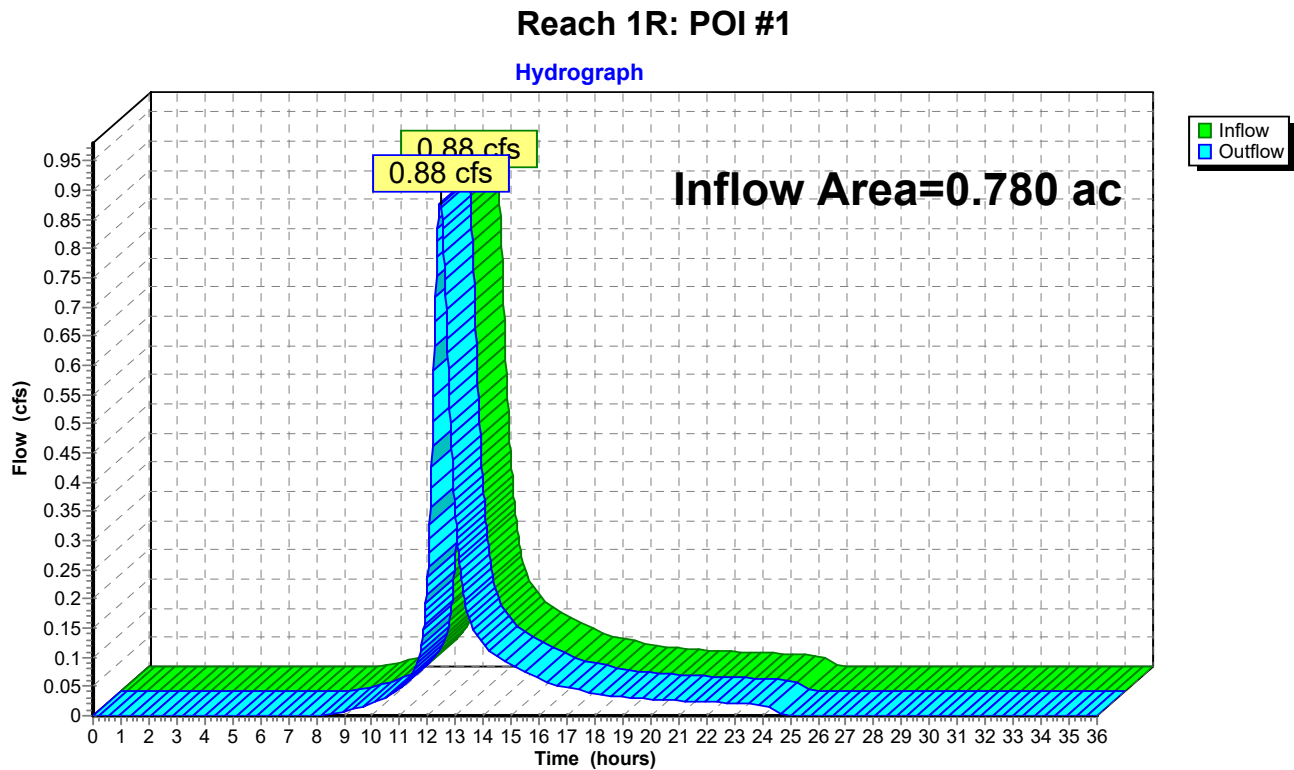
Subcatchment 3S B: Banks & Wetland



Summary for Reach 1R: POI #1

Inflow Area = 0.780 ac, 34.76% Impervious, Inflow Depth = 1.75" for 2-year event
 Inflow = 0.88 cfs @ 12.44 hrs, Volume= 0.114 af
 Outflow = 0.88 cfs @ 12.44 hrs, Volume= 0.114 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

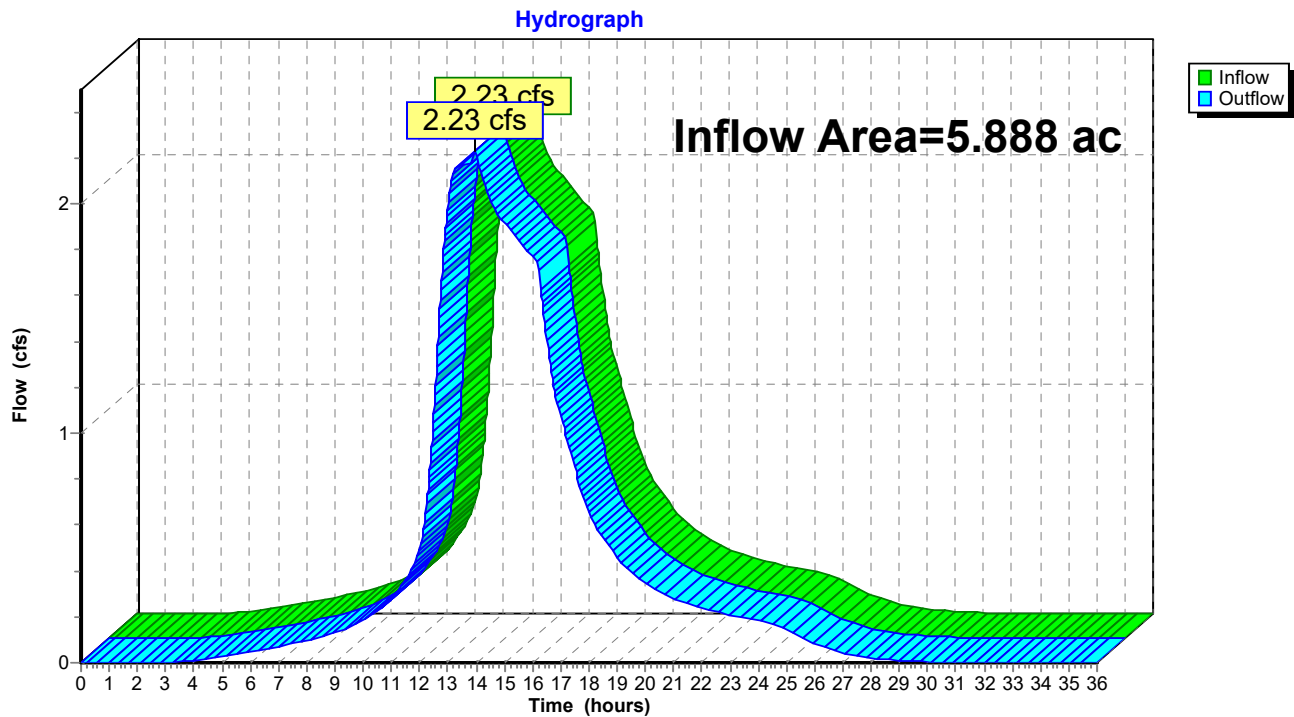


Summary for Reach 2R A: POI #2

Inflow Area = 5.888 ac, 54.41% Impervious, Inflow Depth = 2.16" for 2-year event
 Inflow = 2.23 cfs @ 13.99 hrs, Volume= 1.062 af
 Outflow = 2.23 cfs @ 13.99 hrs, Volume= 1.062 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Reach 2R A: POI #2



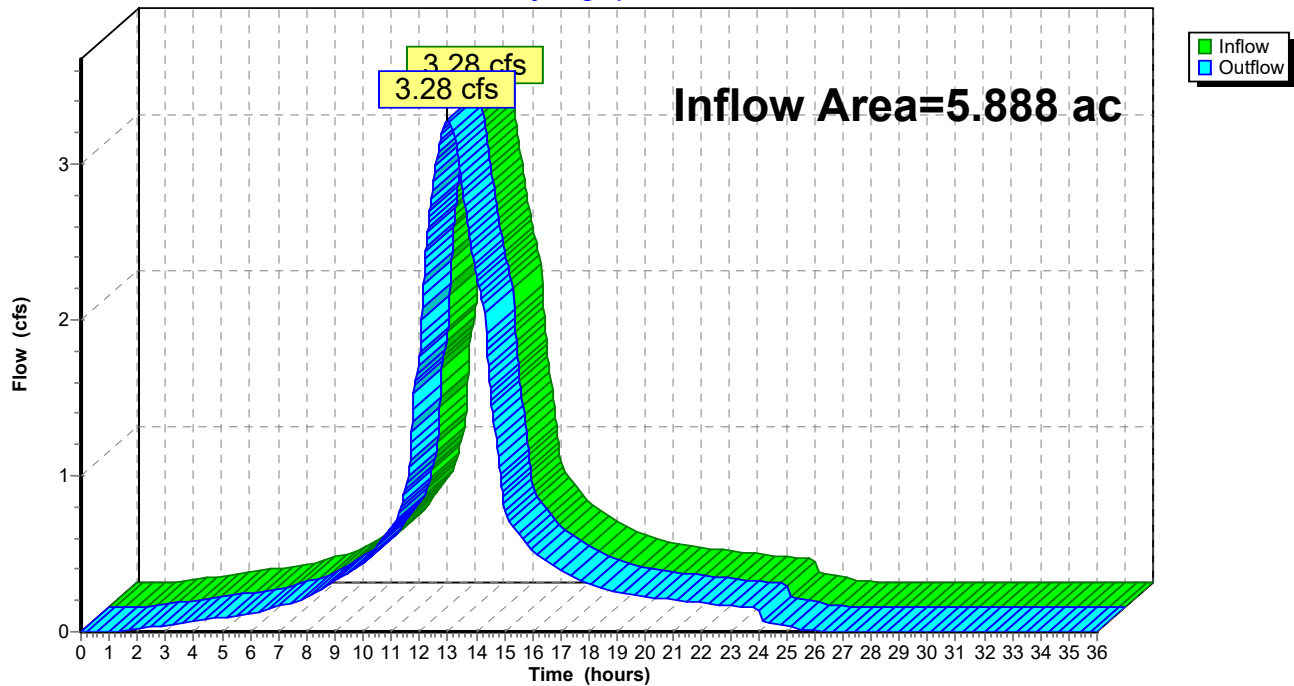
Summary for Reach 2R B: POI #2

Inflow Area = 5.888 ac, 54.41% Impervious, Inflow Depth = 2.16" for 2-year event
 Inflow = 3.28 cfs @ 12.99 hrs, Volume= 1.062 af
 Outflow = 3.28 cfs @ 12.99 hrs, Volume= 1.062 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Reach 2R B: POI #2

Hydrograph



Summary for Pond 1P: CB + Storm Drain

Inflow Area = 0.780 ac, 34.76% Impervious, Inflow Depth = 1.75" for 2-year event
 Inflow = 0.88 cfs @ 12.44 hrs, Volume= 0.114 af
 Outflow = 0.88 cfs @ 12.44 hrs, Volume= 0.114 af, Atten= 0%, Lag= 0.0 min
 Primary = 0.88 cfs @ 12.44 hrs, Volume= 0.114 af

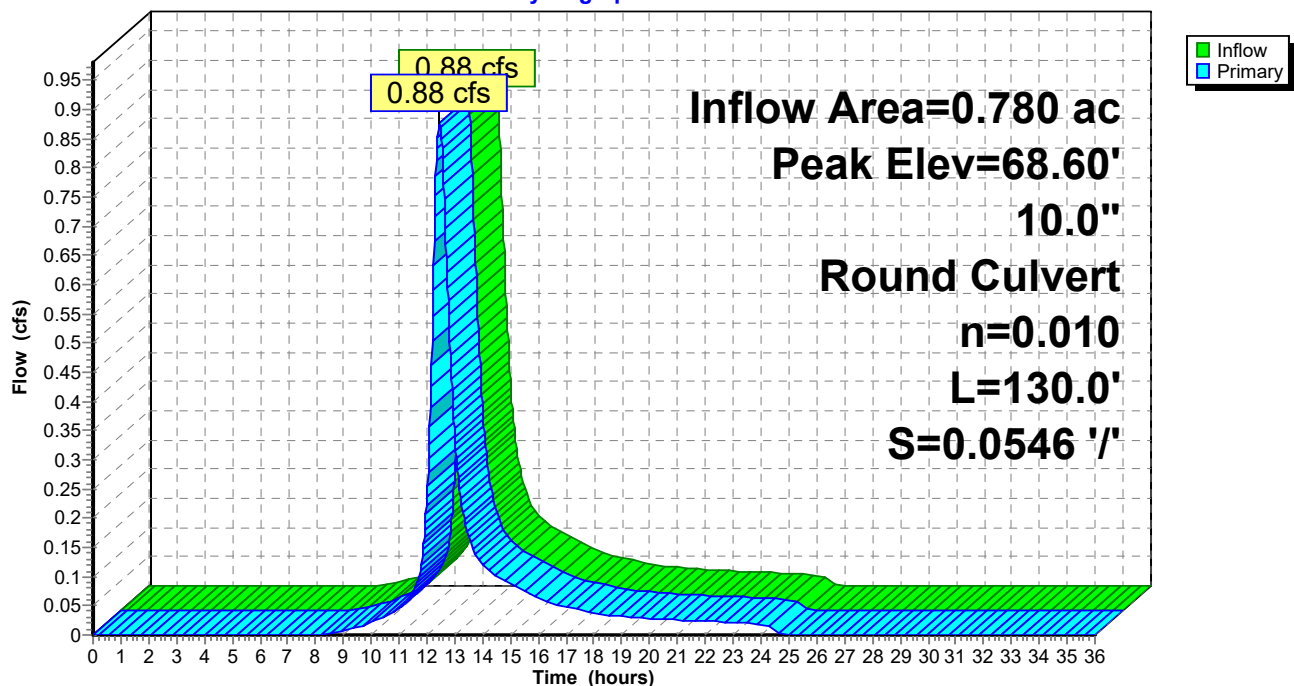
Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs
 Peak Elev= 68.60' @ 12.44 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	68.00'	10.0" Round Culvert L= 130.0' Ke= 0.900 Inlet / Outlet Invert= 68.00' / 60.90' S= 0.0546 '/ Cc= 0.900 n= 0.010 PVC, smooth interior

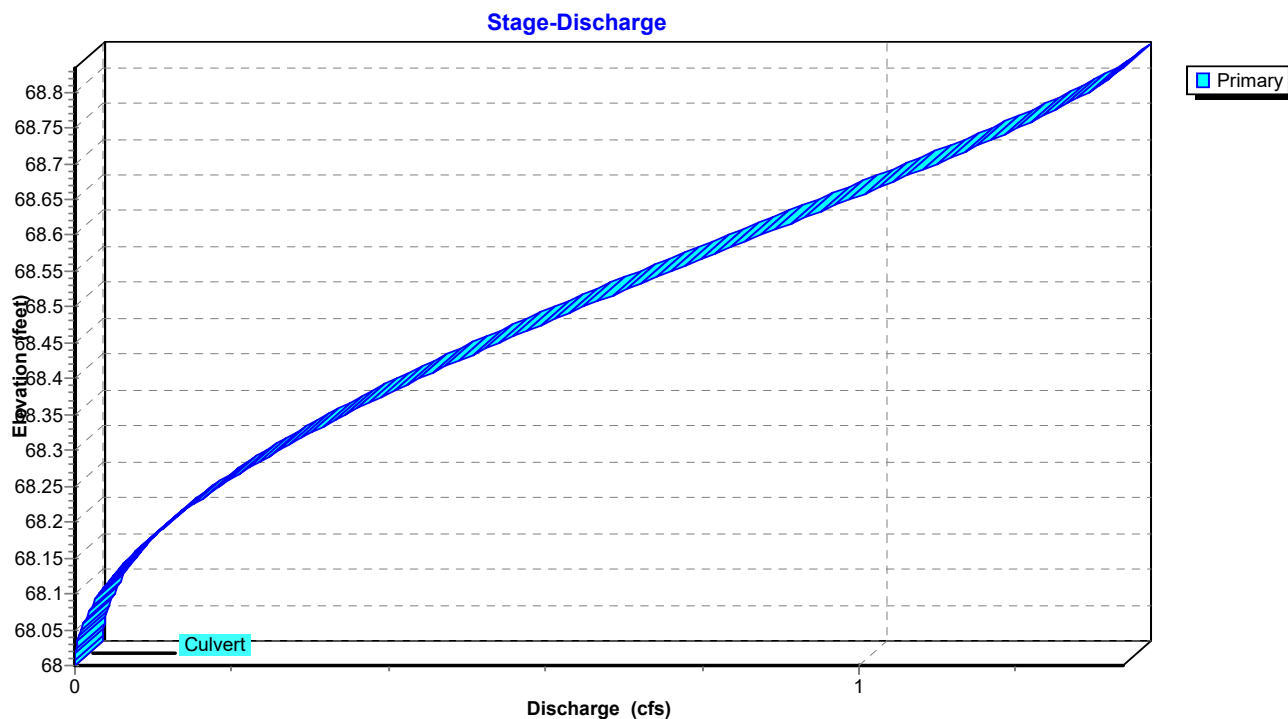
Primary OutFlow Max=0.88 cfs @ 12.44 hrs HW=68.60' (Free Discharge)
 1=Culvert (Inlet Controls 0.88 cfs @ 2.08 fps)

Pond 1P: CB + Storm Drain

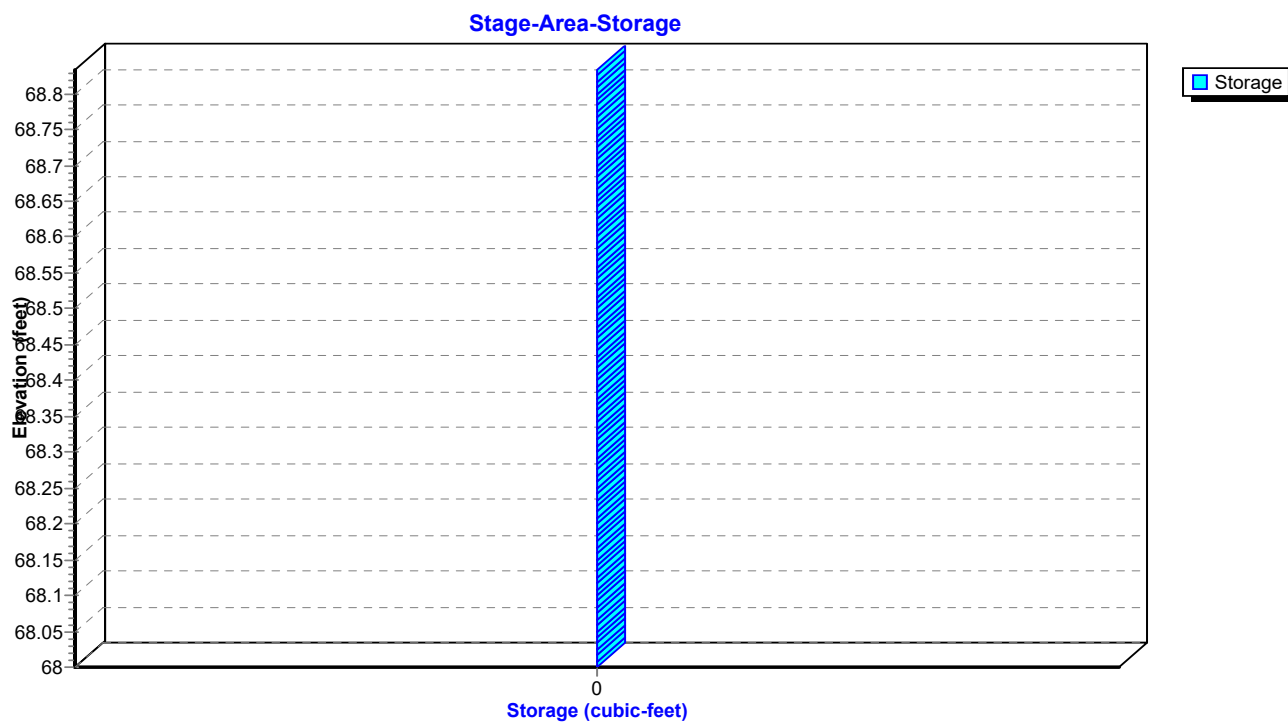
Hydrograph



Pond 1P: CB + Storm Drain



Pond 1P: CB + Storm Drain



Summary for Pond 2P A: Pavement Profile/Drainage

Inflow Area = 3.203 ac, 100.00% Impervious, Inflow Depth = 2.87" for 2-year event
 Inflow = 1.82 cfs @ 14.37 hrs, Volume= 0.766 af
 Outflow = 1.54 cfs @ 15.26 hrs, Volume= 0.766 af, Atten= 15%, Lag= 53.0 min
 Primary = 1.54 cfs @ 15.26 hrs, Volume= 0.766 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs
 Peak Elev= 72.12' @ 15.26 hrs Surf.Area= 139,140 sf Storage= 2,070 cf

Plug-Flow detention time= 9.2 min calculated for 0.765 af (100% of inflow)
 Center-of-Mass det. time= 9.2 min (939.6 - 930.4)

Volume	Invert	Avail.Storage	Storage Description
#1	72.10'	27,807 cf	195.00'W x 713.00'L x 0.50'H 6" - 3/4" Stone 69,518 cf Overall x 40.0% Voids
#2	72.60'	5,770 cf	195.00'W x 713.00'L x 0.83'H 10" - Filter MDOT Type D 115,399 cf Overall x 5.0% Voids
#3	73.43'	18,353 cf	195.00'W x 713.00'L x 0.33'H 4" - Choker 1-1/2" 45,882 cf Overall x 40.0% Voids
#4	73.76'	3,529 cf	75.00'W x 713.00'L x 0.33'H 4" - OGFC 17,647 cf Overall x 20.0% Voids
#5	73.76'	11,294 cf	120.00'W x 713.00'L x 0.33'H 4" - Container Foundation 28,235 cf Overall x 40.0% Voids
#6	69.60'	473 cf	12.0" D x 301.0'L 12 SD (CB12 to 4,16) S= 0.0025 '/'x 2
#7	69.60'	188 cf	12.0" D x 240.0'L 12 SD (CB12 to 10) S= 0.0025 '/'
#8	70.66'	131 cf	10.0" D x 120.0'L 10 SD (CB4,16 to 3,15) S= 0.0025 '/'x 2
#9	70.80'	65 cf	10.0" D x 120.0'L 10 SD (CB10 to 9) S= 0.0025 '/'
#10	71.06'	84 cf	8.0" D x 120.0'L 8 SD (CB3,15 to 2,14) S= 0.0025 '/'x 2
#11	70.80'	42 cf	8.0" D x 120.0'L 8 SD (CB9 to 8) S= 0.0025 '/'
#12	71.20'	37 cf	6.0" D x 186.0'L 6 SD (CB8 to 7) S= 0.0025 '/'
#13	71.46'	73 cf	6.0" D x 186.0'L 6 SD (CB2,14 to 1,13) S= 0.0025 '/'x 2
		67,846 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	69.30'	12.0" Round 12" Culvert L= 10.5' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 69.30' / 69.25' S= 0.0048 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	69.35'	6.0" Vert. 6" Orifice C= 0.600
#3	Device 1	72.10'	6.0' long x 0.7' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 Coef. (English) 2.76 2.82 2.93 3.09 3.18 3.22 3.27 3.30 3.32 3.31 3.32

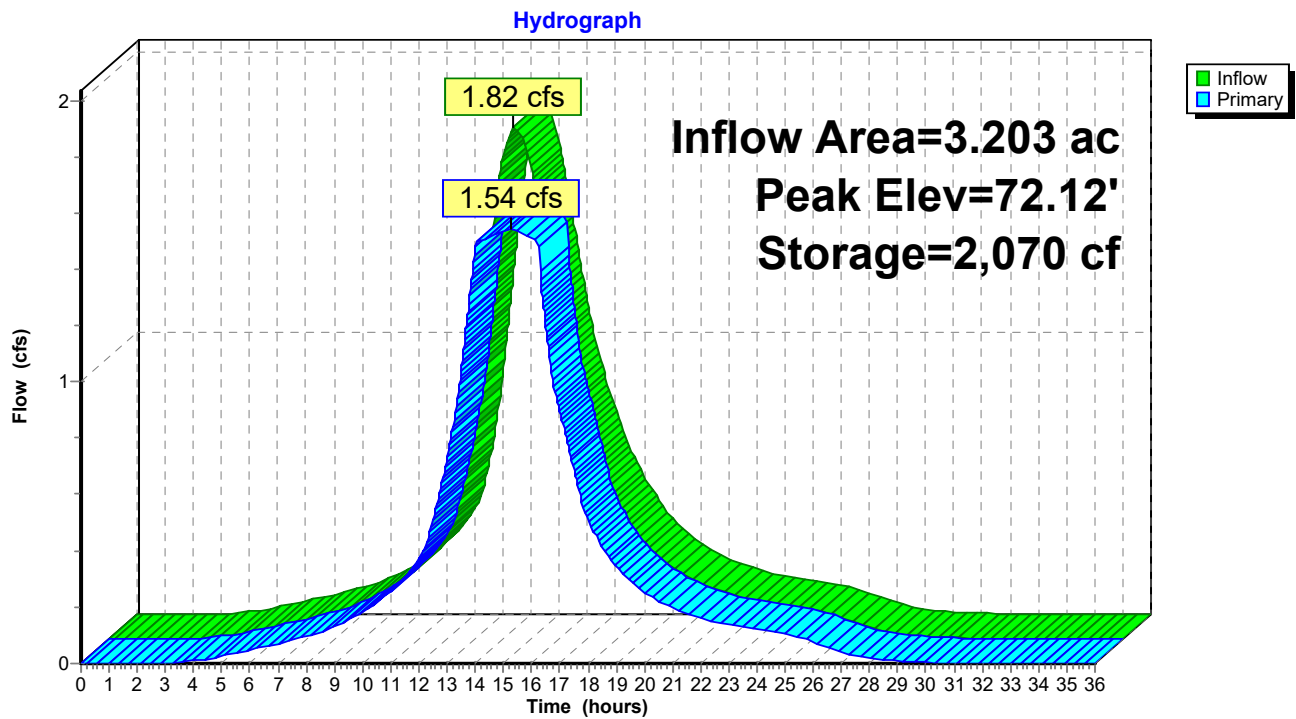
Primary OutFlow Max=1.54 cfs @ 15.26 hrs HW=72.12' (Free Discharge)

1=12" Culvert (Passes 1.54 cfs of 4.55 cfs potential flow)

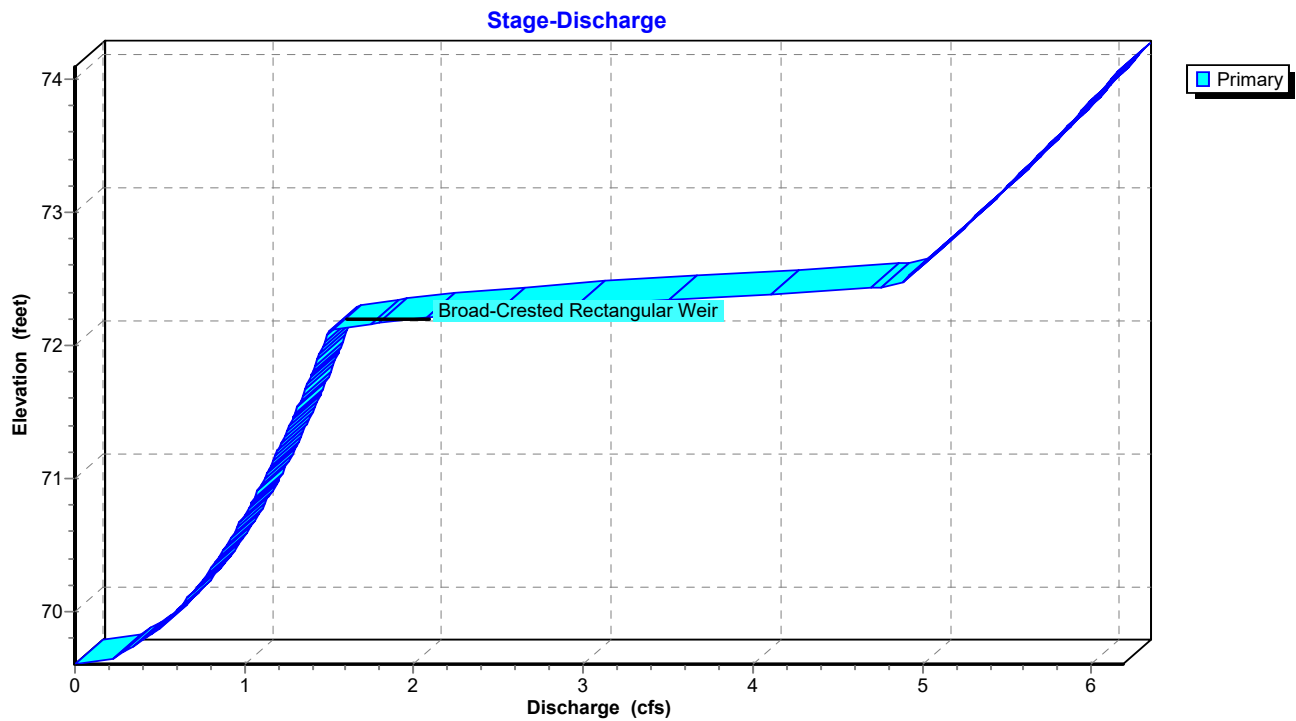
2=6" Orifice (Orifice Controls 1.50 cfs @ 7.64 fps)

3=Broad-Crested Rectangular Weir (Weir Controls 0.04 cfs @ 0.37 fps)

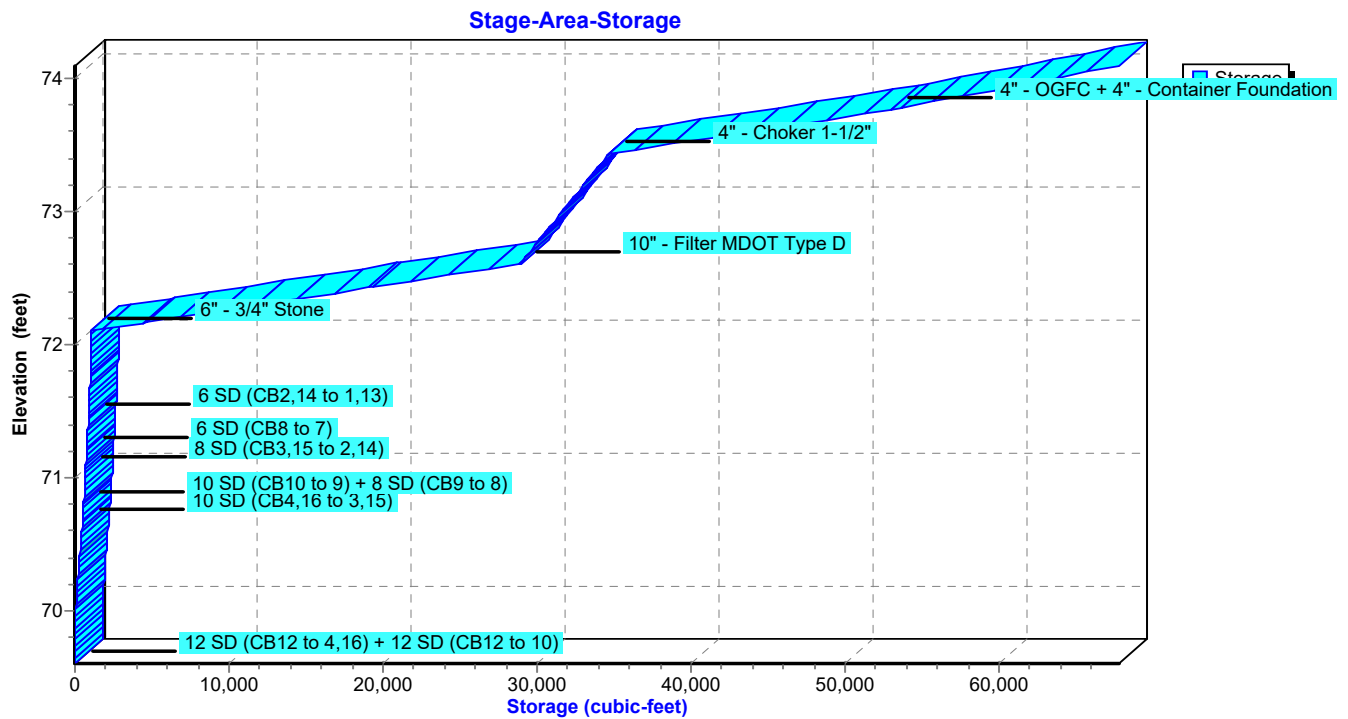
Pond 2P A: Pavement Profile/Drainage



Pond 2P A: Pavement Profile/Drainage



Pond 2P A: Pavement Profile/Drainage



Summary for Pond 2P B: Pavement Profile/Drainage

Inflow Area = 3.203 ac, 100.00% Impervious, Inflow Depth = 2.87" for 2-year event
 Inflow = 9.94 cfs @ 12.07 hrs, Volume= 0.766 af
 Outflow = 2.33 cfs @ 12.45 hrs, Volume= 0.766 af, Atten= 77%, Lag= 22.5 min
 Primary = 2.33 cfs @ 12.45 hrs, Volume= 0.766 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs
 Peak Elev= 72.23' @ 12.45 hrs Surf.Area= 139,091 sf Storage= 8,421 cf

Plug-Flow detention time= 23.5 min calculated for 0.765 af (100% of inflow)
 Center-of-Mass det. time= 23.5 min (779.7 - 756.1)

Volume	Invert	Avail.Storage	Storage Description
#1	72.10'	27,807 cf	195.00'W x 713.00'L x 0.50'H 6" - 3/4" Stone 69,518 cf Overall x 40.0% Voids
#2	72.60'	5,770 cf	195.00'W x 713.00'L x 0.83'H 10" - Filter MDOT Type D 115,399 cf Overall x 5.0% Voids
#3	73.43'	18,353 cf	195.00'W x 713.00'L x 0.33'H 4" - Choker 1-1/2" 45,882 cf Overall x 40.0% Voids
#4	73.76'	3,529 cf	75.00'W x 713.00'L x 0.33'H 4" - OGFC 17,647 cf Overall x 20.0% Voids
#5	73.76'	11,294 cf	120.00'W x 713.00'L x 0.33'H 4" - Container Foundation 28,235 cf Overall x 40.0% Voids
#6	69.60'	473 cf	12.0" D x 301.0'L 12 SD (CB12 to 4,16) S= 0.0025 ' / x 2
#7	69.60'	188 cf	12.0" D x 240.0'L 12 SD (CB12 to 10) S= 0.0025 ' /
#8	70.66'	131 cf	10.0" D x 120.0'L 10 SD (CB4,16 to 3,15) S= 0.0025 ' / x 2
#9	70.80'	65 cf	10.0" D x 120.0'L 10 SD (CB10 to 9) S= 0.0025 ' /
#10	71.06'	84 cf	8.0" D x 120.0'L 8 SD (CB3,15 to 2,14) S= 0.0025 ' / x 2
#11	70.80'	42 cf	8.0" D x 120.0'L 8 SD (CB9 to 8) S= 0.0025 ' /
#12	71.20'	37 cf	6.0" D x 186.0'L 6 SD (CB8 to 7) S= 0.0025 ' /
#13	71.46'	73 cf	6.0" D x 186.0'L 6 SD (CB2,14 to 1,13) S= 0.0025 ' / x 2
		67,846 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	69.30'	12.0" Round 12" Culvert L= 10.5' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 69.30' / 69.25' S= 0.0048 ' / Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	69.35'	6.0" Vert. 6" Orifice C= 0.600
#3	Device 1	72.10'	6.0' long x 0.7' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 Coef. (English) 2.76 2.82 2.93 3.09 3.18 3.22 3.27 3.30 3.32 3.31 3.32

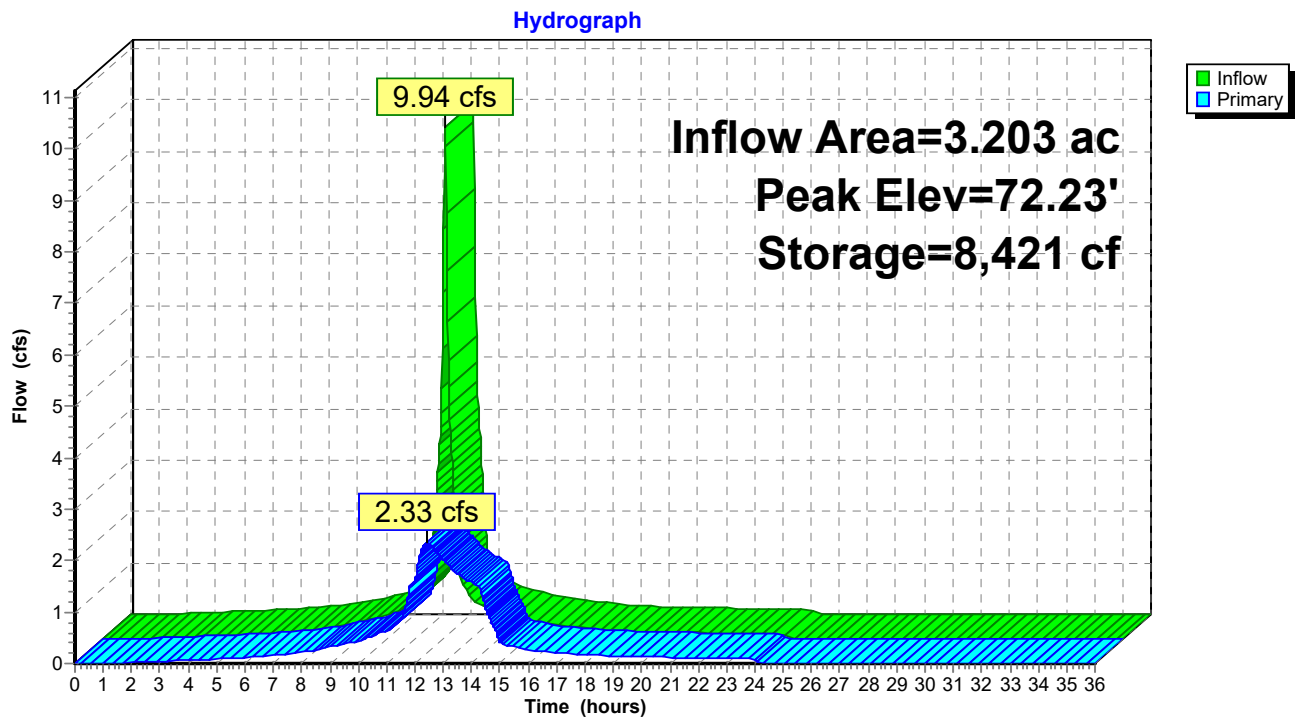
Primary OutFlow Max=2.33 cfs @ 12.45 hrs HW=72.23' (Free Discharge)

1=12" Culvert (Passes 2.33 cfs of 4.66 cfs potential flow)

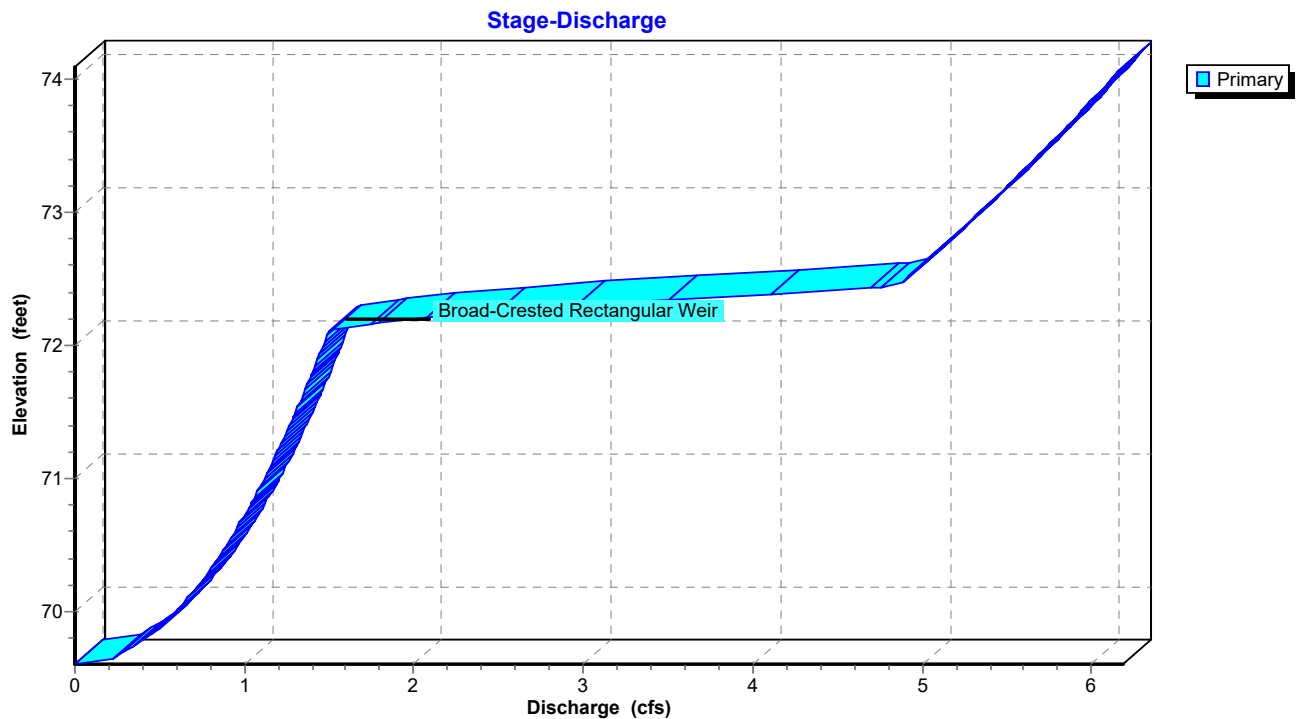
2=6" Orifice (Orifice Controls 1.53 cfs @ 7.81 fps)

3=Broad-Crested Rectangular Weir (Weir Controls 0.79 cfs @ 1.00 fps)

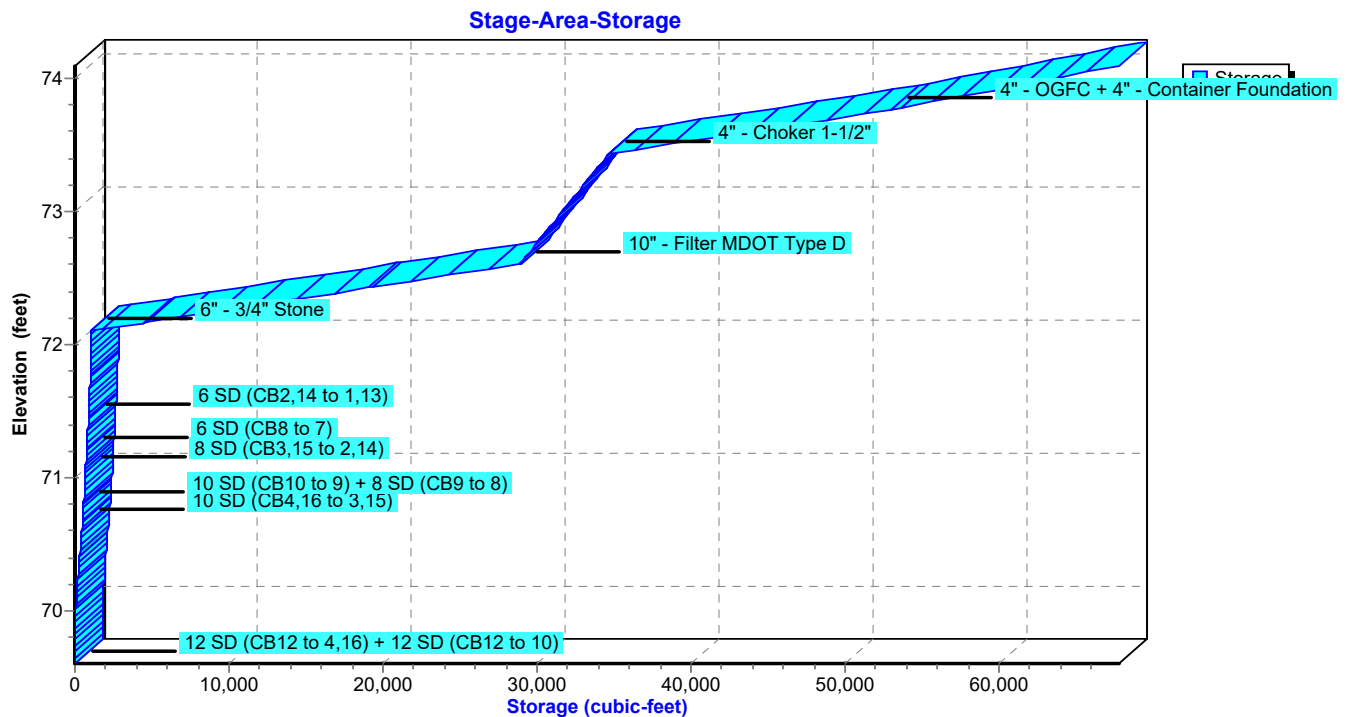
Pond 2P B: Pavement Profile/Drainage



Pond 2P B: Pavement Profile/Drainage



Pond 2P B: Pavement Profile/Drainage



Summary for Subcatchment 1S: Subcat 1

Runoff = 1.54 cfs @ 12.43 hrs, Volume= 0.201 af, Depth= 3.10"

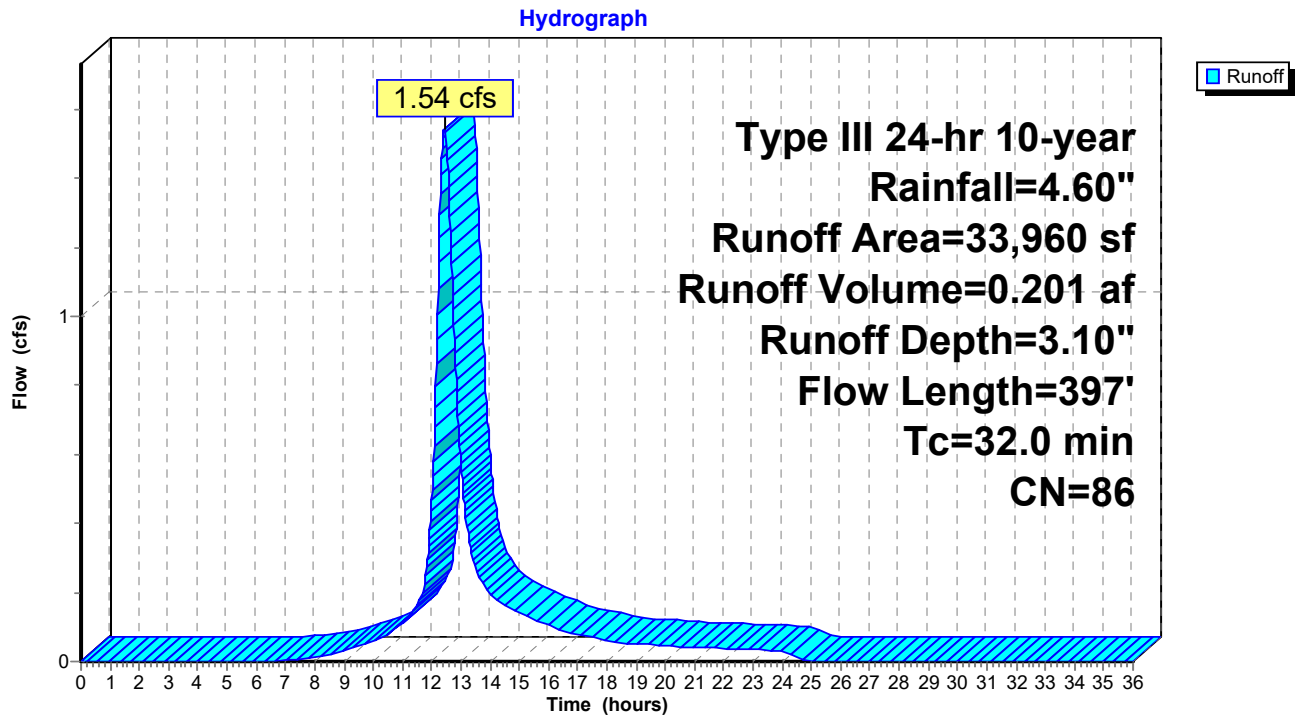
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Type III 24-hr 10-year Rainfall=4.60"

Area (sf)	CN	Description
11,205	98	Paved roads w/curbs & sewers, HSG D
600	98	Roofs, HSG C
20,655	80	>75% Grass cover, Good, HSG D
1,500	79	Woods/grass comb., Good, HSG D
33,960	86	Weighted Average
22,155		65.24% Pervious Area
11,805		34.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	14	0.0730	0.19		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.27"
28.5	137	0.0065	0.08		Sheet Flow, B to C Grass: Dense n= 0.240 P2= 3.27"
1.6	105	0.0234	1.07		Shallow Concentrated Flow, C to D Short Grass Pasture Kv= 7.0 fps
0.7	141	0.0244	3.17		Shallow Concentrated Flow, D to E Paved Kv= 20.3 fps
32.0	397	Total			

Subcatchment 1S: Subcat 1



Summary for Subcatchment 2S A: UNH

Runoff = 2.73 cfs @ 14.37 hrs, Volume= 1.165 af, Depth= 4.36"

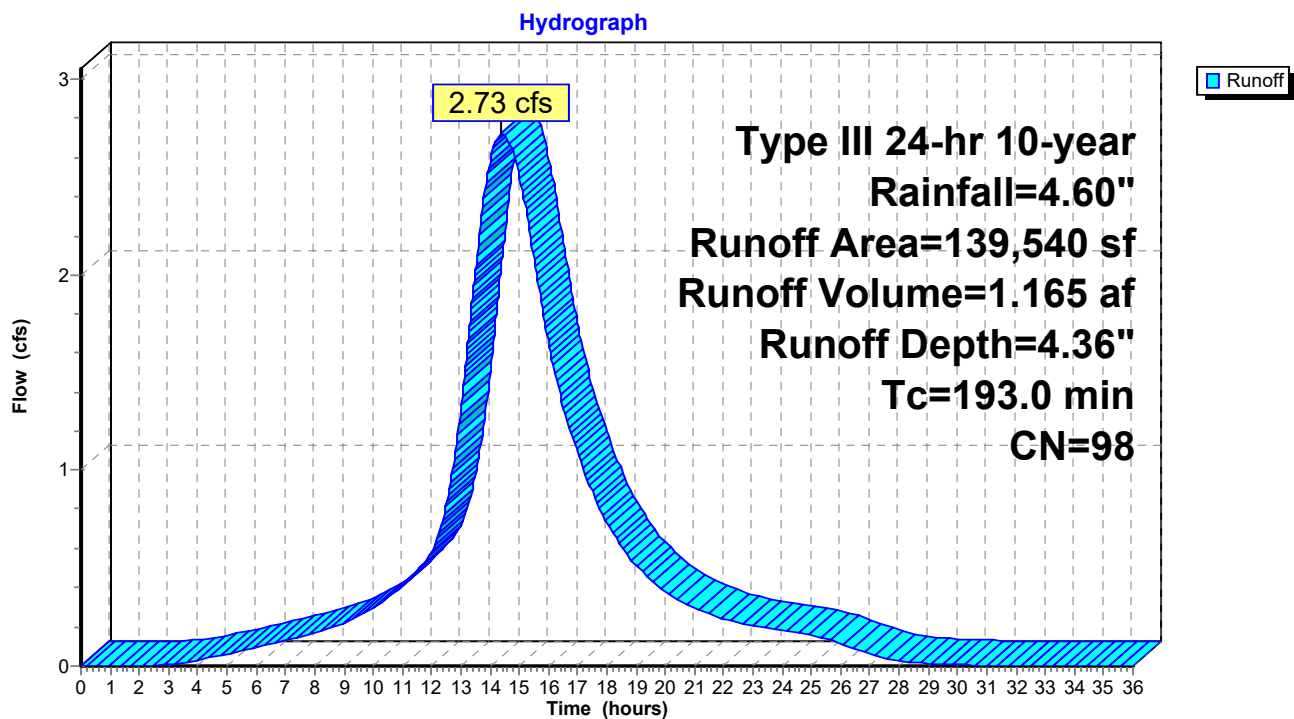
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	58,900	98	Porous
	80,640	98	Roofs, HSG C
	139,540	98	Weighted Average
	139,540		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
193.0					Direct Entry, Filter Depth Calc

Subcatchment 2S A: UNH



Summary for Subcatchment 2S B: 5 min TC

Runoff = 14.87 cfs @ 12.07 hrs, Volume= 1.165 af, Depth= 4.36"

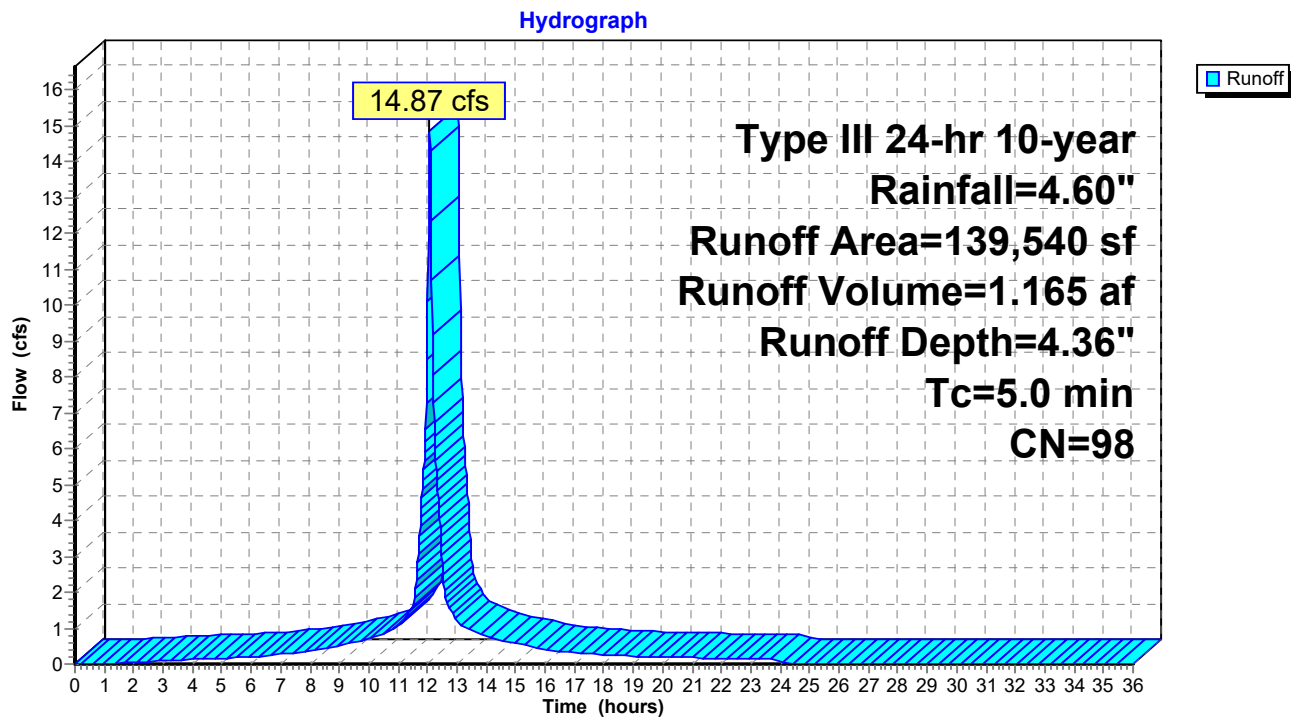
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Type III 24-hr 10-year Rainfall=4.60"

	Area (sf)	CN	Description
*	58,900	98	Porous
	80,640	98	Roofs, HSG C
	139,540	98	Weighted Average
	139,540		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 5 Min Tc

Subcatchment 2S B: 5 min TC



Summary for Subcatchment 3S A: Banks & Wetland

Runoff = 2.56 cfs @ 13.08 hrs, Volume= 0.570 af, Depth= 2.55"

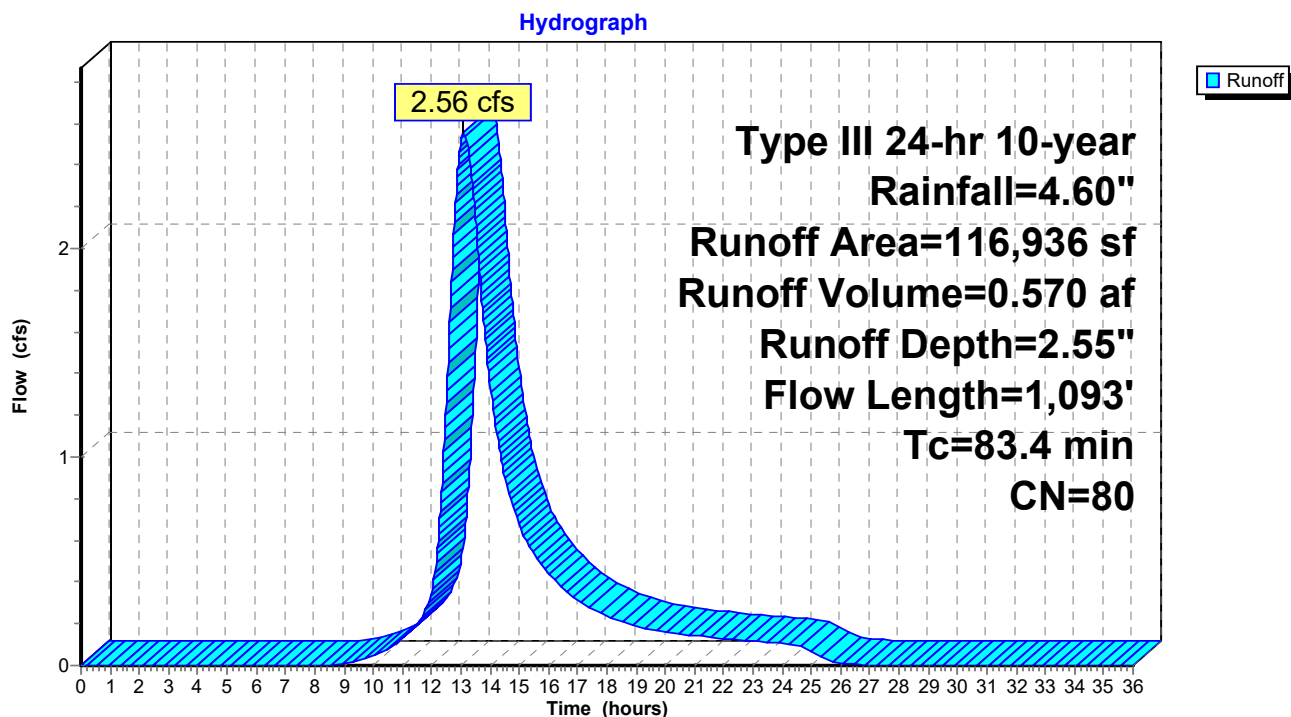
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Type III 24-hr 10-year Rainfall=4.60"

Area (sf)	CN	Description
6,385	91	Gravel roads, HSG D
* 31,390	85	Wetland (Not fully saturated)
25,300	80	>75% Grass cover, Good, HSG D
11,700	74	>75% Grass cover, Good, HSG C
12,080	77	Brush, Fair, HSG D
9,000	70	Brush, Fair, HSG C
15,010	82	Woods/grass comb., Fair, HSG D
6,071	76	Woods/grass comb., Fair, HSG C
116,936	80	Weighted Average
116,936		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
51.2	150	0.0050	0.05		Sheet Flow, F to G (forested ditch) Woods: Light underbrush n= 0.400 P2= 3.27"
25.6	538	0.0025	0.35		Shallow Concentrated Flow, G to H Short Grass Pasture Kv= 7.0 fps
2.7	158	0.0200	0.99		Shallow Concentrated Flow, H to I Short Grass Pasture Kv= 7.0 fps
3.9	247	0.0050	1.06		Shallow Concentrated Flow, I to J Grassed Waterway Kv= 15.0 fps
83.4	1,093	Total			

Subcatchment 3S A: Banks & Wetland



Summary for Subcatchment 3S B: Banks & Wetland

Runoff = 2.56 cfs @ 13.08 hrs, Volume= 0.570 af, Depth= 2.55"

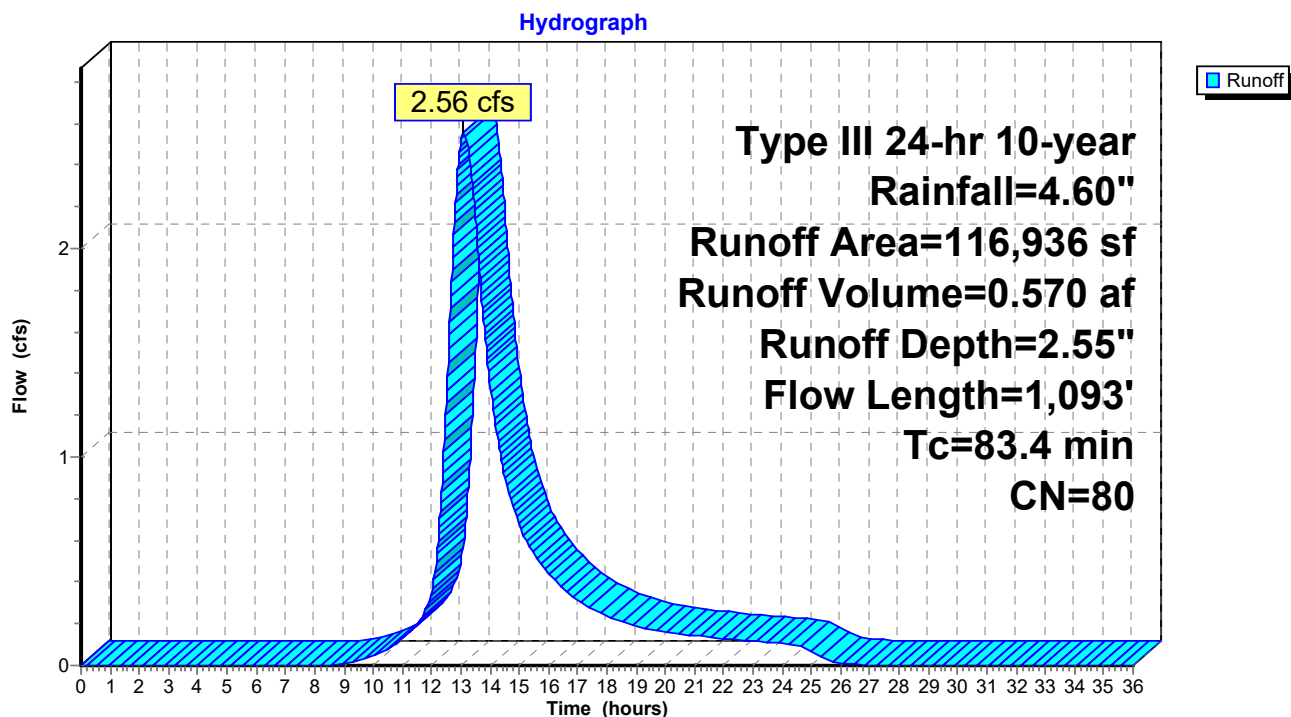
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Type III 24-hr 10-year Rainfall=4.60"

Area (sf)	CN	Description
6,385	91	Gravel roads, HSG D
* 31,390	85	Wetland (Not fully saturated)
25,300	80	>75% Grass cover, Good, HSG D
11,700	74	>75% Grass cover, Good, HSG C
12,080	77	Brush, Fair, HSG D
9,000	70	Brush, Fair, HSG C
15,010	82	Woods/grass comb., Fair, HSG D
6,071	76	Woods/grass comb., Fair, HSG C
116,936	80	Weighted Average
116,936		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
51.2	150	0.0050	0.05		Sheet Flow, F to G (forested ditch) Woods: Light underbrush n= 0.400 P2= 3.27"
25.6	538	0.0025	0.35		Shallow Concentrated Flow, G to H Short Grass Pasture Kv= 7.0 fps
2.7	158	0.0200	0.99		Shallow Concentrated Flow, H to I Short Grass Pasture Kv= 7.0 fps
3.9	247	0.0050	1.06		Shallow Concentrated Flow, I to J Grassed Waterway Kv= 15.0 fps
83.4	1,093	Total			

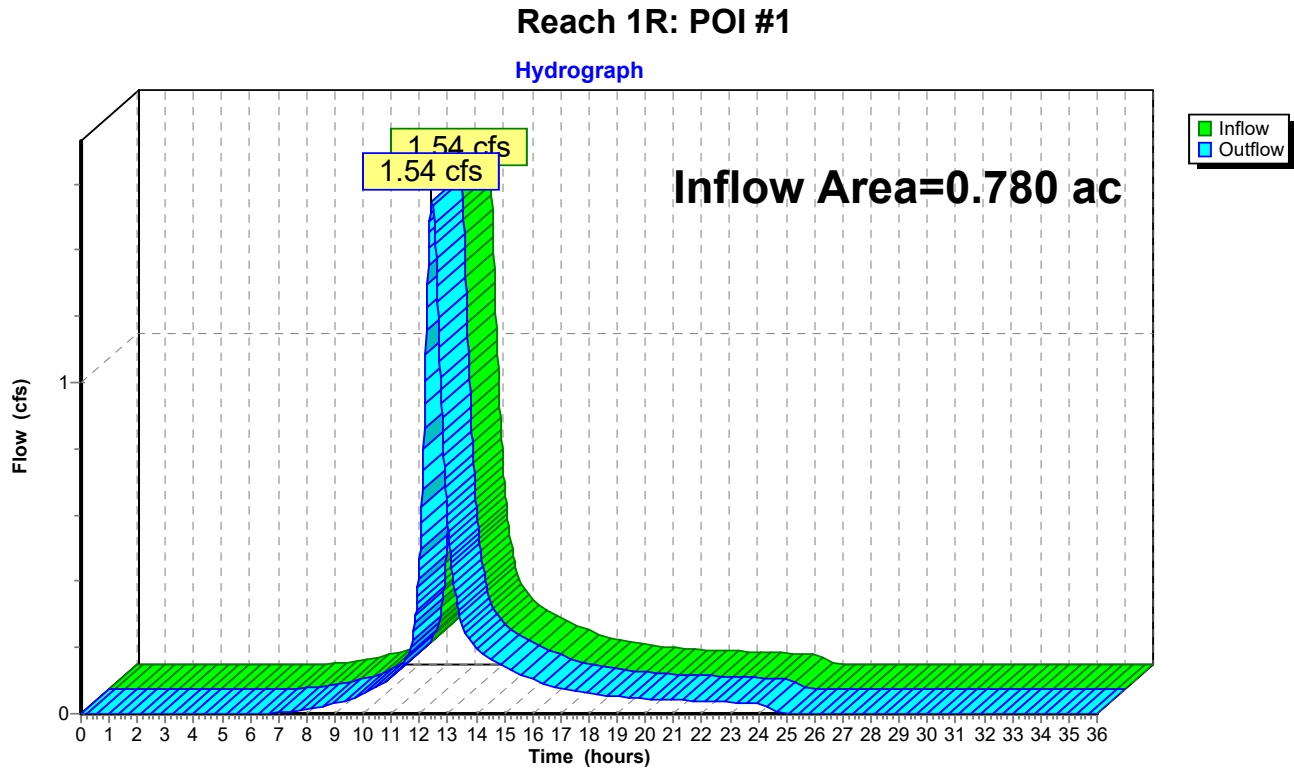
Subcatchment 3S B: Banks & Wetland



Summary for Reach 1R: POI #1

Inflow Area = 0.780 ac, 34.76% Impervious, Inflow Depth = 3.10" for 10-year event
 Inflow = 1.54 cfs @ 12.43 hrs, Volume= 0.201 af
 Outflow = 1.54 cfs @ 12.43 hrs, Volume= 0.201 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

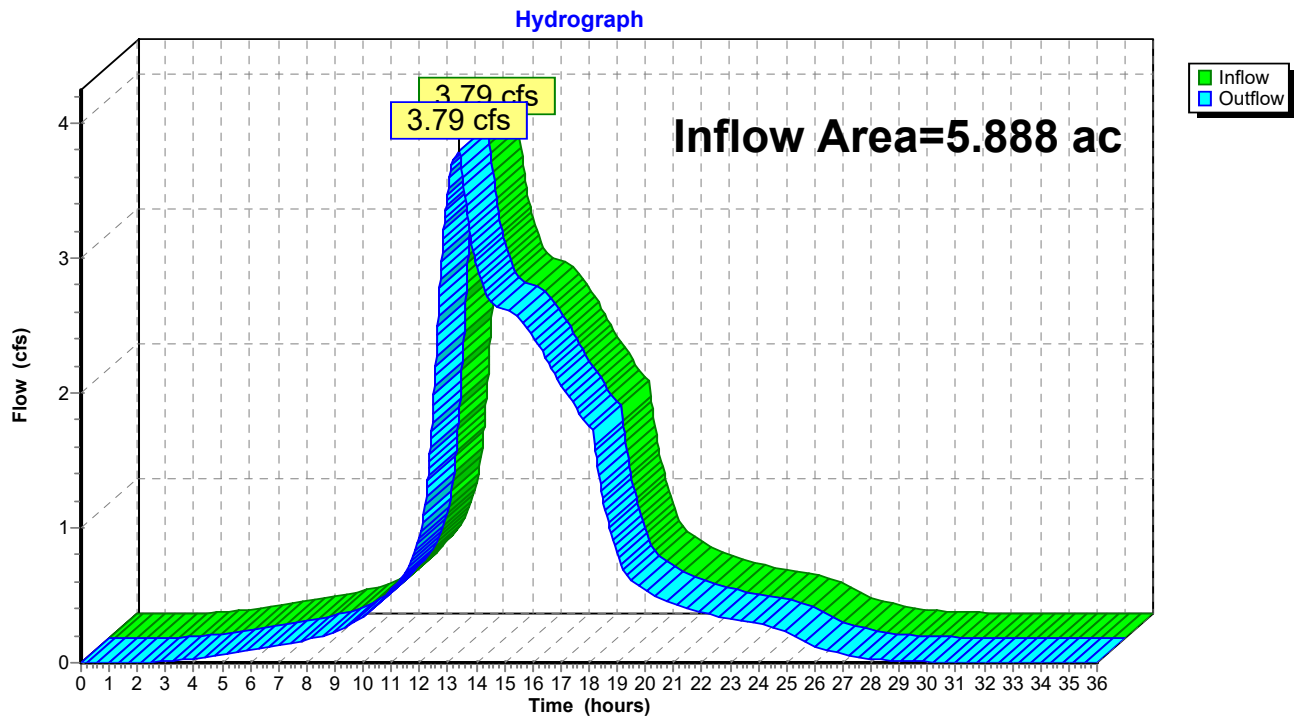


Summary for Reach 2R A: POI #2

Inflow Area = 5.888 ac, 54.41% Impervious, Inflow Depth = 3.54" for 10-year event
 Inflow = 3.79 cfs @ 13.41 hrs, Volume= 1.735 af
 Outflow = 3.79 cfs @ 13.41 hrs, Volume= 1.735 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Reach 2R A: POI #2



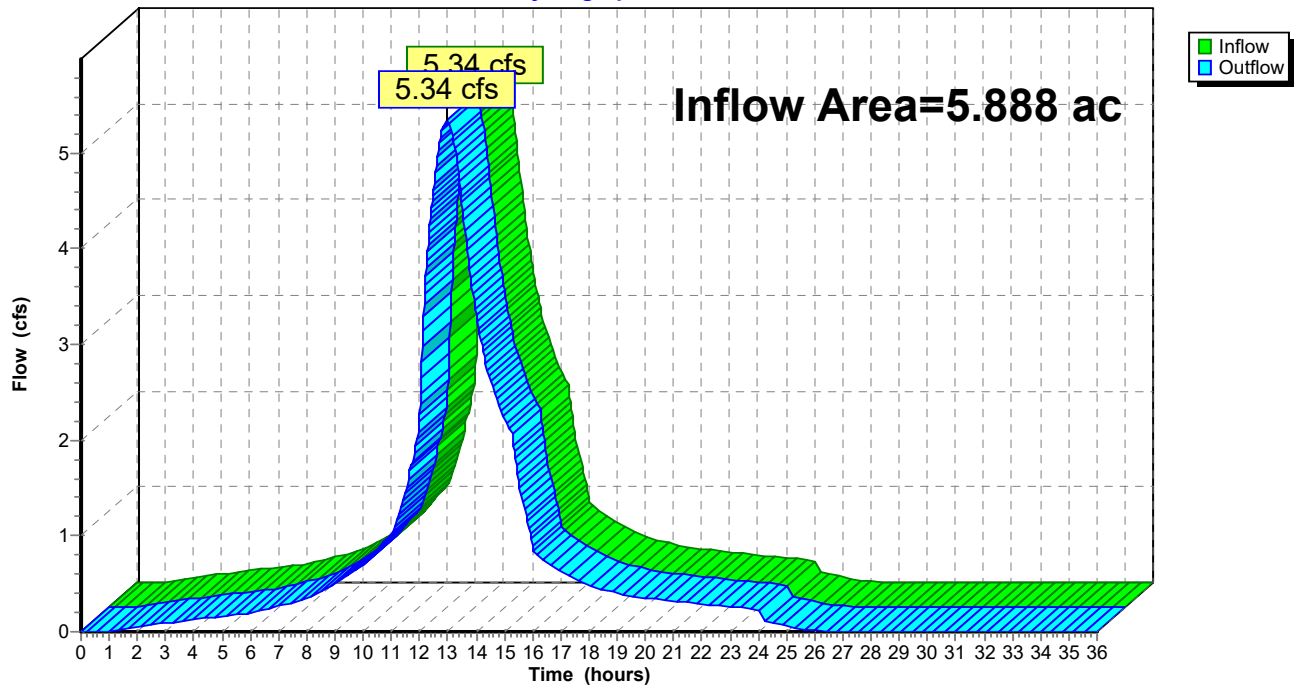
Summary for Reach 2R B: POI #2

Inflow Area = 5.888 ac, 54.41% Impervious, Inflow Depth = 3.54" for 10-year event
 Inflow = 5.34 cfs @ 12.97 hrs, Volume= 1.735 af
 Outflow = 5.34 cfs @ 12.97 hrs, Volume= 1.735 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Reach 2R B: POI #2

Hydrograph



Summary for Pond 1P: CB + Storm Drain

Inflow Area = 0.780 ac, 34.76% Impervious, Inflow Depth = 3.10" for 10-year event
 Inflow = 1.54 cfs @ 12.43 hrs, Volume= 0.201 af
 Outflow = 1.54 cfs @ 12.43 hrs, Volume= 0.201 af, Atten= 0%, Lag= 0.0 min
 Primary = 1.54 cfs @ 12.43 hrs, Volume= 0.201 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

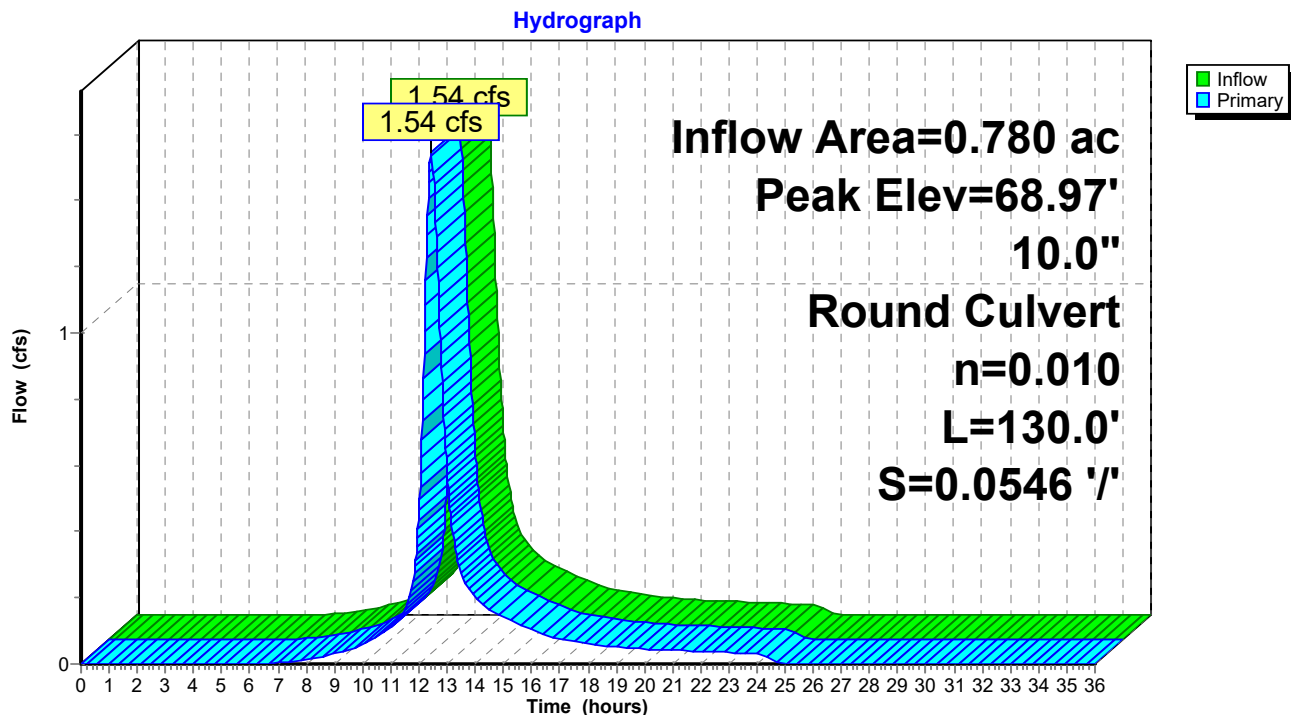
Peak Elev= 68.97' @ 12.43 hrs

Device	Routing	Invert	Outlet Devices
#1	Primary	68.00'	10.0" Round Culvert L= 130.0' Ke= 0.900 Inlet / Outlet Invert= 68.00' / 60.90' S= 0.0546 '/ Cc= 0.900 n= 0.010 PVC, smooth interior

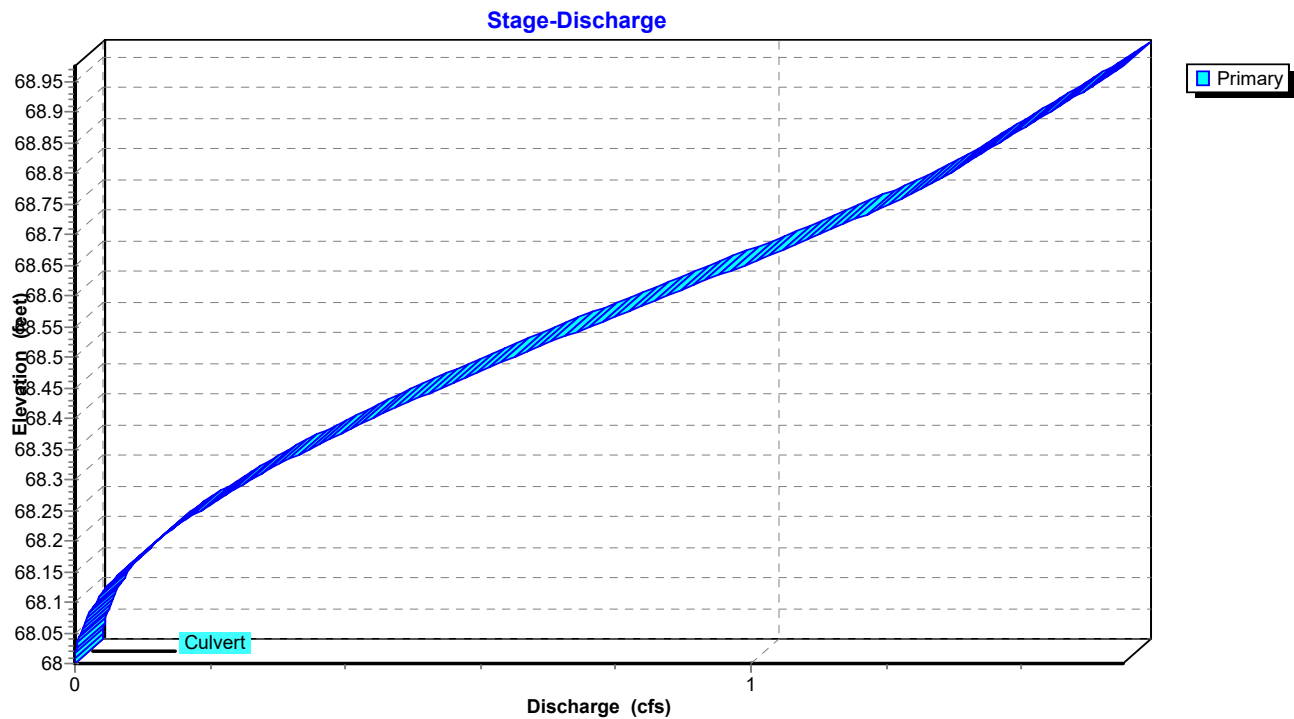
Primary OutFlow Max=1.54 cfs @ 12.43 hrs HW=68.97' (Free Discharge)

↑1=Culvert (Inlet Controls 1.54 cfs @ 2.82 fps)

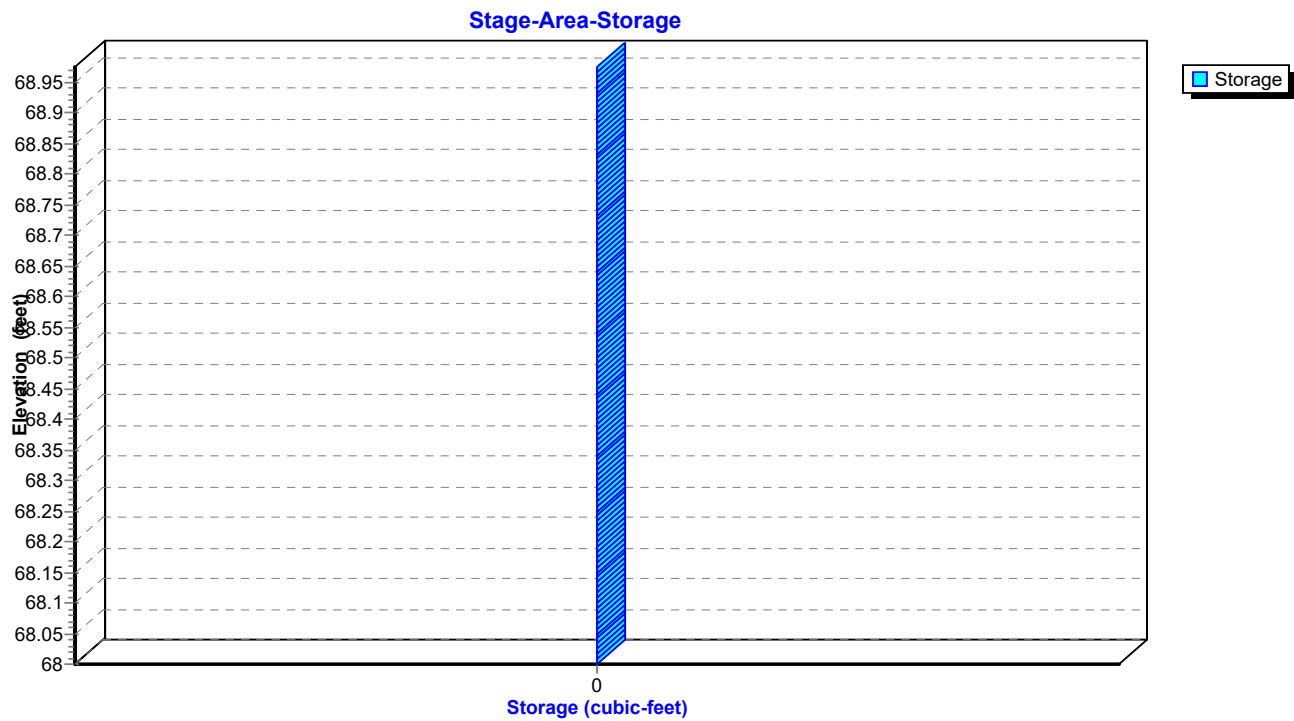
Pond 1P: CB + Storm Drain



Pond 1P: CB + Storm Drain



Pond 1P: CB + Storm Drain



Summary for Pond 2P A: Pavement Profile/Drainage

Inflow Area = 3.203 ac, 100.00% Impervious, Inflow Depth = 4.36" for 10-year event
 Inflow = 2.73 cfs @ 14.37 hrs, Volume= 1.165 af
 Outflow = 2.02 cfs @ 15.58 hrs, Volume= 1.165 af, Atten= 26%, Lag= 72.2 min
 Primary = 2.02 cfs @ 15.58 hrs, Volume= 1.165 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs
 Peak Elev= 72.20' @ 15.58 hrs Surf.Area= 139,105 sf Storage= 6,441 cf

Plug-Flow detention time= 25.1 min calculated for 1.164 af (100% of inflow)
 Center-of-Mass det. time= 25.1 min (947.8 - 922.7)

Volume	Invert	Avail.Storage	Storage Description
#1	72.10'	27,807 cf	195.00'W x 713.00'L x 0.50'H 6" - 3/4" Stone 69,518 cf Overall x 40.0% Voids
#2	72.60'	5,770 cf	195.00'W x 713.00'L x 0.83'H 10" - Filter MDOT Type D 115,399 cf Overall x 5.0% Voids
#3	73.43'	18,353 cf	195.00'W x 713.00'L x 0.33'H 4" - Choker 1-1/2" 45,882 cf Overall x 40.0% Voids
#4	73.76'	3,529 cf	75.00'W x 713.00'L x 0.33'H 4" - OGFC 17,647 cf Overall x 20.0% Voids
#5	73.76'	11,294 cf	120.00'W x 713.00'L x 0.33'H 4" - Container Foundation 28,235 cf Overall x 40.0% Voids
#6	69.60'	473 cf	12.0" D x 301.0'L 12 SD (CB12 to 4,16) S= 0.0025 ' / x 2
#7	69.60'	188 cf	12.0" D x 240.0'L 12 SD (CB12 to 10) S= 0.0025 ' /
#8	70.66'	131 cf	10.0" D x 120.0'L 10 SD (CB4,16 to 3,15) S= 0.0025 ' / x 2
#9	70.80'	65 cf	10.0" D x 120.0'L 10 SD (CB10 to 9) S= 0.0025 ' /
#10	71.06'	84 cf	8.0" D x 120.0'L 8 SD (CB3,15 to 2,14) S= 0.0025 ' / x 2
#11	70.80'	42 cf	8.0" D x 120.0'L 8 SD (CB9 to 8) S= 0.0025 ' /
#12	71.20'	37 cf	6.0" D x 186.0'L 6 SD (CB8 to 7) S= 0.0025 ' /
#13	71.46'	73 cf	6.0" D x 186.0'L 6 SD (CB2,14 to 1,13) S= 0.0025 ' / x 2
		67,846 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	69.30'	12.0" Round 12" Culvert L= 10.5' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 69.30' / 69.25' S= 0.0048 ' / Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	69.35'	6.0" Vert. 6" Orifice C= 0.600
#3	Device 1	72.10'	6.0' long x 0.7' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 Coef. (English) 2.76 2.82 2.93 3.09 3.18 3.22 3.27 3.30 3.32 3.31 3.32

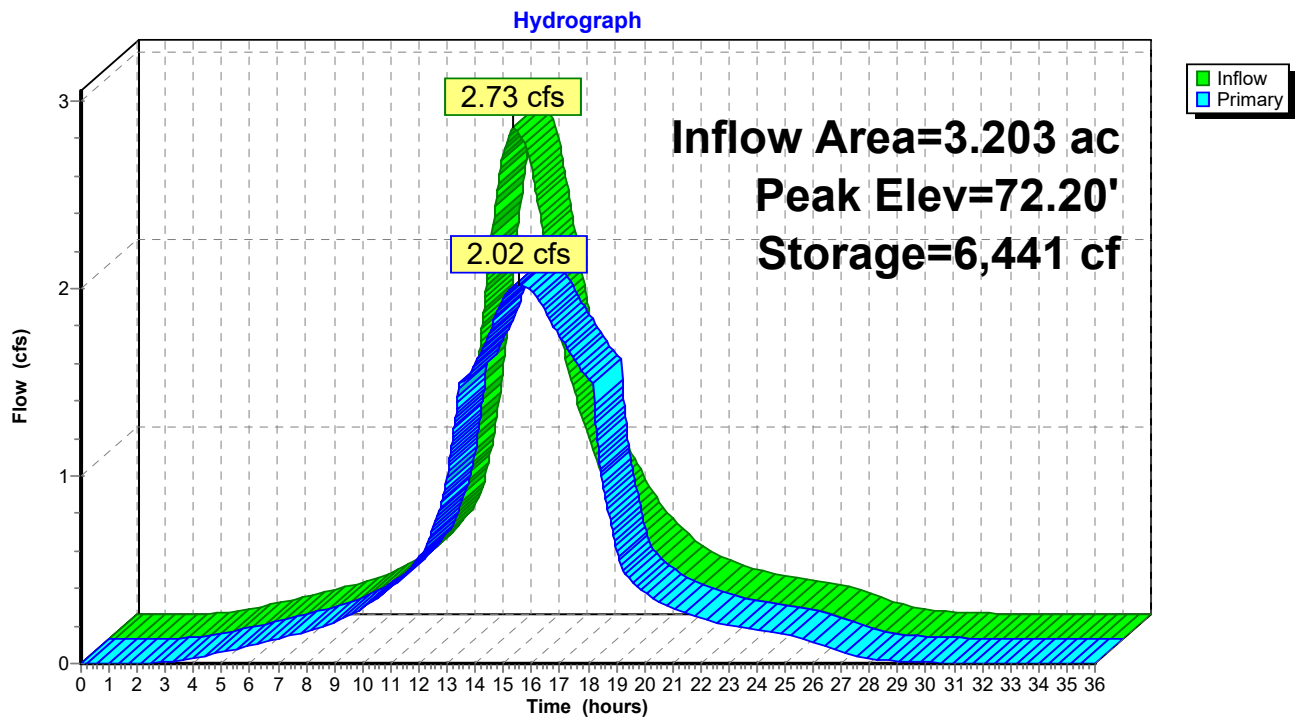
Primary OutFlow Max=2.02 cfs @ 15.58 hrs HW=72.20' (Free Discharge)

1=12" Culvert (Passes 2.02 cfs of 4.62 cfs potential flow)

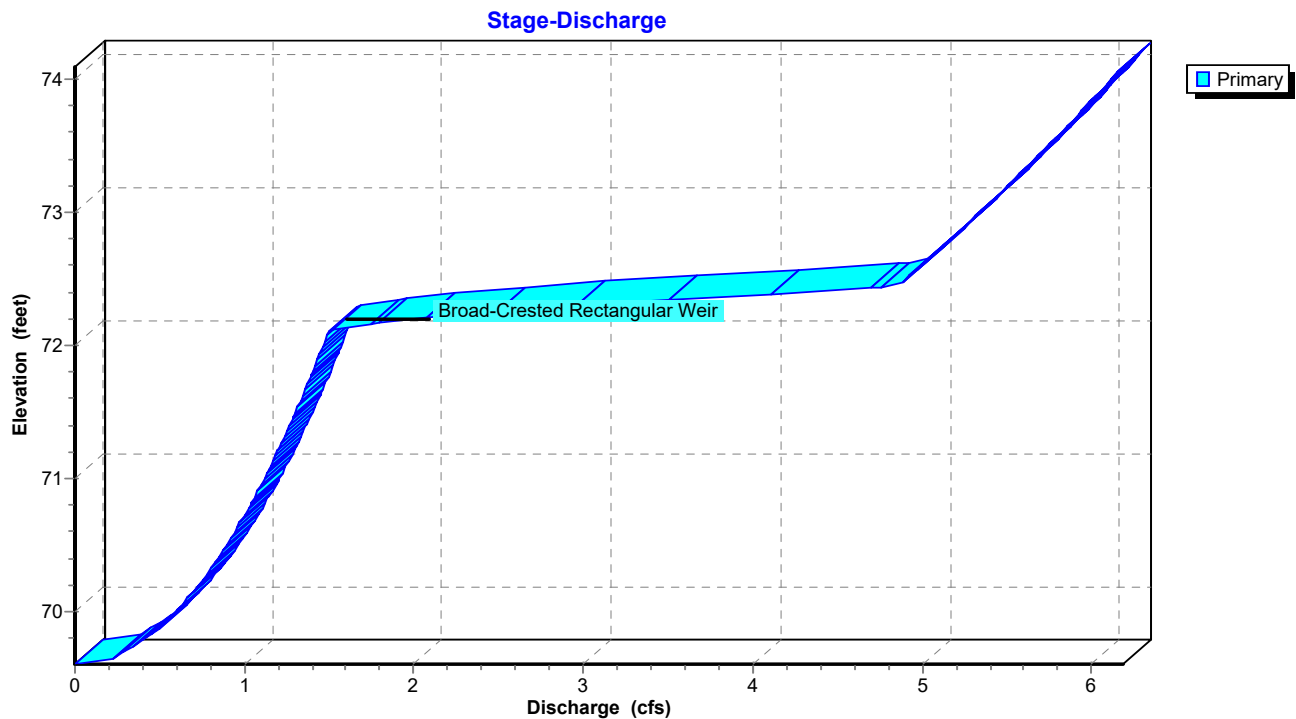
2=6" Orifice (Orifice Controls 1.52 cfs @ 7.76 fps)

3=Broad-Crested Rectangular Weir (Weir Controls 0.49 cfs @ 0.86 fps)

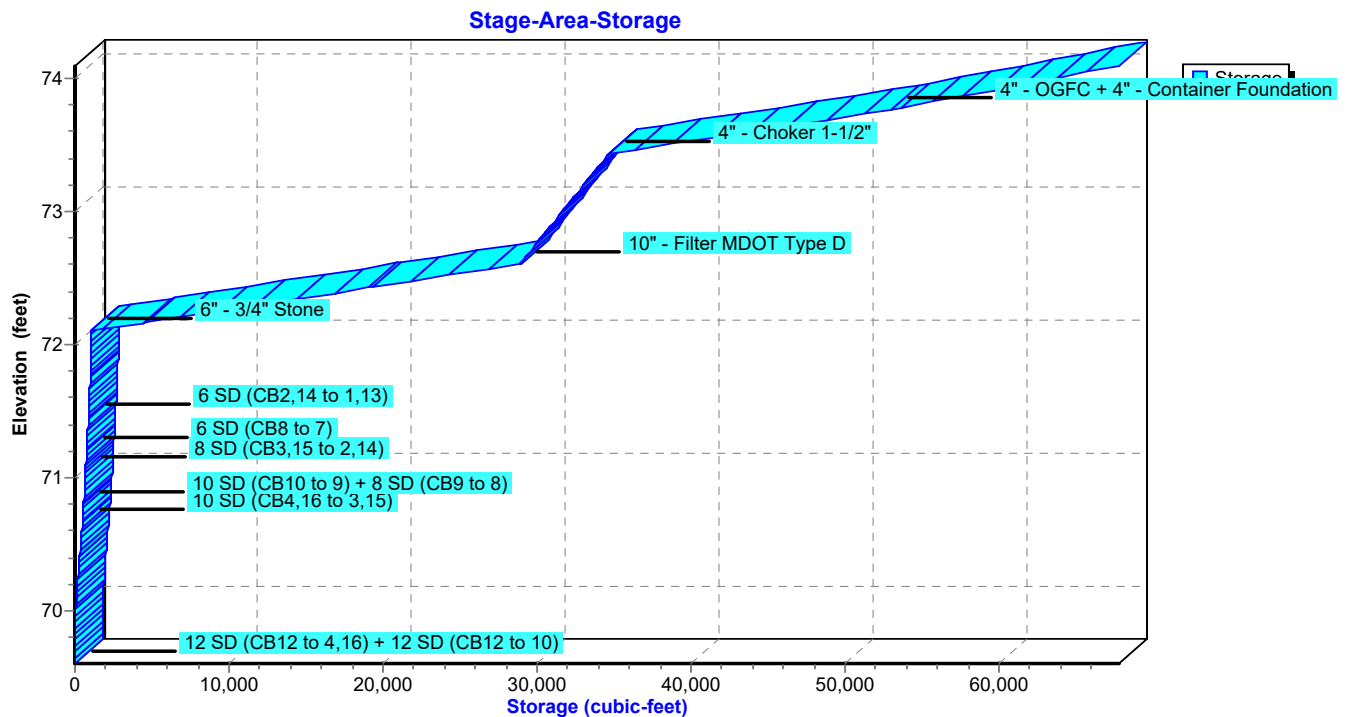
Pond 2P A: Pavement Profile/Drainage



Pond 2P A: Pavement Profile/Drainage



Pond 2P A: Pavement Profile/Drainage



Summary for Pond 2P B: Pavement Profile/Drainage

Inflow Area = 3.203 ac, 100.00% Impervious, Inflow Depth = 4.36" for 10-year event
 Inflow = 14.87 cfs @ 12.07 hrs, Volume= 1.165 af
 Outflow = 3.41 cfs @ 12.45 hrs, Volume= 1.165 af, Atten= 77%, Lag= 22.8 min
 Primary = 3.41 cfs @ 12.45 hrs, Volume= 1.165 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs
 Peak Elev= 72.33' @ 12.45 hrs Surf.Area= 139,055 sf Storage= 13,951 cf

Plug-Flow detention time= 32.2 min calculated for 1.164 af (100% of inflow)
 Center-of-Mass det. time= 32.2 min (780.7 - 748.5)

Volume	Invert	Avail.Storage	Storage Description
#1	72.10'	27,807 cf	195.00'W x 713.00'L x 0.50'H 6" - 3/4" Stone 69,518 cf Overall x 40.0% Voids
#2	72.60'	5,770 cf	195.00'W x 713.00'L x 0.83'H 10" - Filter MDOT Type D 115,399 cf Overall x 5.0% Voids
#3	73.43'	18,353 cf	195.00'W x 713.00'L x 0.33'H 4" - Choker 1-1/2" 45,882 cf Overall x 40.0% Voids
#4	73.76'	3,529 cf	75.00'W x 713.00'L x 0.33'H 4" - OGFC 17,647 cf Overall x 20.0% Voids
#5	73.76'	11,294 cf	120.00'W x 713.00'L x 0.33'H 4" - Container Foundation 28,235 cf Overall x 40.0% Voids
#6	69.60'	473 cf	12.0" D x 301.0'L 12 SD (CB12 to 4,16) S= 0.0025 '/'x 2
#7	69.60'	188 cf	12.0" D x 240.0'L 12 SD (CB12 to 10) S= 0.0025 '/'
#8	70.66'	131 cf	10.0" D x 120.0'L 10 SD (CB4,16 to 3,15) S= 0.0025 '/'x 2
#9	70.80'	65 cf	10.0" D x 120.0'L 10 SD (CB10 to 9) S= 0.0025 '/'
#10	71.06'	84 cf	8.0" D x 120.0'L 8 SD (CB3,15 to 2,14) S= 0.0025 '/'x 2
#11	70.80'	42 cf	8.0" D x 120.0'L 8 SD (CB9 to 8) S= 0.0025 '/'
#12	71.20'	37 cf	6.0" D x 186.0'L 6 SD (CB8 to 7) S= 0.0025 '/'
#13	71.46'	73 cf	6.0" D x 186.0'L 6 SD (CB2,14 to 1,13) S= 0.0025 '/'x 2
		67,846 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	69.30'	12.0" Round 12" Culvert L= 10.5' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 69.30' / 69.25' S= 0.0048 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	69.35'	6.0" Vert. 6" Orifice C= 0.600
#3	Device 1	72.10'	6.0' long x 0.7' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 Coef. (English) 2.76 2.82 2.93 3.09 3.18 3.22 3.27 3.30 3.32 3.31 3.32

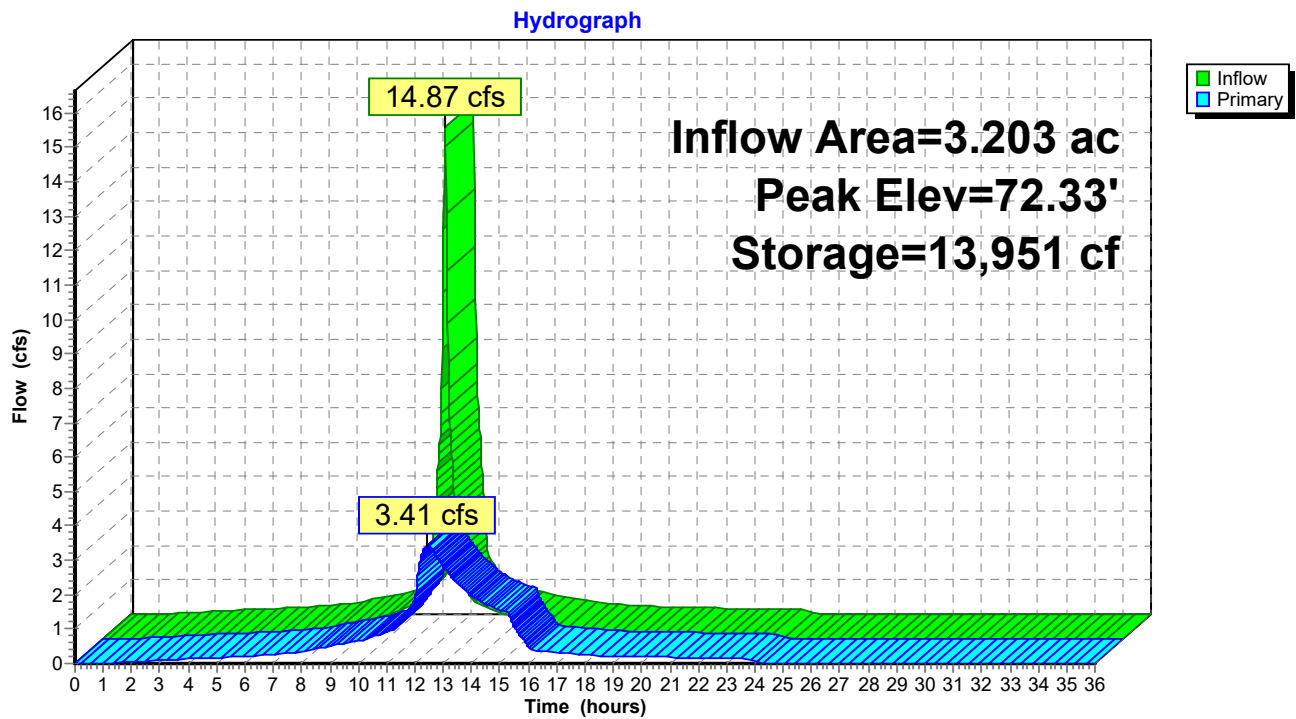
Primary OutFlow Max=3.41 cfs @ 12.45 hrs HW=72.33' (Free Discharge)

1=12" Culvert (Passes 3.41 cfs of 4.75 cfs potential flow)

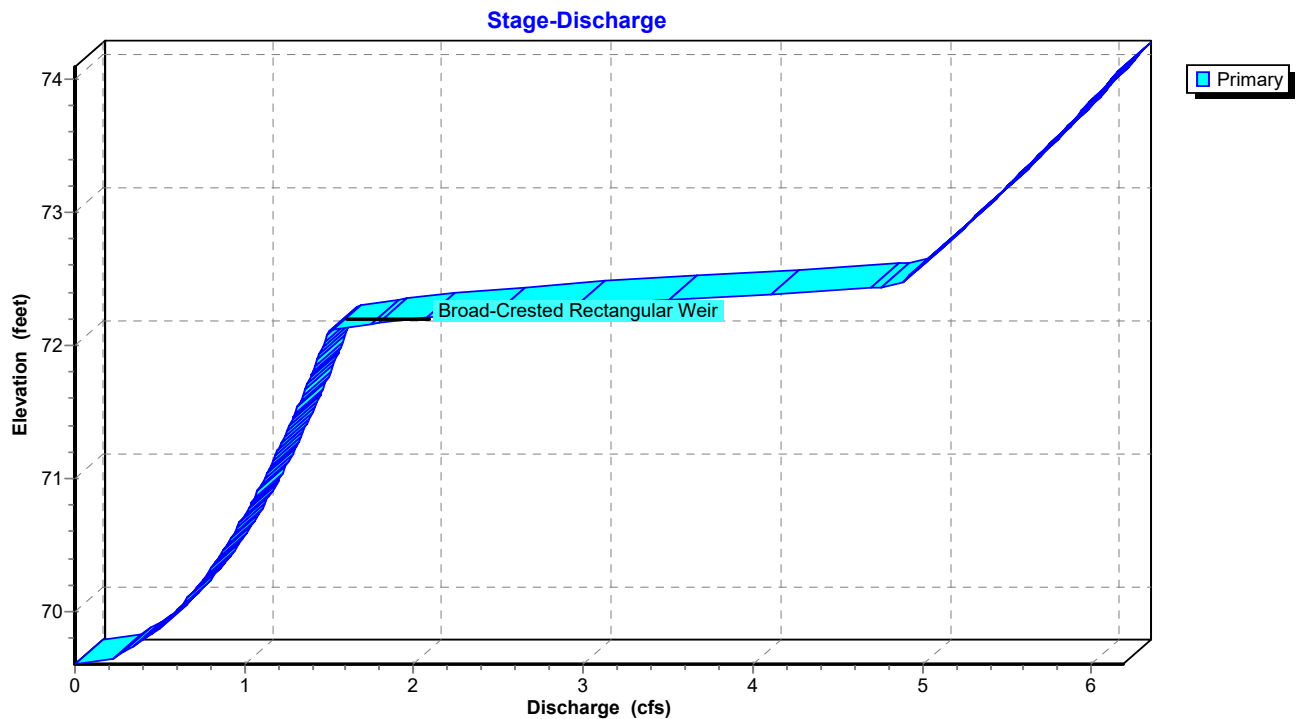
2=6" Orifice (Orifice Controls 1.56 cfs @ 7.96 fps)

3=Broad-Crested Rectangular Weir (Weir Controls 1.85 cfs @ 1.33 fps)

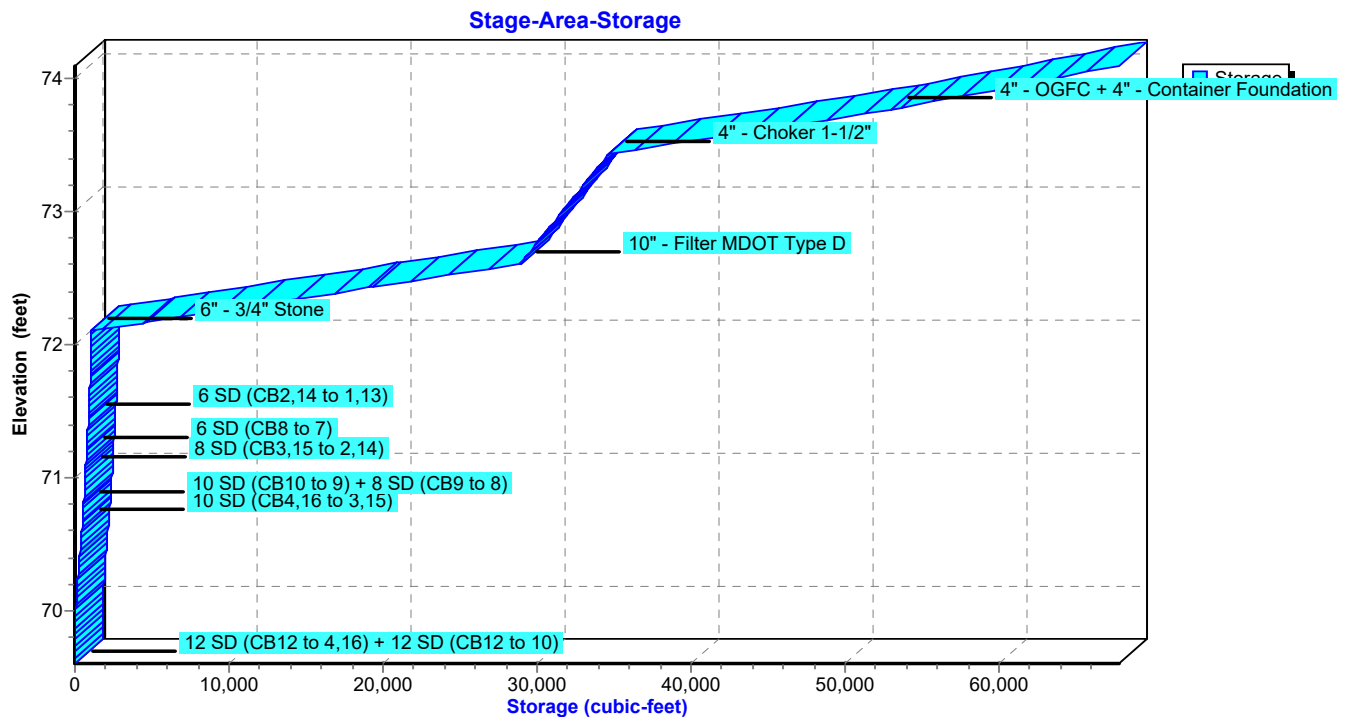
Pond 2P B: Pavement Profile/Drainage



Pond 2P B: Pavement Profile/Drainage



Pond 2P B: Pavement Profile/Drainage



Summary for Subcatchment 1S: Subcat 1

Runoff = 2.08 cfs @ 12.43 hrs, Volume= 0.274 af, Depth= 4.22"

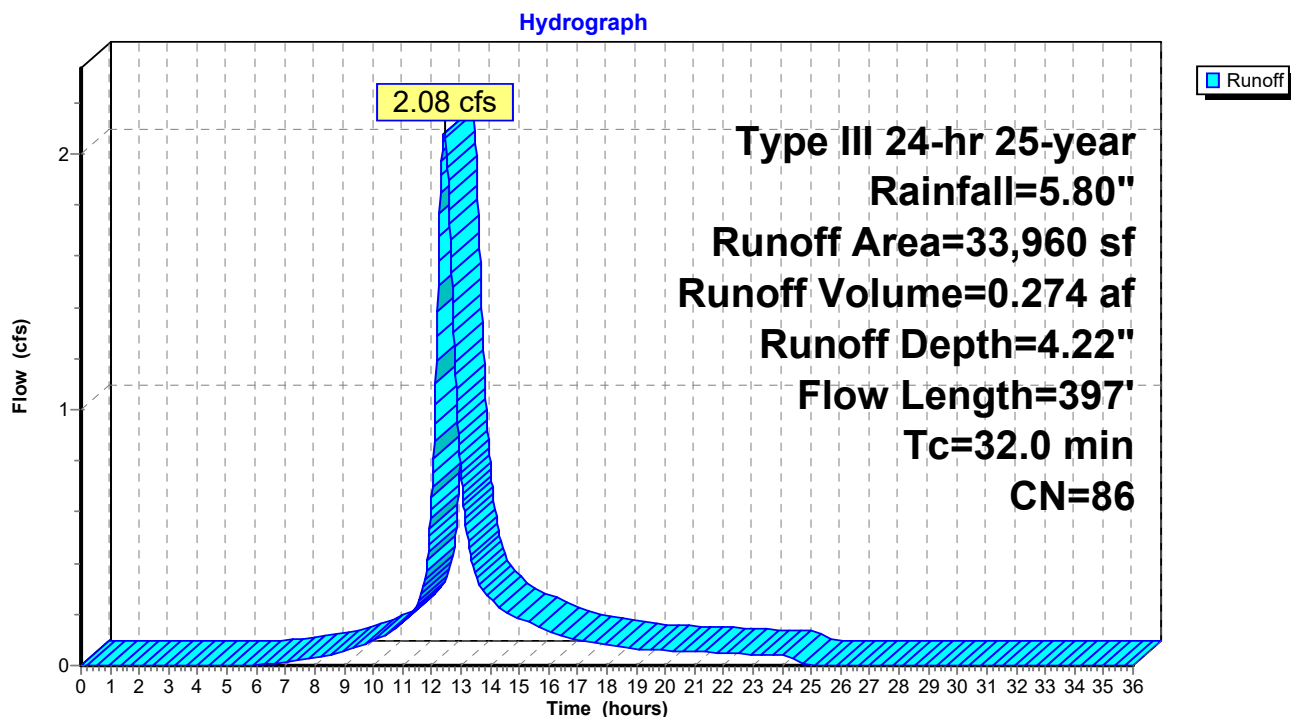
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Type III 24-hr 25-year Rainfall=5.80"

Area (sf)	CN	Description
11,205	98	Paved roads w/curbs & sewers, HSG D
600	98	Roofs, HSG C
20,655	80	>75% Grass cover, Good, HSG D
1,500	79	Woods/grass comb., Good, HSG D
33,960	86	Weighted Average
22,155		65.24% Pervious Area
11,805		34.76% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.2	14	0.0730	0.19		Sheet Flow, A to B Grass: Short n= 0.150 P2= 3.27"
28.5	137	0.0065	0.08		Sheet Flow, B to C Grass: Dense n= 0.240 P2= 3.27"
1.6	105	0.0234	1.07		Shallow Concentrated Flow, C to D Short Grass Pasture Kv= 7.0 fps
0.7	141	0.0244	3.17		Shallow Concentrated Flow, D to E Paved Kv= 20.3 fps
32.0	397	Total			

Subcatchment 1S: Subcat 1



Summary for Subcatchment 2S A: UNH

Runoff = 3.45 cfs @ 14.37 hrs, Volume= 1.485 af, Depth= 5.56"

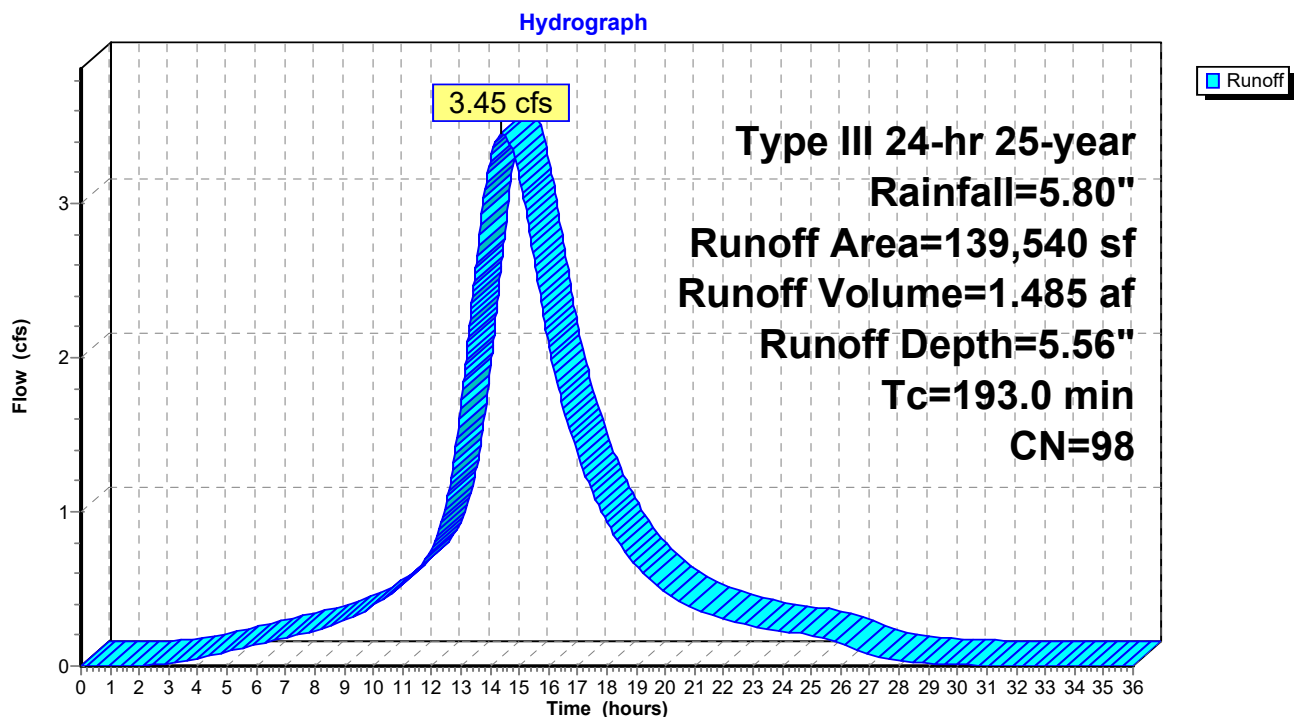
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	58,900	98	Porous
	80,640	98	Roofs, HSG C
	139,540	98	Weighted Average
	139,540		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
193.0					Direct Entry, Filter Depth Calc

Subcatchment 2S A: UNH



Summary for Subcatchment 2S B: 5 min TC

Runoff = 18.79 cfs @ 12.07 hrs, Volume= 1.485 af, Depth= 5.56"

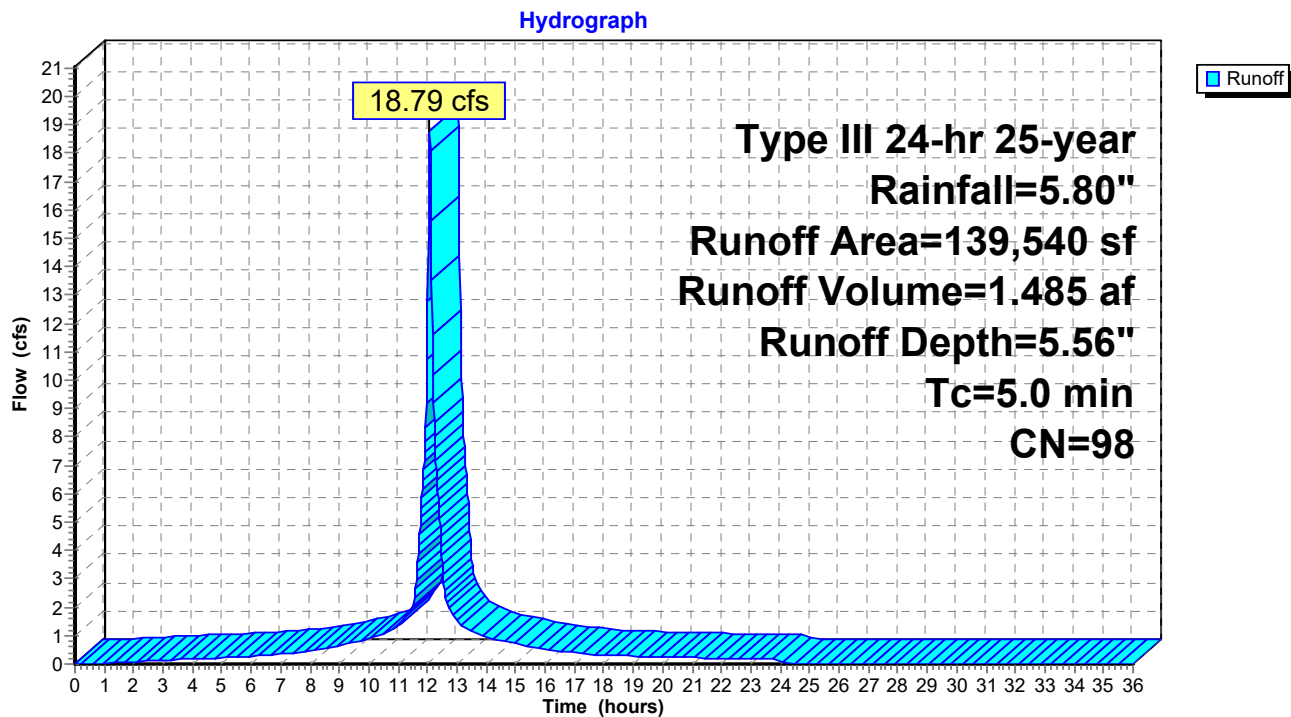
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Type III 24-hr 25-year Rainfall=5.80"

	Area (sf)	CN	Description
*	58,900	98	Porous
	80,640	98	Roofs, HSG C
	139,540	98	Weighted Average
	139,540		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, 5 Min Tc

Subcatchment 2S B: 5 min TC



Summary for Subcatchment 3S A: Banks & Wetland

Runoff = 3.63 cfs @ 13.08 hrs, Volume= 0.806 af, Depth= 3.60"

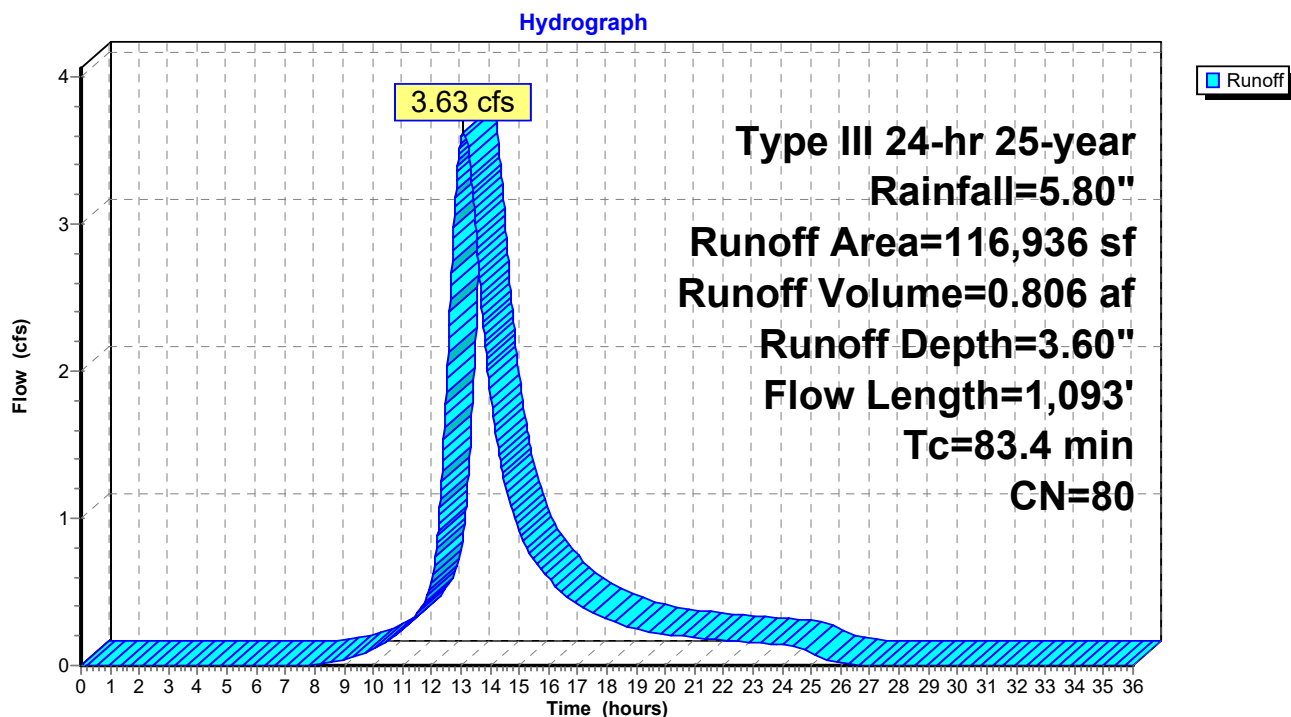
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Type III 24-hr 25-year Rainfall=5.80"

Area (sf)	CN	Description
6,385	91	Gravel roads, HSG D
* 31,390	85	Wetland (Not fully saturated)
25,300	80	>75% Grass cover, Good, HSG D
11,700	74	>75% Grass cover, Good, HSG C
12,080	77	Brush, Fair, HSG D
9,000	70	Brush, Fair, HSG C
15,010	82	Woods/grass comb., Fair, HSG D
6,071	76	Woods/grass comb., Fair, HSG C
116,936	80	Weighted Average
116,936		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
51.2	150	0.0050	0.05		Sheet Flow, F to G (forested ditch) Woods: Light underbrush n= 0.400 P2= 3.27"
25.6	538	0.0025	0.35		Shallow Concentrated Flow, G to H Short Grass Pasture Kv= 7.0 fps
2.7	158	0.0200	0.99		Shallow Concentrated Flow, H to I Short Grass Pasture Kv= 7.0 fps
3.9	247	0.0050	1.06		Shallow Concentrated Flow, I to J Grassed Waterway Kv= 15.0 fps
83.4	1,093	Total			

Subcatchment 3S A: Banks & Wetland



Summary for Subcatchment 3S B: Banks & Wetland

Runoff = 3.63 cfs @ 13.08 hrs, Volume= 0.806 af, Depth= 3.60"

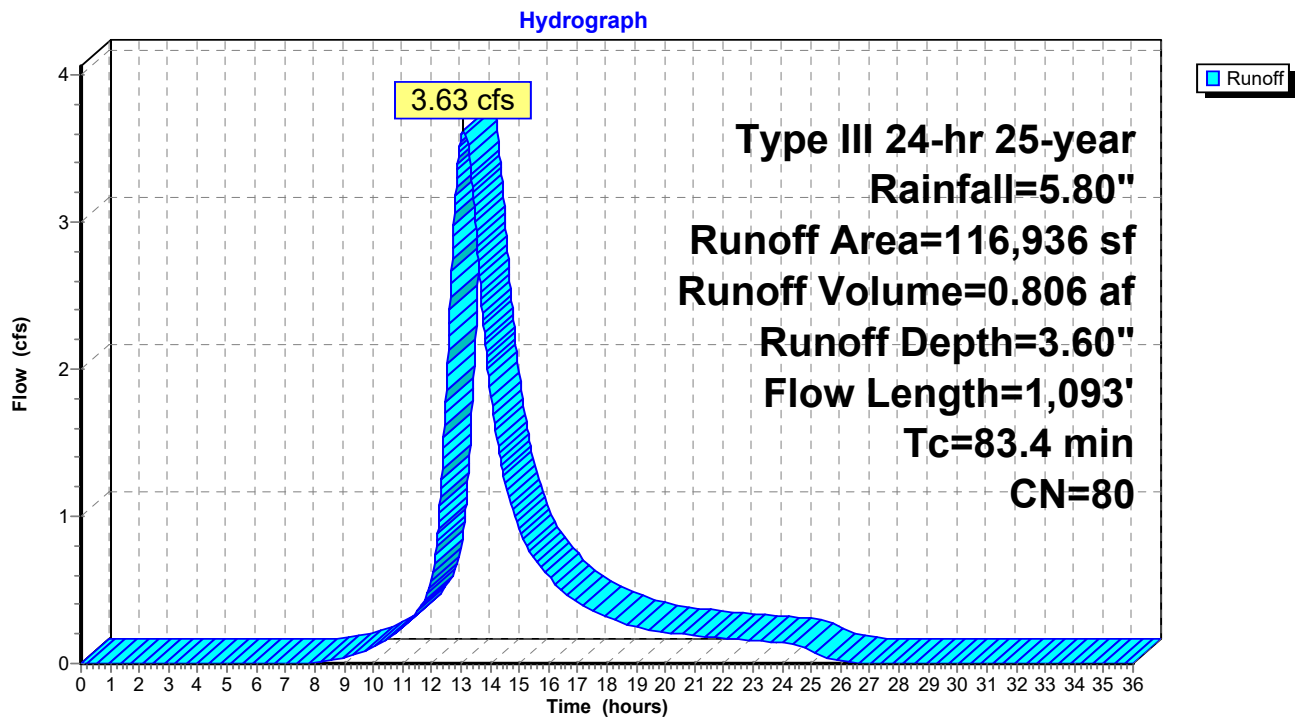
Runoff by SCS TR-20 method, UH=SCS, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Type III 24-hr 25-year Rainfall=5.80"

Area (sf)	CN	Description
6,385	91	Gravel roads, HSG D
* 31,390	85	Wetland (Not fully saturated)
25,300	80	>75% Grass cover, Good, HSG D
11,700	74	>75% Grass cover, Good, HSG C
12,080	77	Brush, Fair, HSG D
9,000	70	Brush, Fair, HSG C
15,010	82	Woods/grass comb., Fair, HSG D
6,071	76	Woods/grass comb., Fair, HSG C
116,936	80	Weighted Average
116,936		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
51.2	150	0.0050	0.05		Sheet Flow, F to G (forested ditch) Woods: Light underbrush n= 0.400 P2= 3.27"
25.6	538	0.0025	0.35		Shallow Concentrated Flow, G to H Short Grass Pasture Kv= 7.0 fps
2.7	158	0.0200	0.99		Shallow Concentrated Flow, H to I Short Grass Pasture Kv= 7.0 fps
3.9	247	0.0050	1.06		Shallow Concentrated Flow, I to J Grassed Waterway Kv= 15.0 fps
83.4	1,093	Total			

Subcatchment 3S B: Banks & Wetland



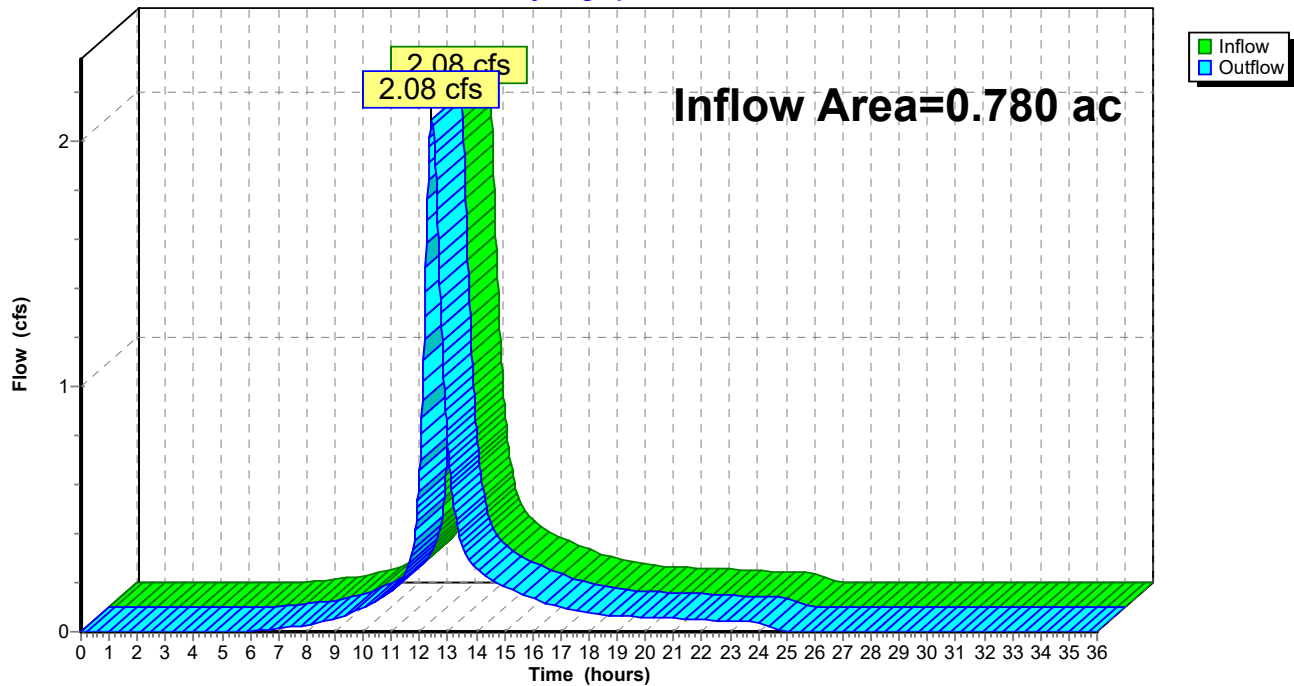
Summary for Reach 1R: POI #1

Inflow Area = 0.780 ac, 34.76% Impervious, Inflow Depth = 4.22" for 25-year event
 Inflow = 2.08 cfs @ 12.43 hrs, Volume= 0.274 af
 Outflow = 2.08 cfs @ 12.43 hrs, Volume= 0.274 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Reach 1R: POI #1

Hydrograph

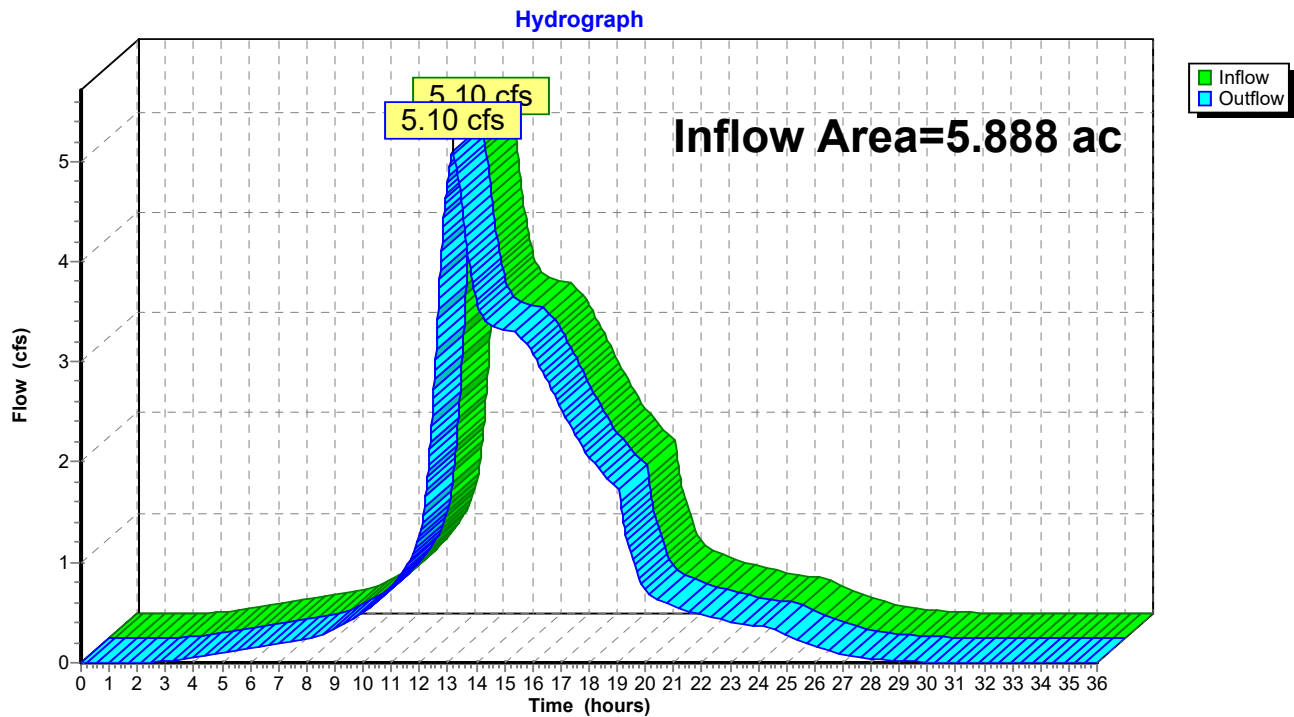


Summary for Reach 2R A: POI #2

Inflow Area = 5.888 ac, 54.41% Impervious, Inflow Depth = 4.67" for 25-year event
 Inflow = 5.10 cfs @ 13.16 hrs, Volume= 2.290 af
 Outflow = 5.10 cfs @ 13.16 hrs, Volume= 2.290 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Reach 2R A: POI #2



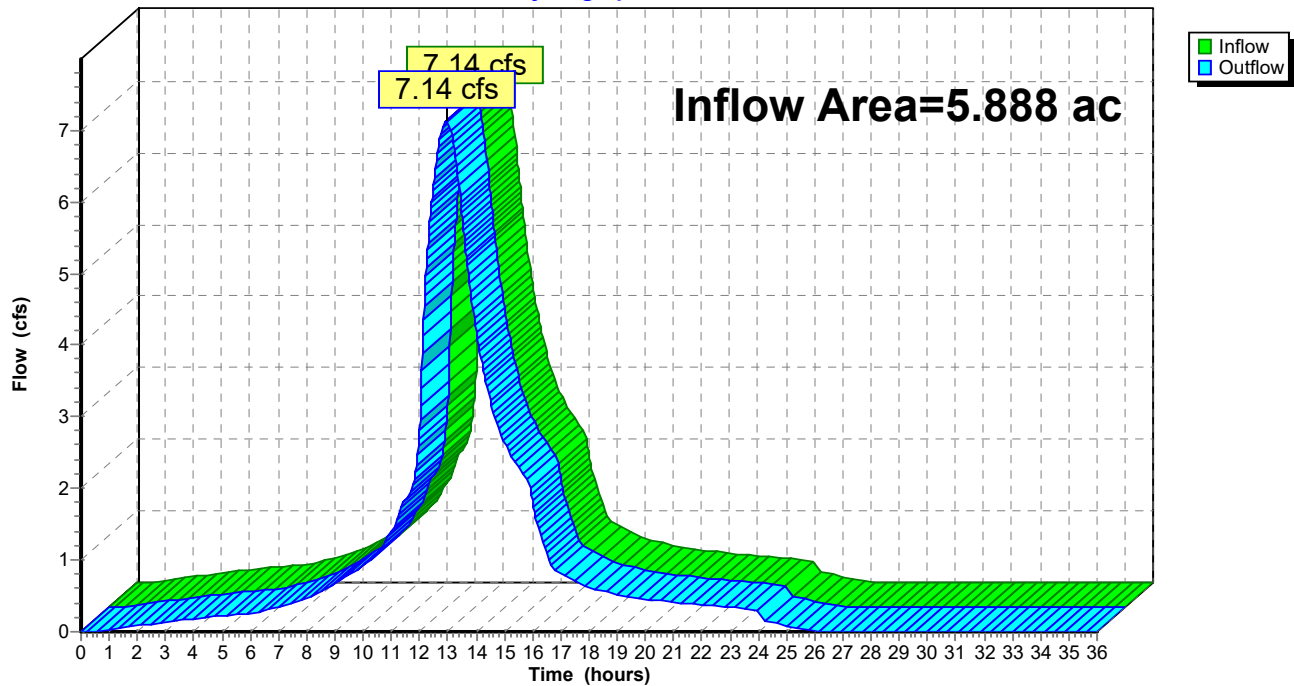
Summary for Reach 2R B: POI #2

Inflow Area = 5.888 ac, 54.41% Impervious, Inflow Depth = 4.67" for 25-year event
 Inflow = 7.14 cfs @ 12.95 hrs, Volume= 2.290 af
 Outflow = 7.14 cfs @ 12.95 hrs, Volume= 2.290 af, Atten= 0%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs

Reach 2R B: POI #2

Hydrograph



Summary for Pond 1P: CB + Storm Drain

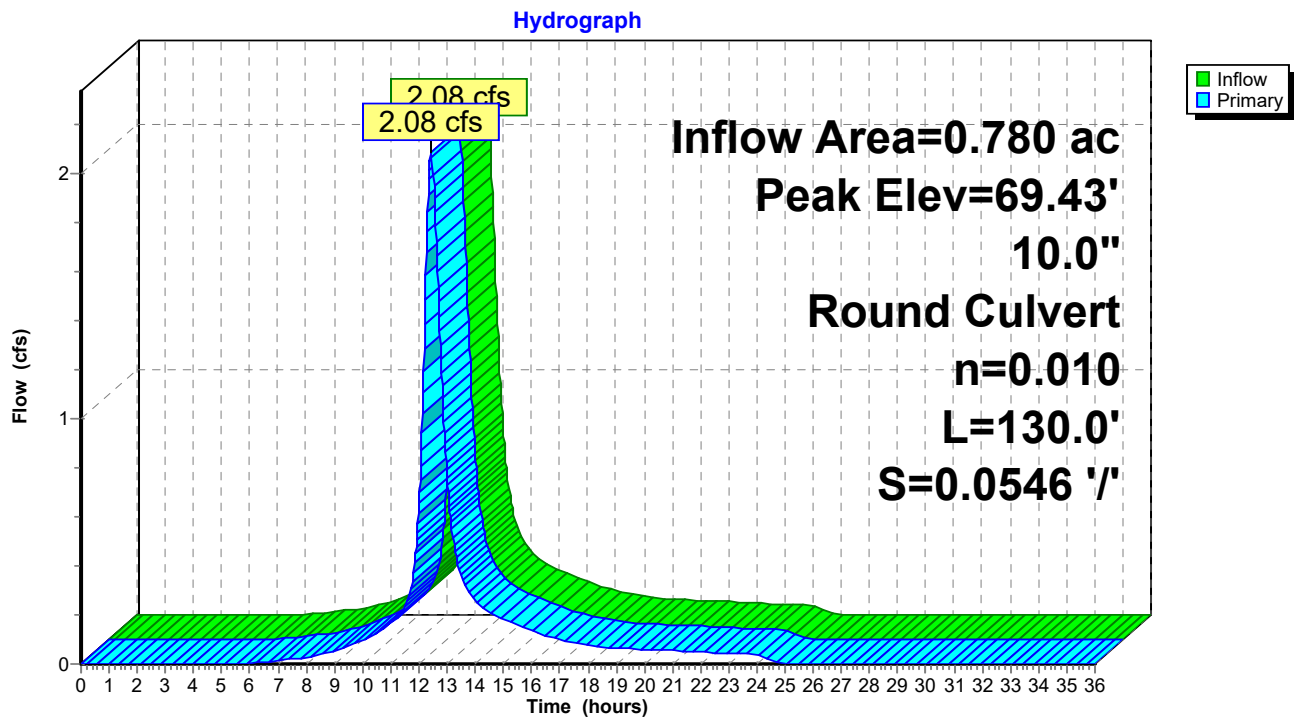
Inflow Area = 0.780 ac, 34.76% Impervious, Inflow Depth = 4.22" for 25-year event
 Inflow = 2.08 cfs @ 12.43 hrs, Volume= 0.274 af
 Outflow = 2.08 cfs @ 12.43 hrs, Volume= 0.274 af, Atten= 0%, Lag= 0.0 min
 Primary = 2.08 cfs @ 12.43 hrs, Volume= 0.274 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs
 Peak Elev= 69.43' @ 12.43 hrs

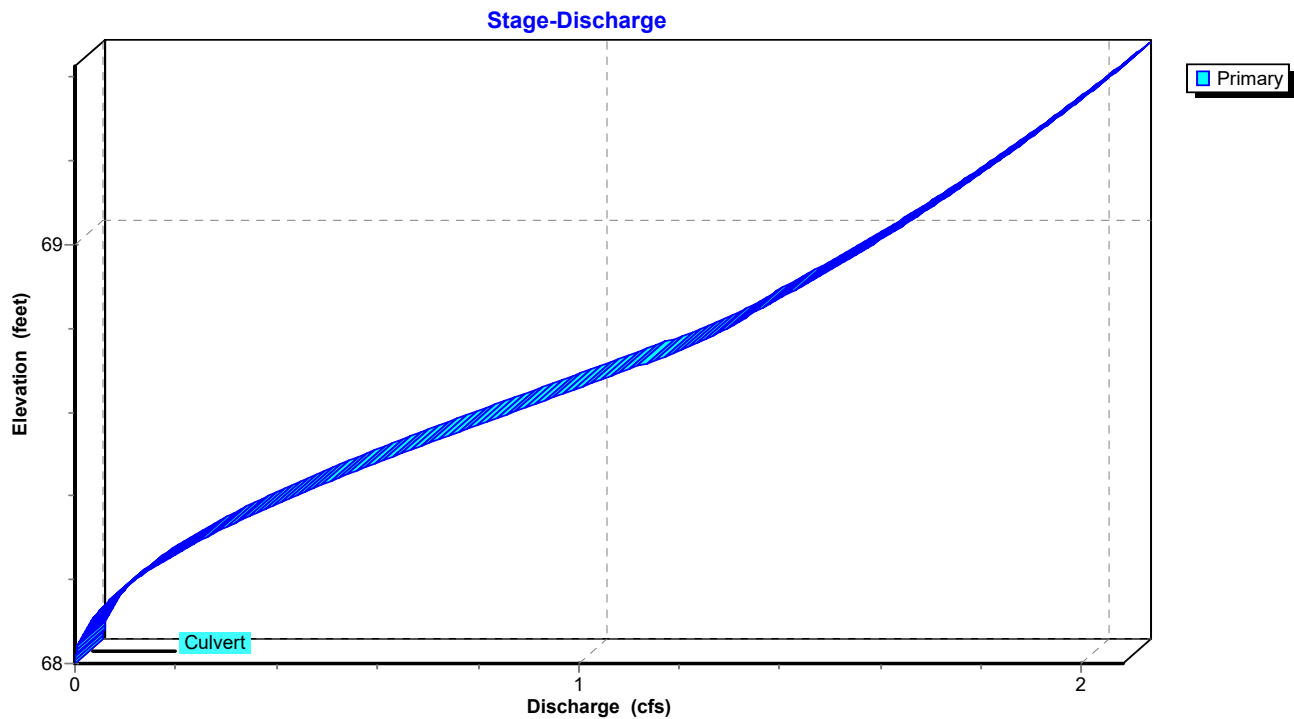
Device	Routing	Invert	Outlet Devices
#1	Primary	68.00'	10.0" Round Culvert L= 130.0' Ke= 0.900 Inlet / Outlet Invert= 68.00' / 60.90' S= 0.0546 '/ Cc= 0.900 n= 0.010 PVC, smooth interior

Primary OutFlow Max=2.08 cfs @ 12.43 hrs HW=69.42' (Free Discharge)
 1=Culvert (Inlet Controls 2.08 cfs @ 3.82 fps)

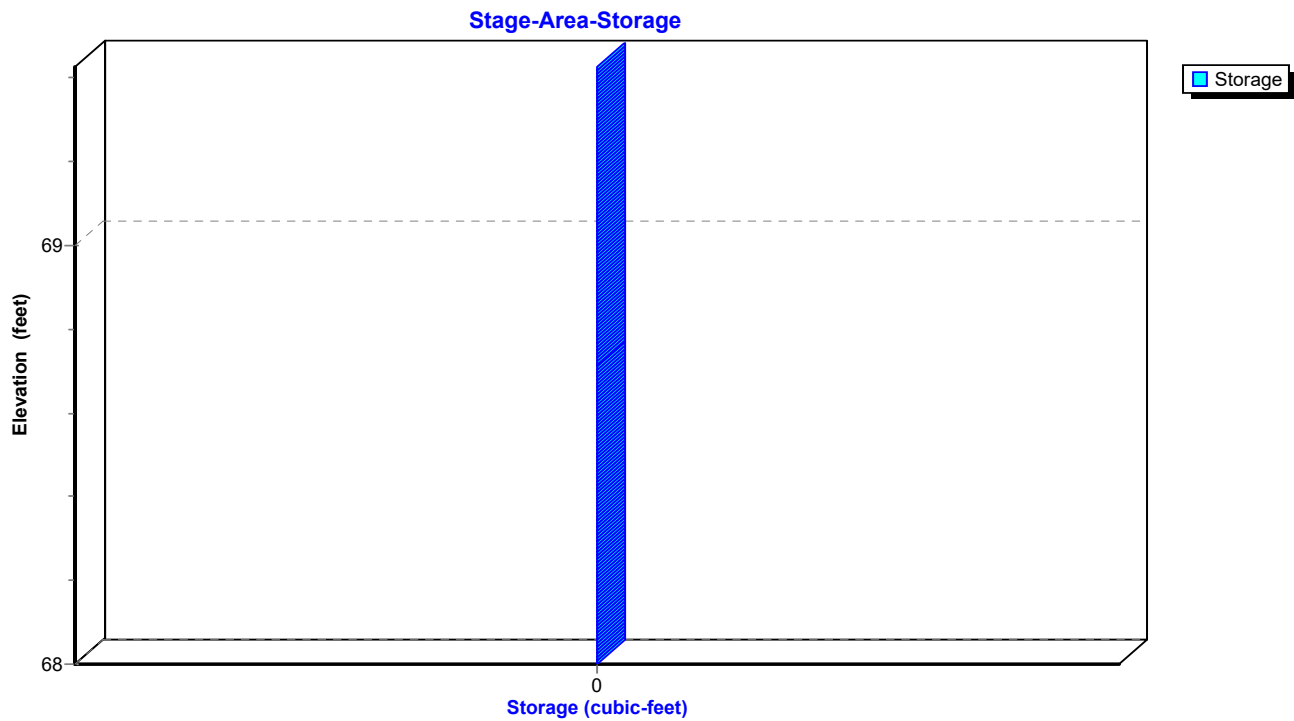
Pond 1P: CB + Storm Drain



Pond 1P: CB + Storm Drain



Pond 1P: CB + Storm Drain



Summary for Pond 2P A: Pavement Profile/Drainage

Inflow Area = 3.203 ac, 100.00% Impervious, Inflow Depth = 5.56" for 25-year event
 Inflow = 3.45 cfs @ 14.37 hrs, Volume= 1.485 af
 Outflow = 2.55 cfs @ 15.58 hrs, Volume= 1.485 af, Atten= 26%, Lag= 72.5 min
 Primary = 2.55 cfs @ 15.58 hrs, Volume= 1.485 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs
 Peak Elev= 72.25' @ 15.58 hrs Surf.Area= 139,082 sf Storage= 9,701 cf

Plug-Flow detention time= 33.7 min calculated for 1.484 af (100% of inflow)
 Center-of-Mass det. time= 33.7 min (952.7 - 918.9)

Volume	Invert	Avail.Storage	Storage Description
#1	72.10'	27,807 cf	195.00'W x 713.00'L x 0.50'H 6" - 3/4" Stone 69,518 cf Overall x 40.0% Voids
#2	72.60'	5,770 cf	195.00'W x 713.00'L x 0.83'H 10" - Filter MDOT Type D 115,399 cf Overall x 5.0% Voids
#3	73.43'	18,353 cf	195.00'W x 713.00'L x 0.33'H 4" - Choker 1-1/2" 45,882 cf Overall x 40.0% Voids
#4	73.76'	3,529 cf	75.00'W x 713.00'L x 0.33'H 4" - OGFC 17,647 cf Overall x 20.0% Voids
#5	73.76'	11,294 cf	120.00'W x 713.00'L x 0.33'H 4" - Container Foundation 28,235 cf Overall x 40.0% Voids
#6	69.60'	473 cf	12.0" D x 301.0'L 12 SD (CB12 to 4,16) S= 0.0025 '/'x 2
#7	69.60'	188 cf	12.0" D x 240.0'L 12 SD (CB12 to 10) S= 0.0025 '/'
#8	70.66'	131 cf	10.0" D x 120.0'L 10 SD (CB4,16 to 3,15) S= 0.0025 '/'x 2
#9	70.80'	65 cf	10.0" D x 120.0'L 10 SD (CB10 to 9) S= 0.0025 '/'
#10	71.06'	84 cf	8.0" D x 120.0'L 8 SD (CB3,15 to 2,14) S= 0.0025 '/'x 2
#11	70.80'	42 cf	8.0" D x 120.0'L 8 SD (CB9 to 8) S= 0.0025 '/'
#12	71.20'	37 cf	6.0" D x 186.0'L 6 SD (CB8 to 7) S= 0.0025 '/'
#13	71.46'	73 cf	6.0" D x 186.0'L 6 SD (CB2,14 to 1,13) S= 0.0025 '/'x 2
		67,846 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	69.30'	12.0" Round 12" Culvert L= 10.5' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 69.30' / 69.25' S= 0.0048 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	69.35'	6.0" Vert. 6" Orifice C= 0.600
#3	Device 1	72.10'	6.0' long x 0.7' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 Coef. (English) 2.76 2.82 2.93 3.09 3.18 3.22 3.27 3.30 3.32 3.31 3.32

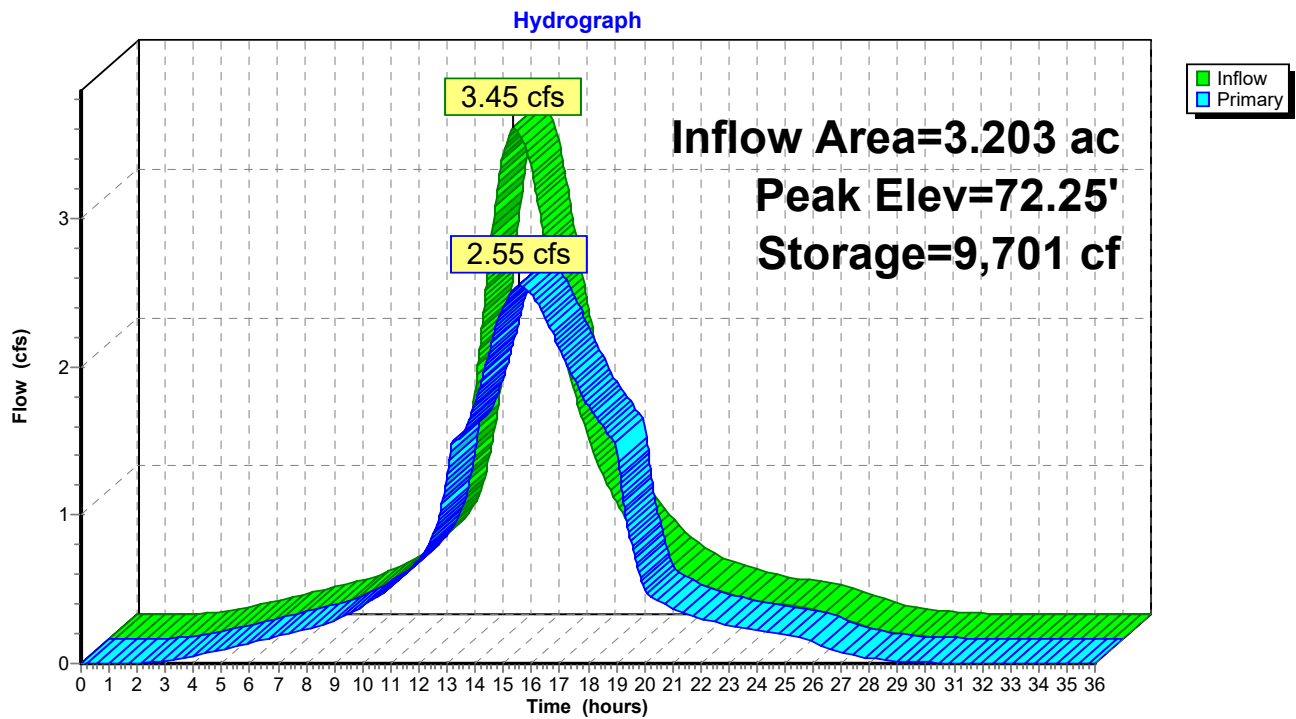
Primary OutFlow Max=2.55 cfs @ 15.58 hrs HW=72.25' (Free Discharge)

1=12" Culvert (Passes 2.55 cfs of 4.68 cfs potential flow)

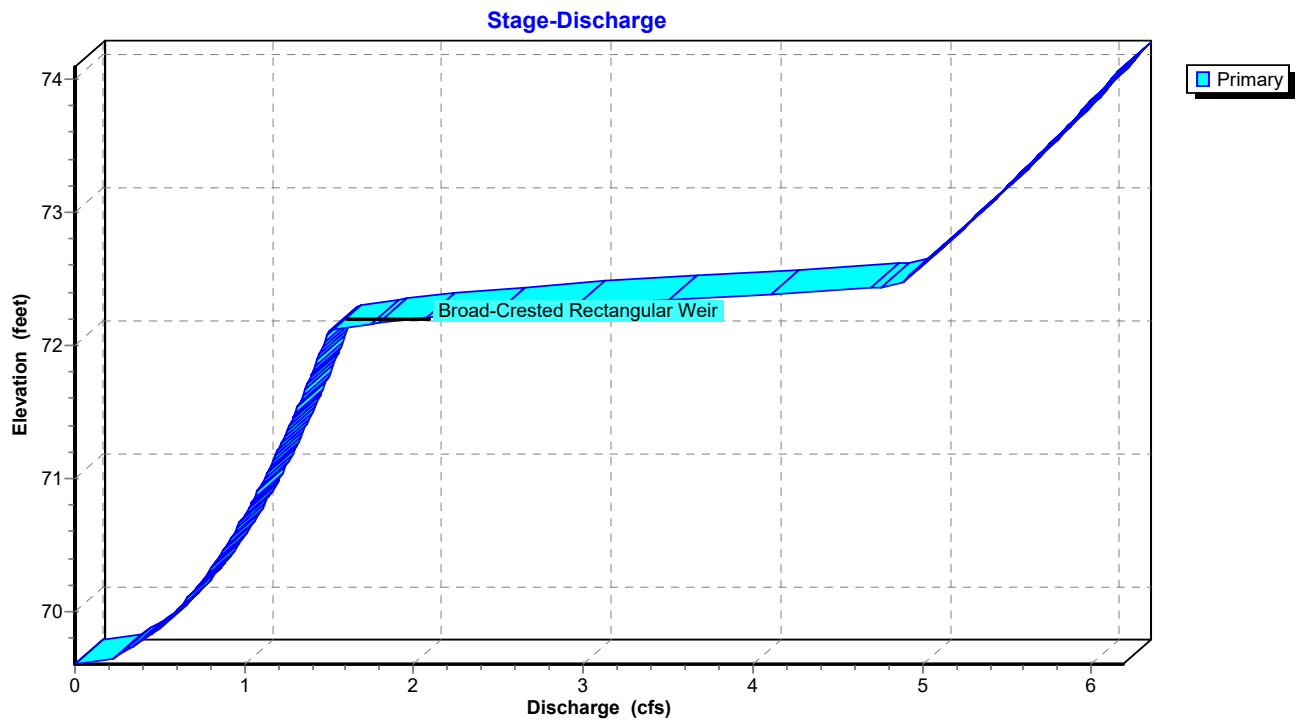
2=6" Orifice (Orifice Controls 1.54 cfs @ 7.85 fps)

3=Broad-Crested Rectangular Weir (Weir Controls 1.01 cfs @ 1.09 fps)

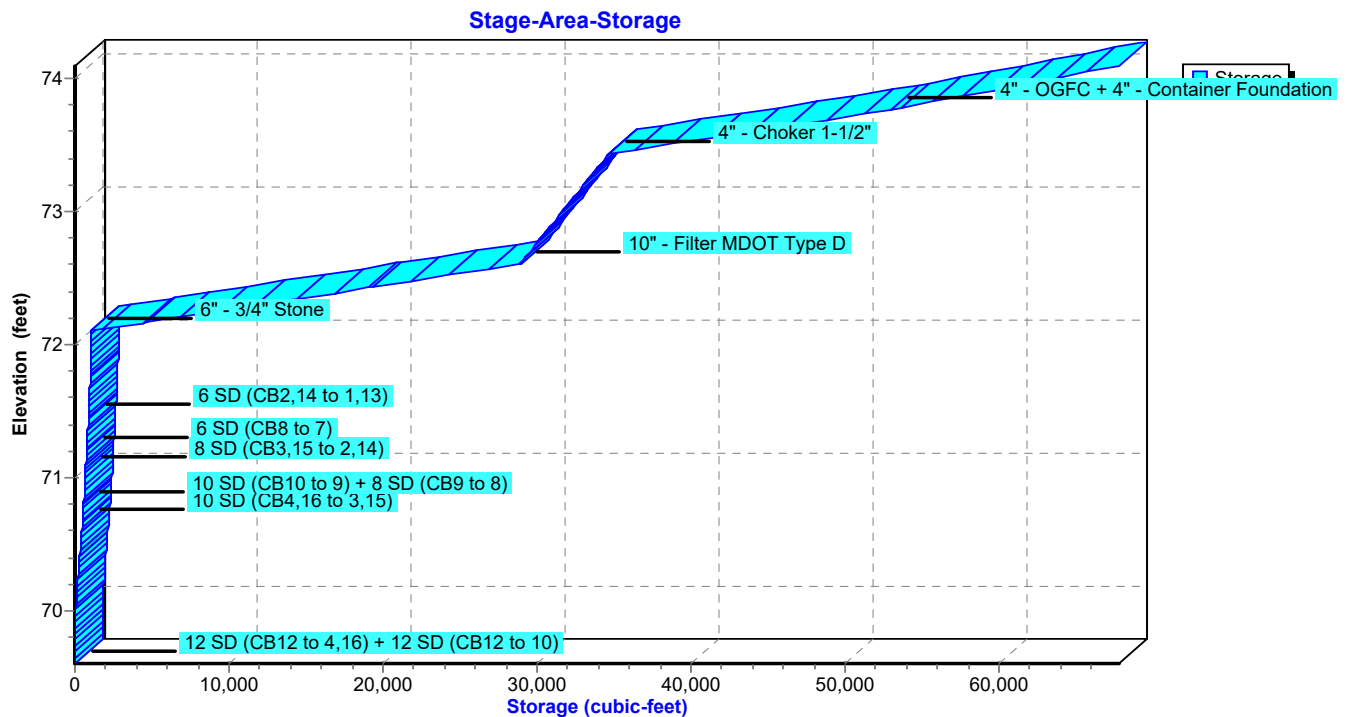
Pond 2P A: Pavement Profile/Drainage



Pond 2P A: Pavement Profile/Drainage



Pond 2P A: Pavement Profile/Drainage



Summary for Pond 2P B: Pavement Profile/Drainage

Inflow Area = 3.203 ac, 100.00% Impervious, Inflow Depth = 5.56" for 25-year event
 Inflow = 18.79 cfs @ 12.07 hrs, Volume= 1.485 af
 Outflow = 4.46 cfs @ 12.44 hrs, Volume= 1.485 af, Atten= 76%, Lag= 22.3 min
 Primary = 4.46 cfs @ 12.44 hrs, Volume= 1.485 af

Routing by Stor-Ind method, Time Span= 0.00-36.00 hrs, dt= 0.02 hrs
 Peak Elev= 72.41' @ 12.44 hrs Surf.Area= 139,037 sf Storage= 18,255 cf

Plug-Flow detention time= 36.3 min calculated for 1.484 af (100% of inflow)
 Center-of-Mass det. time= 36.3 min (781.0 - 744.7)

Volume	Invert	Avail.Storage	Storage Description
#1	72.10'	27,807 cf	195.00'W x 713.00'L x 0.50'H 6" - 3/4" Stone 69,518 cf Overall x 40.0% Voids
#2	72.60'	5,770 cf	195.00'W x 713.00'L x 0.83'H 10" - Filter MDOT Type D 115,399 cf Overall x 5.0% Voids
#3	73.43'	18,353 cf	195.00'W x 713.00'L x 0.33'H 4" - Choker 1-1/2" 45,882 cf Overall x 40.0% Voids
#4	73.76'	3,529 cf	75.00'W x 713.00'L x 0.33'H 4" - OGFC 17,647 cf Overall x 20.0% Voids
#5	73.76'	11,294 cf	120.00'W x 713.00'L x 0.33'H 4" - Container Foundation 28,235 cf Overall x 40.0% Voids
#6	69.60'	473 cf	12.0" D x 301.0'L 12 SD (CB12 to 4,16) S= 0.0025 '/'x 2
#7	69.60'	188 cf	12.0" D x 240.0'L 12 SD (CB12 to 10) S= 0.0025 '/'
#8	70.66'	131 cf	10.0" D x 120.0'L 10 SD (CB4,16 to 3,15) S= 0.0025 '/'x 2
#9	70.80'	65 cf	10.0" D x 120.0'L 10 SD (CB10 to 9) S= 0.0025 '/'
#10	71.06'	84 cf	8.0" D x 120.0'L 8 SD (CB3,15 to 2,14) S= 0.0025 '/'x 2
#11	70.80'	42 cf	8.0" D x 120.0'L 8 SD (CB9 to 8) S= 0.0025 '/'
#12	71.20'	37 cf	6.0" D x 186.0'L 6 SD (CB8 to 7) S= 0.0025 '/'
#13	71.46'	73 cf	6.0" D x 186.0'L 6 SD (CB2,14 to 1,13) S= 0.0025 '/'x 2
		67,846 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	69.30'	12.0" Round 12" Culvert L= 10.5' CMP, projecting, no headwall, Ke= 0.900 Inlet / Outlet Invert= 69.30' / 69.25' S= 0.0048 '/' Cc= 0.900 n= 0.010 PVC, smooth interior
#2	Device 1	69.35'	6.0" Vert. 6" Orifice C= 0.600
#3	Device 1	72.10'	6.0' long x 0.7' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 Coef. (English) 2.76 2.82 2.93 3.09 3.18 3.22 3.27 3.30 3.32 3.31 3.32

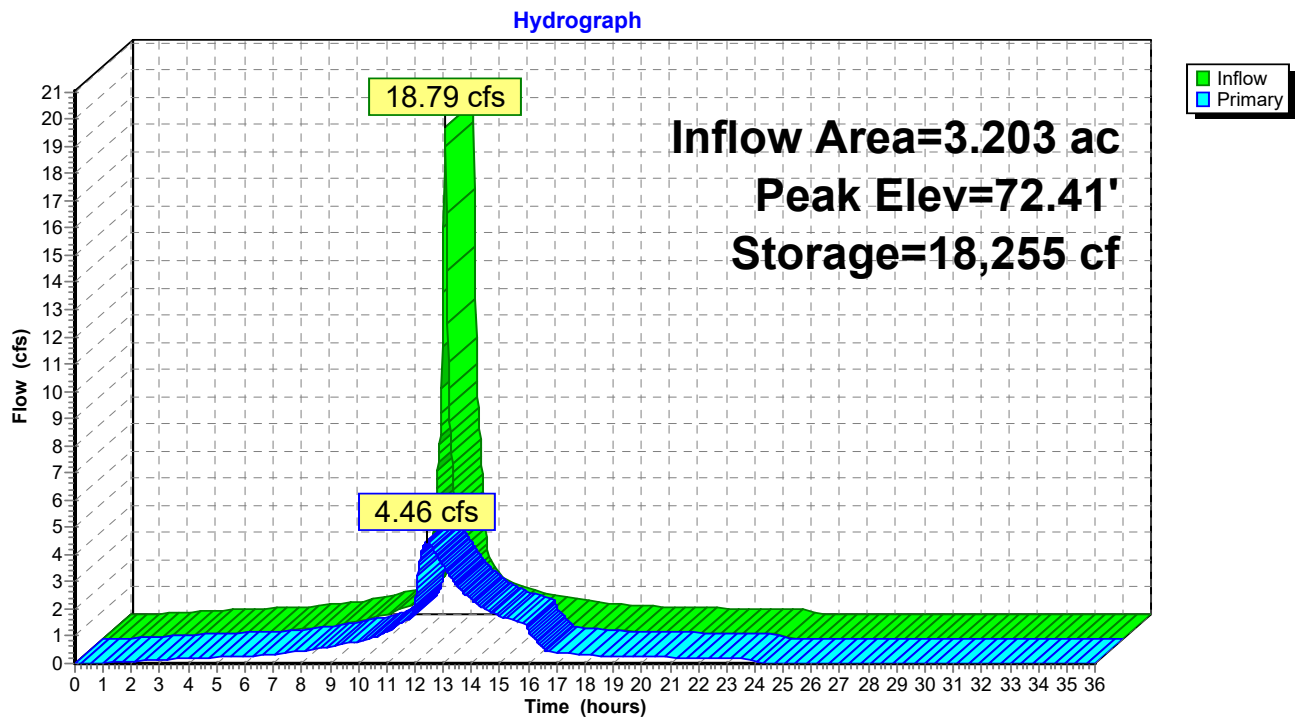
Primary OutFlow Max=4.46 cfs @ 12.44 hrs HW=72.41' (Free Discharge)

1=12" Culvert (Passes 4.46 cfs of 4.82 cfs potential flow)

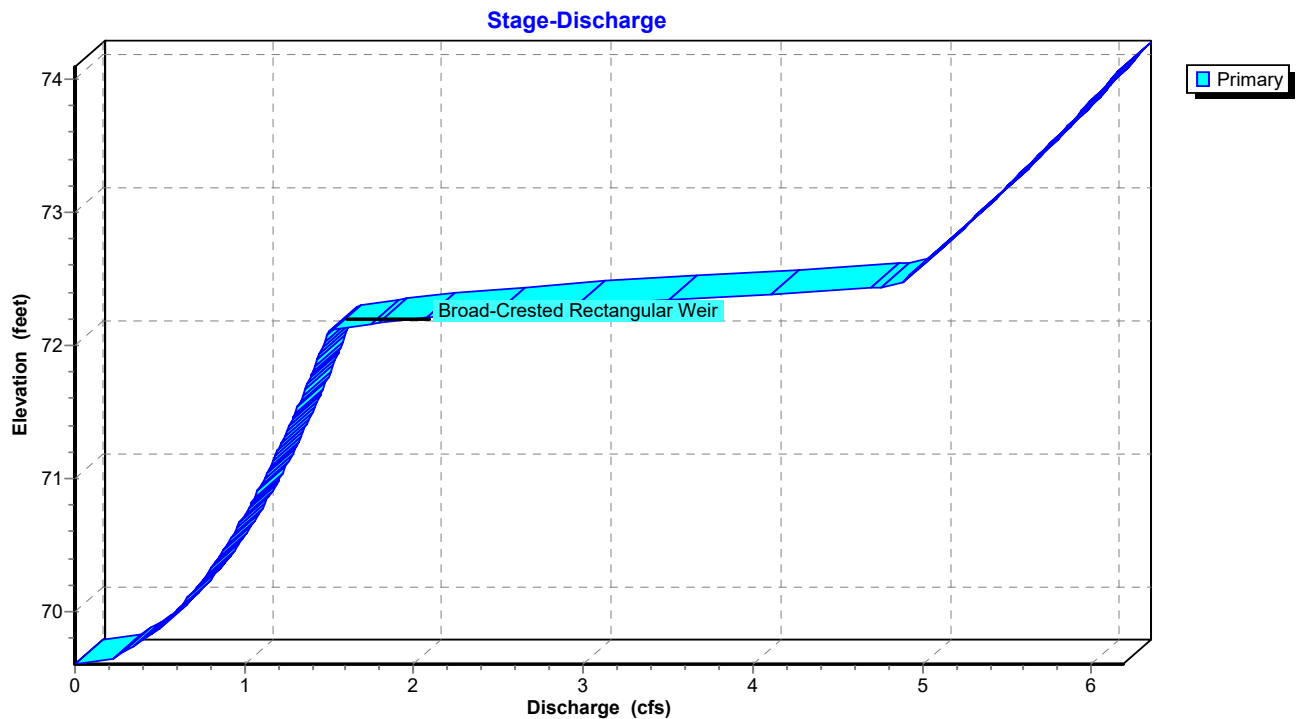
2=6" Orifice (Orifice Controls 1.58 cfs @ 8.07 fps)

3=Broad-Crested Rectangular Weir (Weir Controls 2.87 cfs @ 1.55 fps)

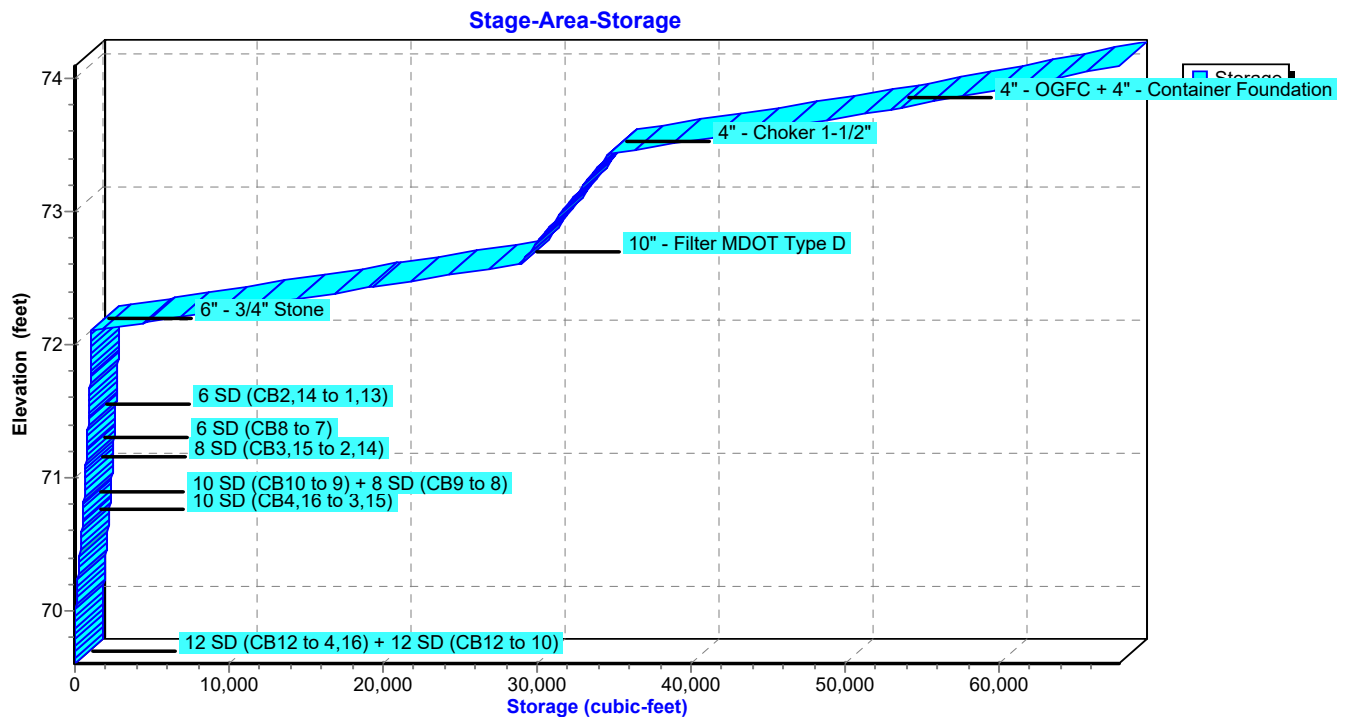
Pond 2P B: Pavement Profile/Drainage

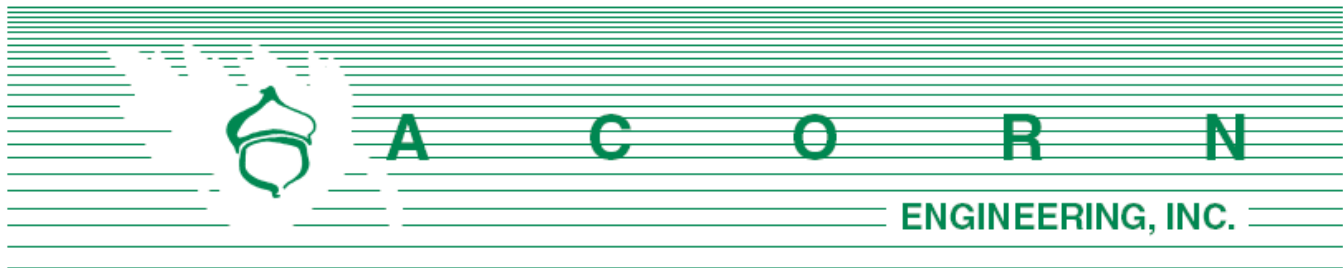


Pond 2P B: Pavement Profile/Drainage



Pond 2P B: Pavement Profile/Drainage





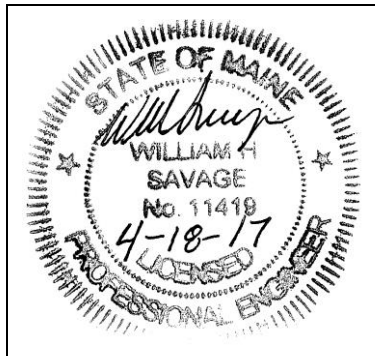
EROSION & SEDIMENTATION **CONTROL REPORT**

Prepared For:

**547 Riverside LLC
59 Moody Street
Portland, Maine 04101**

Prepared By:

**Acorn Engineering, Inc.
158 Danforth Street
Portland, Maine 04102**



**February 2017
Rev. April 2017**

INTRODUCTION

Acorn Engineering, Inc. has been retained 547 Riverside, LLC to provide civil engineering services for the proposed self-storage development at 547 Riverside St. The proposed project includes the implementation of 500 recycled shipping containers to be repurposed as self-storage units. Access to these units will be provided by drive aisles comprised of porous pavement with filter media and underdrains. This measure will serve as both the water quality and quantity control for the site. Additionally, a small office building built from multiple shipping containers and ten parking spaces are also proposed. The driveway will connect perpendicular to Riverside Street and provide access to the site.

The following Erosion and Sedimentation Control Report was developed in accordance with the City of Portland Technical Manual – Section 5 – Portland Stormwater Management Standards and the Maine DEP Chapter 500 Stormwater Management Appendix A and B (1), Amended January 11, 2015. This narrative also meets the standards required in the Maine DEP's Erosion & Sediment Control BMP's Manual, revised in 2016. Erosion control inspection will be required during construction in accordance with the Maine Construction General Permit.

1.0 EXISTING CONDITIONS

The proposed project site is in between Schnitzer Recycling and Interstate 95, just north of Leighton Avenue. A topographic survey has been prepared by Owen Haskell, Inc. of Falmouth, Maine dated December 16, 2016.

The property is in the I-M Industrial Zone. Abutting Uses include:

- | | |
|---------|---|
| ➤ North | I-M Zone – Industrial and Commercial Businesses |
| ➤ West | I-M Zone – Single and Multi-Family Residential |
| ➤ South | I-M Zone – Single and Multi-Family Residential |
| ➤ East | I-M Zone – Maine Turnpike |

The site is in a slightly depressed topographic area with two delineated wetlands on site. The overall grades slope down-gradient to the northeast where the larger wetland exists.

1.1 Existing Soils

Onsite soil information includes the following:

- Class B High Intensity Soil Survey performed by Mark Hampton Associates.

Please refer to Document T for the report and explorations that accompany the attached Soil Map.

The majority of the site is comprised of Lamoine soils which are in the hydrologic soil group D, yielding poor drainage. This soil has a moderate to moderately slow permeability in surface of the horizon with a slower permeability in the lower part.

A small part of the site consists of Buxton soils which is characterized by moderately well drained soils. Permeability is moderately slow in the surface horizon, and is slower in the lower regions.



Lastly, two wetlands with scantic soils exist on site which are poorly drained and has a saturated hydraulic conductivity of the surface and subsurface horizons that are moderately high or high and low or moderately low in the subsoil and substratum.

These existing soils were modeled in their respective hydrologic groups in both the pre and post conditions.

The susceptibility of soil erosion is indicated on a relative “K” scale of values over a range of 0.02 to 0.69. Higher “K” values indicate more erodible soils.

Table 6: K Value		
Soils Type	Subsurface	Substratum
Lamoine	.37	.37
Buxton	.49	.49
Scantic Silt Loam	.49	.49

The soil “K” values for the soils, listed above, indicate a moderate susceptibility to erosion. The site’s susceptibility to erosion is sourced from the Soil Conservation Service Medium Intensity Soil Survey for Cumberland County and the USDA Soil Survey.

1.2 Existing Erosion Problems

There is no evidence of erosion on site due to the gradual slopes and dense vegetation.

1.3 Critical Areas

Critical areas that would require special attention during construction are any exposed slopes and any downstream catch basins within Riverside Street.

1.4 Protected Natural Resource

There are two wetlands on site. The smaller wetland is proposed to be filled in pending a Tier 1 NRPA permit. The larger wetland which is roughly five times the size will remain as is to protect any possible wildlife habitat. A Wildlife Report will be submitted with the final application. The Wetland Report is under separate cover as Attachment O within the preliminary submission. The project is not located within a watershed classified as an Urban Impaired Stream by the Maine DEP.

1.5 Previous Construction Activity (5 years)

Acorn Engineering, Inc. is not aware of any construction related activities within the project limits within the past 5 years.

1.6 Timber Harvesting

Acorn Engineering, Inc. is not aware of any timber harvesting within the past five



years. Some clearing has occurred within the site.

2.0 **EROSION CONTROL MEASURES AND SITE STABILIZATION**

As part of the site development, the following temporary and permanent erosion and sedimentation control devices shall be implemented. Devices shall be installed as described in this report or within the plan set. See the Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices for further reference.

2.1 **Temporary Erosion Control Measures**

The following temporary erosion and sedimentation control measures are planned for the project's construction period:

2.1.1 Crushed stone stabilized construction entrances shall be placed at all access points to the project site where there are disturbed areas. The following specifications shall be followed at a minimum:

- Stone size shall be 2-3 inches, or reclaimed or recycled concrete equivalent.
- The thickness of the entrance stone layer shall be no less than 6 inches.
- The entrance shall not be less than 20 feet wide; however, not less than the full width of points where ingress or egress occurs. The length shall not be less than 50 feet in length.
- Geotextile fabric (woven or non-woven) shall be placed over the entire entrance area.
- The entrance/exit shall be maintained to the extent that it will prevent the tracking of sediment onto public road ways.

2.1.2 Siltation fence, erosion control berm or equivalent shall be installed down gradient of any disturbed areas to trap runoff borne sediments until permanent stabilization is achieved. The silt fence or erosion control berm shall be installed per the details provided in the plan set and inspected before and immediately after each rainfall and at least daily during prolonged rainfall. Repairs shall be made if there are any signs of erosion or sedimentation below the fence line or berm. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind the fence or berm, the barrier shall be replaced with a stone check dam.

2.1.3 Hay mulch including hydro seeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulch placed between April 15th and November 1st on slopes of less than 15 percent shall be covered by fabric netting and anchored with staples in accordance with the manufacturer's recommendation. Mulch placed between November 1st and April 15th on slopes equal to or steeper than 8 percent and equal to or flatter than 2:1 shall use mats or fabric netting and anchored with staples in accordance with the manufacturer's recommendation.



- 2.1.4 Sedimentation basin with a permanent outlet. Basin shall be installed before the ground is frozen and should be cleared of stumps, roots, brush, boulders, etc. Scarify the native soil and confirm that the soil has sufficient moisture for the first layer of fill. Contractor to construct overflow outlet or spillway (center minimum 6 inches lower than outer edges) within the embankment that is protected with geotextile fabric and riprap. Basin shall have a minimum depth of 2 feet. Stabilization of the embankments is critical and should be carried out though erosion control mix, riprap, or sand bags. The basin has been sized using the MDEP Erosion and Sediment Control BMP Manual's procedures. A 10-year storm in the pre-development condition was modeled. As a result, the required volume for the basin is approximately 450 cubic feet. Refer to the MDEP's Erosion and Sediment Control BMP Field Guide for a complete list of construction specifications.
- 2.1.5 At any time of the year, all slopes greater than 3:1 shall be stabilized with Double Net Erosion Control Blanket Bionet SC150BN by North American Green or Approved Equal, or Erosion Control Mix Slope Protection as detailed within the plans.
- 2.1.6 Riverside Street shall be swept to control mud and dust from the construction site as necessary. Add additional stone to the stabilized construction entrance to minimize the tracking of material off the site and onto the surrounding roadways.
- 2.1.7 During demolition, clearing and grubbing operations, stone check dams shall be installed at any areas of concentrated flow. The maximum height of the check dam shall not exceed 2 feet. The center of the check dam shall be 6 inches below the outer edges of the dam. The contractor shall mulch the side slopes and install stone check dams for all newly excavated ditch lines within 24 hours of their creation.
- 2.1.8 Silt fence stake spacing shall not exceed 6 feet unless the fence is supported with 14 gauge wire in which case the maximum spacing shall not exceed 10 feet. The silt fence shall be "toed" into the ground.
- 2.1.9 Storm drain inlet protection shall be provided to storm drains through the use of any of the following: hay bale drop inlet structures, silt fence drop inlet sediment filter, gravel and wire mesh drop inlet sediment filter, or curb inlet sediment filter. Barriers shall be inspected after every rainfall event and repaired as necessary. Sediments shall be removed when accumulation has reached 1/2 the design height.
- 2.1.10 Dust control shall be accomplished by the use of any of the following: water, calcium chloride, stone, or an approved MDEP product. Dust control shall be applied as needed to accomplish dust control.



- 2.1.11 Temporary loam, seed, and mulching shall be used in areas where no other erosion control measure is used. Application rates for seeding are provided at the end of this report.
- 2.1.12 Stockpiles shall be stabilized within 7 days of formation unless a scheduled rain event occurs prior to the 7-day window, in which case the stockpile shall be stabilized prior to the rain event. Methods of stabilization shall be mulch, erosion control mix, or erosion control blankets/mats. Silt fence or a wood waste compost filter berm shall be placed downhill of any soil stockpile location.
- 2.1.13 For disturbance between November 1 and April 15, please refer to winter stabilization plan in this report and the Maine Erosion and Sediment Control BMP manual for further information.
- 2.1.14 It is of the utmost importance that stormwater runoff and potential sediment from the construction site be diverted around the proposed underdrains until the trench is backfilled.

2.2 Permanent Erosion Control Measures

The following permanent erosion control measures are intended for post disturbance areas of the project:

- 2.2.1 All disturbed areas during construction, not subject to other proposed conditions, shall receive a minimum 4" of loam, limed, and mulched. Erosion control blankets or mats shall be placed over the mulch in areas noted in paragraph 4.1 of this report.
- 2.2.2 All stormwater devices shall be installed and tributary areas stabilized prior to receiving stormwater.
- 2.2.3 Refer to the Maine Erosion and Sediment Control BMP manual for additional information.

3.0 EROSION AND SEDIMENTATION CONTROL PLAN

- 3.1 The Erosion and Sedimentation Control Plan is included within the plan set.

4.0 DETAILS AND SPECIFICATIONS

- 4.1 Erosion Control Details and Specifications are included in the plan set.

5.0 STABILIZATION PLAN FOR WINTER CONSTRUCTION

Winter Construction consists of earthwork disturbance between the dates of November 1 and April 15. If a construction site is not stabilized with pavement, a road gravel base, 75% mature vegetation cover or riprap by November 15, then the site shall be protected with over-winter stabilization. Any area not stabilized with pavement, vegetation, mulching, erosion control mix, erosion control mats, riprap, or gravel base on a road shall be considered open.



The contractor shall limit the work area to areas that work will occur in during the subsequent 15 days and so that it can be mulched one day prior to a snow event. The contractor shall stabilize work areas prior to opening additional work areas to minimize areas without erosion control measures.

The following measures shall be implemented during winter construction periods:

5.1 Sediment Barriers

During frozen conditions, sediment barriers may consist of erosion control mix berms or any other recognized sediment barriers as frozen soil prevents the proper installation of hay bales or silt fences.

5.2 Mulching

All areas shall be considered denuded until seeded and mulched. Hay and straw mulch shall be applied at a rate of 150 lb. per 1,000 square feet or 3 tons/acre (twice the normal accepted rate of 75-lbs./1,000 s.f. or 1.5 tons/acre) and shall be properly anchored. Erosion control mix must be applied with a minimum 4-inch thickness. Mulch shall not be spread on top of snow. The snow shall be removed down to a one-inch depth or less prior to application. After each day of final grading, the area shall be properly stabilized with anchored hay or straw or erosion control matting. An area shall be considered to have been stabilized when exposed surfaces have been either mulched or adequately anchored so that ground surface is not visible through the mulch. Between the dates of November 1 and April 15, all mulch shall be anchored by either mulch netting, tracking or wood cellulose fiber. The cover will be considered sufficient when the ground surface is not visible through the mulch. After November 1st, mulch and anchoring of all exposed soil shall occur at the end of each final grading workday.

5.3 Soil Stockpiling

Stockpiles of soil or subsoil shall be mulched for over winter protection with hay or straw at twice the normal rate or with a four-inch layer of erosion control mix. This shall be done within 24 hours of stocking and re-established prior to any rainfall or snowfall.

5.4 Seeding

Between the dates of October 15th and April 1st, loam or seed shall not be required. During periods of above freezing temperatures finished areas shall be fine graded and either protected with mulch or temporarily seeded and mulched until the final treatment can be applied. If the date is after November 1st and if the exposed area has not been loamed, final grading with a uniform surface, then the area may be dormant seeded at a rate of 3 times higher than specified for permanent seed and then mulched.



Dormant seeding may be placed prior to the placement of mulch or erosion control blankets. If dormant seeding is used for the site, all disturbed areas shall receive 4" of loam and seed at an application rate of 5 lbs./1,000 s.f. All areas seeded during the winter shall be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75% catch) shall be revegetated by replacing loam, seed and mulch. If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.

5.5 Over winter stabilization of disturbed soils

By September 15th, all disturbed soils on areas having a slope less than 15% shall be seeded and mulched. If the disturbed areas are not stabilized by this date, then one of the following actions shall be taken to stabilize the soil for late fall and winter:

- Stabilize the soil with temporary vegetation – By October 1st, seed the disturbed soil with winter rye at a seeding rate of 3lbs per 1,000 s.f., lightly mulch the seeded soil with hay or straw at 75 lbs. per 1,000 s.f., and anchor the mulch with plastic netting. Monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before November 1st, then mulch the area for over-winter protection.
- Stabilize the soil with sod – Stabilize the disturbed soil with properly installed sod by October 1st. Proper installation includes pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.
- Stabilize the soil with mulch – By November 15th, mulch the disturbed soil by spreading hay or straw at a rate of at least 150 lbs. per 1,000 s.f. on the area so that no soil is visible through the mulch. Immediately after applying the mulch, anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.

5.6 Over winter stabilization of disturbed slopes

All stone-covered slopes shall be constructed and stabilized by November 15th. All slopes to be vegetated shall be seeded and mulched by September 1st. A slope is considered a grade greater than 15%. If a slope to be vegetated is not stabilized by September 1st, then one of the following action shall be taken to stabilize the slope for late fall and winter:

- Stabilize the soil with temporary vegetation and erosion control mats – By October 1st the disturbed slope shall be seeded with winter rye at a seeding rate of 3 lbs. per 1,000 s.f. and then install erosion control mats or anchored mulch over the seeding. If the rye fails to grow at least three inches or fails to cover at least 75% of the slope by November 1st, then the contractor shall cover the slope with a layer of erosion control mix or with stone riprap.



- Stabilize the soil with sod – The disturbed slope shall be stabilized with properly installed sod by October 1st. Proper installation includes the contractor pinning the sod onto the slope with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil. The contractor shall not use late-season sod installation to stabilize slopes having a grade greater than 3H:1V or having groundwater seeps on the slope face.
- Stabilize the soil with erosion control mix – Erosion control mix shall be properly installed by November 15th. The contractor shall not use erosion control mix to stabilize slopes having grades greater than 2H:1V or having groundwater seeps on the slope face.
- Stabilize the soil with stone riprap – Place a layer of stone riprap on the slope by November 15th. A registered professional engineer shall be hired to determine the stone size needed for stability on the slope and to design a filter layer for underneath the riprap.

6.0 INSPECTION AND MAINTENANCE

A person with knowledge of erosion and stormwater control, including the standards and conditions in the permit, shall conduct periodic visual inspections of installed erosion control measures. The frequency of inspection shall occur at least once every two weeks, as well as after a “storm event”. A “storm event” shall consist 0.5 inches of rain within a 24 hour period. The following Erosion and Sediment Control - Best Management Practices (BMP's) shall be inspected in the manner as described.

6.1 Sediment Barriers

Hay bale barriers, silt fences and filter berms shall be inspected and repaired for the following if there are any signs of erosion or sedimentation below them. If there are signs of undercutting at the center or the edges of the barrier, or impounding of large volumes of water behind them, sediment barriers shall be replaced with a temporary check dam. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected usable life and the barrier is still necessary, the fabric shall be replaced promptly. Sediment deposits should be removed when deposits reach approximately one-half the height of the barrier. Filter berms should be reshaped as needed. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required should be dressed to conform to the existing grade, prepared and seeded.

6.2 Sedimentation Basin

The sedimentation basin and outlet culvert shall be inspected and maintained during construction. If embankments show signs of erosion or settlement, it will be necessary



to repair or replace the erosion control device. Culvert should be checked for debris and other clogs. Inspect riprap outlet for signs of erosion and increase the length of the outlet apron if signs of erosion are present. In the spring, basin should be monitored for high flows of runoff.

6.3 Stabilized Stone Construction Entrances

The exit shall be maintained in a condition that will prevent tracking of sediment onto public rights-of-way. When the control pad becomes ineffective, the stone shall be removed along with the collected soil material and redistributed on site in a stable manner. The entrance should then be reconstructed. The contractor shall sweep or wash pavement at exits, which have experienced mud-tracking on to the pavement or traveled way. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches, or waterways.

6.4 Mulched Areas

All mulches must be inspected periodically, especially after rainstorms, to check for rill erosion. If less than 90% of the soil surface is covered by mulch, additional mulch shall be immediately applied. Nets must be inspected after rain events for dislocation or failure. If washouts or breakage occur, re-install the nets as necessary after repairing damage to the slope. Where mulch is used in conjunction with ornamental plantings, inspect periodically throughout the year to determine if mulch is maintaining coverage of the soil surface. Repair as needed.

6.5 Dust Control

When temporary dust control measures are used, repetitive treatment shall be applied as needed to accomplish control.

6.6 Stormwater Appurtenances

All underdrains, storm drains, and catch basins need to be operating effectively and free of debris.

6.7 Erosion and Sedimentation Control Inspections:

Acorn Engineering has personnel qualified to conduct Erosion and Sedimentation Control Inspections. For further information contact:

Contact: Will Savage, PE
Telephone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #11419
- Maine DEP - Certified in Maintenance & Inspection of Stormwater BMP's Cert. #14
- Certified Erosion, Sediment and Storm Water Inspector (CESSWI) Cert. #0293



- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #4620

The Contractor has sole responsibility for complying with the Erosion and Sedimentation Report/Plan, including control of fugitive dust. The Contractor shall be responsible for any monetary penalties resulting from failure to comply with these standards.



7.0 IMPLEMENTATION SCHEDULE

The following implementation sequence is intended to maximize the effectiveness of the above described erosion control measures. Contractors should avoid overexposing disturbed areas and limit the amount of stabilization area.

1. Install a stabilized construction entrance in all locations where construction traffic will enter and exit the site.
2. Install perimeter silt fence, erosion control berm or equivalent.
3. Install sedimentation basin.
4. Install all other erosion control devices as necessary throughout the remainder of this schedule.
5. Commence installation of drainage infrastructure
6. Provide an engineered outlet with siltation barrier to the catch basins in Riverside Street.
7. Commence earthwork operations.
8. Commence installation of utilities.
9. Continue earthwork and grading to subgrade as necessary for construction.
10. Complete installation of drainage infrastructure, as well as other utility work.
11. Complete remaining earthwork operations.
12. Install sub-base and base gravels in paved areas.
13. Install paving, curbing and brickwork.
14. Loam, lime, fertilize, seed and mulch disturbed areas and complete all landscaping.
15. Once the site is stabilized, 90% catch of grass has been obtained, or mulching of landscape areas is complete remove all temporary erosion control measures.
16. Touch up areas without a vigorous catch of grass with loam and seed.
17. Complete site signage and striping.
18. Execute proper maintenance of all temporary and permanent erosion control measures throughout the project.

The above implementation sequence should be generally followed by the site contractor. However, the contractor may construct several items simultaneously. The contractor shall submit to the owner a schedule of the completion of the work. If the contractor is to commence the construction of more than one item above, they shall limit the amount of exposed areas to those areas in which work is expected to be undertaken during the following 30 days.

The contractor shall re-vegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading or before a storm event. The contractor shall incorporate planned inlets and drainage systems as early as possible into the construction phase.

8.0 CONCLUSION

The above erosion control narrative is intended to minimize the development impact by implementing temporary and permanent erosion control measures. The contractor shall also refer to the Maine Erosion and Sediment Control BMP manual for additional information.



9.0 ATTACHMENTS

- Temporary Seeding Plan
- Permanent Seeding Plan
- Class B High Intensity Soil Survey
- Sedimentation Basin Sizing Calculations



TEMPORARY SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P₂O₅-K₂O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

Seeding

The composition and amount of temporary seed applied to a site shall be determined by the following table:

Seed	Pounds / 1,000 S.F.	Recommended Seeding Dates
Winter Rye	2.57	Aug-15 to Oct-1
Oats	1.84	Apr-1 to Jul-1 Aug-15 to Sep-15
Annual Ryegrass	0.92	Apr-1 to Jul-1
Sudangrass	0.92	May-15 to Aug-15
Perennial	0.92	Aug-15 to Sep-15

Mulching

Mulch shall be applied at a rate of 70 lbs. – 90 lbs. per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to temporary seeding and mulching.



PERMANENT SEEDING PLAN

Site Preparation

The seeded areas shall be feasibly graded out to provide the use of equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. If necessary, the site may require additional temporary erosion control measures outlined in the Erosion Control report.

Seedbed Preparation

Fertilizer shall be applied to the site at a rate of 13.8 pounds per 1,000 square feet. The composition of the fertilizer shall be 10-10-10 (N-P₂O₅-K₂O) or equivalent.

Limestone shall be applied to the site at a rate of 138 pounds per 1,000 square feet.

Seeding

The composition and amount of permanent seed applied to a site shall be determined by the following table:

Seed	Pounds / 1,000 S.F.
Kentucky Bluegrass	0.46
Creeping Red Fescue	0.46
Perennial Ryegrass	0.11
Total	1.03

Mulching

Mulch shall be applied at a rate of 70 lbs. – 90 lbs. per 1,000 square feet. The mulch shall be installed at a minimum depth of 4 inches. The seeded area shall be mulched immediately after seed is applied. Mulching during the winter season shall be double the normal amount.

Recommendations

Permanent seeding is recommended to be completed in the spring. Later summer seeding is allowed if completed prior to September 1st. If seeding cannot be accomplished during the periods recommended for permanent seeding, then the contractor shall perform temporary seeding per the temporary seeding plan.

Conclusion

Please refer to the Maine Erosion and Sediment Control BMP manual for additional information pertaining to permanent seeding and mulching.



GENERAL NOTES:

1. REFER TO STORMWATER REPORT FOR MORE INFORMATION
2. THIS DATA HAS BEEN TRANSFERRED FROM A PLAN MARKED UP BY MARK HAMPTON ASSOCIATES.
3. EXPLORATIONS PERFORMED BY MARK HAMPTON ASSOCIATES. REFER TO CLASS B HIGH INTENSITY SOIL SURVEY FOR MORE INFORMATION.



EXPLORATION SYMBOL



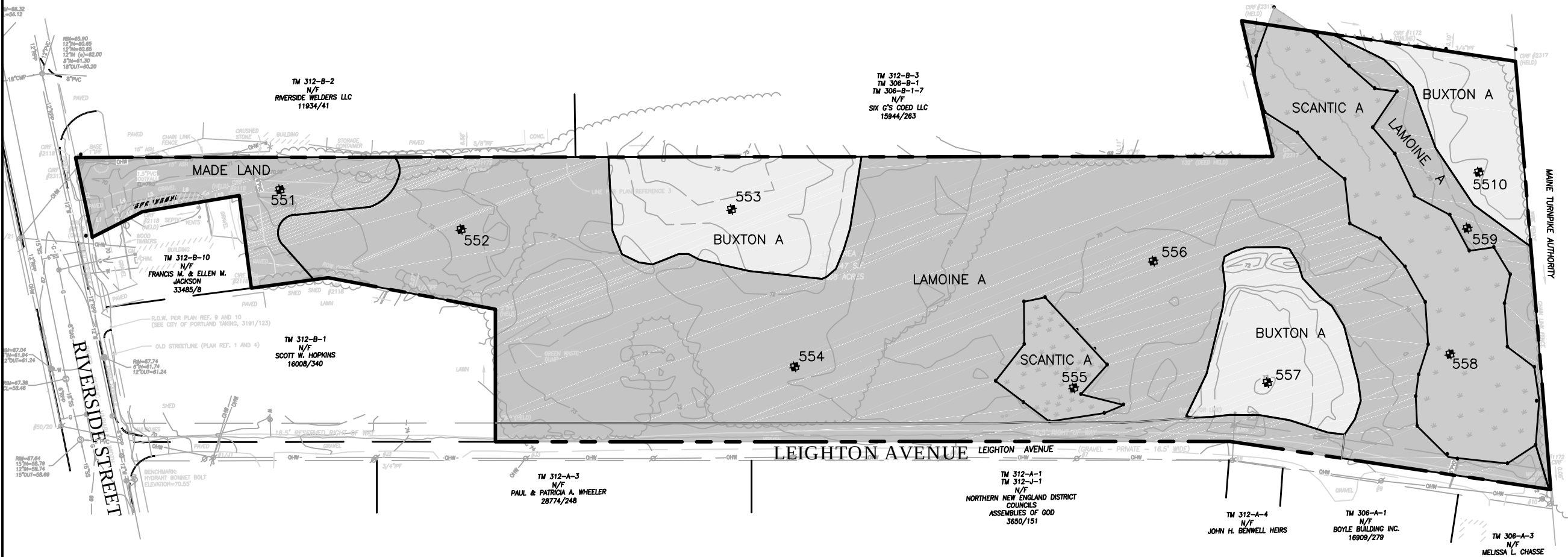
HYDROLOGIC GROUP C SOIL



HYDROLOGIC GROUP D SOIL



HYDROLOGIC GROUP D SOIL & WETLAND



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
	DATE
FINAL APP.	WHS
	4/18/2017
REVISION	REV.
	DATE

DRAWING NAME:	CLASS B HIGH INTENSITY SOIL SURVEY
PROJECT NAME:	RIVERSIDE SELF-STORAGE CONTAINERS
CLIENT:	547 RIVERSIDE, LLC 59 MOODY STREET PORTLAND, MAINE 04102



158 DANFORTH ST
PORTLAND, MAINE 04104
(207) 775-2655

FILE:	1080_CIVIL
JN:	1080
SCALE:	NTS
DESIGN BY:	SJL
DRAWN BY:	SJL

CHECKED BY: WHS

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM ACORN ENGINEERING, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO ACORN ENGINEERING, INC.

DRAWING NO.
PRE-SOILS

SIZING OF A DETENTION POND

This example is presented as a guideline and is recommended for those familiar with the Rational Method or TR55. More information may be obtained from the USDA-NRCS design guidance for water and sediment basins.

DETERMINE:

Maximum required principal spillway discharge: $Q_{\text{outflow}} = Q_{\text{outflow}}/Q_{\text{inflow}} \times Q_{\text{inflow}}$

Minimum required detention storage volume: $V_{\text{storage}} = V_{\text{storage}}/V_{\text{runoff}} \times V_{\text{runoff}}$

GIVEN:

Drainage Area, DA	100 acres
Curve Number, RCN	75
Storm Event	10-year/24-hour/Type II
Precipitation, P	5.4 inches
Soil Type	Exposed Clay/Silt
Detention Time	24 hours
Time of Concentration, T _c	0.45 hour

PROCEDURE:

- Find the volume of runoff V_{runoff} in inches (TR-55 or other acceptable method): $V_{\text{runoff}} = 2.8$ (sometimes referred to as Q)
- Determine the peak runoff rate in cfs by using TR-55: $Q_{\text{inflow}} = DA \times V_{\text{runoff}}$
 DA (in sq miles) = 100 acres/640 acres/sq miles
 $V_{\text{runoff}} = 2.8$ inches
 $Q_{\text{inflow}} = 572 \text{ csm/in} \times 100/640 \text{ sq. miles} \times 2.8 \text{ inch} = 250 \text{ cfs}$
- $Q_{\text{inflow}} / DA = 250/100 = 2.5 \text{ cfs/acre}$
- Use **Graph C.1** with $V_{\text{runoff}} = 2.8$ in, $Q_{\text{inflow}}/DA = 2.5 \text{ cfs/acre}$ to obtain $Q_{\text{outflow}}/Q_{\text{inflow}} = 0.031$
- Find maximum required principal spillway discharge:
 $Q_{\text{outflow}} = Q_{\text{outflow}}/Q_{\text{inflow}} \times Q_{\text{inflow}} = 0.031 \times 250 = 7.8 \text{ cfs}$
- With $Q/Q_{\text{inflow}} = 0.0312$ find $V_{\text{storage}}/V_{\text{runoff}}$ by appropriate method
Equation for $V_{\text{storage}}/V_{\text{runoff}}$ per TR-55 ($V_{\text{storage}}/V_{\text{runoff}} = 0.638$)
- Volume of runoff (acre-feet) = V_{runoff} (inch) $\times A$ (sq miles) $\times 53.33$
 $= 2.8 \times 0.156 \times 53.33$
 $= 28.38 \text{ acre-feet}$
- Find volume of storage where: $V_{\text{storage}} = V_{\text{runoff}} (V_{\text{storage}}/V_{\text{runoff}})$
 $= 28.38 \times (0.638)$
 $= 14.88 \text{ acre-feet}$

Input from project data / HydroCAD

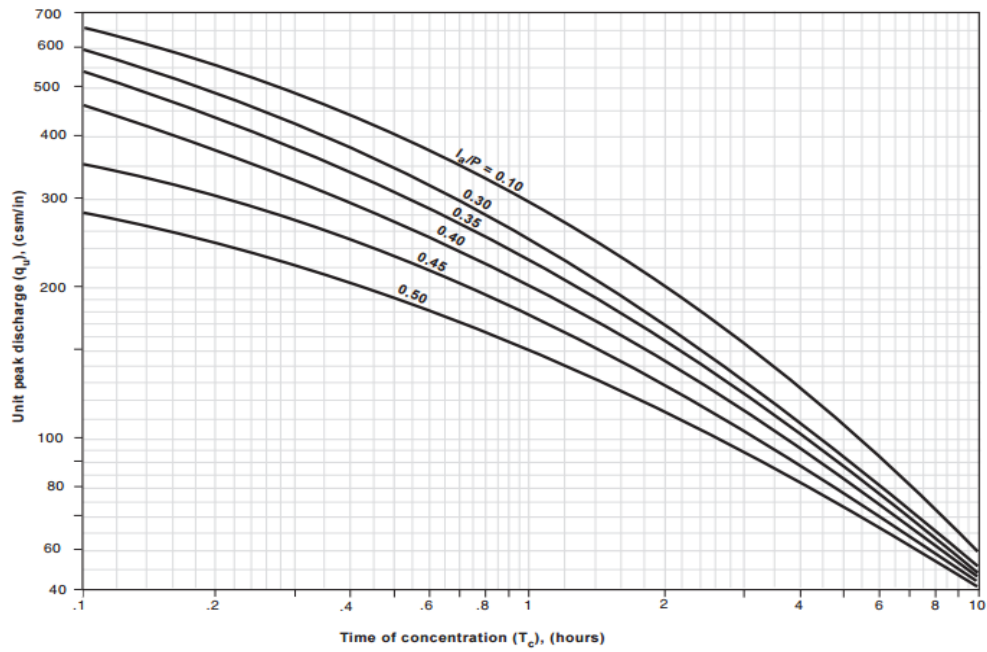
Type III Rainfall (Portland)

CN	80
T _c	0.63 hours
P	4.72 inches
DA	3.83 acres

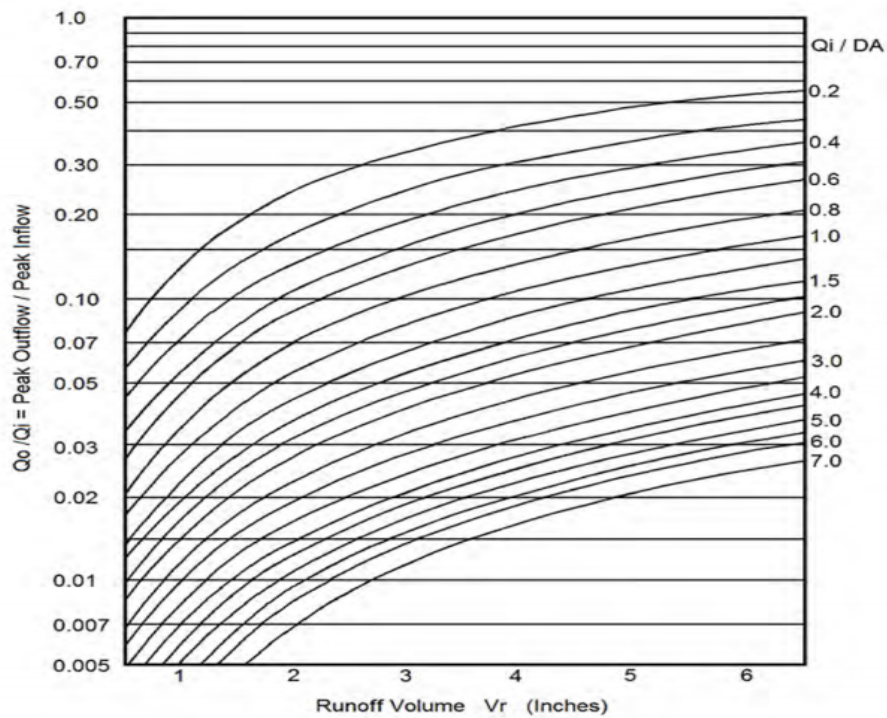
Calcs

S	2.5 inches
V _{runoff}	2.65 inches
I _a	0.5
I _a /P	0.11
q _u	465 (Get from Exhibit 4-III)
Q _{in}	7.37 CFS
Q _{in} /DA	1.93 CFS/Acre
Q _{out} /Q _{in}	0.45 (Get from Graph C.1)
Q _{out}	3.32 CFS Equal to Max required principal spillway
V _s /V _{runoff}	0.3 (Get from Figure 6-1)
Runoff Volume	0.85 Acre-feet
V _{storage}	0.25 Acre-feet
V _{storage}	11052 CF
Design for	12000 CF

Exhibit 4-III Unit peak discharge (q_p) for NRCS (SCS) type III rainfall distribution



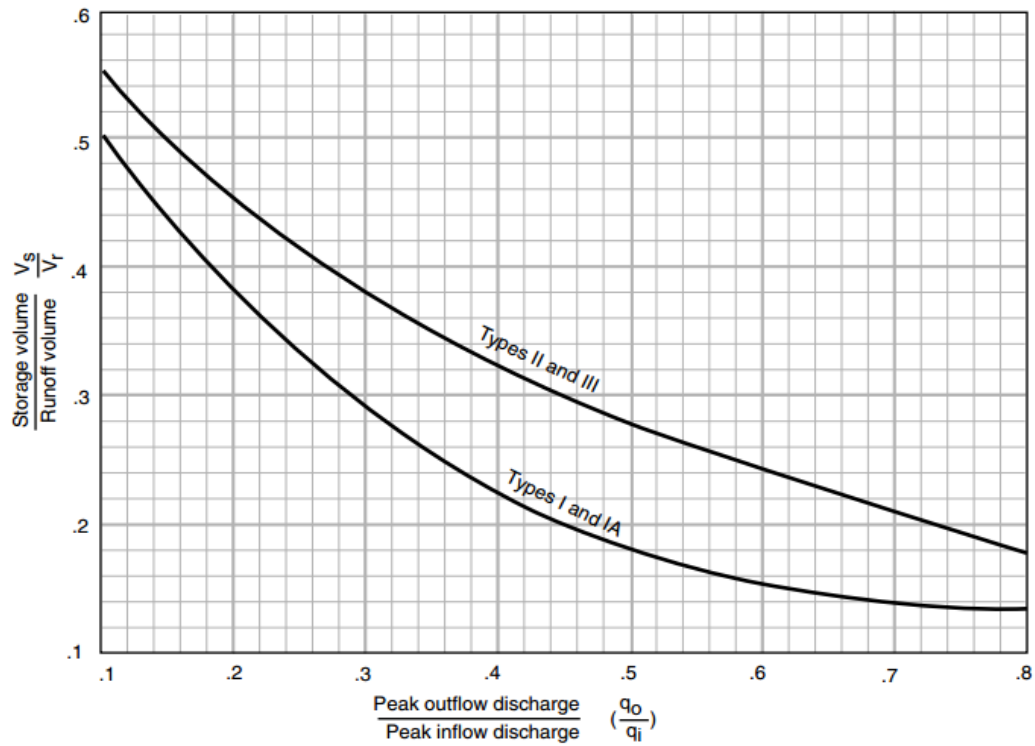
MAINE EROSION AND SEDIMENT CONTROL BMPs – 10/2016

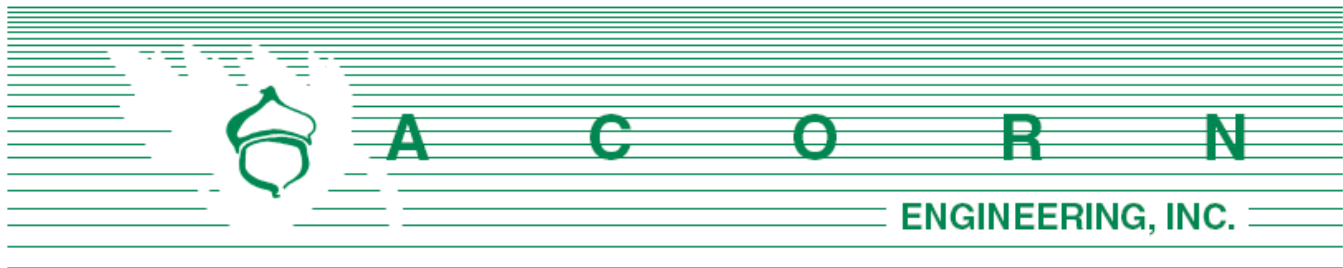


Maximum Peak Outflow for Detention Time, $T = 24$ Hours

Graph C.1. "Peak outflow/peak inflow" as a function of "runoff volume" and "peak inflow/drainage area".

Figure 6-1 Approximate detention basin routing for rainfall types I, IA, II, and III





Assistant Chief Keith Gautreau
 City of Portland Fire Department
 380 Congress St.
 Portland, ME 04101

April 19, 2017

Subject: 547 Riverside Street – Fire Department Checklist
 Section J of Application

On behalf of 547 Riverside LLC, the design team is pleased to respond to the Portland Fire Department Site Review Checklist.

1. Name, address, telephone number of applicant

547 Riverside LLC
 59 Moody St.
 Portland, Maine 04101
 (207) 879-2222

2. Name address, telephone number of architect

There is no architect associated with this project. The structural engineer's information is as follows:

Structural Integrity Consulting Engineers, Inc.
 77 Oak Street
 Portland, Maine 04101
 (207) 774-4614

Proposed uses of any structures [NFPA and IBC classification]

NFPA: Storage Occupancy

IBC: Storage

3. Square footage of all structures, including decks [total and per story]

Storage Units	80,640	sf
Office	600	sf
Total	81,240	sf

4. Elevation of all structures

The storage units will be 8.5 feet tall. The office building that will be comprised of a simple office building approximately 15 feet in height.

5. Proposed fire protection of all structures

A fire hydrant is proposed as seen on the utility plan with a 6" supply line.

6. Hydrant locations

An existing hydrant is located approximately 250 feet away from the property's frontage along Riverside Street at the intersection of Riverside and Leighton Ave.

7. Water main size and location

There is a 12" water main within Riverside Street that will serve the fire and domestic services to the facility.

8. Access to all structures [min. 2 sides]

Access to the site is provided from Riverside Street and in most cases, the access to the structures do not meet the two-side minimum requirement. However, the structures are small and built from steel and do not represent a situation that requires significant fire truck access such as a multi-story building.

9. A code summary referencing NFPA 1 and all fire department technical standards may be submitted if required by the fire department.

NFPA 1 – Chapter 18 Fire Department Access and Water Supply

18.2 Fire Department Access:

The project site is located in a densely developed area and is fronted by a public street. The following pavement street width is currently available:

- Riverside Street: 47.25 feet

Per NFPA 1 – Chapter 18.2.3.3.1, there is not public street access within 50 feet of at least one exterior door. The closest distance from an exterior door to the Riverside Right-of-Way is 250'. The closest distance from an exterior door to the Leighton Avenue Right-of-Way is 105'. Due the site constraints, it not feasible to reduce these distances.

Per NFPA 1 – Chapter 18.2.3.2.2.1, the office building is located less than 450 feet from a Fire Department access road. Most of the self-storage units are located greater than 450 feet away from Riverside Street.

City of Portland Technical Manual – Section 3 Public Safety

3.4.1 Every dead-end roadway more than one hundred fifty (150') feet in length shall provide a turnaround at the closed end. Turnarounds shall be designed to facilitate future street connectivity and shall always be designed to the right (refer to Figure I-5).

Response: Not applicable



3.4.2 Where possible, developments shall provide access for Fire Department vehicles to at least two sides of all structures. Access may be from streets, access roads, emergency access lanes, or parking areas.

Response: In most cases, the access to the structures do not meet the two-side minimum requirement because they are connected in rows. However, at 8'x20'x8.5', the structures are small and built from steel. The layout does not represent a situation that would require significant fire truck access such as a multi-story building.

3.4.3 Building setbacks, where required by zoning, shall be adequate to allow for emergency vehicle access and related emergency response activities and shall be evaluated based on the following factors:

- *Building Height.*
- *Building Occupancy.*
- *Construction Type.*
- *Impediments to the Structures.*
- *Safety Features Provided.*

Response: The proposed development layout has contemplated emergency access conditions and provides for safe and efficient access along the public street for emergency vehicles.

3.4.4. Fire Dept. access roads shall extend to within 50' of an exterior door providing access to the interior of the structure.

Response: The office is proposed to be placed approximately 250' from Riverside St. The narrow section of the property closer to Riverside St. does not allow space for both a driveway and an office building.

3.4.5. Site access shall provide a minimum of nine (9) feet clearance height to accommodate ambulance access.

Response: The proposed site maintains the required clearance height of nine feet.

3.4.6. Elevators shall be sized to accommodate an 80 x 24-inch stretcher.

Response: Not applicable.

3.4.7. All structures are required to display the assigned street number. Numbers shall be clearly visible from the public right of way.

Response: The applicant will work with the City's Public Services Division to assign street addresses and numbering to meet City Standards.

Please let me know if you have any additional questions or comments.

Sincerely,



William H. Savage, P.E.
Principal - Project Manager
Acorn Engineering, Inc.



K. Solid Waste Disposal

Solid waste generation is expected to be minimal. Weekly trash disposal will be carried out by the City's curbside pickup. Solid waste will be provided solely for the office.



L. Utilities

The proposed project includes the following alterations to the utilities on site:

Water:

It is proposed to route a 1" domestic water line from the proposed office building to the existing water main in Riverside Street as seen on Sheet C-20. A 6" fire line is also proposed with a private fire hydrant within the property.

Storm:

It is proposed to route a 10" storm drain from a proposed catch basin near the office building to the existing 18" underdrain in Riverside Street. The majority of the site will drain through porous pavement and filter media before being collected by underdrains and transported to the undeveloped part of the site.

Sewer:

It is proposed to route a 6" sewer line from the proposed building to the existing 12" sewer main in Riverside Street. The connection will include a backflow preventer within the property line.

Electric/Telephone/Cable:

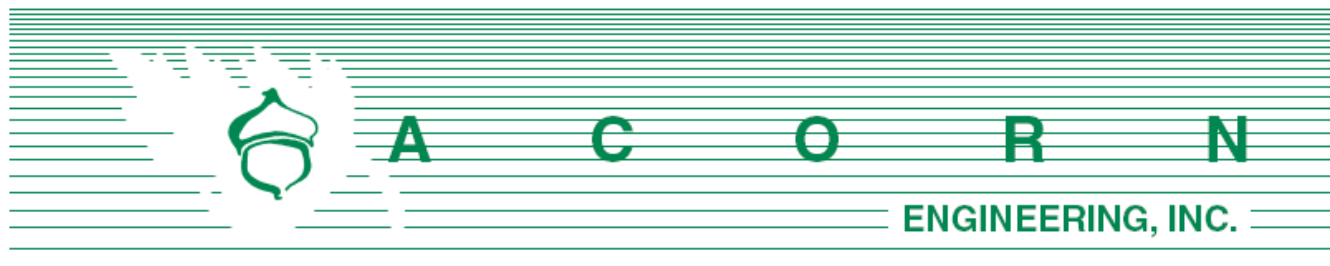
It is proposed to route an underground electric conduit from the utility pole that exists in the northeast corner of the site to the proposed office building.

Gas:

Natural gas will not be proposed as part of this project.

Ability to Serve letters and their respective responses are attached.





Portland Water District
Attn: MEANS Department
225 Douglas Street
Portland, Maine 04104

February 14, 2017

Subject: 547 Riverside Self-Storage Facility
Re: Ability to Serve

To Whom It May Concern:

On behalf of 547 Riverside, LLC we are pleased to submit the following request for Portland Water District's (PWD) ability to serve the proposed development. The project is located at 547 Riverside (Chart, Book, Lots 312, B, 008 – 012), within the I-M Industrial Zoning District in Portland, Maine. The project consists of the development of a self-storage facility utilizing recycled shipping containers and porous pavement. Access to the site will be provided from Riverside Street. The design also proposes to install utilities from within Riverside Street to a small office building within the site.

The site is currently undeveloped and does not have any known infrastructure with the exception of a septic easement as seen on the existing conditions plan.

It is proposed to install a 1" domestic water line to the service the project. A fire line is not proposed at this time. Based upon the Section 4 of the Maine Subsurface Wastewater Disposal Rules, the project anticipates the following design flows:

Estimate of Proposed Design Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Office (Employee at place of employment with no showers: 12 GPD per employee)	2-Employee Max	1	24	24
Net Change				+ 24 GPD
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition				

The proposed project is anticipated to increase the net flow by approximately 24 gallons per day (GPD). It should be noted that these values were developed using conservative estimates from the State of Maine Subsurface Wastewater Disposal Rules

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Riverside Street
2. Alternative connection locations from the property to the existing system
3. PWD's proposed infrastructure improvements within the project vicinity
4. Flow data for adjacent hydrants
5. PWD's ability to serve the project

I have attached an existing conditions plan created by Own Haskell, Inc. as well as the proposed preliminary utility plan from our office to facilitate your review. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,



Sam Lebel, E.I.
Design Engineer
Acorn Engineering, Inc.





March 2, 2017

Sam Lebel
Acorn Engineering, Inc.
158 Danforth Street
Portland, ME 04102

Re: 547 Riverside Street, PO
Ability to Serve with PWD Water

Dear Mr. Lebel:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on February 14, 2017. Based on the information provided per plans dated 2/14/17, we can confirm that the District will be able to serve the proposed project as further described in this letter. **Please note that this letter does not constitute approval of this project from the District. Review and approval of final plans is required.**

Conditions of Service

The following conditions of service apply:

- A new 1-inch service may be installed from the water main in Riverside Street. The service should enter through the properties frontage on Riverside Street at least 10-feet from any side property lines.
- 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.
- Once the project is ready for construction, the owner or contractor will need to make an appointment to come in and complete a service application form and pay the necessary fees.

Existing Site Service

According to District records, the project site does not currently have existing water service.



Water System Characteristics

According to District records, there is an 12-inch diameter cement lined cast iron water main in Riverside Street and a public fire hydrant located 250 feet from the site. Recent flow data is not available in this area. The most recent static pressure reading was 89 psi on February 2, 2016.

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 not 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.

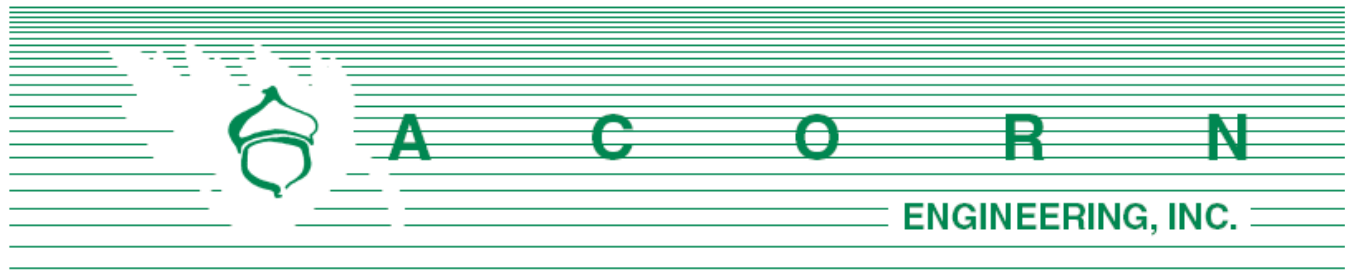
Should you disagree with this determination, you may request a review by the District's Internal Review Team. Your request for review must be in writing and state the reason for your disagreement with the determination. The request must be sent to MEANS@PWD.org or mailed to 225 Douglass Street, Portland Maine, 04104 c/o MEANS. The Internal Review Team will undertake review as requested within 2 weeks of receipt of a request for review.

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, sweeping horizontal line extending to the right.

Gordon S. Johnson, P.E.
Engineering Services Manager



Department of Public Works
Attn: Mr. Brad Roland, P.E.
55 Portland Street
Portland, Maine 04101

February 14, 2017

Subject: 547 Riverside Self-Storage Facility
Re: Ability to Serve

Dear Mr. Roland:

On behalf of 547 Riverside, LLC we are pleased to submit the following request for the Department of Public Works (DPW) ability to serve the proposed development. The project is located at 547 Riverside (Chart, Book, Lots 312, B, 008 – 012), within the I-M Industrial Zoning District in Portland, Maine. The project consists of the development of a self-storage facility utilizing recycled shipping containers and porous pavement. Access to the site will be provided from Riverside Street. The design also proposes to install utilities from within Riverside Street to a small office building within the site.

The site is currently undeveloped and does not have any known infrastructure with the exception of a septic easement as seen on the existing conditions plan.

It is proposed to install a 6" sewer lateral from the existing 12" sewer main in Riverside to the proposed office building with a backflow preventer inside the property line. If the septic system is currently servicing the neighbors (#541 Riverside) then the outfalls will need to be tied into the proposed sewer lateral due to an easement. If this is the case, design flows will be recalculated and submitted to DPW. When the septic fails, a separate line will need to be connected into the system within Riverside and the easement will be extinguished.

Furthermore, it proposed to install a 12" storm drain from a proposed catch basin on site to the existing 18" underdrain within Riverside. After modeling the project in HydroCAD, the peak stormwater flows are less than the existing stormwater flows. Consequently, there is no anticipated change regarding the demand on the municipal storm system.

Based upon the Section 4 of the Maine Subsurface Wastewater Disposal Rules, the sewer design flows are as follows:

Estimate of Proposed Design Flows				
Development	Unit Size	Number of Units	Gallons per Day per Unit	Total Gallons per Day
Office (Employee at place of employment with no showers: 12 GPD per employee)	2-Employee Max	1	24	24
Net Change				+ 24 GPD
*Values based on STATE OF MAINE: SUBSURFACE WASTEWATER DISPOSAL RULES, most recent edition				

The proposed project is anticipated to increase the net sewer flow by approximately 24 gallons per day (GPD).

It should be noted that these values were developed using conservative estimates from the State of Maine Subsurface Wastewater Disposal Rules

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Riverside Street
2. Alternative connection locations from the property to the existing system
3. DPW's proposed infrastructure improvements within the project vicinity
4. DPW's ability to serve the project
5. A confirmation that the existing 6" sewer lateral from #541 Riverside (as seen on the attached Riverside infrastructure plan) is currently serving the residence.

I have attached three plans: the proposed preliminary utility plan from our office, an existing conditions plan created by Own Haskell, Inc., and the Riverside infrastructure plan which is a record drawing from 2001. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,



Sam Lebel, E.I.
Design Engineer
Acorn Engineering, Inc.



Sam Lebel

From: Bradley Roland <brad@portlandmaine.gov>
Sent: Friday, February 17, 2017 8:21 AM
To: Sam Lebel
Subject: Re: Ability to Serve Request - 547 Riverside

Thanks Sam

I review things as they come through the process with the planning department.

I am also going on vacation next week so it will be a while before you hear back from me.

Brad

On Tue, Feb 14, 2017 at 1:32 PM, Sam Lebel <slebel@acorn-engineering.com> wrote:

Good Afternoon Brad,

Acorn Engineering, Inc., on behalf of 547 Riverside, LLC, is sending a formal Ability to Serve letter to your office for the proposed development of 547 Riverside Street in Portland.

Attached is the Ability to Serve Letter, Preliminary Utility Plan, Existing Conditions Survey, and a 2001 As-Built Plan.

Please do not hesitate to contact myself or our office with any questions or clarifications. Thank you.

Regards,

Sam Lebel, EI

Design Engineer

Licensed in Maine

Acorn Engineering, Inc

PO Box 3372

Portland, Maine 04104

www.acorn-engineering.com

B. [207.775.2655](tel:207.775.2655)

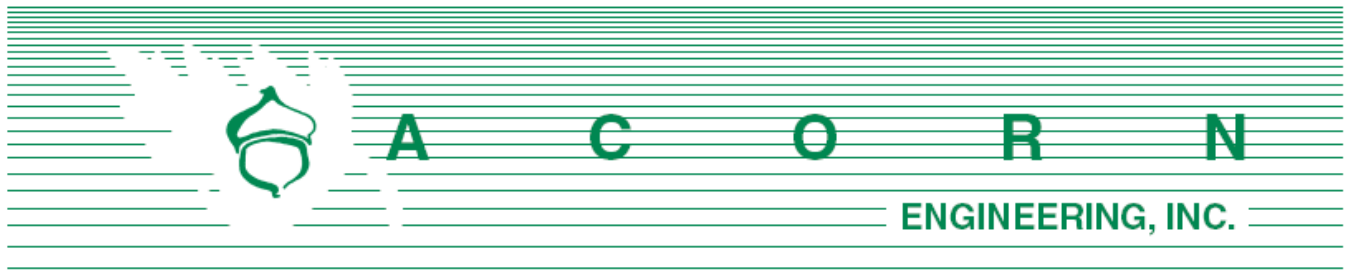
C. [207.478.4327](tel:207.478.4327)

This electronic communication, which includes any files or attachments thereto, contains proprietary or confidential information and may be privileged and otherwise protected under copyright or other applicable intellectual property laws. All information contained in this electronic communication is solely for the use of the individual(s) or entity to which it was addressed. If you are not the intended recipient(s), you are hereby notified that distributing, copying, or in any way disclosing any of the information in this e-mail is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately, and destroy the communication and any files or attachments in their entirety, whether in electronic or hard copy format. Since data stored on electronic media can deteriorate, be translated or modified, Acorn Engineering, Inc., and/or affiliates will not be liable for the completeness, correctness or readability of the electronic data. The electronic data should be verified against the hard copy.

--

Bradley A. Roland, P.E.
Senior Project Engineer
Portland Public Works
55 Portland Street
Portland, ME 04101
Tel: 207-874-8840
Fax: 207-874-8852
brad@portlandmaine.gov

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.



Central Maine Power Company
Attn: Mr. Paul DuPerre
162 Canco Road
Portland, Maine 04103

February 14, 2017

Subject: 547 Riverside Self-Storage Facility
Re: Ability to Serve

Dear Mr. DuPerre:

On behalf of 547 Riverside, LLC we are pleased to submit the following request for Central Maine Power's (CMP) ability to serve the proposed development. The project is located at 547 Riverside (Chart, Book, Lots 312, B, 008 – 012), within the I-M Industrial Zoning District in Portland, Maine. The project consists of the development of a self-storage facility utilizing recycled shipping containers and porous pavement. Access to the site will be provided from Riverside Street.

The site is currently undeveloped and does not have any known infrastructure with the exception of a septic easement as seen on the existing conditions plan.

It is proposed to install an underground service from the utility pole that exists at the northern corner of the site to a shipping container that will function as the office.

On behalf of the client, we are requesting the following information:

1. Any easements for overhead services currently crossing the proposed development
2. Alternative connection locations from the property to the existing system
3. CMP's proposed infrastructure improvements within the project vicinity
4. CMP's ability to serve the project
5. Access requirement to the CMP meters

I have attached two plans: an existing conditions plan created by Own Haskell, Inc., and the proposed preliminary utility plan from our office. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
Design Engineer
Acorn Engineering, Inc.



CENTRAL MAINE POWER

February 15, 2017

Mr. Sam Lebel, E.I.
Design Engineer
C/O Acorn Engineering, Inc.
158 Danforth Street
Portland, Maine 04102

RE: 547 Riverside Street, Portland, Maine

Dear Mr. Lebel,

This letter is to advise you Central Maine Power has sufficient single phase electrical capacity in the area to serve the subject project.

Once the project is accepted by the City of Portland, the owner will need to call our Customer Service Center at 1-800-565-3181 to sign up for a New Account and a SAP Work Request Order so we may provide an actual cost.

If you have any questions please feel free to call me at 828-2882.

Sincerely,

Paul DuPerre
Energy Service Specialist

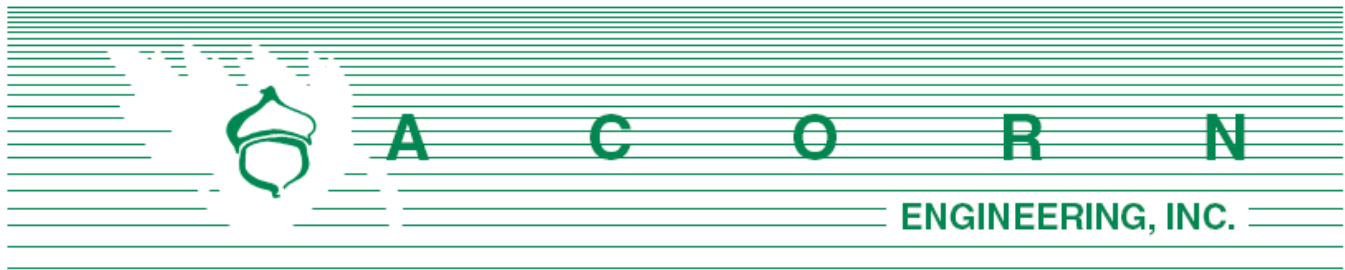
162 Canco Road, Portland, ME 04103
Telephone 800.750.4000, Fax 207.791.1026
cmpco.com



IBERDROLA
USA

An equal opportunity employer





Fairpoint Communications
Attn: Mr. Scott Derrig
5 Davis Farm Road
Portland, Maine 04103

February 14, 2017

Subject: 547 Riverside Self-Storage Facility
Re: Ability to Serve

Dear Mr. Derrig:

On behalf of 547 Riverside, LLC we are pleased to submit the following request for Fairpoint's ability to serve the proposed development. The project is located at 547 Riverside (Chart, Book, Lots 312, B, 008 – 012), within the I-M Industrial Zoning District in Portland, Maine. The project consists of the development of a self-storage facility utilizing recycled shipping containers and porous pavement. Access to the site will be provided from Riverside Street.

The site is currently undeveloped and does not have any known infrastructure with the exception of a septic easement as seen on the existing conditions plan.

It is proposed to install an underground service from the utility pole that exists at the northern corner of the site to a shipping container that will function as the office.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Riverside Street
2. Any easements for overhead services currently crossing the proposed development
3. Alternative connection locations from the property to the existing system
4. Fairpoint's proposed infrastructure improvements within the project vicinity
5. Fairpoint's ability to serve the project

I have attached two plans: an existing conditions plan created by Own Haskell, Inc., and the proposed preliminary utility plan from our office. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
Design Engineer
Acorn Engineering, Inc.



5 Davis Farm Rd
Portland, ME 04103
207- 712-1063 Cell
207- 797-1098 Fax

March 2, 2017

To Whom It May Concern:

This letter is to inform that FairPoint Communications has the capacity and willingness to serve the proposed “Self-Storage Facility” to be located at 547 Riverside St in Portland. FairPoint currently has aerial facilities on the proposed service pole on Riverside St in which we can provide service from. Please do not hesitate to contact me with any questions.

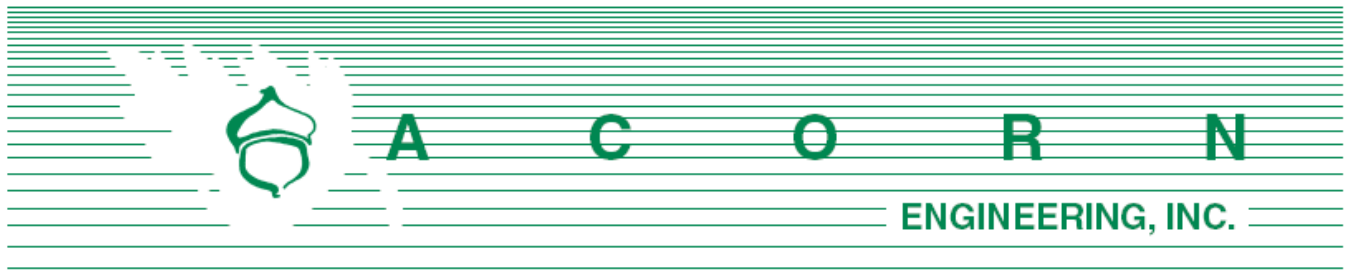
Sincerely,

Brian M. Bouchard

FairPoint Outside Plant Engineer

Email: bbouchard1@fairpoint.com

Phone: 207-712-1063



Charter Communications
Attn: Mr. Mark Pelletier
118 Johnson Road
Portland, Maine 04102

February 14, 2017

Subject: 547 Riverside Self-Storage Facility
Re: Ability to Serve

Dear Mr. Pelletier:

On behalf of 547 Riverside, LLC we are pleased to submit the following request for Charter's ability to serve the proposed development. The project is located at 547 Riverside (Chart, Book, Lots 312, B, 008 – 012), within the I-M Industrial Zoning District in Portland, Maine. The project consists of the development of a self-storage facility utilizing recycled shipping containers and porous pavement. Access to the site will be provided from Riverside Street.

The site is currently undeveloped and does not have any known infrastructure with the exception of a septic easement as seen on the existing conditions plan.

It is proposed to install an underground service from the utility pole that exists at the northern corner of the site to a shipping container that will function as the office.

On behalf of the client, we are requesting the following information:

1. Any additional information, such as utility mapping within Riverside Street
2. Any easements for overhead services currently crossing the proposed development
3. Alternative connection locations from the property to the existing system
4. Charter's proposed infrastructure improvements within the project vicinity
5. Charter's ability to serve the project

I have attached two plans: an existing conditions plan created by Own Haskell, Inc., and the proposed preliminary utility plan from our office. Please do not hesitate to contact me or the office for any questions or clarifications.

Sincerely,

Sam Lebel, E.I.
Design Engineer
Acorn Engineering, Inc.

Sam Lebel

From: Pelletier, Mark <Mark.Pelletier@charter.com>
Sent: Wednesday, February 15, 2017 12:18 PM
To: Sam Lebel
Subject: RE: Ability to Serve Request - 547 Riverside

Sam,

Here is the break down for your 5 requests/questions.

- 1) We have fiber and coax on Riverside St. and coax 2 poles up on Leighton Ave.
- 2) We do not have any cable plant on site property
- 3) See note#1
- 4) There are no planned infrastructure improvements to service the office bldg. As long as drop length is NOT to be over 250ft from pole across Riverside St on main pole line. We would need to extend our main cable plant if service drop to be over 250ft. If riser pole to be under 250ft or to bldg with power meter location. If we need to bring our main cable plant to bldg then our construction spec's would be a min of a 3 inch conduit and ends swept up above grade at riser pole and at meter location on bldg.
- 5) Spectrum cable can provide our current services to property as long as information on line#4 are met.

Hoping the email will be acceptable as a letter of serviceability for this project.

Mark

From: Sam Lebel [mailto:slebel@acorn-engineering.com]
Sent: Tuesday, February 14, 2017 1:38 PM
To: Pelletier, Mark <Mark.Pelletier@charter.com>
Cc: William Savage <wsavage@acorn-engineering.com>
Subject: Ability to Serve Request - 547 Riverside

Good Afternoon Mark,

Acorn Engineering, Inc., on behalf of 547 Riverside, LLC, is sending a formal Ability to Serve letter to your office for the proposed development of 547 Riverside Street in Portland.

Attached is the Ability to Serve Letter, Preliminary Utility Plan, and an Existing Conditions Survey.

Please do not hesitate to contact myself or our office with any questions or clarifications. Thank you.

Regards,

Sam Lebel, EI
Design Engineer

Licensed in Maine

Acorn Engineering, Inc
PO Box 3372

Portland, Maine 04104
www.acorn-engineering.com

B. 207.775.2655
C. 207.478.4327

This electronic communication, which includes any files or attachments thereto, contains proprietary or confidential information and may be privileged and otherwise protected under copyright or other applicable intellectual property laws. All information contained in this electronic communication is solely for the use of the individual(s) or entity to which it was addressed. If you are not the intended recipient(s), you are hereby notified that distributing, copying, or in any way disclosing any of the information in this e-mail is strictly prohibited. If you have received this e-mail in error, please notify the sender immediately, and destroy the communication and any files or attachments in their entirety, whether in electronic or hard copy format. Since data stored on electronic media can deteriorate, be translated or modified, Acorn Engineering, Inc., and/or affiliates will not be liable for the completeness, correctness or readability of the electronic data. The electronic data should be verified against the hard copy.

The contents of this e-mail message and any attachments are intended solely for the addressee(s) and may contain confidential and/or legally privileged information. If you are not the intended recipient of this message or if this message has been addressed to you in error, please immediately alert the sender by reply e-mail and then delete this message and any attachments. If you are not the intended recipient, you are notified that any use, dissemination, distribution, copying, or storage of this message or any attachment is strictly prohibited.

M. Construction Management Plan

Project Address:

547 Riverside Street, Portland, Maine

Project Description:

The proposed project is the development of a self-storage facility utilizing 500 recycled shipping containers. Access the storage area will be provided by porous pavement drive aisles for stormwater management. A small office building comprised of shipping containers is also proposed with ten parking spaces. A 400-foot driveway will provide access to the site from Riverside St. and is designed to be traditional dense bituminous pavement.

Project Team Summary:

Owner:	547 Riverside LLC
General Contractor:	To Be Determined
Civil Engineer:	Acorn Engineering, Inc.
Structural Engineer	Structural Integrity Consulting Engineers, Inc.

Timeline and Schedule:

Projected Start Date:	Summer 2017
Project Duration:	Approximately 5 months
Projected Completion:	Fall 2017
Street Interruption:	During the installation of utilities within Riverside St.
Sidewalk Interruption:	During the installation of utilities within Riverside St.

Emergency Contact:

Bob LeBlanc,
547 Riverside LLC
(207) 879 – 2222

Estimated Work Hours:	7:00 am to 5:00 pm
Delivery Truck Access:	Contact Owner
Worker Parking:	Within the Site

547 Riverside LLC and their contractor will work with the City of Portland, and adjacent landowners to minimize any project impacts.

The General Contractor will remain solely and completely responsible for enforcement of and compliance with 1) all contract plans and specifications and 2) all site working conditions and safety requirements, day and night, for both persons and property, in each case both by the contractor and



its subcontractors. These include all OSHA, NIOSH, U.S. EPA, local ordinance and any other applicable governmental regulations. The General Contractor will remain responsible for safeguarding the general public.

The General Contractor shall review all permits and reports associated with the project.

The General Contractor is advised to visit the site prior to the start of work to confirm the site conditions. Refer to the Civil/Site Plan Set, Sheet C-03 Construction Management Plan for visual representation of the measures be taken during construction.



N. Lighting

The applicable cut sheets and photometric plan are attached.



Evolve™ LED Post Top

Salem (EPST)



current
powered by GE

Product Features

The Evolve™ LED Salem Post Top offers energy efficiency and quality of light in a classic, utility carriage look and style. The advanced LED optical system provides improved horizontal and vertical uniformity, reduced glare and improved lighting control. GE's unique optical ring technology effectively aims the light where you need it, while eliminating the unsightly shadow circles commonly seen under other LED post top fixtures.

The Salem post top can yield up to a 60-percent reduction in system energy compared with standard HID systems, depending on applications. This reliable system operates well in cold temperatures and offers more than 11 years of service life to reduce maintenance frequency and expense, based on a 50,000 hour life and 12 hours of operation per day. Containing no mercury or lead, this environmentally responsible product is RoHS compliant.

Applications

- Roadway, site, area, and general lighting utilizing advanced LED optical system providing high uniformity, excellent vertical illuminance, reduced offsite visibility, and reduced on-site glare.

Housing

- Die-cast aluminum housing.
- Traditional utilitarian "carriage" design incorporates the heat sink directly into the unit ensuring maximum heat transfer and long LED life.
- Meets 2G vibration standards per ANSI C136.31-2001. For 3G rating contact factory.

LED & Optical Assembly

- Structured LED array for optimized Roadway/walkway photometric and distribution.
- Evolve light engine consisting of nested concentric directional reflectors designed to optimize application efficiency and minimize glare.
- Utilizes high brightness LEDs, 70 CRI at 3000K and 4000K typical.
- LM-79 tests and reports are performed in accordance with IESNA standards.

Lumen Maintenance

- System rating is 50,000 hours at L85. Contact factory for L rating (Lumen Depreciation) beyond 50,000 hours.

Ratings

-   listed, suitable for wet locations.
- IP 65 rated optical enclosure per ANSI C136.25-2009.
- Temperature rated at -40° to 50°C.
-  International Dark Sky Association listed. 3000K must be selected to meet IDA certification and approval.

Mounting

- Post top mounting 3-inch (76mm) OD held in place with three black squarehead set screws.

Finish

- Corrosion resistant polyester powder painted, minimum 2.0 mil. thickness.
- Standard colors: Black & Dark Bronze.
- RAL & custom colors available.

Electrical

- 120-277 volt and 347-480 volt available.
 - System power factor is $\geq 90\%$ and THD $\leq 20\%$.*
 - Class "A" audible sound rating.
 - Surge protection per IEEE/ANSI C62.41.-1991:
 - 120-277VAC: 4KV/2kA "Basic: (120 Strikes)"
 - 347-480VAC: 6KV/3kA "Basic: (120 Strikes)"
 - EMI: Title 47 CFR Part 15 Class A.
 - Photo Electric Sensors (PE) available for all voltages.
- * System power factor and THD is tested and specified at 120V input and maximum load conditions.

Ordering Number Logic Salem Post Top (EPST)



EPST

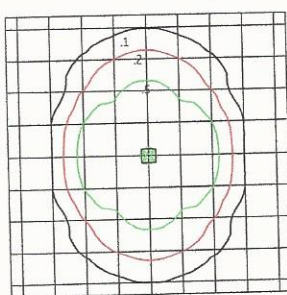
N

P

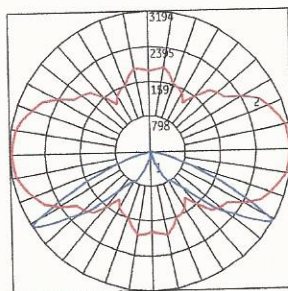
PROD. ID	VOLTAGE	OPTICAL CODE	LED COLOR TEMP	OPTICAL SIDE PANELS	PE FUNCTION	MOUNTING ARM	COLOR	OPTIONS		
E = Evolve P = Post Top S = Salem T = Traditional	0 = 120-277 H = 347-480 1 = 120* 2 = 208* 3 = 240* 4 = 277* 5 = 480* D = 347* *Specify single voltage only if fuse option is selected.		30 = 3000K 40 = 4000K	N = None	1 = None ^ 2 = PE Rec.^ 4 = PE Rec. with Shorting Cap^ 5 = PE Rec. with Control**^ A = ANSI C136.41 7-pin dimming PE Receptacle †# D = ANSI C136.41 7-pin dimming PE Receptacle with Shorting Cap†# E = ANSI C136.41 7-pin Receptacle with non-dimming PE Control †# ** PE control not available for 347-480V. Must be a discrete voltage (347V or 480V). † Only available with voltage options up to 277V, (0,1,2,3,4). # Order Dimming/Control PE as a separate item. Note: Not available with cupola. ^ Dimming "D" option can also be ordered under the "Options" column.	P = Pole Mounted	BLCK = Black DKBZ = Dark Bronze Contact manufacturer for other colors.	D = Dimmable (0-10 Volt Input)* F = Fusing P = Prewire with 6" of 14/3 cable XXX = Special Options * Only available in 120-277V.		
OPTICAL CODE	TYPE	TYPICAL INITIAL LUMENS		TYPICAL SYSTEM WATTAGE	POLE SPACING	BUG RATINGS 3000K & 4000K			IES FILE NUMBER	
		3000K	4000K	120-277V & 347-480V	2-4 LANES	B	U	G	3000K	4000K
C5	Symmetric	6,400	6,600	83	5:1	B3	U2	G1	EPST_C530N__IES	EPST_C540N__IES
E5	Symmetric	3,200	3,400	48	5:1	B2	U1	G1	EPST_E530N__IES	EPST_E540N__IES
C3	Asymmetric Wide	6,400	6,600	83	5:1	B1	U2	G2	EPST_C330N__IES	EPST_C340N__IES
E3	Asymmetric Wide	3,200	3,400	48	5:1	B1	U2	G1	EPST_E330N__IES	EPST_E340N__IES

Photometrics

EPST Type V – Symmetric (C5)
6,600 Lumens, 4000K

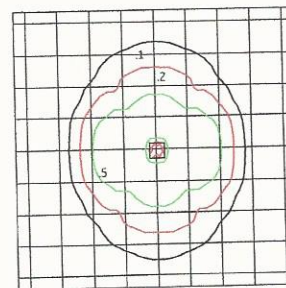


Grid Distance in Units of Mounting Height at 16' Initial Footcandle Values at Grade

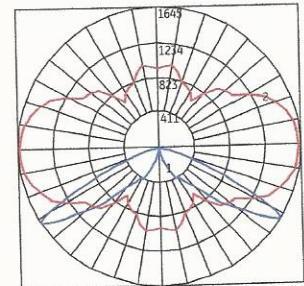


Polar Trace Vertical and Horizontal Plane through Horizontal Angle of Maximum Candlepower

EPST Type V – Asymmetric Wide (E5)
3,400 Lumens, 4000K

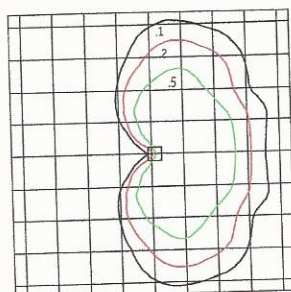


Grid Distance in Units of Mounting Height at 16' Initial Footcandle Values at Grade

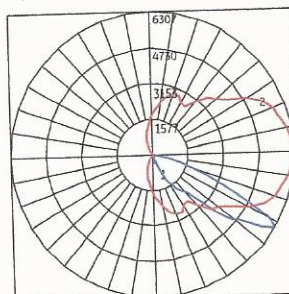


Polar Trace Vertical and Horizontal Plane through Horizontal Angle of Maximum Candlepower

EPST Type III – Asymmetric Wide (C3)
6,600 Lumens, 4000K

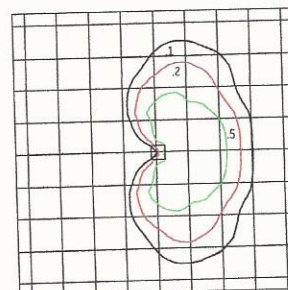


Grid Distance in Units of Mounting Height at 16' Initial Footcandle Values at Grade

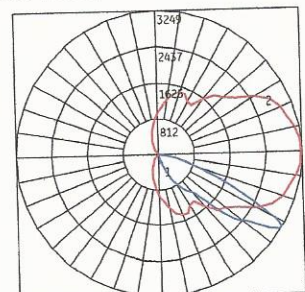


Polar Trace Vertical and Horizontal Plane through Horizontal Angle of Maximum Candlepower

EPST Type III – Asymmetric Wide (E3)
3,400 Lumens, 4000K

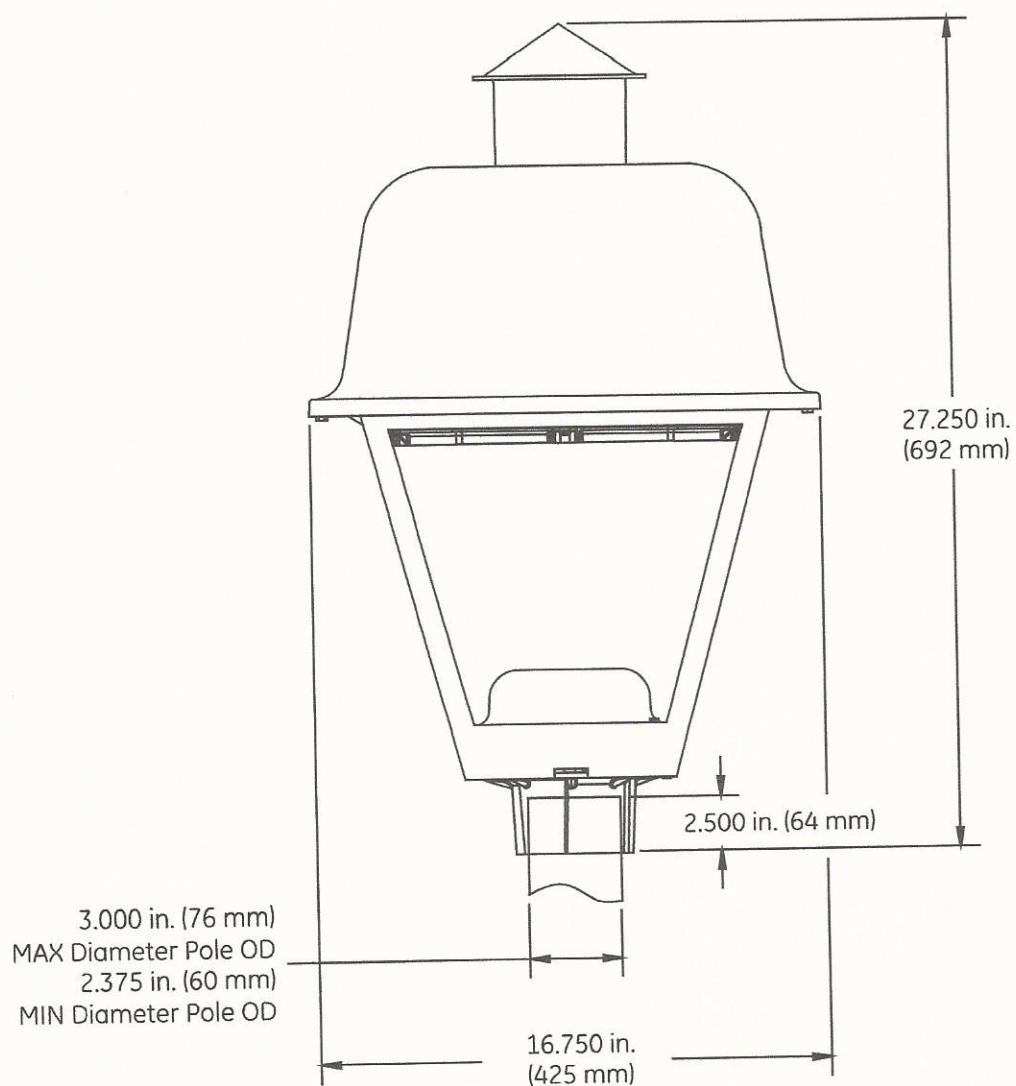


Grid Distance in Units of Mounting Height at 16' Initial Footcandle Values at Grade



Polar Trace Vertical and Horizontal Plane through Horizontal Angle of Maximum Candlepower

Product Dimensions



DATA

- Approximate Net Weight: 27 lbs (12 kgs)
- Suggested Mounting Height: 8-16 ft max (2.5-5 m)
- Effective Projected Area (EPA): 1.6 sq ft max (0.15 sq m)

current
powered by GE

www.currentbyge.com

All trademarks are the property of their respective owners. Information provided is subject to change without notice. All values are design or typical values when measured under laboratory conditions. Current, powered by GE is a business of the General Electric Company.
© 2016 GE.

OLP2897 (Rev 10/19/16)

GEOPOAK SERIES SIZE 1 LED

Architectural Wallpack
TRP1/RD11/QSP1

NEW

Cat.#

Job

Type



HUBBELL
Outdoor Lighting

Approvals

SPECIFICATIONS

APPLICATIONS

- Small sized architectural wallpacks in three stylish shapes with molded contours to accentuate building architecture. Provides excellent illumination in energy-saving LED systems.
- Back box accessory available for surface conduit application.

Construction:

- Housing is made from die-cast aluminum with a hinged back-plate for ease of installation and maintenance.
- The LED bezel and trim-plate are made of stainless steel.
- Five powder coat standard finishes, plus custom color options.
- Wet Location Listed to UL924 and UL1598 Standard.

LED:

- 12 high power LEDs delivering up to 3,000 lumens.
- Up to 118 lumens per watt
- Type II, III and IV distributions for a wide variety of applications.
- Zero uplight (UO), dark sky, neighbor friendly

Electrical:

- 120-277 operation, 50/60Hz
- 0-10V dimming driver standard
- 10kA surge protector
- Photocell and occupancy sensor options available for complete on/off and dimming control

Battery Backup:

- Integral Battery Backup provides emergency lighting for the required 90 minute path of egress.
- Includes a long-life Lithium Iron Phosphate battery with optional battery heater for cold temperature application.
- Utilizes 4 LEDs in emergency mode with 657 lumens. Each of the 4 LEDs in emergency are designed to function independently in the unlikely event of a single LED malfunction
- Spectron® self-testing/self-diagnostic electronics are included standard.

Installation:

- Universal plate for mounting to standard 3 1/2" and 4" square electrical boxes. All connections are made from connections at the rear of the unit.
- Optional back-box accessory available for surface conduit application. See BB-Geo accessories.

Listings:

- UL 1598 listed for use in wet locations
- Drivers IP66 and RoHS compliant

Warranty:

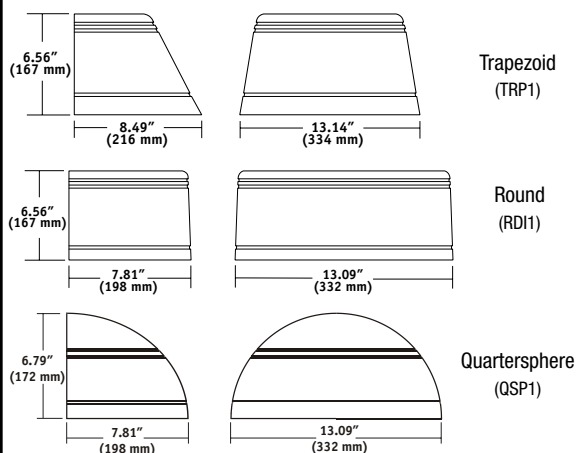
- For more information visit:

<http://www.hubbelloutdoor.com/resources/warranty/>

PRODUCT IMAGE(S)



DIMENSIONS



SHIPPING INFORMATION

Catalog Number	Weight (lbs)	Carton Dimensions		
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)
TRP1	11.5	17.0	9.9	10.0
RD11	11.5	18.0	11.0	9.25
QSP1	10.5	17.0	9.6	10.5

CERTIFICATIONS/LISTINGS



*3000K and warmer CCTs only

ORDERING INFORMATION

ORDERING EXAMPLE: TRP-12L-20-4K-3-1-BL-SCP-EH

HOUSING	VERSION	WATTAGE	CCT/CRI	DISTRIBUTION	VOLTAGE	FINISH	CONTROL OPTIONS	OPTIONS
TRP1 Trapezoid	12L 12 LEDs	15 15 watts	3K7 3000K, 70CRI	2 Type II	U 120-277	BL Black	PCU Button Photocell	F ⁴ Fusing (only available with STD fixture configuration, 120-277V only)
RD11 Radius		20 20 watts	4K7 4000K, 70CRI	3 Type III	1 120	DB Bronze	SCP ^{2,3} Programmable Motion Sensor	E ¹ Battery Pack (0°C)
QSP1 Quartersphere		30 30 watts	5K7 5000K, 70CRI	4 Type IV	2 208	GR Gray	SPECIFY SCP HEIGHT	EH ¹ Battery Pack (-30°C) with heater
					3 240	PS Platinum	8F Up to 8ft mount height	
					4 277	WH White	20F Up to 20ft mount height	
						CC Custom		

¹ Voltage specific (120 or 277V only)

² Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, 120-277V only

³ PCU option not applicable, included in sensor

⁴ Must specify input voltage (120, 208, 240 or 277)



HUBBELL
Outdoor Lighting

Hubbell Outdoor Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

© 2016 HUBBELL OUTDOOR LIGHTING, All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA

TRP1/RD11/QSP1-SPEC 12/16

ACCESSORIES - Order separately

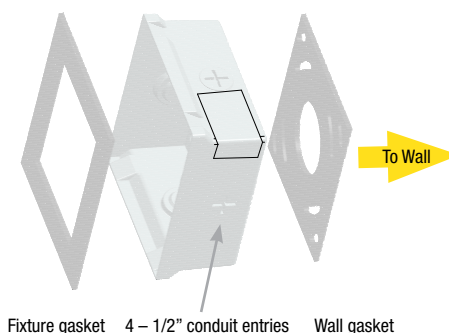
Catalog Number	Description
SCP-REMOTE ²	Remote control for SCP option. Order at least one per project to program and control.
BB-GE0-XX	Back box with 4 - 1/2" threaded conduit holes, specify finish by replacing "XX" with finish selection, eg. Dark Bronze "DB"

² Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, 120V-277V only

BB-GE0-XX



BB-GE0-XX – Mounted to luminaire



Fixture gasket 4 - 1/2" conduit entries Wall gasket

PERFORMANCE DATA (AC/Standard Configurations)

# OF LEDS	DRIVE CURRENT	SYSTEM WATTS	DIST. TYPE	5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
				LUMENS	LPW ¹	B	U	G	LUMENS	LPW ¹	B	U	G	LUMENS	LPW ¹	B	U	G
12	350mA	13.9	2	1635	118	1	1	1	1577	113	1	1	1	1497	108	1	1	1
			3	1613	116	1	0	1	1556	112	1	0	1	1477	106	1	0	1
			4	1607	116	0	0	1	1550	111	0	0	1	1471	106	0	0	1
	500mA	19.9	2	2268	114	1	1	1	2176	109	1	1	1	2077	104	1	1	1
			3	2245	113	1	0	1	2140	108	1	0	1	2049	103	1	0	1
			4	2229	112	0	0	1	2150	108	0	0	1	2041	103	0	0	1
	700mA	28.2	2	2942	104	1	1	1	2885	102	1	1	2	2721	96	1	1	1
			3	2912	103	1	0	1	2836	101	1	0	1	2685	95	1	0	1
			4	2892	103	1	0	1	2789	99	1	0	1	2674	95	1	0	1

Electrical Data

Input Power Consumption

Drive Current (mA)	Input Voltage (V)	System Power (w)	Current (Amps)
350mA	120	13.9	0.12
	277		0.05
500mA	120	19.9	0.17
	277		0.07
700mA	120	28.2	0.24
	277		0.10

Battery backup units consume additional power during charging (maximum 32.2 watts for E, 50.7 watts for EH)

Projected Lumen Maintenance

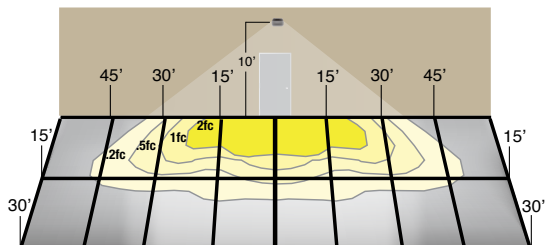
Ambient Temp.	Operating Hours					L70 (hours)
	0	25,000	50,000	TM-21-11 ¹	100,000	
25°C/77°F	1.00	0.98	0.97	0.95	0.91	>345,000
40°C/104°F	1.00	0.96	0.95	0.92	0.87	>268,000

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

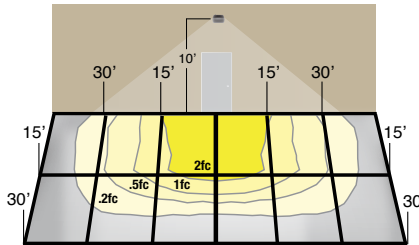
AMBIENT TEMPERATURE		LUMEN MULTIPLIER
0° C	32° F	1.02
10° C	50° F	1.01
20° C	68° F	1.00
25° C	77° F	1.00
30° C	86° F	1.00
40° C	104° F	0.99
50° C	122° F	0.98

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

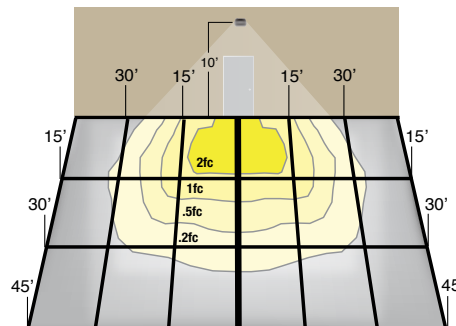
PHOTOMETRIC REPORTS



TYPE II



TYPE III



TYPE IV (Forward throw)



HUBBELL
Outdoor Lighting

Hubbell Outdoor Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

© 2016 HUBBELL OUTDOOR LIGHTING, All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA

TRP1/RD11/QSP1-SPEC 12/16

GeoPak - Battery Back Up

Functional Circuitry: Transient surge protection device on AC input. Upon failure of the normal utility power, an LED driver is automatically activated to power the emergency LEDs. Upon resumption of normal utility power, the LED driver is turned off, and the battery is recharged through a micro-controller based 3-stage charger. The battery is a maintenance-free Lithium Iron Phosphate (LiFePo) type. A low voltage battery disconnect (LVD) feature protects the battery from severe damage during prolonged power failures. Manual testing is available at any time using the push-to-test button. The optional heater features a heating wrap and thermostat to maintain optimal battery temperature during charge or discharge. The GeoPak includes the following features:

- Battery re-charge within 24 hours
- AC Lock-out circuit
- Self-diagnostics monitors LED status, LED driver circuit, battery capacity and charger function and displays any fault detection by means of a flashing code.

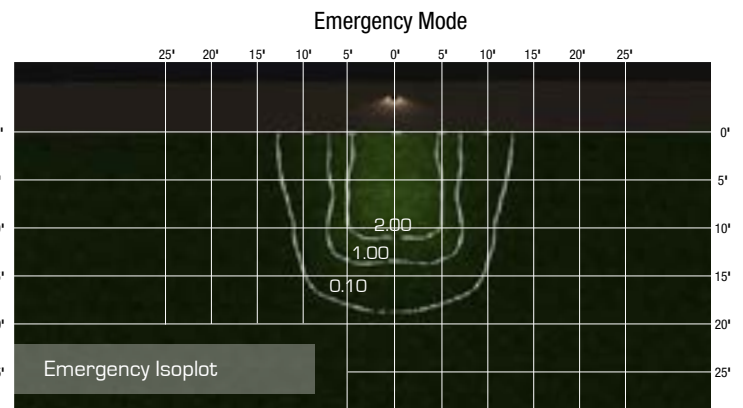
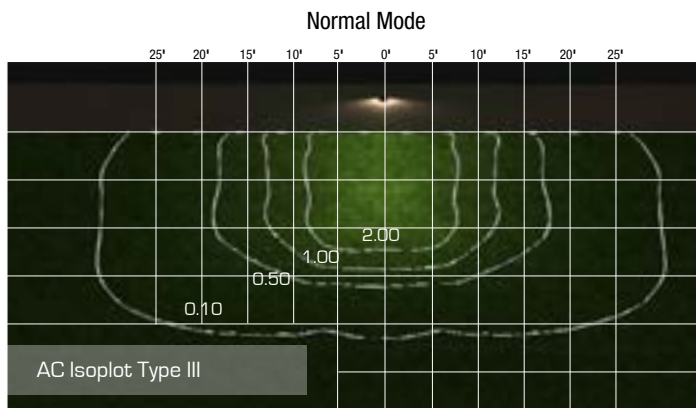
Emergency Photometric Performance (1 fc average .1 fc minimum)

28' multi-unit spacing at 10' MH with 0/30/10 reflectances on a 6' path

26' x 10' single unit coverage at 10' MH with 0/30/10 reflectances

6' x 19' forward throw coverage at 10' MH with 0/30/10 reflectances

- Self-Test feature runs a 1 minute test once a month and an alternating 30 or 60 minute test once every 6 months. Multi-color LED indicator provides visible fault detection and charging status.
- User initiated 1, or 90-minute system test feature
- 15 minute re-transfer delay
- Automatic unit transfer in brown-out conditions (below 80% of nominal AC input voltage).



Provides Life Safety Code average illuminance of 1.0 fc. Assumes open space with no obstructions.

Diagrams for illustration purposes only, please consult factory for application layout.



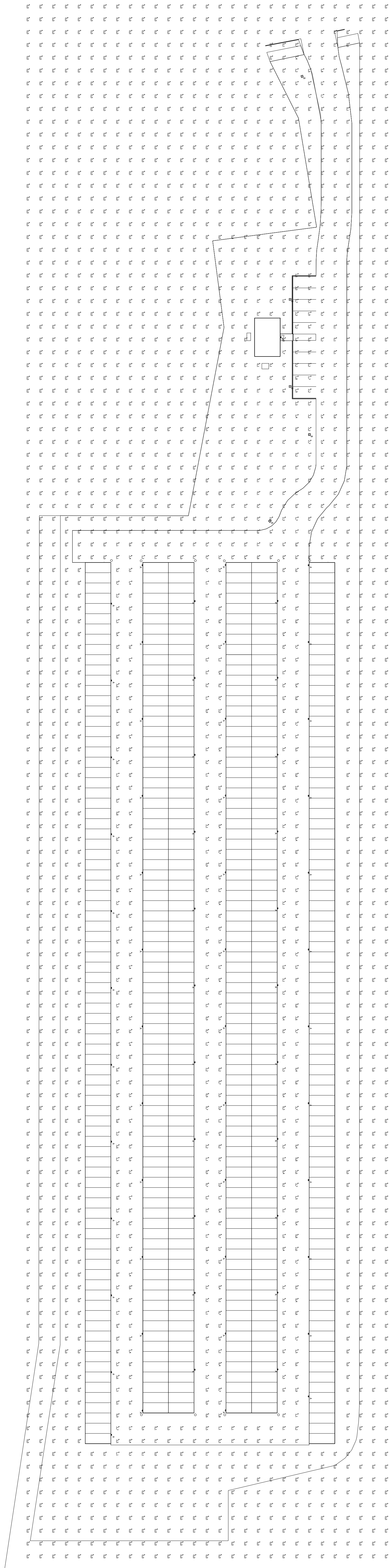
HUBBELL
Outdoor Lighting

Hubbell Outdoor Lighting • 701 Millennium Boulevard • Greenville, SC 29607 • Phone: 864-678-1000

Due to our continued efforts to improve our products, product specifications are subject to change without notice.

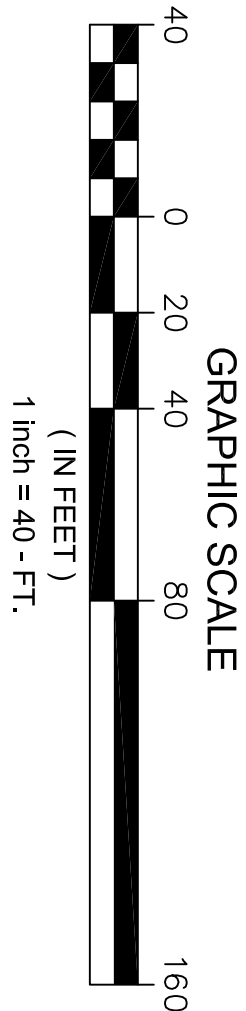
© 2016 HUBBELL OUTDOOR LIGHTING, All Rights Reserved • For more information visit our website: www.hubbelloutdoor.com • Printed in USA

TRP1/RD11/QSP1-SPEC 12/16



Luminaire Schedule					
Symbol	Label	Qty	Mounting Height	LLF	Watts
⌈	A	71	7' - 0" AFG	0.900	14
⌋	B	5	10' - 0" AFG	0.900	60
					Lumens
					1477
					TRP1-12L15-3K7-3
					LANTERN 24G_T3

Calculation Summary					
Label	CalcType	Units	Avg	Max	Min
Site	Illuminance	Fc	0.30	3.7	0.0
					Avg/Mfn
					N.A.
					Max/Mfn
					N.A.



1. THIS LIGHTING DESIGN IS BASED ON LIMITED INFORMATION SUPPLIED BY OTHERS TO HUBBELL LIGHTING. SITE DETAILS PROVIDED HEREON ARE REPRODUCED ONLY AS A REPRESENTATION. FIELD DEVIATIONS MAY SIGNIFICANTLY AFFECT PREDICTED PERFORMANCE. PRIOR TO INSTALLATION, CRITICAL SITE INFORMATION (PALE LOCATIONS, OBSTRUCTION, MOUNTING HEIGHT, ETC.) SHOULD BE COORDINATED WITH THE CONTRACTOR AND/OR SPECIFIER RESPONSIBLE FOR THE PROJECT.

2. LUMINAIRE DATA IS TESTED TO INDUSTRY STANDARDS UNDER LABORATORY CONDITIONS. OPERATING VOLTAGE AND NOMINAL MANUFACTURING TOLERANCES OF LAMP, BALLAST, AND LUMINAIRE MAY AFFECT FIELD RESULTS.

3. CONFORMANCE TO FACILITY CODE AND OTHER LOCAL REQUIREMENTS IS THE RESPONSIBILITY OF THE OWNER AND/OR THE OWNER'S REPRESENTATIVE.

TITLE

RIVERSIDE STORAGE
PORTLAND, ME
SITE LIGHTING PLAN

DESIGNED BY
REV. BY

DATE
DATE

REVIEWED FROM DRAWING NUMBERS

HUBBELL
Hubbell Lighting Inc.
20000 Highway 100
Greenfield, SC 29607

DATE
N/A

DATE
04/18/17

SCALE
AS NOTED

CHECKED BY
1782119



Wetlands Investigation and Report

Leighton Avenue, Portland

Date: October 21, 2016

To: Robert LeBlanc
Peninsula Property Development
59 Moody Street
Portland, Maine 04101

Project Summary:

Wetlands were found and delineated on the property. The wetlands investigated are not *Wetlands of Special Significance*, according to the definitions in the *Natural Resource Protection Act (the NRPA)*. There are no mandated buffers of no-disturbance around these wetlands. Wetland filling and/or disturbances in excess of 4,300 square feet are regulated by the *NRPA*.

Date of Investigation: October, 2016

Location of the Investigation:

The property investigated is located on the northerly side of Leighton Avenue, Portland. It is approximately 6 ½ acres in size.

Purposes of the Investigation:

The purposes of the wetland investigation are to identify and describe wetlands on the property according to definitions in the *NRPA*, to determine if specific alteration and filling permits are required, if any disturbance setbacks are required, and to determine the Maine DEP jurisdictional status of any streams in the wetlands.

Methods of the Investigation:

A literature search and on-site investigations were made. The investigations were performed following the guidelines described in the 1987 Corps of Engineers Delineation Manual and the 2009 Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region. This procedure uses a multiple parameter approach that requires the presence of three primary components for an area to be identified as a wetland: 1) hydric soils; 2) predominance of hydrophytic vegetation; and 3) wetland hydrology.

The *Plan Showing A Standard Boundary Survey Made For Ellen Mary Knowles, Leighton Avenue, Portland, Maine* by Daniel Dalfonso, dated 12/20/00 was used in the field during the investigation. The wetland/upland boundary lines were established and flagged alphanumerically at inflection points, which were located by a Trimble Geo XH GPS device. The data was processed for accuracy and is presented in an AutoCAD format.

Results of the Wetlands Investigation:

The property is located on an extensive plain, which is dissected in places, particularly along the Presumpscot River, located to the west.

The area is depicted as an association of Elmwood fine sandy loam and Scantic silt loam on the *National Cooperative Soil Survey*. These are fine to medium textured soils derived glacio-marine sediments. Scantic silt loam is a hydric soil and wetland conditions commonly occur.

The *National Wetlands Inventory* photomap of the US Fish and Wildlife Service depicts a Palustrine scrub-shrub wetland co-incident with the larger of the two wetlands identified on the property. The larger, forested wetland on an adjacent parcel depicted on the *Inventory* was not found. The small, isolated wetland found on the property near Leighton Ave is too small to be mapped on the *Inventory*.

There are no streams associated with the wetlands. There are emergent plants in these wetlands, but the square foot coverage of them is less than 20,000 square feet. Therefore, neither of the wetlands are *Wetlands of Special Significance*, according to the *NRPA*. This means that there are no buffers of no-disturbance around either of the wetlands on the property. Also, direct filling of the wetlands to 4300 square feet can occur with no permit required. Filling or disturbance in excess of 4300 square feet may be permitted by the DEP, with a Permit Application.



Mark Cenci
Maine Certified Geologist #467

STORMWATER DRAINAGE SYSTEM MAINTENANCE AGREEMENT

IN CONSIDERATION OF the site plan approval granted by the Planning Board of the City of Portland to the proposed 547 Riverside self-storage facility shown on the Site Plan recorded in the Cumberland County Registry of Deeds in Plan Book ___, Page ___ (the “Plan”) and associated Grading & Drainage Plan (Sheet C-30), dated 03/03/2017 prepared by Acorn Engineering, Inc. of P.O. Box 3372, Portland, ME 04104 dated and pursuant to a condition thereof, 547 Riverside, LLC, a Maine limited liability company with a principal place of business in Portland, Maine, and having a mailing address of 59 Moody Street, Portland, Maine 04101, the owner of the subject premises, does hereby agree, for itself, its successors and assigns (the “Owner”), as follows:

Maintenance Agreement

That it, its successors and assigns, will, at its own cost and expense and at all times in perpetuity, maintain in good repair and in proper working order the porous pavement, catch basins, storm drain pipes, and underdrain pipes (hereinafter collectively referred to as the “stormwater system”) as shown on the Grading & Drainage Plan, C-30 attached hereto as **Exhibit B** and in strict compliance with the approved Stormwater Inspection & Maintenance Plan and Stormwater Maintenance and Inspection Log, dated 03/03/2017, copies attached as **Exhibit A and C** respectively and Chapter 32 of the Portland City Code.

Owner of the subject premises further agrees, at its own cost, to keep a Stormwater Maintenance and Inspection Log in the forms attached as **Exhibit C**. Such log shall be made available for inspection by the City of Portland upon reasonable notice and request.

Said agreement is for the benefit of the said City of Portland and all persons in lawful possession of the property and abutters thereto; further, that the said City of Portland or said persons in lawful possession may enforce this Agreement by an action at law or in equity in any court of competent jurisdiction; further, that after giving the Owner written notice and a stated time to perform, the said City of Portland, by its authorized agents or representatives, may, but is not obligated to, enter upon said premises to maintain, repair, or replace said stormwater system, including but not limited to the porous pavement, catch basins, storm drain pipes, underdrain pipes, and other drainage structures thereon in the event of any failure or neglect thereof, the cost and expense thereof to be reimbursed in full

to the said City of Portland by the Owner upon written demand. Any funds owed to the City under this paragraph shall be secured by a lien on the property.

This Agreement shall not confer upon the City of Portland or any other person the right to utilize said stormwater system for public use or for the development of any other property, and the Owner shall bear no financial responsibility by virtue of this Agreement for enlarging the capacity of said system for any reason whatsoever.

This Agreement shall also not be construed to allow any change or deviation from the requirements of the subdivision and/or site plan most recently and formally approved by the Planning Board of the City of Portland.

This agreement shall bind the undersigned only so long as it retains any interest in said premises, and shall run with the land and be binding upon the Owner's successors and assigns as their interests may from time to time appear.

The Owner agrees to provide a copy of this Agreement to any successor or assign and to forward to the City an Addendum signed by any successor or assign in which the successor or assign states that the successor or assign has read the Agreement, agrees to all its terms and conditions and the successor or assign will obtain and forward to the City's Department of Public Works and Department of Planning and Urban Development a similar Addendum from any other successor or assign.

For the purpose of this agreement and release "Owner" is any person or entity who is a successor or assign and has a legal interest in part, or all, of the real estate and any building. The real estate shown by chart, block and lot number in the records on file in the City Assessor's office shall constitute "the property" that may be entered by the City and lienied if the City is not paid all of its costs and charges following the mailing of a written demand for payment to the owner pursuant to the process and with the same force and effect as that established by 36 M.R.S.A. §§ 942 and 943 for real estate tax liens.

Any written notices or demands required by the agreement shall be complete on the date the notice is attached to one or more doors providing entry to any buildings or residential units and mailed by certified mail, return receipt requested or ordinary mail or both to the owner of record as shown on the tax roles on file in the City Assessor's Office.

If the property has more than one owner on the tax rolls, service shall be complete by mailing it to only the first listed owner. The failure to receive any written notice required

by this agreement shall not prevent the City from entering the property and performing maintenance or repairs on the stormwater system, or any component thereof, or liening it or create a cause of action against the City.

Dated at Portland, Maine this _____ day of _____, 2017.

547 RIVERSIDE, LLC
A Maine limited liability company

Bob LeBlanc, Manager

STATE OF MAINE
CUMBERLAND, ss.

Date: _____

Personally appeared the above-named Bob LeBlanc, Manager of 547 Riverside, LLC, and acknowledged the foregoing instrument to be his free act and deed in his said capacity.

Before me,

Notary Public/Attorney at Law

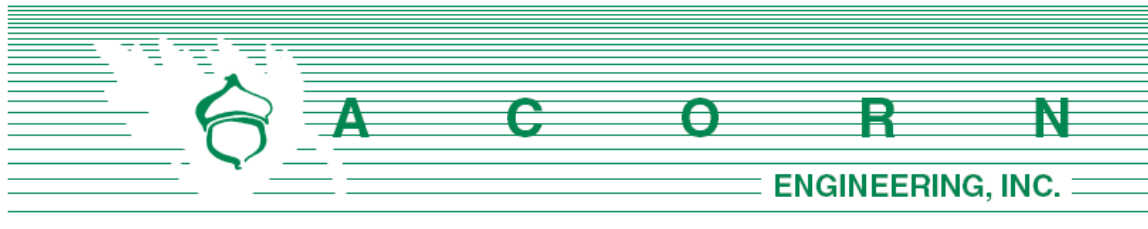
Print name: _____

Exhibit A: Stormwater Inspection & Maintenance Plan

Exhibit B: Grading & Drainage Plan

Exhibit C: Stormwater Maintenance and Inspection Log

Exhibit D: Letter of Intent



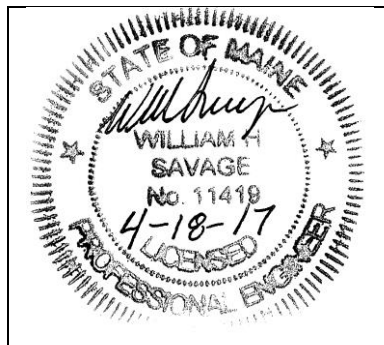
POST CONSTRUCTION - STORMWATER INSPECTION & MAINTENANCE PLAN

Prepared For:

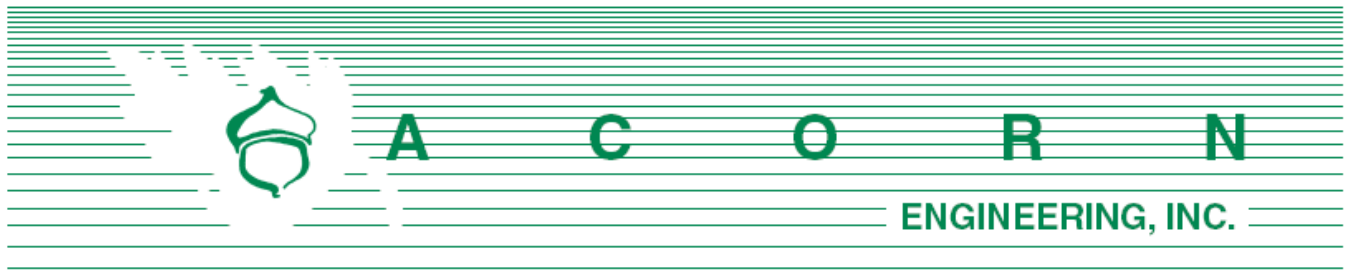
**547 Riverside, LLC
59 Moody Street
Portland, Maine 04101**

Prepared By:

**Acorn Engineering, Inc.
158 Danforth Street
Portland, Maine 04102**



**March 2017
Rev. April 2017**



RESPONSIBLE PARTY

The owner, 547 Riverside, LLC, and or their successor shall be responsible for contracting with a qualified stormwater professional to implement the Inspection and Maintenance Plan. The qualified stormwater professional shall maintain a stormwater log (report) summarizing inspections, maintenance, and corrective action taken. The Qualified Stormwater Professional shall annually submit the Stormwater Log to the Department of Public Works prior to June 30th.

The following is an example of a qualified stormwater professional that the landowner may contract through.

Organization: Will Savage, PE
Acorn Engineering, Inc
Portland, Maine

Phone: (207) 775-2655

Qualifications:

- Maine Professional Engineering License #11419
- Maine DEP - Certified in Maintenance & Inspection of Stormwater BMP's Cert #14
- Certified Erosion, Sediment and Storm Water Inspector (CESSWI) Cert #0293
- Certified Professional in Erosion and Sediment Control (CPESC) Cert. #4620

The inspection and maintenance criteria is based upon the Maine DEP - Stormwater Management for Maine, Volume III: BMPs Technical Design Manual. Refer to the Grading and Drainage Plan for the location of the BMPs

PURPOSE

This Inspection and Maintenance Plan has been individually tailored to this parcel's stormwater infrastructure, site characteristics, and their respective opportunities and limitations related to reducing the pollutant load on the receiving watershed. The maintenance of a parcel's impervious surfaces and stormwater infrastructure is critical to extending the long-term performance and effectiveness of Best Management Practices (BMPs). The Inspection and Maintenance Plan represents the parcel's minimum activities to meet the permit requirements. The parcel shall still be subject to any applicable Civil Site Plans, Permit Applications, Erosion and Sedimentation Control Plans Reports, Stormwater Management Plans, Inspection and Maintenance Manuals, and all Municipal, State, and Federal rules.

OPERATION AND MAINTENANCE ACTIVITY

Porous Pavement

The maintenance of the porous pavement is crucial to its functionality as a stormwater system and shall be in accordance with the following activities identified below and the most recent version of the Maine DEP Volume III BMPs Technical Design Manual Chapter 7.7 Manmade Pervious Surfaces. General maintenance and guidelines are as follows:

- The system should be inspected after every major storm in the first few months to ensure proper function. Thereafter, the functionality of the porous pavement should be inspected at least once every year to ensure that it is draining as designed.
- The porous pavement shall not be subject to winter sanding.
- It is acceptable to drill 0.5" holes in the pavement where there is spot clogging.
- Vehicles with muddy tires should be prevented from accessing the porous pavement.

Sweeping:

Annual sweeping of the dense paved driveway and parking areas following the snow melt for accumulated winter sand will be necessary to remove sediments from the site. Appropriately dispose of all collected material.

Bi-annual sweeping, vacuuming, and/or pressure washing of the porous pavement shall occur at a minimum.

Outlet:

The outlet control structure, outlet culvert, and riprap apron shall be inspected biannually to ensure that the outlet is clear of sediment and debris and that riprap apron has not become displaced. Confirm that there are no signs of soil erosion in the vicinity of the apron. Ensure that the orifice and trash racks are unobstructed from trash and debris.

Storm Drains:

The storm drain shall be annually inspected for the presence of accumulated sediment or debris. Any sediment shall be removed as required.

- The equipment shall meet the following minimum specifications; power jet and water source for washing down the storm drain, vacuum attachment for catch basin cleaning, and a liquid handling method to dewater the material.
- Inspect and legally dispose of accumulated sediment and debris within the storm drains between basins. Liquids must be decanted on-site and returned to the catch basin.



Catch Basins:

Catch basins shall be inspected to confirm the structure is operating properly.

- Inspect the presence of accumulated sediment or debris any sediment shall be removed. The equipment shall meet the following minimum specifications; power jet and water source for washing down the storm drain, vacuum attachment for catch basin cleaning, and a liquid handling method to dewater the material.
- Sediment shall be removed when accumulation is within 6 inches of the outfall pipe invert. Legally dispose of accumulated sediment and debris from the bottom of the basin, inlet grates, and inflow channels to the basin.
- If the basin outlet is designed with a hood to trap floatable materials (e.g. Snout), check to ensure watertight seal is working.
- Appropriately dispose of all collected material.

Landscaped and Vegetated Areas

Inspect all landscaped and or vegetated slopes and embankments on an annual basis. Vegetated areas with bare areas or sparse growth (<90% coverage) shall be revegetated. Mulch shall be applied to landscaped areas, as necessary. Dead or decaying landscaping (ground cover, shrubs, trees etc.) shall be replanted in accordance with the approved Landscape Plan.

INSPECTION AND MAINTENANCE TABLE

Inspection and Maintenance Frequency	Spring or Yearly	Summer	Fall	As Necessary
Porous Pavement - Sweeping	X		X	X
Dense Pavement - Sweeping	X			X
Storm Drains		X		X
Catch Basins		X		X
Riprap Apron Outlet	X			X
Outlet Control Structure	X			X
Landscaped/Vegetated/Wall Areas	X			X



MaineDOT - Stormwater Control BMP Inspection Log

POROUS PAVEMENT:							
Location: 547 Riverside St, Portland, ME 04103					Latitude: 43.69369° Longitude: - 70.3230333°		
Description of Located Point: Drive aisles between storage containers					Inspector: Date of Inspection: Weather Conditions:		
DOT Region:							
MATS Asset Number:		WIN:			Design Drawings:		
Maintenance Items	Inspect In Spring	Inspect In Fall	Inspect As Necessary		Maintenance Requested (Date)	Maintenance Completed (Date)	Summary of Maintenance Required
Porous Pavement							
Pavement pores are free of sediments and organic debris (e.g., pine needles)	☒	☐	☒	☐ Yes ☐ No ☐ N/A			
Site shows evidence of winter sand being spread on site	☒	☐	☐	☐ Yes ☐ No ☐ N/A			
Pavement drains within 72-hours of significant storm (1/2" in 24 hours)	☐	☐	☒	☐ Yes ☐ No ☐ N/A			
Pavement surface is free of potholes, cracks, and heaves	☐	☒	☒	☐ Yes ☐ No ☐ N/A			
No visual signs/odor associated with petroleum hydrocarbon contamination	☐	☒	☒	☐ Yes ☐ No ☐ N/A			
General							
Access to facility is adequate	☐	☒	☐	☐ Yes ☐ No ☐ N/A			
Photographs of most recent site inspection are included	☐	☒	☐				Photographs are attached.
Additional Comments:							

STORMWATER MAINTENANCE AND INSPECTION AGREEMENT: INSPECTION LOG

CATCH BASIN:							
Location: 547 Riverside St, Portland, ME 04103				Latitude: 43.69369°			
				Longitude: - 70.3230333°			
Description of Located Point: Within drive aisles				Inspector:			
				Date of Inspection:			
				Weather Conditions:			
Days since last precipitation				MEDEP Permit # N/A			
Quantity of last precipitation (in)				Design Drawings: YES			
Maintenance Items	Inspect In Spring	Inspect In Fall	Inspect As Necessary		Maintenance Requested (Date)	Maintenance Completed (Date)	Summary of Maintenance Required
Catch Basins							
Catch basin is working properly and is free of debris and sediment	☐	☐	☒	☐ Yes ☐ No ☐ N/A			
Basin outlet hood (if any) is working properly.	☒	☒	☐	☐ Yes ☐ No ☐ N/A			
Inter-basin storm drain is functioning properly and free of sediment and debris.	☒	☒	☐	☐ Yes ☐ No ☐ N/A			
Sediment sacks and hydrocarbon absorptive pads are working properly.	☐	☐	☒	☐ Yes ☐ No ☐ N/A			
General							
Access to facility is adequate	☒	☒	☐	☐ Yes ☐ No ☐ N/A			
Photographs of most recent site inspection are included	☒	☒	☐				Photographs are attached.
Additional Comments:							

STORMWATER MAINTENANCE AND INSPECTION AGREEMENT: INSPECTION LOG

STORMWATER PIPE:							
Location: 547 Riverside St, Portland, ME 04103				Latitude: 43.69369°			
				Longitude: - 70.3230333°			
Description of Located Point: In between catch basins and outlet near wetland				Inspector:			
				Date of Inspection:			
				Weather Conditions:			
Days since last precipitation				MEDEP Permit # N/A			
Quantity of last precipitation (in)				Design Drawings: YES			
Maintenance Items	Inspect In Spring	Inspect In Fall	Inspect As Necessary		Maintenance Requested (Date)	Maintenance Completed (Date)	Summary of Maintenance Required
Inlets, Outlets, Culverts & Storm Drains							
Pipe/culvert is free of obstruction, accumulated sediment and debris	☐	☐	☒	☐ Yes ☐ No ☐ N/A			
Pipe inlet and outlet is free of obstruction, accumulated sediment and debris	☒	☒	☐	☐ Yes ☐ No ☐ N/A			
Pipe/culvert, inlet and outlet is free of collapses and structural damage	☒	☒	☐	☐ Yes ☐ No ☐ N/A			
Outlet and inlet are properly conveying stormwater and no erosion is visible	☒	☒	☐	☐ Yes ☐ No ☐ N/A			
General							
Access to facility is adequate	☒	☒	☐	☐ Yes ☐ No ☐ N/A			
Photographs of most recent site inspection are included	☒	☒	☐				Photographs are attached.
Additional Comments:							

MaineDOT - Stormwater Control BMP Inspection Log

VEGETATED AREAS:							
Location: 547 Riverside St, Portland, ME 04103				Latitude: 43.69369°			
				Longitude: - 70.3230333°			
Description of Located Point: Vegetation between porous pavement and wetland				Inspector:			
				Date of Inspection:			
				Weather Conditions:			
DOT Region:				Design Drawings:			
MATS Asset Number:		WIN:					
Maintenance Items	Inspect In Spring	Inspect In Fall	Inspect As Necessary		Maintenance Requested (Date)	Maintenance Completed (Date)	Summary of Maintenance Required
Embankments							
Slopes and embankments are in good condition.	☐	☒	☐	☐ Yes ☐ No ☐ N/A			
Site is free of rill erosion	☐	☒	☐	☐ Yes ☐ No ☐ N/A			
General							
Site is free of locations with less than 90% vegetative cover	☐	☐	☒	☐ Yes ☐ No ☐ N/A			
Plantings are capable of withstanding concentrated flows	☐	☐	☒	☐ Yes ☐ No ☐ N/A			
Access to facility is adequate	☐	☒	☐	☐ Yes ☐ No ☐ N/A			
Photographs of most recent site inspection are included	☐	☒	☐				Photographs are attached.
Additional Comments:							



Maintaining your investment • Protecting our environment™

8 Blue Moon Drive • North Yarmouth, Maine 04097

PHONE: 207.829.2198 • FAX: 207.829.2178 • www.StormwaterComp.com

March 15, 2017

Bob LeBlanc
Peninsular Property Development, LLC
59 Moody St
Portland, ME 04101
via email: robertleblanc1@me.com

**Re: Stormwater Management Services: Letter of Intent for Stormwater Services
Riverside Self Storage Container
547 Riverside Dr. – Portland, ME**

Mr. LeBlanc,

StormWater Compliance, LLC (SWC) is pleased to present you with the following letter of intent to provide management services including **StormWater Inspection, Maintenance, Documentation, and Submission** for the stormwater management system (SMS) at the above referenced location. This proposal was requested by you to satisfy Maine DEP Stormwater Law requirements for the Site Location of Development Law application for your project.

Scope of Work

StormWater Compliance, LLC will develop and implement the site specific Stormwater Management Program based upon current Stormwater Industry Operation and Maintenance Standards and the Stormwater Operation and Maintenance Plan provided. In general, the Stormwater Management Program will consist of **Semi-Annual** inspections & vacuum sweeping with annual reporting. Additional general site inspections will be performed as needed after major storm events.

The annual cost to provide Stormwater Management Services as described for the SMS at **Riverside Self-Storage Container** is detailed in Exhibit A per the O&M plan provided. This scope of work and cost is subject to the terms and conditions also set forth in Exhibit A hereto.

The term for this contract will be five years commencing on the date executed below. This term is based on the 5-year Maine DEP Stormwater Recertification Program. The term will renew automatically for an additional five-year term unless one party provides the other with written notice of termination at least one month before the initial termination date. Either party may terminate this agreement at any time with 30 days' notice.



Maintaining your investment • Protecting our environment™

8 Blue Moon Drive • North Yarmouth, Maine 04097

PHONE: 207.829.2198 • FAX: 207.829.2178 • www.StormwaterComp.com

Inspection and Maintenance:

Full inspections of new stormwater improvements associated with this development will take place semi-annually. Additional general inspections will be performed following extreme storm events to verify that critical elements of the SMS have not been damaged or obstructed. During all inspections observations will be logged and digital images of each stormwater management element will be recorded to assist in documentation.

Stormwater Good Housekeeping:

The overall site will be inspected to ensure that proper stormwater “good housekeeping” practices are in place. We will visually inspect the entire project area for any signs of erosion, check parking lots for major cracks or settling and confirm proper sweeping is being employed. We will visually inspect anticipated high trash / pollutant areas (i.e. loading dock, compactor areas, etc.) and open stormwater management facilities for any undesirable woody growth or vegetation.

Stormwater Structures (CB's):

All stormwater structures will be inspected semi-annually. Any deficiencies in structural condition, function, and sediment levels will be noted. Interior components will be inspected for condition and function. **Maintenance:** Accumulations of floatable trash and debris will be skimmed and removed where encountered during inspections. Vacuum clean out of stormwater structures will be performed as needed based on inspection observations and sediment measurements.

Porous Pavement and Stormwater Vacuum Sweeping Services:

StormWater Compliance, LLC will provide vacuum sweeping services for all Porous and Non-Porous pavement areas. All Porous Pavement areas will be vacuumed two (2) times per year. Non-Porous Pavement areas will be vacuumed one time per year following spring clean-up. As stormwater professionals, we recognize the importance of high efficiency vacuum sweeping as a component of an effective “Stormwater Good Housekeeping” program. Stormwater Compliance, LLC employs only state of the art regenerative air vacuum sweepers. Sweeping activities will be logged, photo-documented (if appropriate), and presented within the annual report of all stormwater related activities.

Stormwater Vacuum Sweeping Service is designed to remove fine pollutant materials and does not include “spring clean-up” (typically provided by the landscaper or snow removal contractor) of gross sand, sediment, trash, and debris left behind from winter deicing efforts. StormWater Compliance, LLC can provide a separate proposal for “spring clean-up” services if requested.

Maine DEP 5-year Recertification:

If still under contract when recertification comes due, SWC will complete the required DEP Recertification forms, package with inspection and maintenance logs and submit to ME DEP on your behalf. SWC will maintain records of subsequent annual inspections in preparation for each 5 year Recertification.



Maintaining your investment • Protecting our environment™

8 Blue Moon Drive • North Yarmouth, Maine 04097

PHONE: 207.829.2198 • FAX: 207.829.2178 • www.StormwaterComp.com

Reporting and Documentation:

An Annual Inspection and Maintenance Log report will be prepared and submitted to you electronically for your records. Hard copies of reports will be provided upon request. As necessary and upon request by Management, StormWater Compliance will submit the annual report to appropriate agencies (i.e. City / Town, DEP, etc.). The report shall include documentation of all Inspection, Maintenance, performed on the site during the previous year. The report shall also include images (and in some cases video) and field documentation of all activities that have taken place. The report will verify that the Stormwater Management System is in good working order and in compliance with Stormwater permits, or will detail recommendations if repairs are required.

SWC Customer Web Portal:

Access will be provided to the StormWater Compliance Customer Web Portal. This is a unique password protected, centralized location for storage and transfer of all pertinent stormwater documents, including reports, plans, permit documents, aerial photos and maps. The portal provides one spot for access to all stormwater documents for this project.

Acceptance:

If this proposal, as presented, is acceptable to you, please execute a copy of this document in the place indicated below and we will begin work.

We are prepared and eager to begin work outlined in this proposal. If you have any questions, concerns, or require any additional information, please do not hesitate to contact me (207) 653-7440. We thank you for this opportunity and look forward to working with you.

Sincerely,

A handwritten signature in cursive script that reads "Nathan Marles".

Nathan Marles
StormWater Compliance, LLC
nmarles@swcim.com

Agreed and Accepted this _____ day of _____, 20____.

Company Name: _____

Signature: _____ Name: _____

Title: _____

By signing above, you acknowledge that you are authorized to enter into this contractual agreement for the entity that is responsible for the work proposed herein.



Maintaining your investment • Protecting our environment™

8 Blue Moon Drive • North Yarmouth, Maine 04097

PHONE: 207.829.2198 • FAX: 207.829.2178 • www.StormwaterComp.com

EXHIBIT A: PRICING & ACCEPTANCE

Pricing:

The annual cost to provide Stormwater Management Services as described above for the Stormwater Management System at **Riverside Self Storage Container is \$ 4,200.** This scope of work and cost is subject to the terms and conditions below.

Acceptance:

If this letter, as presented, is acceptable to you, please execute a copy of this document in the place indicated below to signal your intent to work with us. Please contact us as construction nears completion so we may plan to properly Inspect and Maintain this system.

If you have any questions, concerns, or require any additional information, please do not hesitate to contact me (207) 653-7440. We thank you for this opportunity and look forward to working with you.

Sincerely,

A handwritten signature in cursive script that reads "Nathan Marles".

Nathan Marles
StormWater Compliance, LLC
nmarles@swcim.com

Agreed and Accepted this _____ day of _____, 20____.

Company Name: _____

Signature: _____ Name: _____

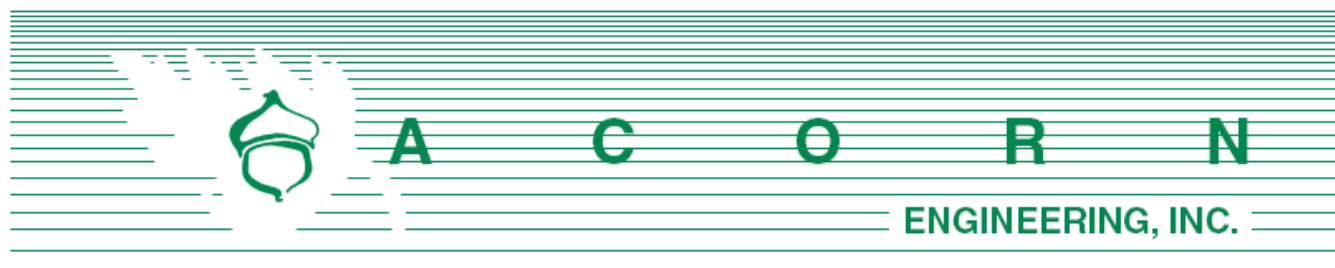
Title: _____

By signing above, you acknowledge that you are authorized to enter into this contractual agreement for the entity that is responsible for the work proposed herein.

EXHIBIT A: GENERAL PROVISIONS

These general provisions govern the Contract between **StormWater Compliance, LLC** (the “Contractor”) and **Peninsula Property Development, LLC** (the “Client”) for work to be performed at **Riverside Self Storage Container** (the “Site”).

1. **Scope of Work.** The Scope of work is as set forth in the accompanying proposal and contract (the “Proposal and Contract”).
2. **Client Obligations.** The Client will:
 - a) not knowingly permit the release of any hazardous or regulated materials at the Site.
 - b) provide the Contractor with written notice of: (i) the actual, suspected or threatened release of any regulated or hazardous materials at the site as well as (ii) all information known to the Client regarding the storage and use of any hazardous materials at the Site by any person or entity.
 - c) reasonably cooperate with the Contractor in connection with the Contractor’s work at the site.
3. **Payment for Services.** Invoices shall be due 30 days after the date of the invoice.
4. **Termination.** This Agreement may be terminated by (i) the Contractor upon a breach of any payment obligation which has not been cured within ten days after written notice from the Contractor to Client and (ii) either party upon a breach of this Agreement by the other party if breach has not been cured after thirty (30) days written notice to the other party (iii) the Client upon the event of a sale of the property. Either party may terminate this agreement at any time with 30 days’ written notice to the other party.
5. **Limitations of Liability.** The Client understands and acknowledges that the Contractor’s roles are in the areas of inspection and maintenance of the Stormwater Maintenance System (“SMS”) at the Site and that, while inspection and maintenance of the SMS at the Site are essential elements of effective stormwater management, the Contractor’s activities are limited and periodic and the Contractor’s work cannot and does not guaranty that the SMS cannot be rendered ineffective by sudden events beyond Contractor’s control between inspections. The Contractor is also not responsible for any deficiencies which are caused by improper or inadequate SMS installations / construction. Furthermore, the contractor is not liable for structures, features or details absent from the stormwater inspection due to poor/missing site plans provided or not provided by the client. The foregoing shall not be deemed to limit Contractor’s liability under this Agreement for any damages or liabilities incurred by Client arising from the Contractor’s failure to perform Contractor’s obligations under this Agreement.
6. **Assumptions and Exclusions.** Unless otherwise stated in scope of work, the price schedule set forth in this agreement reflects an assumption that the Site is either new construction (and therefore free of sediment and debris) and/or that all normal routine inspections, maintenance, repairs and rehabilitation work has been completed prior to the date of this agreement. In the event that is not the case, the Contractor will so notify the Client and will provide the Client with an appropriate written change order to reflect the additional maintenance work which may be required in a system which has not been regularly inspected, maintained and/or repaired. This contract is for routine inspection and maintenance services only and does not include system repairs, system replacements or system rehabilitation work. Furthermore, the removal of sediment and debris caused by natural disasters (i.e. hurricanes, floods, etc.) would not be considered routine maintenance services. The Client shall be responsible for costs of (i) removal and disposal of any hazardous or regulated materials discovered including any of the Contractor’s additional costs for labor or materials relating to such hazardous materials and (ii) required maintenance deemed by the Contractor to be caused by construction related activities, including but not limited to removal by mechanical means of sediment and debris any stormwater implement including any of the Contractor’s additional costs for labor, materials or disposal relating to such maintenance functions. In either case (i or ii) a report of any findings and recommended work shall be furnished to the client and no work shall be performed without the client’s authorization.
7. **Indemnification.** The Client agrees, upon demand, to defend, indemnify and hold the Contractor and its officers, directors, shareholders, employees and agents, harmless from any and all claims, liabilities or causes of action or any kind arising from or relating to any negligence or willful misconduct by the Client, its officers, employees, agents, or contractors at the Site. The Contractor agrees, upon demand, to defend, indemnify and hold the Client and its officers, directors, shareholders, employees and agents, harmless from any and all claims, liabilities or causes of action or any kind arising from or relating to (i) a breach of Contractor’s obligations under this Agreement by the Contractor, its officers, employees, agents, or contractors or (ii) any negligence or willful misconduct, by the Contractor, its officers, employees, agents, or contractors at the Site.
8. **Choice of Law, Limitation of Liability, Costs and fees.** The rights of the Customer and Client will be interpreted in accordance with the law of the State in which the Site is located, including all matters of construction, validity, performance, and enforcement, without giving effect to any principles of conflict of laws. In no event shall either party be liable to the other party under any theory of liability whatsoever for any consequential or punitive damages. In any litigation arising from or relating to this agreement, the prevailing party will recover all such party’s attorney’s fees costs.
9. **Amendments/Waivers.** This Agreement may not be amended except in writing signed by all parties.
10. **Entire Agreement.** This Agreement, including the Proposal and Contract contains the entire and complete understanding between the parties concerning its subject matter and all representations, agreements, arrangements, and understandings between or among the parties, whether oral or written, have been fully merged herein and are superseded hereby.



Matthew Grooms – City Planner
 Planning Division
 City of Portland, Maine
 389 Congress Street, 4th Floor
 Portland, ME 04101

April 19, 2017

Subject: Level III: Site Plan Final Application
 Riverside Self-Storage – Portland, Maine

Dear Matthew Grooms,

547 Riverside, LLC is pleased to submit the accompanying package of submission materials related to the proposed development of a self-storage facility at 547 Riverside Street. This submission package is intended to address and meet the comments provided by the Planning Board, Planning Authority, City Staff and Peer Review Comments set within the Planning Staff's application review comments. Notable changes include a slight alteration of the driveway to allow for a 10-foot pavement setback, redesign of the office building, a proposed fire hydrant, and minor stormwater revisions.

The NRPA wetland permit submitted by Mark Cenci to the Maine DEP has been approved (Tier 1 permit, # L-27337-TB-A-N). The permit encompasses proposed impacts to wetlands.

The following documents and drawings will be uploaded into the City's electronic submission site to supplement those already submitted for the Preliminary Application:

Documents:

- Section D: *Updated Conformity with Applicable Zoning Requirements*
- Section F: *Updated Request for Waivers*
- Section H: *Updated Stormwater Management Report*
- Section I: *Updated Erosion Control Report*
- Section J: *Updated Fire Department Letter*
- Section K: *Updated Solid Waste*
- Section L: *Updated Utility Cover*
- Section N: *Updated Lighting*
- Section P: *Updated Stormwater Maintenance Agreement*
- Section Q: *New Final Application Cover*
- Section R: *New Final Application*
- Section S: *New Comment Response Letter*
- Section T: *New Class B Soil Survey*
- Section U: *New NRPA Permit*
- Section V: *New Fence Details & Cut Sheets*

Drawings:

- Updated Civil Plan Set, Dated 4/13/17
- New Plan 19. Office Floor Plan
- New Plan 20. Office Elevation
- New Plan 21. Office Details
- New Plan 22. Erosion & Sedimentation Control Notes

If you have any questions regarding these materials or the completeness of the application materials, please contact us within the next five (5) days.

Sincerely,



William H. Savage, P.E.
Principal - Project Manager
Acorn Engineering, Inc.





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
p.m. (207) 874-8719

planning@portlandmaine.gov

Office Hours

Monday thru Friday
8:00 a.m. – 4:30

PROJECT NAME:Riverside Self-Storage Containers

PROPOSED DEVELOPMENT ADDRESS:547 Riverside Street, Portland, ME 04103

PROJECT DESCRIPTION:

Development of self-storage facility utilizing recycled shipping containers. The units will

be accessed through drive aisles comprised of porous pavement.

CHART/BLOCK/LOT: 312/B/008-012**PRELIMINARY PLAN**2/2/2017**FINAL PLAN**4/19/2017**CONTACT INFORMATION:**

Applicant – must be owner, Lessee or Buyer Name: Bob LeBlanc Business Name: 547 Riverside LLC Address: 59 Moody St. City/State : Portland, Maine Zip Code: 04101	Applicant Contact Information Work #: (207) 879 - 2222 Home #: Cell #: Fax#: e-mail: robertleblanc1@me.com
Owner – (if different from Applicant) Name: N/A Address: City/State : Zip Code:	Owner Contact Information Work #: Home #: Cell #: Fax#: e-mail:
Agent/ Representative Name: Acorn Engineering, Inc. Will Savage, P.E. Address: 158 Danforth Street City/State : Portland, Maine Zip Code: 04102	Agent/Representative Contact information Work #: (207) 775-2655 Home #: Cell #: (207) 317-1884 e-mail: wsavage@acorn-engineering.com
Billing Information Name: See applicant information Address: City/State : Zip Code:	Billing Contact Information Work #: Home #: Cell #: Fax#: e-mail:

Engineer Name: See agent information Address: City/State : Zip Code:	Engineer Contact Information Work #: Home #: Cell #: Fax#: e-mail:
Surveyor Name: Owen Haskell, Inc. Address: 390 Route 1 Falmouth, Maine City/State : Falmouth, Maine Zip Code: 04105	Surveyor Contact Information Home #: Work #: (207) 774-0424 Cell #: Fax#: e-mail: ebrewer@owenhaskell.com
Structural Engineer Name: Structural Integrity Consulting Engineers, Inc. Address: 77 Oak Street City/State : Portland, Maine Zip Code: 04101	Structural Engineer Contact Information Work #: (207) 774-4614 Home #: Cell #: Fax#: e-mail: aaron@structuralinteg.com
Attorney Name: Tom Jewell Address: 477 Congress Street City/State : Portland, Maine Zip Code: 04101	Attorney Contact Information Work #: (207) 774 - 6665 Home #: Cell #: Fax#: e-mail: tjewell@jewellbulder.com
Designated person/person(s) for uploading to e-Plan: Name: Sam Lebel, E.I. (Acorn Engineering, Inc.) e-mail: slebel@acorn-engineering.com Name: Olivia Dawson, E.I. (Acorn Engineering, Inc.) e-mail: odawson@acorn-engineering.com Name: Will Savage, P.E. (Acorn Engineering, Inc.) e-mail: wsavage@acorn-engineering.com	

APPLICATION FEES:

Level III Development (check applicable reviews) ☐ Less than 50,000 sq. ft. (\$750.00) ☐ 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 (\$50.00 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 (\$1,500) ☒ Stormwater Quality (\$250) ☐ Subdivisions (\$500 + \$25/lot) # of Lots ☒ \$25/lot = _____ ☒ Site Location (\$3,500, 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
--	---

INSTRUCTIONS FOR ELECTRONIC SUBMISSION:

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

- Fill out the application completely and e-mail the **application only** to planning@portlandmaine.gov (Please be sure to designate a person who will be responsible for uploading documents and drawings.) This step will generate the project ID number for your project.
- An invoice for the application fee will be e-mail to you. Payments can be made on-line at [Pay Your Invoice](#) , by mail or in person at City Hall, 4th Floor. Please reference the Application Number when submitting your payment which is located in the upper left hand corner of the invoice.
- The designated person responsible for uploading documents and drawings will receive an email from eplan@portlandmaine.gov with an invitation into the project. At this time, you will upload all corresponding documents and plans into the project. For first time users you will receive a temporary password which you must change on entry. Make note of your username and password for any future projects.

Reminder: Before the project can move forward, the application fee shall be paid in full and all required documents and drawings shall be uploaded into e-plan correctly.

- Follow the link below (Applying Online Instructions) for step by step instructions on how to do the following:
 Tab 1 - Setting up the appropriate compatibility settings for your PC and getting started in e-plan.
 Tab 2 - Preparing your drawings, documents and photos for uploading using the correct naming conventions
 Tab 3 - Preparing and uploading revised drawings and documents

[Applying Online Instructions](#)

- When ready, upload your files and documents into the following folders:
 "Application Submittal – Drawings"
 "Application Submittal – Documents"

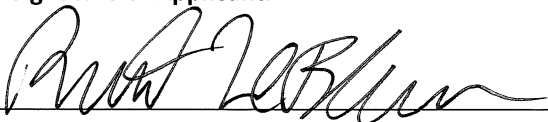
6. Once a preliminary check has been made of the submittal documents and drawings, staff will move them to permanent folders labeled Drawings and Documents. As the process evolves you will be able to log in and see markups, comments and upload revisions as requested into these folders.

APPLICANT SIGNATURE:

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.

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: 2/2/17
---	------------------------

PROJECT DATA

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

Total Area of Site	290,448 sq. ft.
Proposed Total Disturbed Area of the Site	172,220 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)	11,460 sq. ft.
Impervious Area (Total Proposed)	156,865 sq. ft.
Building Ground Floor Area and Total Floor Area	
Building Footprint (Total Existing)	0 sq. ft.
Building Footprint (Total Proposed)	80,960 sq. ft.
Building Floor Area (Total Existing)	0 sq. ft.
Building Floor Area (Total Proposed)	80,960 sq. ft.
Zoning	
Existing	I-M
Proposed, if applicable	
Land Use	
Existing	Vacant
Proposed	Commercial - Self-Storage
Residential, If applicable	
# of Residential Units (Total Existing)	
# of Residential Units (Total Proposed)	
# of Lots (Total Proposed)	
# of Affordable Housing Units (Total Proposed)	
Proposed Bedroom Mix	
# 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)	0
# of Parking Spaces (Total Proposed)	10
# 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	\$1 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
N/A		1	Traffic Analysis (may be preliminary, in nature, during the preliminary plan phase)
Applicant Checklist	Planner Checklist	# of Copies	SITE PLAN SUBMISSIONS CHECKLIST
X		1	Boundary Survey meeting the requirements of Section 13 of the City of Portland's Technical Manual
X		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;
X			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;
N/A			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
*		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
N/A		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
N/A		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
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.

* To be submitted upon receipt

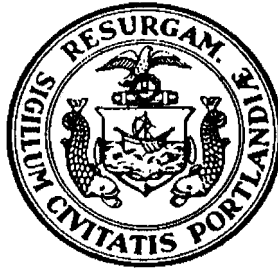
Applicant Checklist	Planner Checklist	# of Copies	SITE PLAN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)
X		1	* Boundary Survey meeting the requirements of Section 13 of the City of Portland's 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;
X			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;
X			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;
X			A delineation of wetlands boundaries prepared by a qualified professional as detailed in Section 8 of the Technical Manual;
X			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;
X			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;
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;
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.

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

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



Bradley Roland, P.E.
Water Resources Division

Date: 2/2/2017

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

Site Address: 547 Riverside St

Chart Block Lot Number: 044-B-007

Proposed Use: Commercial - Self storage

Previous Use: Vacant

Existing Sanitary Flows: 0 GPD

Existing Process Flows: 0 GPD

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

Proposed connection to the existing sewer system in Riverside St.

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: TBD

Phone: TBD

Owner/Developer Name: 547 Riverside, LLC

Owner/Developer Address: 59 Moody Street Portland, Maine 04101

Phone: (207) 879 - 2222

E-mail: robertleblanc1@me.com

Engineering Consultant Name: Will Savage, P.E. - Acorn Engineering, Inc.

Engineering Consultant Address: 158 Danforth Street, Portland Maine 04102

Phone: (207) 775-2655

Fax: _____ E-mail: wsavage@acorn-engineering.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: 24 GPD

Peaking Factor/ Peak Times: Diurnal flow pattern

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) State of Maine Subsurface Wastewater Disposal Rules, Effective 8/3/15

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
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.

Wastewater Flow Calculations Source: State of Maine Subsurface Wastewater Disposal Rules

Existing Flow:

0 GPD

Proposed Flow:

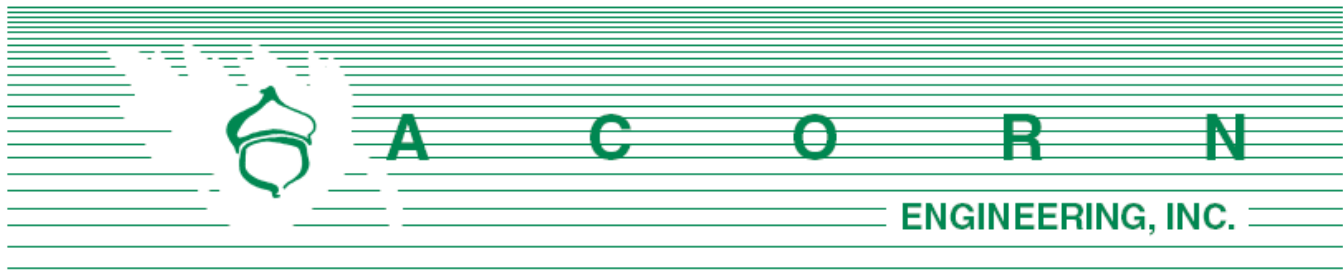
Employees at place of employment with no showers

Equation: $Q = 12 \text{ GPD} \times \text{Employees}$

*It is assumed there will be at most two employees working

$Q = 12 \times 2$

$Q = 24 \text{ GPD}$



Matthew Grooms – City Planner
Planning Division, City of Portland
389 Congress Street
Portland, ME 04101

April 19, 2017

Subject: Comment Response Letter
Riverside Self-Storage Development – Portland, Maine

On behalf of 547 Riverside, LLC we are pleased to respond to the comments provided by multiple reviewers.

To facilitate the review, comments are provided below in italics followed by Acorn Engineering, Inc.'s response.

Tom Errico, Traffic Engineering

Comment – *The project is not expected to generate a significant amount of traffic generation and thus the project would not be expected to create traffic congestion or safety deficiencies. A Traffic Movement Permit is not required.*

Response – Thank you for the review – we agree with your statement.

Comment – *The applicant should determine if a waiver is required for driveway separation on Riverside Street. If conditions do not meet City Standards, the applicant should provide supporting documentation for a waiver request.*

Response – A waiver has been requested for a separation of 85 feet. Please refer to Document F for more information regarding the driveway separation.

Comment – *I have reviewed the construction management plan and generally find it to be acceptable.*

Response – Thank you for the review – we agree with your statement.

Comment – *The driveway shall be designed such that a maximum cross-slope of 2% is provided along the sidewalk accessible route.*

Response – The cross-sections depict the condition in which the sidewalk maintains a maximum cross-slope of 2%.

Matthew Grooms, Site Plan Review

Comment – *Per Section 14-250(h), the pavement setback from the lot boundaries shall be a minimum of 10' feet. Past the choke point, approximately 140' feet east of the property line along Riverside Street, it appears that the edge of pavement is just 6' feet from the northerly property line. Past this bottleneck, the driveway shall be relocated to meet the city's 10' feet standard.*

Response – The driveway has been reoriented to comply with the 10' setback beyond the choke point. Please refer to the Site Plan for more information.

Comment – *The City's off-street parking standards require a minimum of 1 parking space/1,000 sf of floor space for self-storage uses, for a total of 81 parking spaces for this project. Ten parking spaces have been provided. Please submit a written waiver request for a reduction in required parking.*

Response – Please refer to the updated Document F. Written Waivers for this request.

Comment – *Designated snow storage locations shall be called out on the site plan.*

Response – A callout has been provided on C-10. Please also refer to the legend on C-10.

Comment – *How will waste on site be managed? Will there be any exterior refuse containers? If so, these shall be adequately identified and screen per Sections 14-527(f) and 14-526(b) respectively.*

Response – At this time, the solid waste will be disposed of weekly via City curbside pickup. Solid waste collection will be provided for the office only.

Comment – *What are the intended hours of operation for this facility?*

Response – The intended hours of operation are 7 am to 10 pm. The facility has been designed for customers to have individual codes to the gated access, which will allow the owner to know who is in the facility at all times. Additionally, the facility will be secured by cameras and lights.

Comment – *The applicant has stated that separate lighting detail cut sheets and associated photometric will be supplied with the final plan submittal. Please note that the location of any exterior lighting shall be called out on the proposed site plan.*

Response – Please refer to the updated Document N. Lighting for this information. The location of exterior lighting has been called out on the Utility and Site Plans.

Comment – *On Sheet C-10, Site Plan, a proposed sliding gate is called out with reference to a separate detail and "Note 3". There does not appear to be a "Note 3" and in looking at the two site detail sheets, there does not appear to be a detail for either the 6' foot security fence or gate. These items shall be included with the subsequent submission.*

Response – The note has been revised to note 2. The fence and gate details will be provided by others as noted in the callout.



Keith Gautreau, Fire Department Review

Comment – *Are there going to be any proposed hydrants? Location and distance for the nearest hydrant?*

Response – A private fire hydrant was added to the Utility Plan with a 6” supply line. The nearest public hydrant is at the intersection of Riverside St. and Leighton Ave which is approximately 250 feet away from the property’s frontage.

Comment – *The main entrance of the building must be the address for the property. This should be consistent with 911, tax assessor, Inspections Division, and future mailing address.*

Response – The Owner will maintain consistency between the various divisions.

Comment – *Street addresses shall be marked on the structure and shall be as approved by the City E-911 Addressing Officer.*

Response – The Owner will install street addresses that conform with the City standard and are approved by the Addressing Officer.

Comment – *If the building entry faces a different street, both the street name and number should be large enough to read from the street.*

Response – The main entrance will not face a different street. The address will be located on the business sign along the Riverside frontage.

Comment – *Address numbers must be a minimum of 4 inches high.*

Response – The Owner will ensure that the address number meets the 4-inch requirement.

Comment – *The number should be in Arabic numerals rather than spelled out (for example, “130” instead of “One Hundred and Thirty”).*

Response – The Owner will ensure that the numbers are of Arabic format.

Comment – *Color: Addresses should be in a color that contrasts with the background. Whenever possible, should be illuminated.*

Response – The Owner will ensure that the addresses are of contrasting color. If feasible, the numbers may be illuminated.

Comment – *Provide additional address signs at entrances to the property when the building address is not legible from the public street.*

Response – The address will be provided on the business sign along the Street frontage.

Comment – *Buildings set back in groups that share common entrances can make quickly locating a specific building the shortest route difficult. On such sites, additional signs with directional arrows*



and/or diagrams of the buildings and access layout should be posted.

Response – There are no shared driveways proposed as part of this project.

Woodard & Curran, Civil Engineering

Comment – *The applicant has indicated that a Tier 1 NRPA permit has been filed with the MaineDEP to fill approximately 6,350 square feet of wetland, and noted that a copy will be forwarded to the City upon approval.*

Response – The approved NRPA permit is anticipated to be issued in the near future. Correspondence has occurred with the Maine DEP and the Army Corps of Engineers. The final, signed permit will be uploaded upon receipt.

Comment – *Per Section 13 of the City's Technical manual, the Applicant is required to submit a Boundary Survey that has been Stamped by a Maine Licensed Professional Surveyor.*

Response – A Survey stamped by a Maine PLS has been uploaded with the final application.

Comment – *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. We are currently assuming that the City of Portland will have delegated review of stormwater for this project, but understand that the City is currently waiting for confirmation from the MaineDEP. We offer the following comments:*

Comment – *(a) Basic Standard: Plans, notes, and details have been provided to address erosion and sediment control requirements, inspections and maintenance requirements, and good housekeeping practices in accordance with Appendix A, B, & C of MaineDEP Chapter 500.*

- *It is noted that the plans call for the use of an erosion control berm, but the detail provided is for silt fence. The Applicant should clarify.*
- *Based on proposed grading, it appears that the sedimentation barrier should extend along the northern and southern edges of the property, in addition to the areas currently shown.*
- *We recommend that the Applicant consider erosion control blanket on proposed perimeter slopes, to help prevent erosion onto adjacent properties.*

Response –

- To ensure erosion and sedimentation control on this project, it is proposed to utilize both a berm as well as a silt fence in areas upgradient of the wetland. The berm will surround the majority of the site while both a silt fence and berm will be installed upgradient of the wetland as seen on Sheet C-03. An erosion control berm detail has been added to the plan set.



- The erosion control berm is proposed to be installed along the northern and southern edges of the property as it is a more effective sedimentation barrier. The overall design intent is to have both a berm and silt fence in place on the eastern extent of the disturbed area to protect the wetland. Furthermore, a sedimentation basin has been proposed during construction with a permanent outlet pipe that will serve as the porous pavement outlet once the permanent drainage infrastructure is installed.
- Erosion control blanket is now proposed along banks 3:1 or steeper with the corresponding detail included in the plan set.

Comment – *(b) General Standard: The project will result in an increase in impervious area of approximately 3.5 acres and is required to include specific stormwater management features for stormwater quality control, The applicant is proposing to treat stormwater using a pervious concrete stormwater filter system.*

- *Per the Maine DEP Stormwater BMP manual, the Applicant should verify that adequate separation between the base of the filter and the groundwater elevation is provided. In addition, the existing subsurface infiltration rate should also be confirmed.*
- *Calculations verifying that the filter layer will provide for adequate storage of 1-inch of rainfall from the area draining to the pervious concrete should be provided, per the requirements of the Maine DEP Stormwater BMP Manual.*
- *Additional specification should be provided for the Type D gravel specified for the Gravel Filter Course to ensure that adequate fines will be included in the material. The material specified is the MaineDOT Type D gravel which, per the MaineDOT specification, could have been between 0 and 7% fines content. The Maine DEP Stormwater BMP requires that the filter material contain between 4% and 7%.*

Response –

- At the peer review's request a High Intensity Soil Survey was completed by Mark Hampton. Due to the low permeability of the native soil, infiltration of stormwater into the subgrade was neither designed nor modeled. Therefore, the infiltration guidelines in Section 7.7 such as infiltration rates and groundwater elevations do not apply to this design. As part of the Class B Soil Survey test pits were performed and although the groundwater was discovered an average of 15" below the existing ground, the groundwater will remain separated from the "non-treated" stormwater. Any groundwater will be intercepted by the 6" layer of ¾" crushed stone and directed into the underdrains. Conversely stormwater will pass through the 10" gravel filter "water quality" layer before entering the crushed stone layer and being redirected into the underdrains. Given the low permeability rates of the existing soils and proposed stormwater design it is our opinion the infiltration guidelines outlined in Section 7.7 do not apply. Please refer to the stormwater report, Sheet C-45 and High Intensity Soil Survey for more information.



- The Manual reads “a minimum storage capacity for one inch of precipitation within the filter layer or subbase and base is needed.” This requirement is met through the subbase and base layers. Please refer to the stormwater report for these calculations.
- The Type D gravel has been revised as seen on Sheet C-45 to limit fines on the #200 sieve between 4-7%.

Comment – Flooding Standard: *The project will result in an increase in impervious area of approximately 3.5 acres. The stormwater management plan indicates that the project will reduce lows from the pre-development to the post-development condition in accordance with the Flooding Standard. The Applicant should clarify the following additional stormwater questions, and verify that following any changes to the model that the Flooding Standard will continue to be met.*

- *Additional information is required on the stormwater system proposed for the western side of the site. The plans indicate that pipe lengths and slopes are to be determined. The stormdrain connection is shown tying into an underdrain pipe within Riverside Street. This type of connection is not typical (note that we are forwarding our comments to the Water Resources Division at Public Works for consideration). In addition, the HydroCAD model for this area of the project indicated that the drainage structures will be in a flooding condition with water elevations above the rim during all modeled storm events. The applicant should review this section of the stormwater management system and provide additional clarification on the design intent.*
- *Post-development subcatchment 2S includes the grassed and wetland areas surrounding the proposed porous pavement however, the grading plan shows that these areas are graded away from the porous pavement. These areas are not being impacted by construction, and should not be directed to the pervious pavement in the post-development model so that the pre- and post-development modeling of the area remains consistent.*

Response – It has been verified that the flooding standard will be met after the revisions. Please refer to the stormwater report for more information.

- The information regarding the westerly stormwater system has been provided – please refer to the Grading & Drainage Plan. Overall the runoff from the site is expected to be reduced. The stormwater will be collected via an onsite catch basin and will be routed to the existing underdrain instead of a public catch basin which would also enter the underdrain system. Lastly, the stormwater system has been upsized to a 10” outlet which reduced the peak elevation to below the rim during all storm events. Please let us know if the Water Resource Division at the Public Works disagrees with this point of connection.
- Please refer to the revised Stormwater Report and Post-Development Watershed Map which shows a third subcatchment. The longest flow path flows along the Leighton Avenue ditch and into the existing wetlands.



Comment – *It is noted that grading is proposed to the property boundary. The Applicant should consider the potential need for temporary construction easement, or include notation that construction is not to extend onto abutting properties.*

Response – Callouts have been included on the Construction Management plan to prevent construction activities onto abutting properties.

Bruce Hyman, Bicycle Parking

Comment – *Concur with Tom that at a minimum 1 bicycle rack with a capacity for 2 bikes should be placed near the entrance to the office on a firm and stable surface of sufficient size.*

Response – A bicycle hitch is now proposed next to the office building.

Jeff Tarling, Landscaping

Comment – *Due to the scale of the project it would be recommended to see more in the way of landscape buffering. The project shows some undersized Taxus or Yews up near Riverside Street which would not offer much in the way of buffering and uses perennials which are nice up close but do little in the way of adding the landscape needed for a project of this size. These plants should be upgraded to Arborvitae 5-6' height.*

Response – Overall buffering of the site has been increased. The Yews are proposed solely next to the office building while eastern red cedars are proposed along the abutter's property line. An Armstrong Red Maple has been added to the Riverside frontage. Due to utility connections, there is no proposed tree on the northerly side of the main entrance.

Comment – *Street & Parking Lot shade trees – plant two trees near the entrance on Riverside Street, five Red Maple trees (2" caliper) near the parking lot, see attached photo.*

Response – Due to utility connections and snow storage needs, there is room for one tree near the entrance and three Red maples near the parking lot.

Comment – *Landscape buffer along Leighton Avenue – Recommended to have seven street trees (2" caliper) perhaps with landscape features or shrubs along Leighton Avenue.*

Response – Fifteen Armstrong Red Maples are now proposed along Leighton Avenue. Landscape features may be added in the future.

Comment – *Buffer planting along edges – with future development potentials unknown on adjacent properties the northeast and southern or Turnpike side edge would benefit with the planting of 12 conifers – could be one species or a mix of White Spruce, Larch, or hardwoods adaptable to the site conditions. These might be Red Maple, Tupelo. Trees in this area could be smaller 1.5" size. Shrub grouping of Viburnum, Alder, or Winterberry would be acceptable as well.*

Response – Buffer plantings have been added to the edges of facility.

Comment – *Overall the project covers a substantial area similar to a large warehouse the landscape*



treatment should be similar. Recommended tree and landscape features are reasonable additions and will help this project fit into the surrounding Riverside neighborhood landscape.

Response – Thank you for the review – additions have been made to the overall landscaping.

Please let me know if you have any additional questions or comments.

Sincerely,



William H. Savage, P.E.
Principal - Project Manager
Acorn Engineering, Inc.



Samuel J. Lebel, E.I.
Design Engineer
Acorn Engineering, Inc.





MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

4851

547 Riverside Street
Robert Leblanc
Portland, ME

Soil Narrative Report

DATE: Soil Profiles observed on February 24, 2017

BASE MAP: Base plan provided by Owen Haskell, Inc.
scale 1 inch equals 40 feet and one foot contours.

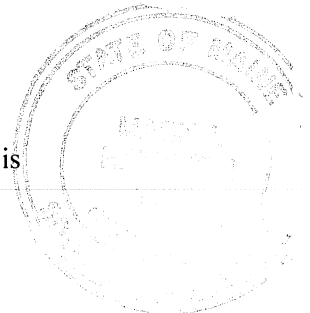
GROUND CONTROL: Soil survey boundaries located by Mark Hampton Associates,
Inc. for Class B Soil Survey

Class B-High Intensity Soil Survey (Minimum Standards)

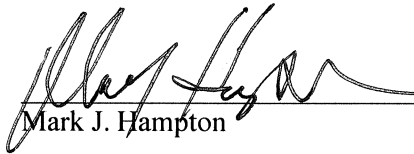
Mapping units of 1 acre or larger.
Scale of 1"= 100 feet or larger.
Up to 25% inclusions in mapping units of which no more than 15% may be dissimilar
soils.
Ground Control – test pits located accurately under direction of registered land surveyor
Base Map – 2 foot contour intervals

Provided:

Mapping units of 1/2 acre or larger
Base map scale of 1"= 40 feet.
Up to 25 percent inclusions in mapping units of which no more than 15 percent is
dissimilar soils.
Baseline information and test pits located by Mark Hampton Associates, Inc.
Ground topographic survey with 1 foot contours and ground control provided.



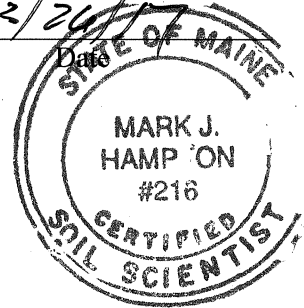
The accompanying soil profile descriptions, soil map, and this soil narrative report were done in accordance with the standards adopted by the Maine Association of Professional Soil Scientists, and the Maine Board of Certification of Geologists and Soil Scientists.



Mark J. Hampton

C.S.S. #216, L.S.E. #263

2/26/17
Date





MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

4851

547 Riverside Street
Robert Leblanc
Portland, ME

Buxton
(Aquic Dystric Eutrochrepts)

SETTING

PARENT MATERIAL: Derived from glaciomarine or glaciolaucustrine sediments
LANDFORM: Coastal lowlands and river valleys
POSITION IN LANDSCAPE: Intermediate positions on landform
SLOPE GRADIENT RANGES: (A) 0-3%

COMPOSITION AND SOIL CHARACTERISTICS

DRAINAGE CLASS: Moderately well drained with a perched watertable from 1.5 to 3.0 feet below the surface at some time from November to May or during periods of heavy precipitation.

TYPICAL PROFILE:

<u>Surface Layer:</u>	Dark Brown, fine sandy loam 0-7"
<u>Subsurface Layer:</u>	Olive brown, silt loam, 8-15"
<u>Subsoil Layer:</u>	Olive gray silty clay loam, 15-32"
<u>Substratum:</u>	Gray silty clay loam +32"

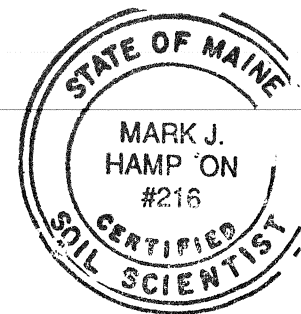
HYDROLOGIC GROUP:	Group C
SURFACE RUNOFF:	Moderate to moderately slow
PERMEABILITY:	Slow to very slow
DEPTH TO BEDROCK:	Greater than 60 inches
HAZARD TO FLOODING:	None

INCLUSIONS (Within Mapping Unit)

CONTRASTING: Scantic, Lamoine

USE AND MANAGEMENT

Development: The limiting factor for building site development is wetness due to the presence of a high watertable for a portion of the year. Proper foundation drainage or site modification is recommended.





MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

4851

547 Riverside Street
Robert Leblanc
Portland, ME

Lamoine
(Aeric Haplaquepts)

SETTING

PARENT MATERIAL: Derived from glaciomarine or glaciolaucustrine sediments
LANDFORM: Coastal lowlands and river valleys
POSITION IN LANDSCAPE: Intermediate positions on landform
SLOPE GRADIENT RANGES: (A) 0-3%

COMPOSITION AND SOIL CHARACTERISTICS

DRAINAGE CLASS: Somewhat poorly drained with a perched watertable from 0.5 to 2.0 feet below the surface at some time from November to June or during periods of heavy precipitation.

TYPICAL PROFILE:

<u>Surface Layer:</u>	Dark Brown, fine sandy loam 0-7"
<u>Subsurface Layer:</u>	Lt. Olive brown silt loam, 7-14"
<u>Subsoil Layer:</u>	Olive silty clay loam, 14-21"
<u>Substratum:</u>	Olive, silty clay loam, 21-65"

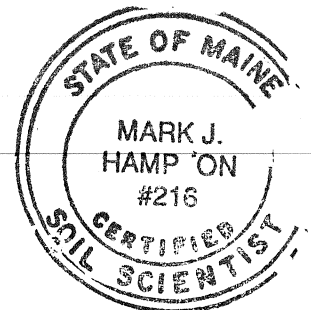
HYDROLOGIC GROUP: Group D
SURFACE RUNOFF: Moderate to moderately slow
PERMEABILITY: Slow to very slow
DEPTH TO BEDROCK: Greater than 65 inches
HAZARD TO FLOODING: None

INCLUSIONS (Within Mapping Unit)

CONTRASTING: Buxton, Scantic

USE AND MANAGEMENT

Development: The limiting factor for building site development is wetness due to the presence of a high watertable for a portion of the year. Proper foundation drainage or site modification is recommended.





MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

4851

547 Riverside Street
Robert Leblanc
Portland, ME

Man Made Land

SETTING

PARENT MATERIAL:	Derived from various materials found onsite and offsite.
LANDFORM:	N/A
POSITION IN LANDSCAPE:	N/A
SLOPE GRADIENT RANGES:	(A) 0-3%

COMPOSITION AND SOIL CHARACTERISTICS

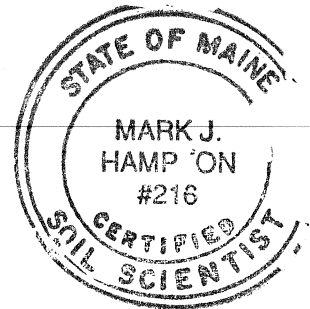
DRAINAGE CLASS:	Generally moderately well to somewhat poorly drained but varies.
TYPICAL PROFILE:	Varies in profile and onsite from fine loamy sand to silty clay loam
HYDROLOGIC GROUP:	Group C
SURFACE RUNOFF:	Usually very slow due to compaction
PERMEABILITY:	Slow to very slow
DEPTH TO BEDROCK:	Greater than 65 inches
HAZARD TO FLOODING:	None

INCLUSIONS (Within Mapping Unit)

CONTRASTING:	Buxton, Lamoine, Scantic
--------------	--------------------------

USE AND MANAGEMENT

Development:	There may be limiting factors for building site development.
--------------	--





MARK HAMPTON ASSOCIATES, INC.

SOIL EVALUATION • WETLAND DELINEATIONS • SOIL SURVEYS • WETLAND PERMITTING

4851

547 Riverside Street
Robert Leblanc
Portland, ME

Scantic
(Aquic Haplorthod)

SETTING

PARENT MATERIAL:	Derived from glaciomarine or glaciolaucustrine sediments
LANDFORM:	Coastal lowlands and river valleys
POSITION IN LANDSCAPE:	Lower positions on landform
SLOPE GRADIENT RANGES:	(A) 3-8%

COMPOSITION AND SOIL CHARACTERISTICS

DRAINAGE CLASS:	Poorly drained with a perched watertable from 0.0 to 1.0 feet below the surface at some time from October to May or during periods of heavy precipitation.
-----------------	--

TYPICAL PROFILE:	<u>Surface Layer:</u> Dark grayish brown, silt loam 0-9"
	<u>Subsurface Layer:</u> Olive gray silt loam, 9-16"
	<u>Substratum:</u> Gray silty clay loam, 16"+

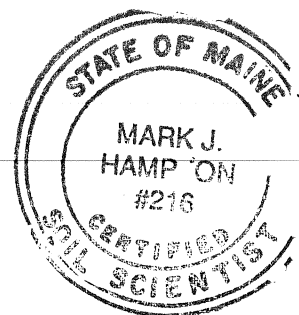
HYDROLOGIC GROUP:	Group D
SURFACE RUNOFF:	Moderate to moderately slow
PERMEABILITY:	Slow to very slow
DEPTH TO BEDROCK:	Greater than 65 inches
HAZARD TO FLOODING:	None

INCLUSIONS (Within Mapping Unit)

CONTRASTING:	Lamoine, Buxton
--------------	-----------------

USE AND MANAGEMENT

Development: The limiting factor for building site development is wetness due to the presence of a high watertable for a portion of the year. Proper foundation drainage or site modification is recommended.



SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF
SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name:

547 Riverside Street

Applicant Name:

Robert Leblanc

Project Location (municipality):

Portland

Exploration Symbol #

SS 1



Test Pit



Boring



Probe

" Organic horizon thickness

Ground surface elev. _____

" Depth of exploration or to refusal

Texture	Consistency	Color	Redox Features
0			
10	Varies	Varies	
20			
30			
40			
50			
60			

Soil Details by S.E. >> Soil Classification: Profile Condition Percent Depth

S.S. >> Soil Series/Phase Name: Made Land

Limiting Factor: ☐ Groundwater, ☐ Restrictive Layer, ☐ Bedrock

Hydrologic: ☐ Hydric, ☒ Non-hydric

Soil Group

Exploration Symbol #

SS 2



Test Pit



Boring



Probe

" Organic horizon thickness

Ground surface elev. _____

" Depth of exploration or to refusal

Texture	Consistency	Color	Redox Features
0			
10	Silt loam	Friable	Dark Brown
20	Silt loam	Friable	Brown
30	Silty clay loam	Fine	gray
40			
50			
60			

Soil Details by S.E. >> Soil Classification: Profile Condition Percent Depth

S.S. >> Soil Series/Phase Name: Lamoine SPD

Limiting Factor: ☒ Groundwater, ☒ Restrictive Layer, ☐ Bedrock

Hydrologic: ☐ Hydric, ☒ Non-hydric

Soil Group

Exploration Symbol #

SS 3



Test Pit



Boring



Probe

" Organic horizon thickness

Ground surface elev. _____

" Depth of exploration or to refusal

Texture	Consistency	Color	Redox Features
0			
10	Silt loam	Friable	Dark Brown
20	Silt loam	Friable	Brown
30	Silty clay loam	Fine	gray
40			
50			
60			

Soil Details by S.E. >> Soil Classification: Profile Condition Percent Depth

S.S. >> Soil Series/Phase Name: Buxton MUD

Limiting Factor: ☒ Groundwater, ☒ Restrictive Layer, ☐ Bedrock

Hydrologic: ☐ Hydric, ☒ Non-hydric

Soil Group

Exploration Symbol #

SS 4



Test Pit



Boring



Probe

" Organic horizon thickness

Ground surface elev. _____

" Depth of exploration or to refusal

Texture	Consistency	Color	Redox Features
0			
10	Silt loam	Friable	Dark Brown
20	Silt loam	Friable	Brown
30	Silty clay loam	Fine	gray
40			
50			
60			

Soil Details by S.E. >> Soil Classification: Profile Condition Percent Depth

S.S. >> Soil Series/Phase Name: Lamoine SPD

Limiting Factor: ☒ Groundwater, ☒ Restrictive Layer, ☐ Bedrock

Hydrologic: ☐ Hydric, ☒ Non-hydric

Soil Group

INVESTIGATOR INFORMATION AND SIGNATURE

Signature

MARC J. HAMPTON

Name Printed

MARC J. HAMPTON

Title

☒ Licensed Site Evaluator☒ Certified Soil Scientist☐ Certified Geologist☐ Professional Engineer

Date

5/24/17

Cert/Lic/Reg. #

263/216

#216

STATE OF MAINE

MARC J. HAMPTON

SOIL SCIENTIST

affix professional seal

SOIL PROFILE / CLASSIFICATION INFORMATION

DETAILED DESCRIPTION OF SUBSURFACE CONDITIONS AT PROJECT SITES

Project Name:

547 Riverside Street

Applicant Name:

Robert Leblanc

Project Location (municipality):

Part One

Exploration Symbol # 225 ☒ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness _____ Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Silt loam	Finest	Black	
10	Silt clay			Common
20	clay loam	Fine	Gray	Distinct
30				
40				
50				
60				

Soil Classification

S.E. 9 E

Profile Condition

Slope 2

Percent

Limiting Factor 6

"

Depth

☒ Groundwater

☒ Restrictive Layer

☐ Bedrock

Soil Series/Phase Name:

Scamtic PD

☒ Hydric

☐ Non-hydric

Hydrologic

Soil Group

Exploration Symbol # 586 ☒ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness _____ Ground surface elev. _____

_____ " Depth of exploration or to refusal

Texture	Consistency	Color	Redox Features
0			
10			
20			
30			
40			
50			
60			

Soil Classification

Profile 9 Condition D

Slope 2

Limiting Factor 13 ☒ Groundwater ☒ Restrictive Layer ☐ Bedrock

Soil Series/Phase Name: LAMONG SPO

☐ Hydric ☒ Non-hydric

Hydrologic

Soil Group

Exploration Symbol # SS 7 ☒ Test Pit ☐ Boring ☐ Probe

 " Organic horizon thickness Ground surface elev.

 " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Silt clay	Friable	Dark Brown	
10	Silt clay	Friable	Brown	
20	silty clay	Friable	Gray	Common Discoloration
30	clay			
40				
50				
60				

S.E. Soil Classification Slope Limiting Factor ☒ Groundwater
9 C 2 15 ☒ Restrictive Layer
Profile Condition Percent Depth ☐ Bedrock

S.S. Soil Series/Phase Name: ☐ Hydric Hydrologic
Boxed mud ☒ Non-hydric Soil Group

Exploration Symbol # SSE ☒ Test Pit ☐ Boring ☐ Probe

_____ " Organic horizon thickness _____ Ground surface elev. _____

_____ " Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Silt loam	silty	black	
10	Silty clay loam	firm	gray	iron pan discolor
20				
30				
40				
50				
60				

Soil Classification

Profile	Condition
<u>9</u>	<u>E</u>

Soil Series/Phase Name: Scumtic PD

Slope

Percent
<u>2</u>

Limiting Factor

☒ Groundwater
☒ Restrictive Layer
☒ Bedrock
☒ Depth
☒ Hydric
☐ Non-hydric
☐ Hydrologic
☐ Soil Group

DATE: 10/1/01 MAKE: MARK

INVESTIGATOR INFORMATION AND SIGNATURE

Signature

Mam. Hampton

Name Printed _____

MARK J. HAMPTON

Title

 Licensed Site Evaluator

 Certified Soil Scientist

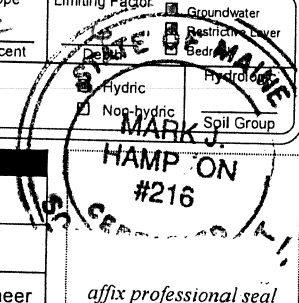
☐ Certified Geologist☐ Professional Engineer

Date

3124117

Cert/Lic/Reg. #

1. # 263/216



SOIL PROFILE / CLASSIFICATION INFORMATION**DETAILED DESCRIPTION OF
SUBSURFACE CONDITIONS AT PROJECT SITES**

Project Name:

547 Riverside Street

Applicant Name:

Robert LeBlanc

Project Location (municipality):

Parrish

Exploration Symbol # SS9☒ Test Pit ☐ Boring ☐ Probe

" Organic horizon thickness Ground surface elev. _____

" Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Silt loam	friable	Dark Brown	
10	Silt loam	Friable	Brown	
20	Silt loam	Fine	Gray	Common
30	loam			Discrete
40				
50				
60				

Soil Details by
S.E.
S.S.

Soil Classification		Slope	Limiting Factor	☒ Groundwater
9	D	2	12	☒ Restrictive Layer
Profile	Condition	Percent	Depth	☐ Bedrock
Soil Series/Phase Name: <u>Lamotte SPD</u>				
		☐ Hydric	Hydrologic	
		☒ Non-hydric	Soil Group	

Exploration Symbol # SS16☒ Test Pit ☐ Boring ☐ Probe

" Organic horizon thickness Ground surface elev. _____

" Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0	Silt loam	Friable	Dark Brown	
10	Silt loam	Friable	Brown	
20	Silt loam	Fine	Gray	Common
30	loam			Discrete
40				
50				
60				

Soil Details by
S.E.
S.S.

Soil Classification		Slope	Limiting Factor	☒ Groundwater
9	C	2	16	☒ Restrictive Layer
Profile	Condition	Percent	Depth	☐ Bedrock
Soil Series/Phase Name: <u>Buxton mud</u>				
		☐ Hydric	Hydrologic	
		☒ Non-hydric	Soil Group	

Exploration Symbol # _____

☐ Test Pit ☐ Boring ☐ Probe

" Organic horizon thickness Ground surface elev. _____

" Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0				
10				
20				
30				
40				
50				
60				

Soil Details by
S.E.
S.S.

Soil Classification		Slope	Limiting Factor	☐ Groundwater
Profile	Condition	Percent	Depth	☐ Restrictive Layer
Soil Series/Phase Name:				
		☐ Hydric	Hydrologic	
		☐ Non-hydric	Soil Group	

Exploration Symbol # _____

☐ Test Pit ☐ Boring ☐ Probe

" Organic horizon thickness Ground surface elev. _____

" Depth of exploration or to refusal

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Redox Features
0				
10				
20				
30				
40				
50				
60				

Soil Details by
S.E.
S.S.

Soil Classification		Slope	Limiting Factor	☐ Groundwater
Profile	Condition	Percent	Depth	☐ Restrictive Layer
Soil Series/Phase Name:				
		☐ Hydric	Hydrologic	
		☐ Non-hydric	Soil Group	

INVESTIGATOR INFORMATION AND SIGNATURE

Signature

Mark J. Hampton

Name Printed

Mark J. Hampton

Title

☒ Licensed Site Evaluator☒ Certified Soil Scientist☐ Certified Geologist☐ Professional Engineer

Date

3/24/17

Cert/Lic/Reg. #263/216.

STATE OF ALABAMA
MARK J. HAMPTON
#216
CERTIFIED SOIL SCIENTIST

affix professional seal



PAUL R. LEPAGE
GOVERNOR

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Att. U



PAUL MERCER
COMMISSIONER

March 2017

547 Riverside Street, LLC
Attn: Robert LeBlanc
59 Moody Street
Portland, ME 04101

RE: Natural Resources Protection Act Tier 1 Application, Portland, DEP #L-27337-TB-A-N

Dear Mr. LeBlanc:

Please find enclosed a signed copy of your Department of Environmental Protection land use permit. You will note that the permit includes a description of your project, findings of fact that relate to the approval criteria the Department used in evaluating your project, and conditions that are based on those findings and the particulars of your project. Please take several moments to read your permit carefully, paying particular attention to the conditions of the approval. The Department reviews every application thoroughly and strives to formulate reasonable conditions of approval within the context of the Department's environmental laws. You will also find attached some materials that describe the Department's appeal procedures for your information.

If you have any questions about the permit or thoughts on how the Department processed this application please get in touch with me directly. I can be reached at (207) 523-9807 or by e-mail at david.cherry@maine.gov.

Sincerely,

David Cherry, Project Manager
Bureau of Land Resources

pc: File

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769
(207) 764-0477 FAX: (207) 760-3143



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

IN THE MATTER OF

547 RIVERSIDE STREET, LLC) NATURAL RESOURCES PROTECTION ACT
Portland, Cumberland County) FRESHWATER WETLAND ALTERATION
COMMERCIAL STORAGE FACILITY) WATER QUALITY CERTIFICATION
L-27337-TB-A-N (approval)) FINDINGS OF FACT AND ORDER

Project Description: The applicant proposes to fill 6,348 square feet of forested and scrub-shrub wetlands to construct an 80,540-square foot storage facility, a 320-square foot office building, and a 69,490 square feet of paved area for a total of 150,450 square feet of impervious area. The project is shown on a plan titled "Site Plan, C-10," prepared by Acorn Engineering, Inc. and dated February 2, 2017. The applicant has avoided and minimized wetland impacts to the greatest extent practicable by locating the development as much as possible in the uplands and by avoiding construction in a larger hydrologically intact wetland at the back of the parcel. According to the Department's Geographic Information System, there are no mapped essential or significant wildlife habitats associated with the project site. The proposed project is located at 547 Riverside Street in the City of Portland.

The project will be reviewed by the City of Portland, which has Delegated Authority to substitute their permits for Site Location of Development Law permits pursuant to 38 M.R.S. 489-A. Prior to the start of construction, the applicant will submit a Notice of Intent to Comply pursuant to the Maine Construction General Permit to the Department.

Permit for:	☒ Tier 1
DEP Decision:	☒ Approved ☐ Denied (see attached letter)
CORPS Action:	☒ The Corps has been notified of your application. The following are subject to Federal screening: (1) projects with previously authorized or unauthorized work, in combination with a Tier 1 permit for a single and complete project, which total more than 15,000 square feet of altered area; (2) projects with multiple state permits and/or state exemptions which apply to a single and complete project that total more than 15,000 square feet of altered area; and (3) projects that may impact a vernal pool, as determined by the State of Maine or the Corps. If your activity is listed above, <i>Corps approval is required for your project.</i> For information regarding the status of your application contact the Corps' Maine Project Office at (207) 623-8367.

Standard Conditions:

- 1) If construction or operation of the activity is not begun within four (4) years from the date signed, this permit shall lapse and the applicant shall reapply to the Department for a new permit. This permit is transferable only with prior approval from the Department. If the activity is associated with a larger project, starting any aspect of that project constitutes start of construction.
- 2) The project shall be completed according to the plans in the application. Any change in the project plans must be reviewed and approved by the Department.

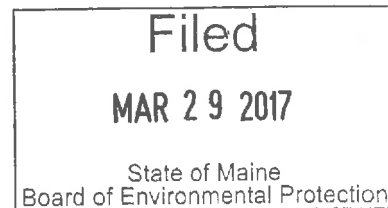
- 3) Properly installed erosion control measures shall be installed prior to beginning the project, and all disturbed soil should be stabilized immediately upon project completion.
- 4) A copy of this approval will be sent to the City of Portland. Department approval of your activity does not supersede or substitute the need for any necessary local approvals.

THIS APPROVAL DOES NOT CONSTITUTE OR SUBSTITUTE FOR ANY OTHER REQUIRED STATE, FEDERAL OR LOCAL APPROVALS NOR DOES IT VERIFY COMPLIANCE WITH ANY APPLICABLE SHORELAND ZONING ORDINANCES.

DONE AND DATED IN AUGUSTA, MAINE, THIS 28TH DAY OF MARCH, 2017.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: 
For: Paul Mercer, Commissioner



PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES.

DC/L27337AN/ATS#81527



Natural Resources Protection Act (NRPA)

Standard Conditions

THE FOLLOWING STANDARD CONDITIONS SHALL APPLY TO ALL PERMITS GRANTED UNDER THE NATURAL RESOURCES PROTECTION ACT, 38 M.R.S.A. § 480-A ET SEQ., UNLESS OTHERWISE SPECIFICALLY STATED IN THE PERMIT.

- A. Approval of Variations From Plans. The granting of this permit is dependent upon and limited to the proposals and plans contained in the application and supporting documents submitted and affirmed to by the applicant. Any variation from these plans, proposals, and supporting documents is subject to review and approval prior to implementation.
- B. Compliance With All Applicable Laws. The applicant shall secure and comply with all applicable federal, state, and local licenses, permits, authorizations, conditions, agreements, and orders prior to or during construction and operation, as appropriate.
- C. Erosion Control. The applicant shall take all necessary measures to ensure that his activities or those of his agents do not result in measurable erosion of soils on the site during the construction and operation of the project covered by this Approval.
- D. Compliance With Conditions. Should the project be found, at any time, not to be in compliance with any of the Conditions of this Approval, or should the applicant construct or operate this development in any way other the specified in the Application or Supporting Documents, as modified by the Conditions of this Approval, then the terms of this Approval shall be considered to have been violated.
- E. Time frame for approvals. If construction or operation of the activity is not begun within four years, this permit shall lapse and the applicant shall reapply to the Board for a new permit. The applicant may not begin construction or operation of the activity until a new permit is granted. Reapplications for permits may include information submitted in the initial application by reference. This approval, if construction is begun within the four-year time frame, is valid for seven years. If construction is not completed within the seven-year time frame, the applicant must reapply for, and receive, approval prior to continuing construction.
- F. No Construction Equipment Below High Water. No construction equipment used in the undertaking of an approved activity is allowed below the mean high water line unless otherwise specified by this permit.
- G. Permit Included In Contract Bids. A copy of this permit must be included in or attached to all contract bid specifications for the approved activity.
- H. Permit Shown To Contractor. Work done by a contractor pursuant to this permit shall not begin before the contractor has been shown by the applicant a copy of this permit.

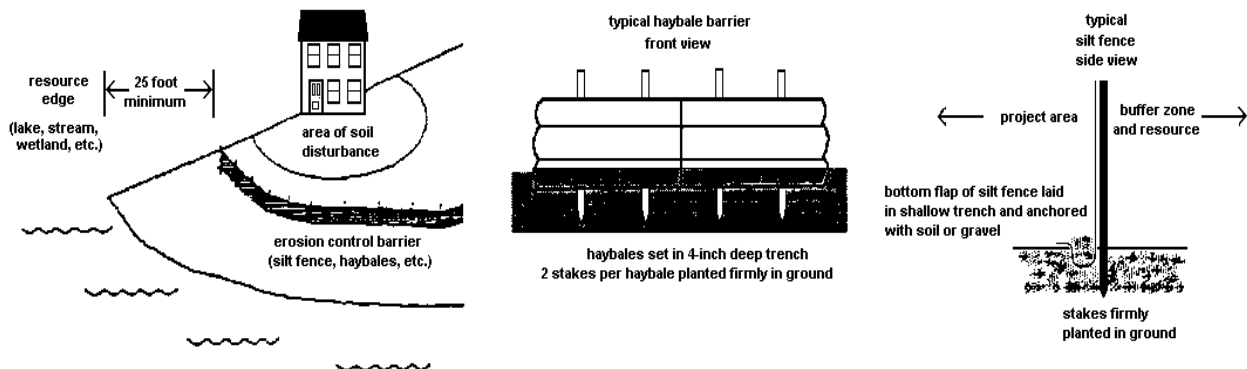


STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
 17 STATE HOUSE STATION, AUGUSTA, MAINE 04333

Erosion Control for Homeowners

Before Construction

1. If you have hired a contractor, make sure you discuss your permit with them. Talk about what measures they plan to take to control erosion. Everybody involved should understand what the resource is, and where it is located. Most people can identify the edge of a lake or river. However, the edges of wetlands are often not so obvious. Your contractor may be the person actually pushing dirt around, but you are both responsible for complying with the permit.
2. Call around to find where erosion control materials are available. Chances are your contractor has these materials already on hand. You probably will need silt fence, hay bales, wooden stakes, grass seed (or conservation mix), and perhaps filter fabric. Places to check for these items include farm & feed supply stores, garden & lawn suppliers, and landscaping companies. It is not always easy to find hay or straw during late winter and early spring. It also may be more expensive during those times of year. Plan ahead -- buy a supply early and keep it under a tarp.
3. Before any soil is disturbed, make sure an erosion control barrier has been installed. The barrier can be either a silt fence, a row of staked hay bales, or both. Use the drawings below as a guide for correct installation and placement. The barrier should be placed as close as possible to the soil-disturbance activity.
4. If a contractor is installing the erosion control barrier, double check it as a precaution. Erosion control barriers should be installed "on the contour", meaning at the same level or elevation across the land slope, whenever possible. This keeps stormwater from flowing to the lowest point along the barrier where it can build up and overflow or destroy the barrier.



During Construction

1. Use lots of hay or straw mulch on disturbed soil. The idea behind mulch is to prevent rain from striking the soil directly. It is the force of raindrops hitting the bare ground that makes the soil begin to move downslope with the runoff water, and cause erosion. More than 90% of erosion is prevented by keeping the soil covered.
2. Inspect your erosion control barriers frequently. This is especially important after a rainfall. If there is muddy water leaving the project site, then your erosion controls are not working as intended. You or your contractor then need to figure out what can be done to prevent more soil from getting past the barrier.

3. Keep your erosion control barrier up and maintained until you get a good and healthy growth of grass and the area is permanently stabilized.

After Construction

1. After your project is finished, seed the area. Note that all ground covers are not equal. For example, a mix of creeping red fescue and Kentucky bluegrass is a good choice for lawns and other high-maintenance areas. But this same seed mix is a poor selection for stabilizing a road shoulder or a cut bank that you don't intend to mow. Your contractor may have experience with different seed mixes, or you might contact a seed supplier for advice.
2. Do not spread grass seed after September 15. There is the likelihood that germinating seedlings could be killed by a frost before they have a chance to become established. Instead, mulch the area with a thick layer of hay or straw. In the spring, rake off the mulch and then seed the area. Don't forget to mulch again to hold in moisture and prevent the seed from washing away or being eaten by birds or other animals.
3. Keep your erosion control barrier up and maintained until you get a good and healthy growth of grass and the area is permanently stabilized.

Why Control Erosion?

To Protect Water Quality

When soil erodes into protected resources such as streams, rivers, wetlands, and lakes, it has many bad effects. Eroding soil particles carry phosphorus to the water. An excess of phosphorus can lead to explosions of algae growth in lakes and ponds called blooms. The water will look green and can have green slime in it. If you are near a lake or pond, this is not pleasant for swimming, and when the soil settles out on the bottom, it smothers fish eggs and small animals eaten by fish. There many other effects as well, which are all bad.

To Protect the Soil

It has taken thousands of years for our soil to develop. Its usefulness is evident all around us, from sustaining forests and growing our garden vegetables, to even treating our septic wastewater! We cannot afford to waste this valuable resource.

To Save Money (\$\$)

Replacing topsoil or gravel washed off your property can be expensive. You end up paying twice because State and local governments wind up spending your tax dollars to dig out ditches and storm drains that have become choked with sediment from soil erosion.



DEP INFORMATION SHEET

Appealing a Department Licensing Decision

Dated: March 2012

Contact: (207) 287-2811

SUMMARY

There are two methods available to an aggrieved person seeking to appeal a licensing decision made by the Department of Environmental Protection's ("DEP") Commissioner: (1) in an administrative process before the Board of Environmental Protection ("Board"); or (2) in a judicial process before Maine's Superior Court. An aggrieved person seeking review of a licensing decision over which the Board had original jurisdiction may seek judicial review in Maine's Superior Court.

A judicial appeal of final action by the Commissioner or the Board regarding an application for an expedited wind energy development (35-A M.R.S.A. § 3451(4)) or a general permit for an offshore wind energy demonstration project (38 M.R.S.A. § 480-HH(1)) or a general permit for a tidal energy demonstration project (38 M.R.S.A. § 636-A) must be taken to the Supreme Judicial Court sitting as the Law Court.

This INFORMATION SHEET, in conjunction with a review of the statutory and regulatory provisions referred to herein, can help a person to understand his or her rights and obligations in filing an administrative or judicial appeal.

I. ADMINISTRATIVE APPEALS TO THE BOARD

LEGAL REFERENCES

The laws concerning the DEP's *Organization and Powers*, 38 M.R.S.A. §§ 341-D(4) & 346, the *Maine Administrative Procedure Act*, 5 M.R.S.A. § 11001, and the DEP's *Rules Concerning the Processing of Applications and Other Administrative Matters* ("Chapter 2"), 06-096 CMR 2 (April 1, 2003).

HOW LONG YOU HAVE TO SUBMIT AN APPEAL TO THE BOARD

The Board must receive a written appeal within 30 days of the date on which the Commissioner's decision was filed with the Board. Appeals filed after 30 calendar days of the date on which the Commissioner's decision was filed with the Board will be rejected.

HOW TO SUBMIT AN APPEAL TO THE BOARD

Signed original appeal documents must be sent to: Chair, Board of Environmental Protection, c/o Department of Environmental Protection, 17 State House Station, Augusta, ME 04333-0017; faxes are acceptable for purposes of meeting the deadline when followed by the Board's receipt of mailed original documents within five (5) working days. Receipt on a particular day must be by 5:00 PM at DEP's offices in Augusta; materials received after 5:00 PM are not considered received until the following day. The person appealing a licensing decision must also send the DEP's Commissioner a copy of the appeal documents and if the person appealing is not the applicant in the license proceeding at issue the applicant must also be sent a copy of the appeal documents. All of the information listed in the next section must be submitted at the time the appeal is filed. Only the extraordinary circumstances described at the end of that section will justify evidence not in the DEP's record at the time of decision being added to the record for consideration by the Board as part of an appeal.

WHAT YOUR APPEAL PAPERWORK MUST CONTAIN

Appeal materials must contain the following information at the time submitted:

1. *Aggrieved Status.* The appeal must explain how the person filing the appeal has standing to maintain an appeal. This requires an explanation of how the person filing the appeal may suffer a particularized injury as a result of the Commissioner's decision.
2. *The findings, conclusions or conditions objected to or believed to be in error.* Specific references and facts regarding the appellant's issues with the decision must be provided in the notice of appeal.
3. *The basis of the objections or challenge.* If possible, specific regulations, statutes or other facts should be referenced. This may include citing omissions of relevant requirements, and errors believed to have been made in interpretations, conclusions, and relevant requirements.
4. *The remedy sought.* This can range from reversal of the Commissioner's decision on the license or permit to changes in specific permit conditions.
5. *All the matters to be contested.* The Board will limit its consideration to those arguments specifically raised in the written notice of appeal.
6. *Request for hearing.* The Board will hear presentations on appeals at its regularly scheduled meetings, unless a public hearing on the appeal is requested and granted. A request for public hearing on an appeal must be filed as part of the notice of appeal.
7. *New or additional evidence to be offered.* The Board may allow new or additional evidence, referred to as supplemental evidence, to be considered by the Board in an appeal only when the evidence is relevant and material and that the person seeking to add information to the record can show due diligence in bringing the evidence to the DEP's attention at the earliest possible time in the licensing process or that the evidence itself is newly discovered and could not have been presented earlier in the process. Specific requirements for additional evidence are found in Chapter 2.

OTHER CONSIDERATIONS IN APPEALING A DECISION TO THE BOARD

1. *Be familiar with all relevant material in the DEP record.* A license application file is public information, subject to any applicable statutory exceptions, made easily accessible by DEP. Upon request, the DEP will make the material available during normal working hours, provide space to review the file, and provide opportunity for photocopying materials. There is a charge for copies or copying services.
2. *Be familiar with the regulations and laws under which the application was processed, and the procedural rules governing your appeal.* DEP staff will provide this information on request and answer questions regarding applicable requirements.
3. *The filing of an appeal does not operate as a stay to any decision.* If a license has been granted and it has been appealed the license normally remains in effect pending the processing of the appeal. A license holder may proceed with a project pending the outcome of an appeal but the license holder runs the risk of the decision being reversed or modified as a result of the appeal.

WHAT TO EXPECT ONCE YOU FILE A TIMELY APPEAL WITH THE BOARD

The Board will formally acknowledge receipt of an appeal, including the name of the DEP project manager assigned to the specific appeal. The notice of appeal, any materials accepted by the Board Chair as supplementary evidence, and any materials submitted in response to the appeal will be sent to Board members with a recommendation from DEP staff. Persons filing appeals and interested persons are notified in advance of the date set for Board consideration of an appeal or request for public hearing. With or without holding a public hearing, the Board may affirm, amend, or reverse a Commissioner decision or remand the matter to the Commissioner for further proceedings. The Board will notify the appellant, a license holder, and interested persons of its decision.

II. JUDICIAL APPEALS

Maine law generally allows aggrieved persons to appeal final Commissioner or Board licensing decisions to Maine's Superior Court, see 38 M.R.S.A. § 346(1); 06-096 CMR 2; 5 M.R.S.A. § 11001; & M.R. Civ. P 80C. A party's appeal must be filed with the Superior Court within 30 days of receipt of notice of the Board's or the Commissioner's decision. For any other person, an appeal must be filed within 40 days of the date the decision was rendered. Failure to file a timely appeal will result in the Board's or the Commissioner's decision becoming final.

An appeal to court of a license decision regarding an expedited wind energy development, a general permit for an offshore wind energy demonstration project, or a general permit for a tidal energy demonstration project may only be taken directly to the Maine Supreme Judicial Court. See 38 M.R.S.A. § 346(4).

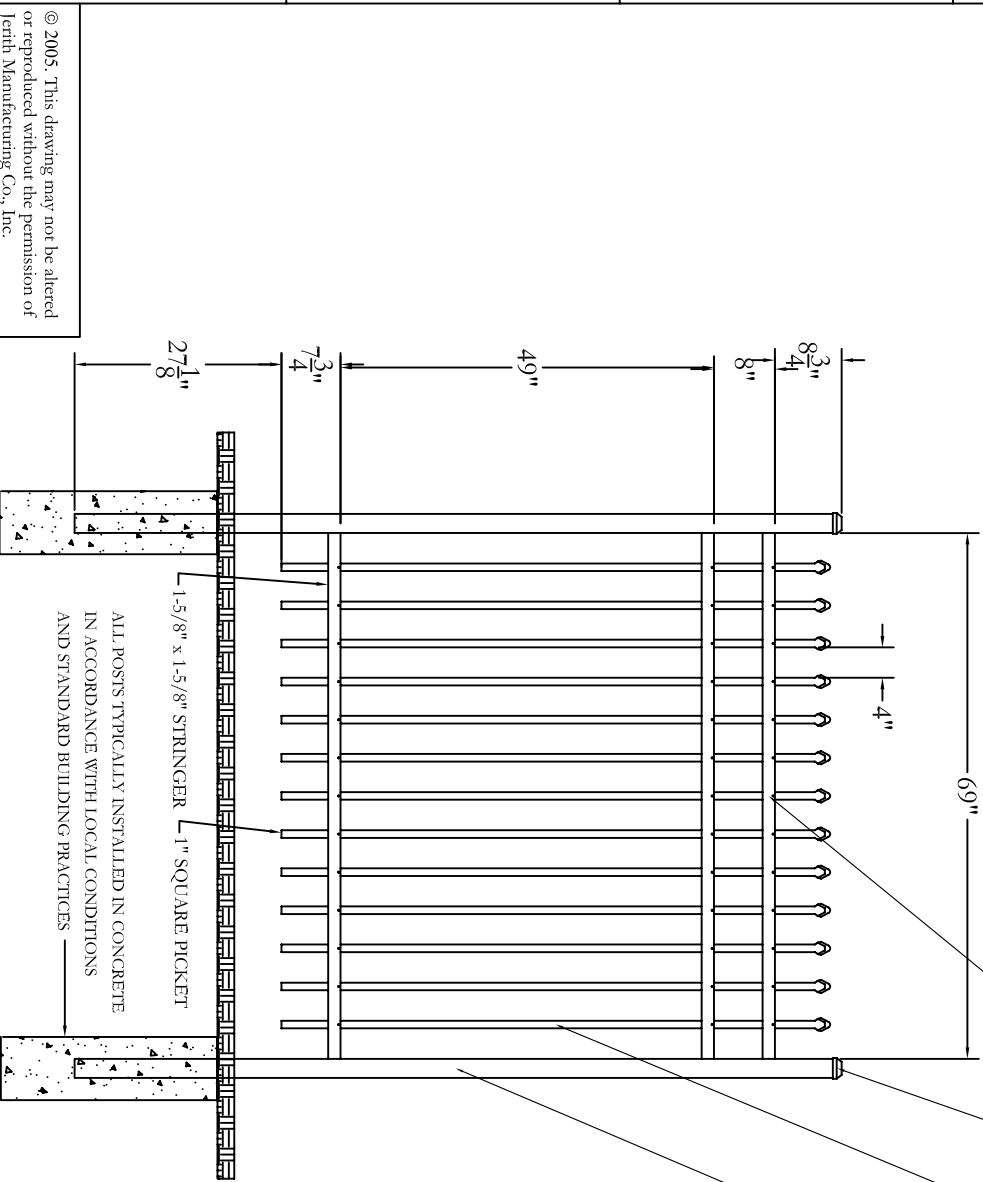
Maine's Administrative Procedure Act, DEP statutes governing a particular matter, and the Maine Rules of Civil Procedure must be consulted for the substantive and procedural details applicable to judicial appeals.

ADDITIONAL INFORMATION

If you have questions or need additional information on the appeal process, for administrative appeals contact the Board's Executive Analyst at (207) 287-2452 or for judicial appeals contact the court clerk's office in which your appeal will be filed.

Note: The DEP provides this INFORMATION SHEET for general guidance only; it is not intended for use as a legal reference. Maine law governs an appellant's rights.

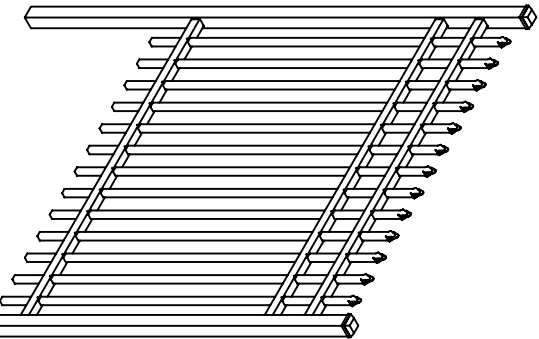
FENCE PARTS			
Name		Qty	Item
101-72 PICKET		13	1
70-1/2" - 13 HOLE IND. STRINGER		3	3
2-1/2" POST		2	4
2-1/2" ALUMINUM POST CAP		2	5



ALL POSTS TYPICALLY INSTALLED IN CONCRETE
IN ACCORDANCE WITH LOCAL CONDITIONS
AND STANDARD BUILDING PRACTICES

© 2005. This drawing may not be altered
or reproduced without the permission of
Jerth Manufacturing Co., Inc.

DATE	BY	DESCRIPTION	DATE	APPROVED
1-1-05	NC	INITIAL RELEASE		



Jerth
Manufacturing Co., Inc.
Philadelphia, PA 19154
(800)344-2242

DRAWING:
INDUSTRIAL FENCE
STYLE #101 - 72" HEIGHT

SIZE	DWG NO.	REV
D	IN72U101SN	NC
SCALE	DATE	SHEET
1-1-05	1-1-05	1 OF 1

Aluminum Fences of Distinction™

Gerith®



Commercial / Industrial

Jerith®

Aluminum Fences of Distinction™

Aluminum Fences of Distinction by Jerith provide attractive, maintenance-free security for commercial, industrial and multi-family applications. They are the perfect choice whenever it is necessary to add safety and protection, yet complement the architectural or landscape design.

Two grades of Jerith Aluminum Fence are best suited for these applications: Regency and Industrial. While the Regency Fence is ideal for many applications, our Industrial Strength Fence offers maximum security for high traffic areas which warrant the use of a heavier and stronger product. We also produce a Residential fence for applications that do not require the extra strength provided by our Regency and Industrial grades.

All Jerith Aluminum Fences are constructed of an exclusive high-strength aluminum alloy called HS-35™. This remarkable material has the strength of steel, but will never rust, even in coastal areas. Plus, Jerith's tough powder-coated finish is guaranteed not to crack, chip or peel for the life of the fence. Our long-lasting powder coating, called FencCoat™, is an environmentally safe, high quality alternative to paint. It is far more durable, fade-resistant, and scratch-resistant than other coatings (including other powder coatings), which is why we include a Lifetime Warranty on our finish.

Quality has made Jerith an industry leader for over 50 years. Insist Aluminum Fences of Distinction by Jerith when you want the best in ornamental fencing.





Guaranteed for Life!



A First In Fencing

Jerith was the first manufacturer to include a Lifetime Warranty on its aluminum fences. The guarantee covers defects in workmanship and materials for the life of the product. The FencCoat finish is also guaranteed not to crack, chip, peel, or blister. And, since the fence is constructed entirely from corrosion resistant materials, it is guaranteed to never rust.

While other companies may offer similar guarantees, consider why a warranty from Jerith means more:

First, we have manufactured our aluminum fences for over 50 years, so we know how well they hold up over time. Most competing products have been on the market for less than 10 years. They simply do not have the experience that we have in fencing.

Secondly, fences are the only product that we make. Therefore, we concentrate all of our research and development efforts into producing the best fence possible. This is of utmost importance to our growth and success as a company.

Finally, we test our fences to back up every claim we make. Over the past 50 years, we have earned a reputation for delivering exactly what we promise. And, we won the American Business Ethics Award to prove it!





America's Fencing Choice™

More about Jerith Manufacturing

Jerith is a 60 year-old family business that is now in its third generation. We are the oldest and largest aluminum ornamental fence manufacturer in North America (and probably the world). Decorative aluminum fences were first manufactured by Jerith in 1961, so we have over 50 years of experience in producing these fences.

Fabrication and assembly is performed at our 440,000 square foot Philadelphia plant, with most orders shipping in less than 3 weeks. While many companies have moved operations overseas to lower their costs, Jerith fences are still produced in the U.S., yet they are very reasonably priced compared to other aluminum and steel fences. In fact, our aluminum fences are significantly less expensive than similar steel products.

Jerith is a leader in the fencing industry because of our outstanding reputation for producing high quality fences at competitive prices. We were one of the founding members of the American Fence Association, and we are proud of the fact that Jerith was one of only four businesses nationwide to receive the prestigious American Business Ethics Award given by the American Society of CLU & ChFC.





Applications and Availability

Jerith Aluminum Fences of Distinction are perfectly designed for residential purposes, office complexes, condominiums, corporate headquarters, universities, hospitals, cemeteries, light industrial uses, and swimming pool enclosures. Their combination of low maintenance, competitive pricing, superior strength, outstanding quality, and a lifetime guarantee ensures that once a Jerith fence is installed, you will not have to worry about it again.

Our fences are sold nationwide through fence contractors, and usually ship within 3 weeks. There is no minimum shipment, so you can order the exact material required for a job. Samples of our fence, AutoCAD or PDF drawings, and our complete binder, including estimated material prices, are available to architects and specifiers at no charge.

For your convenience, our staff can answer any questions you may have. They can also supply the names of contractors in your area currently selling Jerith products. Please call our Customer Service Department toll-free at 800-344-2242 for dealer names, samples, or a copy of our binder. Our hours are Monday – Friday from 8 A.M. – 5 P.M. Eastern Time.

Unfortunately, some contractors may try to substitute an inferior imitation for a genuine Jerith product. For your assurance, we place the Jerith logo on all of our sections, post caps and gates. This makes it easy to guarantee that you are receiving our exclusive HS-35 Alloy, long-lasting FencCoat finish, and the exceptional Jerith quality you expect. Other fences may look like Jerith, but none are as strong, durable, or well-built as ours.



America's Fencing Choice™

Jerith's Exclusive HS-35™ Aluminum Alloy The Strength of Steel Without the Rust

As you know, even galvanized steel with a painted or powder coated finish can rust if the bare steel is exposed to the atmosphere. However, you no longer have to choose between the maintenance-free ease of aluminum and the strength of steel for your fencing needs. The best of both worlds is available from Jerith. Through extensive research and testing, we have developed an aluminum alloy called HS-35. This remarkable material has the strength of steel without the rust!

Unlike competing aluminum products, we use our high-strength alloy in all of our structural components. HS-35 has a minimum yield strength of 35,000 psi, which allows a typical Jerith Regency Fence to support over 500 pounds per section without any structural failure. And, while these fences are not designed nor intended to be used as railings, they can withstand a 200 pound concentrated side load applied to any rail. An Industrial fence section can hold a vertical force of over 1,000 pounds or a side load of 450 pounds! With strength like this, one of our fences will certainly satisfy your requirements.

FencCoat™: Jerith's Powder Coat Finish

Our Super-Durable TGIC polyester powder coating is a high quality alternative to painting. When applied to a Jerith fence, FencCoat is twice the thickness and hardness of a typical baked enamel finish. It is far more durable, fade-resistant, and scratch-resistant than other coatings. Even other types of powder coatings can not match the outdoor endurance of Jerith's super-durable finish.

FencCoat meets or exceeds Specification 2604 of the American Architectural Manufacturers Association (AAMA), unlike most other aluminum fence coatings which only meet AAMA 2603. This means that FencCoat has withstood 3,000 hours of humidity and salt-spray resistance, as well as 5 years of outdoor weathering in Florida compared to only 1,000 hours and 1 year of Florida exposure for other aluminum finishes. The endurance of our FencCoat finish is unsurpassed by any other fence's coating.





Unmatched Quality

Along with our exclusive FencCoat finish and HS-35 alloy, there are many features that make a Jerith fence exceptional. For example, the sections are constructed with square-drive screws for added security, and the screw threads have an adhesive applied to prevent them from loosening.

All of our die-cast accessories are made from a more expensive and more corrosion-resistant alloy than the 380.0 alloy which is commonly used in aluminum die-castings. In corrosion testing, it was found that Jerith castings lasted 5 times longer than similar castings made from the 380.0 alloy.

Jerith walk gates are self-latching and have adjustable spring-tension hinges as a standard feature. Safety elements such as this are essential when a Jerith fence is used around a swimming pool or a child care facility. These gates have a welded frame with a support brace that allows them to hold 250 pounds without any structural damage. Large swing gates, arched Accent and Estate gates, and cantilever slide gates are also available to match almost every Jerith fence style. We are so confident about the design and construction of Jerith gates that they are covered by our Lifetime Warranty too.

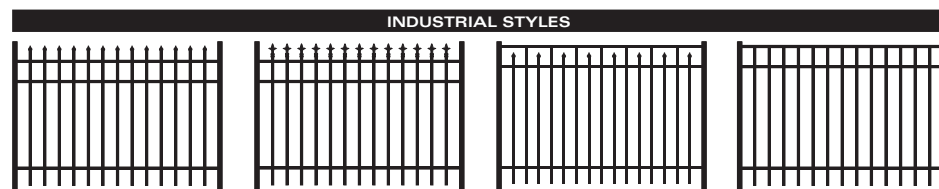




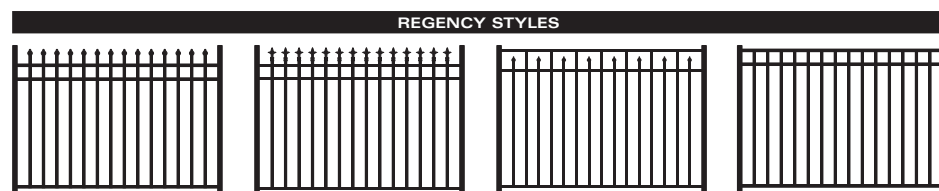
Installation is Easy!

Jerith Aluminum Fences are installed by setting a post in concrete and sliding the horizontal rails of a section into pre-punched holes in the post. A second post is then set at the other end of this section. A second section slides into the second post, and so on. This method of attachment is more secure than other means of mechanically fastening the section to the post using brackets or clamps. The fence sections are shipped fully assembled from our factory in 6 foot nominal lengths for easy installation. Smaller sections are simply cut to size on the job site.

Because these fences are screwed together, they can easily rake to follow the contour of the ground. A standard fence section will drop one foot over its six foot length. If a greater slope is involved, sections can be specially fabricated to traverse a 45 degree angle.



NOTE: Industrial sections over 6' tall will have four horizontal rails instead of the three rails shown above.



Dimensions and Specifications

Component Sizes	Regency	Industrial Strength
Pickets	3/4" sq. x .050" thick	1" sq. x .062" thick
Rails: Top Wall	1" x .055" thick	1 5/8" x .070" thick
Side Walls	1 1/2" x .082" thick	1 5/8" x .100" thick
Standard Posts	2" sq. x .060" thick	2 1/2" sq. x .075" thick
Optional Posts	2 1/2" sq. x .075" thick	
Gate Posts	2" sq. x .125" thick	4" sq. x .125" thick
	4" sq. x .125" thick	6" sq. x .125" thick
Spacing Between Pickets	3 11/16"	4"
Post Spacing	72 1/2" on center	71 1/2" on center
Standard Colors	Black, White, Green, Bronze	Black, White, Green, Bronze
Standard Heights Available	36", 48", 60", 72"	36", 48", 60", 72", 84", 96"
	(54" for Windsor only)	
Weight Supported per Section of Fence	500+ lbs.	1000+ lbs.
Concentrated Side Load Supported	200 lbs.	450 lbs.
by Fence Rail		



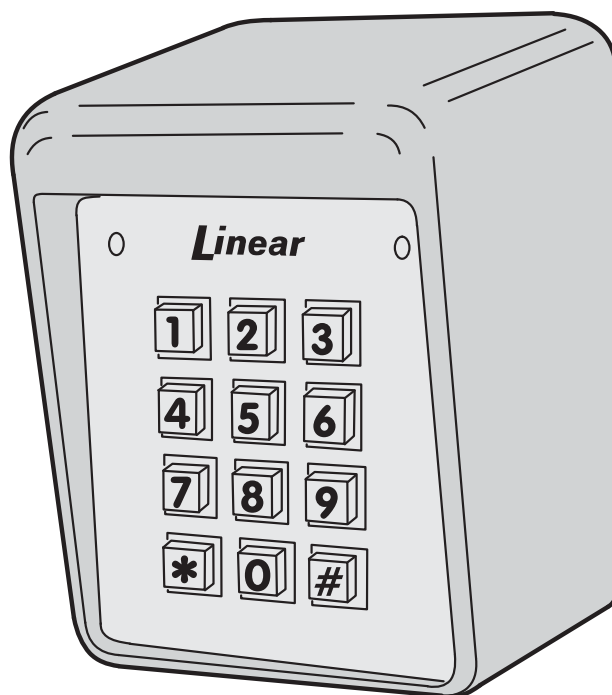
**Aluminum Fences
of Distinction™**

Jerith Manufacturing Company, Inc.
14400 McNulty Road, Philadelphia, PA 19154
800 344-2242 • 215 676-4068
Fax 215 676-9756 • www.jerith.com
email: sales@jerith.com
Your local Jerith Dealer is:



AK-11

Digital Keyless Entry System



Installation and Programming Instructions

Linear®

(760) 438-7000

USA & Canada (800) 421-1587 & (800) 392-0123

Toll Free FAX (800) 468-1340

www.linearcorp.com

CONTENTS

INTRODUCTION	2
SPECIFICATIONS	2
FEATURES	2
COMPONENT LOCATIONS	3
WIRING DIAGRAM	3
INSTALLATION	4
FACTORY DEFAULTS	6
BASIC PROGRAMMING	6
PROGRAMMING OPTIONS	7
AK-11 OPERATION	10
MANAGER'S ENTRY CODE LOG	11
LINEAR LIMITED WARRANTY	12
FCC NOTICE	12

INTRODUCTION

Linear's AK-11 is a digital keyless entry system designed for access control applications. The keypad is housed in a rugged cast aluminum enclosure that can be mounted to a pedestal or bolted directly to a wall. The die-cast keys have bright, easy-to-read yellow graphics.

Up to 480 entry codes, from 1 to 6 digits in length, can be programmed. They can activate either, or both, of the relay outputs. Relay #1 has a 5 Amp capacity. Relay #2 has a 1 Amp capacity.

Two LED indicators show the status of the entry system. The left LED lights red to indicate power, then turns green when access is granted. The right LED lights yellow when the keypad is in "lockout" condition (from too many incorrect code entries). The keypad's courtesy light can be always off, always on or be programmed to illuminate from 1-4 minutes after any keypress (default 2 minutes). An internal sounder beeps when each key is pressed.

The DOOR SENSE/INHIBIT input can be used two ways. If programmed for "door sense", a switch on the door detects forced entry or door ajar situations. If programmed for "inhibit", the input can be wired to a "service" switch or automatic timer that will disable the Relay #1 when required.

The REQUEST-TO-ENTER input can be wired to a pushbutton or fire access keyswitch to provide codeless entry for authorized personnel. The "anti-passback" feature prevents using the same code twice before the programmed time elapses.

The ALARM SHUNT output activates when access is granted. This output can be wired to shunt alarm contacts on the access door/gate to prevent triggering of an alarm when authorized access occurs.

Two solid state outputs, capable of switching 100 mA to common, are programmable to signal forced entry, door ajar, lockout, alarm circuit shunting, request-to-enter, and keypad active conditions.

The AK-11 is powered from a 12-24 Volt AC or DC source. Power can be obtained from the access device or a separate power supply. The EEPROM memory retains all entry codes and programming, even without power.

SPECIFICATIONS

MECHANICAL

Case dimensions: 4.00" W x 5.50" H x 3.00" D

ELECTRICAL

Voltage: 12-24 Volts AC or DC

Current: 10 mA typical, 150 mA maximum

Outputs: Relay #1

Form "C" 5 Amps @ 24 Volts maximum

Relay #2

Form "C" 1 Amp @ 24 Volts maximum

Solid state outputs (Outputs #3 & #4)

Short-to-common 100 mA

@ 24 VDC maximum

ENVIRONMENTAL

Temperature: -22°F to 149°F (-30°C to 65°C)

Humidity: 5% to 95% non-condensing

FEATURES

- ✓ KEYPAD PROGRAMMABLE
- ✓ 480 ENTRY CODE CAPACITY
- ✓ 1-6 DIGIT ENTRY CODE LENGTH
- ✓ 4 INDEPENDENT OUTPUTS (TIMED/TOGGLED)
- ✓ 4 INDEPENDENT TIMERS
- ✓ EACH ENTRY CODE CAN BE PROGRAMMED TO ACTIVATE EITHER OR BOTH RELAYS
- ✓ RELAY CONTACTS ARE FORM "C" (N.O. & N.C)
- ✓ SOLID STATE OUTPUTS ARE OPEN COLLECTOR (SWITCH-TO-COMMON)
- ✓ TWO LED INDICATORS
- ✓ COURTESY LAMP
- ✓ PIEZO SOUNDER
- ✓ TIMED ANTI-PASSBACK (LAST 3 VALID ENTRIES)
- ✓ KEYPAD LOCKOUT
- ✓ TACTILE KEY FEEL
- ✓ DOOR SENSE INPUT
- ✓ INHIBIT INPUT
- ✓ REQUEST-TO-ENTER INPUT

COMPONENT LOCATIONS

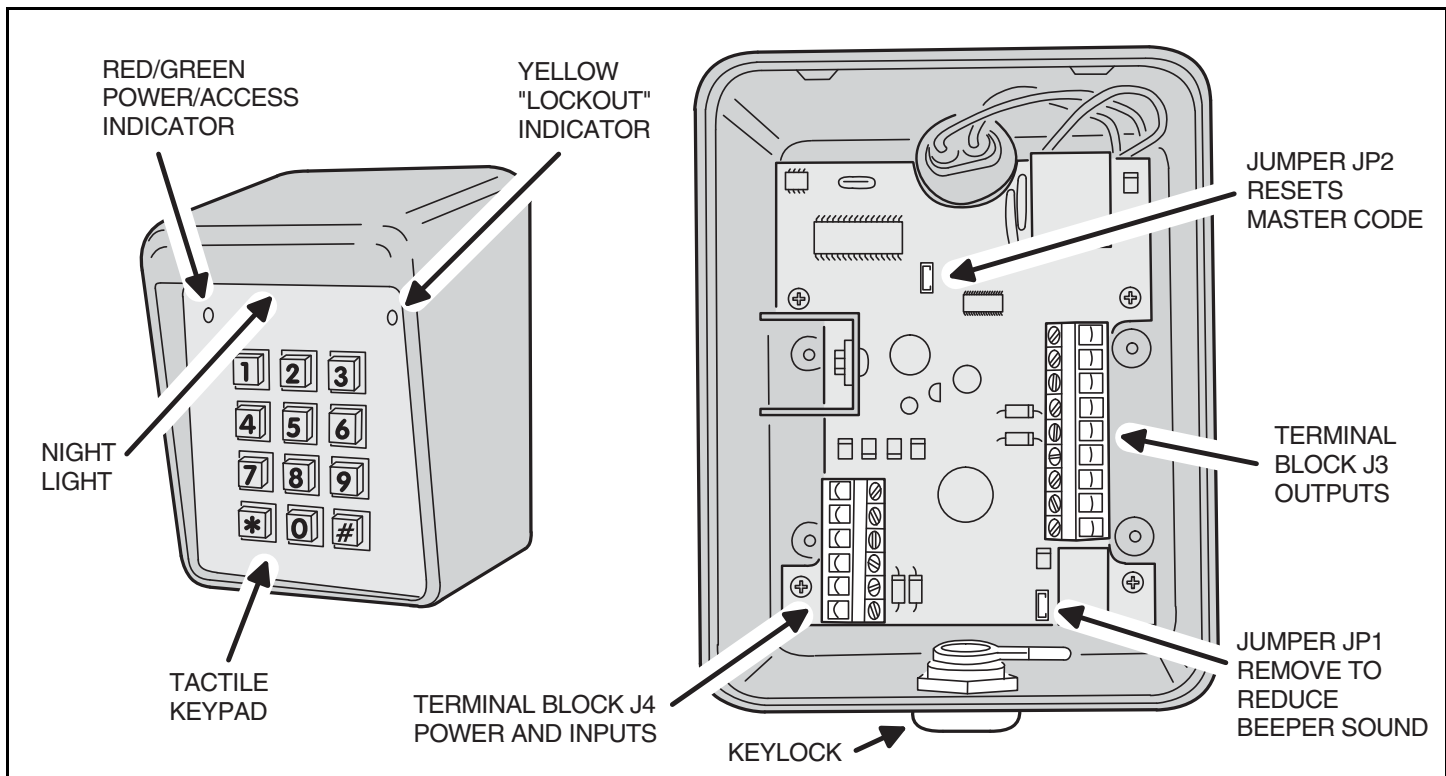


Figure 1. Component Locations

WIRING DIAGRAM

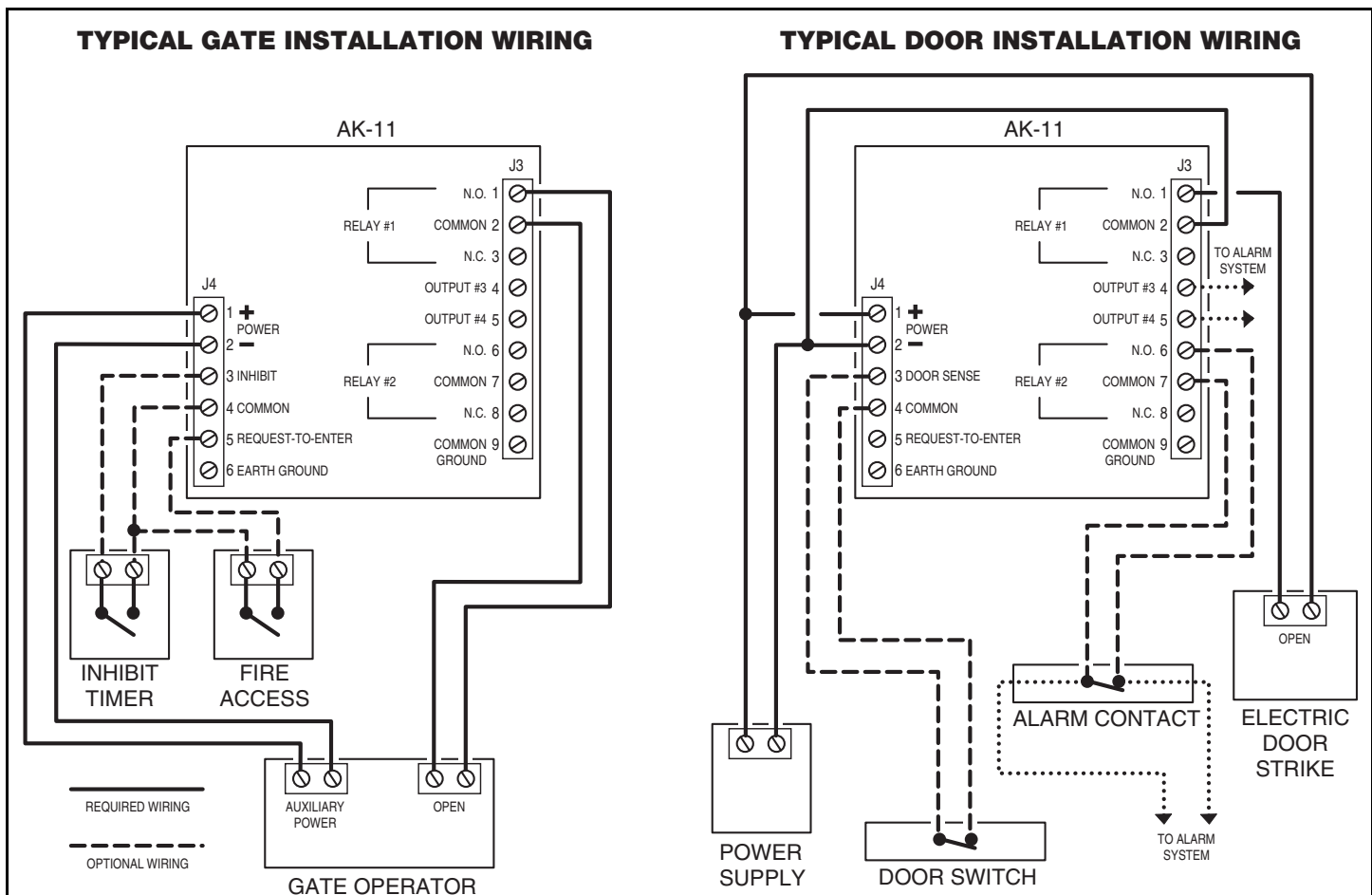


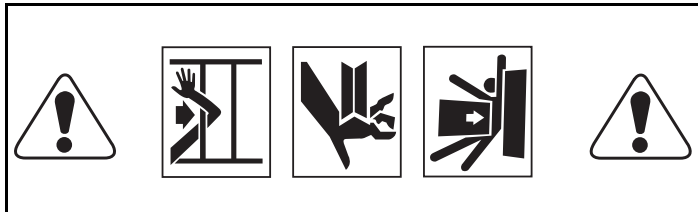
Figure 2. Wiring Diagram

INSTALLATION

To avoid damage to the unit from static discharges, connect the EARTH GROUND terminal to a good earth grounding point. Suggested wiring size is 18 AWG for earth ground and power (up to 500 feet of 18 AWG wire can be run for power, use larger wire for longer runs). Use 22 AWG or larger (depending on the load) for all other connections.

- ◆ **CAUTION:** If the unit is AC powered, and one side of the power transformer secondary is connected to earth ground, connect the grounded side to the “-” power terminal of the unit.

Select a location for the keypad. For door access control installations, mount the keypad near the controlled door. For gate control installations, mount the keypad in clear view of the gate, but far enough from the gate so the user cannot touch the gate from the keypad.



- ★ **WARNING:** TO AVOID SERIOUS INJURY OR DEATH, MAKE SURE THAT THE UNIT IS FAR ENOUGH FROM THE GATE SO THAT THE USER CANNOT TOUCH THE GATE WHILE OPERATING THE KEYPAD. HOWEVER, THE GATE MUST BE FULLY VISIBLE FROM THE KEYPAD.

Pedestal Mounting

The AK-11 keypad can be mounted on a standard pedestal.

- ☐ Use four security bolts and locking nuts to secure the keypad's backplate to the pedestal (see Figure 3).

Wall Mounting

The AK-11 keypad can be mounted directly to a wall or flat surface.

- ☐ Use the appropriate fasteners to secure the keypad's backplate to the mounting surface.
- ☐ When mounting the keypad to a concrete wall, use concrete wedge anchors or molly anchors (see Figure 4).

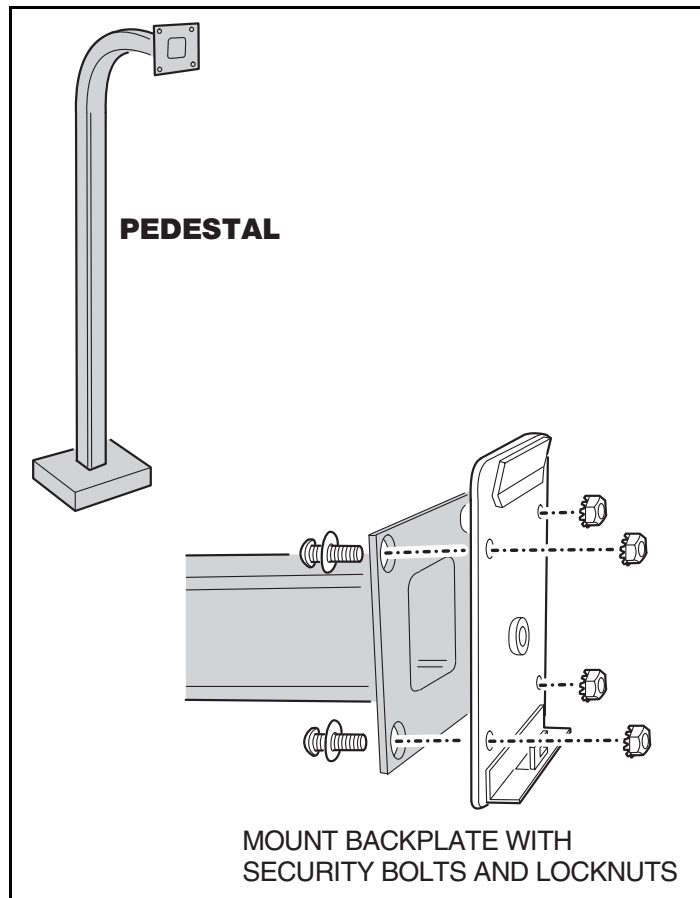


Figure 3. Pedestal Mounting Keypad Backplate

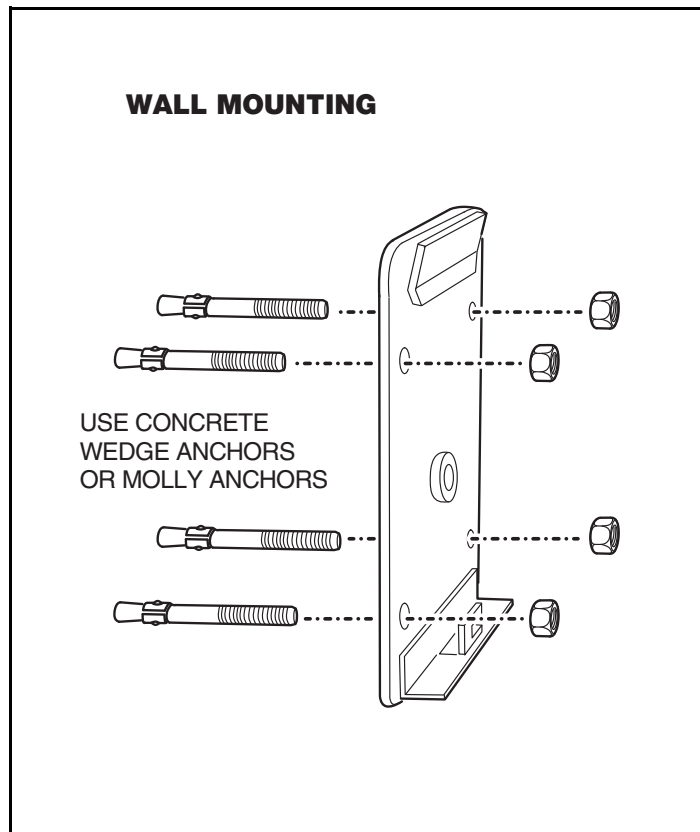


Figure 4. Wall Mounting Keypad Backplate

Gate Control

- Route four wires between the gate and the keypad (two for power, two for control).
 - Connect the gate operator's auxiliary or radio power output terminals to the keypad's POWER input terminals (observe wiring polarity).
 - Connect the gate operator's OPEN terminals to the keypad's Relay #1 COMMON & N.O. terminals.
- NOTE: For operator wiring specifics, refer to the gate operator's wiring diagram.
- If a request-to-enter pushbutton or fire access keyswitch is going to be used, route two wires from the keypad to the normally open switch. Connect the wires to the normally open switch and to the keypad's REQUEST-TO-ENTER and COMMON terminals.
 - If an inhibit switch or timer is going to be used, route two wires from the keypad to the inhibit switch or timer relay. Connect the inhibit switch/timer terminals to the keypad's INHIBIT and COMMON terminals.

NOTE: If the INHIBIT input is going to be used, it must be programmed to select that input type. See the Programming Options section of this manual.

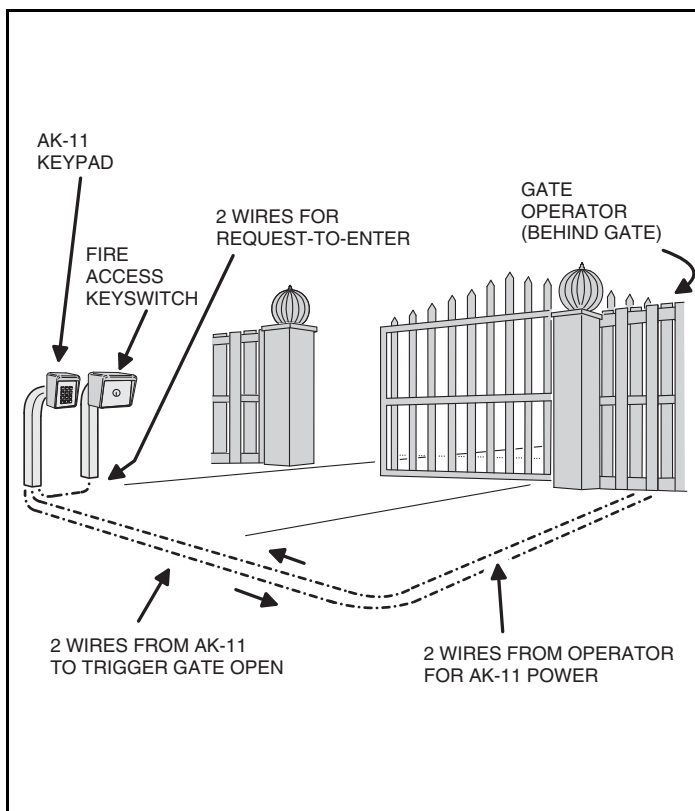


Figure 5. Gate Installation

Door Control

- Install a low voltage electric door strike for unlocking the door.
- Choose a location for the power supply or transformer.
- Route two wires between the power supply and the keypad. Connect the power supply's output terminals to the keypad's POWER input terminals (observe wiring polarity).
- Route two wires between the door strike and the keypad. Connect one of the door strike wires to the keypad's Relay #1 N.O. terminal. Connect the other door strike wire to the keypad's POWER + terminal. Connect a wire between the keypad's POWER - terminal and the Relay #1 COMMON terminal.
- If a request-to-enter pushbutton or fire access keyswitch is going to be used, route two wires from the keypad to the normally open switch. Connect the wires to the normally open switch and to the keypad's REQUEST-TO-ENTER and COMMON terminals.
- To use the door sense feature to detect forced entry or door ajar conditions, install a normally closed door switch on the door and route two wires from the switch to the keypad. Connect the door switch to the keypad's DOOR SENSE and COMMON terminals.
- If an inhibit switch or timer is going to be used, route two wires from the switch or timer to the keypad. Connect the inhibit switch/timer terminals to the keypad's INHIBIT and COMMON terminals.

NOTE: Either door sense or inhibit can be used. Both features cannot be used at the same time.

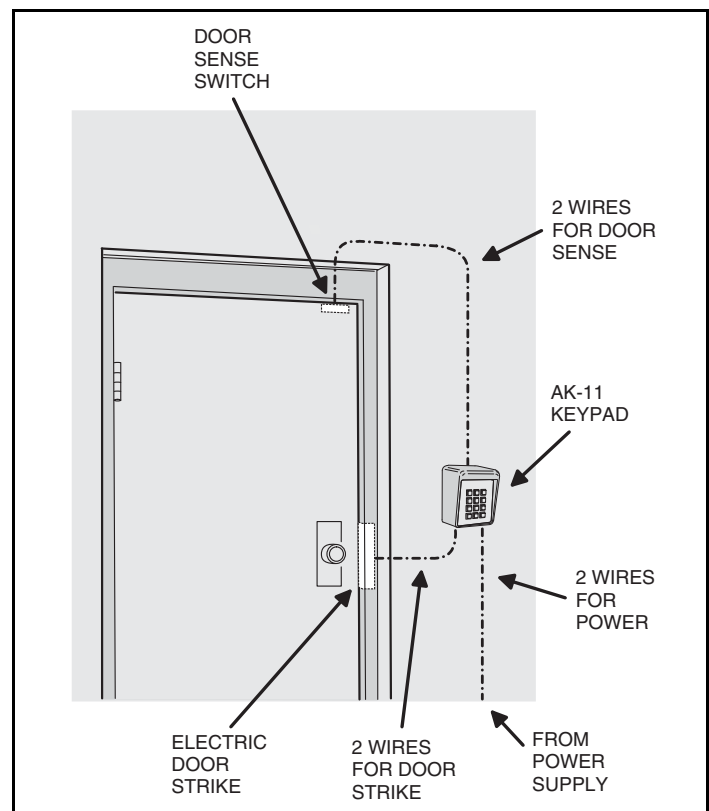


Figure 6. Door Installation

FACTORY DEFAULTS

MASTER PROGRAMMING CODE.....	123456
ENTRY CODE LENGTH	4 DIGITS
REQUEST-TO-ENTER OUTPUT	RELAY #1
ALARM SHUNT OUTPUT	DISABLED
FORCED ENTRY OUTPUT	OUTPUT #3
DOOR AJAR OUTPUT	OUTPUT #4
RELAY #1 ON TIME	2 SECONDS
RELAY #2 ON TIME	2 SECONDS
SOLID STATE OUTPUT #3 ON TIME	2 SECONDS
SOLID STATE OUTPUT #4 ON TIME	2 SECONDS
DOOR SENSE/INHIBIT INPUT.....	DOOR SENSE
KEYPAD LOCKOUT OUTPUT	DISABLED
KEYPAD ACTIVE OUTPUT	DISABLED
DOWNLIGHT ON-TIME	2 MINUTES
BEEPER SOUNDS WHEN KEY PRESSED	YES
BEEPER SOUNDS DURING RELAY #1	NO
BEEPER SOUNDS DURING RELAY #2	NO
BEEPER SOUNDS DURING OUTPUT #3.....	NO
BEEPER SOUNDS DURING OUTPUT #4.....	NO
KEYPAD LOCKOUT COUNT	3 TRIES BEFORE LOCKOUT
ANTI-PASSBACK TIME	NO ANTI-PASSBACK

BASIC PROGRAMMING

When the AK-11 is in programming mode, both LEDs will turn off until programming begins. After a programming option number is entered the yellow LED will blink. This indicates that the AK-11 is ready to accept the new programming data. After the new data entry is complete, the green LED will light while the data is being stored. The red LED will light if any programming data is entered incorrectly, and the command will have to be fully re-entered.

Entering Programming Mode

The 6-digit Master Programming Code (default = 123456) is used to enter Programming Mode.

Press: # 9 # Master Code

Master Code = the current 6-digit Master Programming Code

Exiting Programming Mode

Press: * * #

The red LED will light when Programming Mode is exited.

NOTE: The AK-11 will automatically exit Programming Mode after two minutes of inactivity.

Re-entering a Command After a Mistake

If the red LED lights, indicating an incorrect entry, or a wrong key is pressed during programming, to clear the keypad and re-enter the command:

Press: * 9 #

Setting Entry Code Length

Default: 4 digits

Press: 0 3 # Length #

Length = 1 - 6 for entry code length

NOTE: If the Entry Code Length is going to be changed from the factory default of four digits, make this change first, before programming any entry codes.

Adding a New Entry Code

Press: 0 1 # Code # Code # Action #

Code = The new entry code: 1-999999, depending on code length

Action = Relay output entry code will activate as follows:

1 = Relay #1, timed open

2 = Relay #2, timed open

3 = Both Relays, timed open

10 = Relay #1, toggled

20 = Relay #2, toggled

30 = Both Relays, toggled

12 = Relay #1 toggled; Relay #2, timed open

21 = Relay #1, timed open; Relay #2 toggled

The yellow LED will flash quickly while the AK-11 searches its memory for available space and duplicate entries. The green LED will light when the new code is stored.

If the new entry code chosen is already being used for another entry code, the red LED will light. A new *unique* code needs to be entered.

NOTE: Leading zeros (zeros before the code number, i.e. 0001) do not need to be entered when programming a new entry code. The AK-11 will internally add any zeros to fill all digits determined by the entry code length setting. Leading zeros **will** have to be entered by the user when entering their code to gain access.

Erasing a Single Entry Code

Press: 0 2 # Code # Code #

Code = The entry code to delete.

The yellow LED will flash quickly while the AK-11 searches its memory for the code to erase. The green LED will light when the code is erased.

Erasing All Entry Codes

★ **WARNING:** Performing this command will remove all entry codes from the memory.

Press: 9 7 # 0 0 0 0 0 # 0 0 0 0 0 #

NOTE: The green LED will light while the memory is being erased. This may take up to 15 seconds.

Changing the 6-Digit Master Programming Code

Press: 9 8 # Master Code # Master Code #

Master Code = The new 6-digit Master Programming Code

New master code: _____

PROGRAMMING OPTIONS

Select Door Sense or Inhibit Input

Default: Door Sense

The input on terminal block J4, terminal #3 can be programmed for DOOR SENSE or INHIBIT.

Press: 1 0 # Input #

*Input = 1 for Inhibit,
= 0 for Door Sense*

When programmed for DOOR SENSE, if an open condition on the input occurs *before* access is granted (with an entry code or with the request-to-enter input) a FORCED ENTRY output will occur. If an open condition remains *60 seconds after* a relay activation for access, a DOOR AJAR output will occur.

When programmed for INHIBIT, a closed condition on the input will prevent relay #1 from activating when access is requested (with an entry code). This mode is typically used with an external timer to disable the access device at certain times.

Select Forced Entry Output

Default: Output #3

Sets which output activates if the Door Sense input opens before access is granted. This output is not timed.

Press: 1 1 # Output #

*Output = Output to Activate (0-4)
1 = Relay #1 2 = Relay #2 3 = Output #3
4 = Output #4 0 = No Output*

Select Door Ajar Output

Default: Output #4

Sets which output activates if the Door Sense input stays open after access is granted. This output is not timed.

Press: 1 2 # Output #

*Output = Output to Activate (0-4)
1 = Relay #1 2 = Relay #2 3 = Output #3
4 = Output #4 0 = No Output*

Select Keypad Lockout Output

Default: No Output

Sets which output activates when the keypad is "locked out" after too many incorrect entry code attempts. The lockout time is 60 seconds.

Press: 1 3 # Output #

*Output = Output to Activate (0-4)
1 = Relay #1 2 = Relay #2 3 = Output #3
4 = Output #4 0 = No Output*

Select Keypad Active Output

Default: No Output

Sets which output activates when any keys are pressed. This output is timed.

Press: 1 4 # Output #

*Output = Output to Activate (0-4)
1 = Relay #1 2 = Relay #2 3 = Output #3
4 = Output #4 0 = No Output*

Select Alarm Shunt Output

Default: No Output

Sets which output activates during the time access is granted. (Use this output to shunt alarm contacts attached to the access door.) This output may be timed or latched.

Press: 1 5 # Output #

*Output = Output to Activate (0-4)
1 = Relay #1 2 = Relay #2 3 = Output #3,
4 = Output #4 0 = No Output*

Select Request-to-Enter Output

Default: Relay #1

Sets which output activates when the Request-to-Enter input is grounded. This output remains activated for at least the length of time specified by the On-times for the relays or outputs. If the Request-to-Enter input continues to be grounded beyond the time specified by the On-times for the relays or outputs, the output will remain activated as long as the Request-to-Enter input remains grounded.

Press: 1 6 # Output #

*Output = Output to Activate (0-4)
1 = Relay #1 2 = Relay #2 3 = Output #3
4 = Output #4 0 = No Output*

Relay #1 On-time

Default: 2 Seconds

Sets the length of time Relay #1 activates when triggered.

Press: 2 1 # Seconds #

Seconds = Output time in seconds (0-60)

Relay #2 On-time

Default: 2 Seconds

Sets the length of time Relay #2 activates when triggered.

Press: 2 2 # Seconds #

Seconds = Output time in seconds (0-60)

Solid-state Output #3 On-time

Default: 2 Seconds

Sets the length of time Output #3 activates when triggered.

Press: 2 3 # Seconds #

Seconds = Output time in seconds (0-60) 99 = Toggle mode

Solid-state Output #4 On-time

Default: 2 Seconds

Sets the length of time Output #4 activates when triggered.

Press: 2 4 # Seconds #

*Seconds = Output time in seconds (0-60)
99 = Toggle mode*

Set Downlight On-Time

Default: 2 Minutes

Sets the time duration that the downlight remains on after a key press.

Press: 2 5 # Duration #

*0 = Always off 1 = 1 minute 2 = 2 minutes 3 = 3 minutes
4 = 4 minutes 99 = Always on*

Beep Sounds on Keystrokes **Default: Yes**

Selects whether or not the keypad beeps as each key is pressed.

Press: 4 0 # Sound #

Sound = 1 for Yes = 0 for No

Beep Sounds During Relay #1 **Default: No**

Selects whether or not the keypad beeps during Relay #1 activation.

Press: 4 1 # Sound #

Sound = 1 for Yes = 0 for No

Beep Sounds During Relay #2 **Default: No**

Selects whether or not the keypad beeps during Relay #2 activation.

Press: 4 2 # Sound #

Sound = 1 for Yes = 0 for No

Beep Sounds During Output #3 **Default: No**

Selects whether or not the keypad beeps during Output #3 activation.

Press: 4 3 # Sound #

*Sound = 1 for Yes
= 0 for No*

Beep Sounds During Output #4 **Default: No**

Selects whether or not the keypad beeps during Output #4 activation.

Press: 4 4 # Sound #

*Sound = 1 for Yes
= 0 for No*

Keypad Lockout Count **Default: 3 Tries**

Sets the number of incorrect entry code attempts allowed before the keypad "locks out".

Press: 5 0 # Attempts #

Attempts = Number of attempts before lockout (2-7)

Anti-passback Time **Default: No Anti-passback**

Sets the length of time an entry code will not function after it is used.

Press: 5 1 # Minutes #

*Minutes = Time in Minutes (1-4)
0 = No Anti-passback*

Master Reset

♦ **CAUTION: Performing a master reset will clear the entire memory of the AK-11 and return all programmable options to the factory default values. ALL ENTRY CODES WILL BE ERASED.**

STEP 1 Disconnect power from the keypad.

STEP 2 Press and hold down the ★ and # keys.

STEP 3 Apply power to the keypad, continue holding the keys down until the red LED starts flashing.

STEP 4 Release the keys. The red and yellow LEDs will remain lit until the process is complete, then the yellow LED will go out.

Resetting the Master Code

STEP 1 Open the AK-11 case.

STEP 2 Locate jumper JP2. This jumper is used to reset the master code.

STEP 3 With power applied to the keypad, remove jumper JP2. The keypad will begin to beep, signaling that the code has been reset.

STEP 4 Replace jumper JP2.

THE MASTER PROGRAMMING CODE IS NOW 123456.

Solid State Outputs

The two solid state outputs (Output #3 & Output #4) can be programmed to activate during various conditions. These outputs can be used to activate indicators or sounders. See Figure 7 for wiring examples using the solid state outputs.

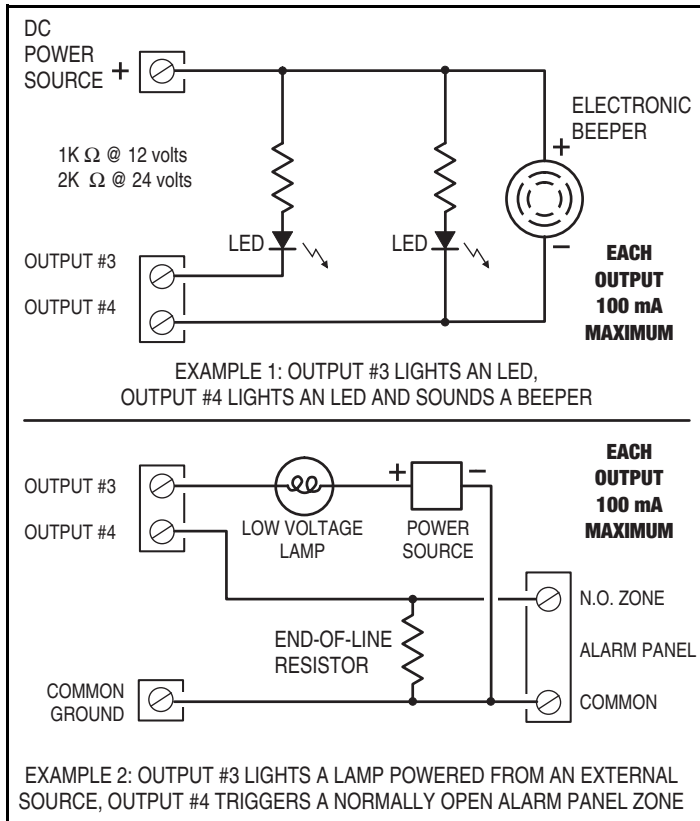


Figure 7. Using the Solid State Outputs

Beeper Sound Level

The keypad's beeper can be set to low or high level.

- ☐ If the keypad's beeper is too loud for the keypad's location, remove jumper JP1 (see Figure 8).

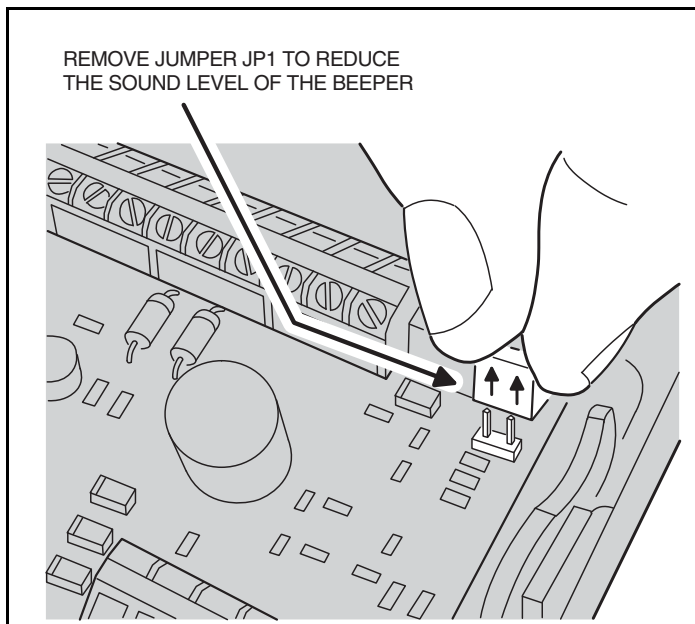


Figure 8. Removing Beeper Jumper

Locking Keypad

After the installation is complete. Lock the keypad using the keylock (see Figure 9).

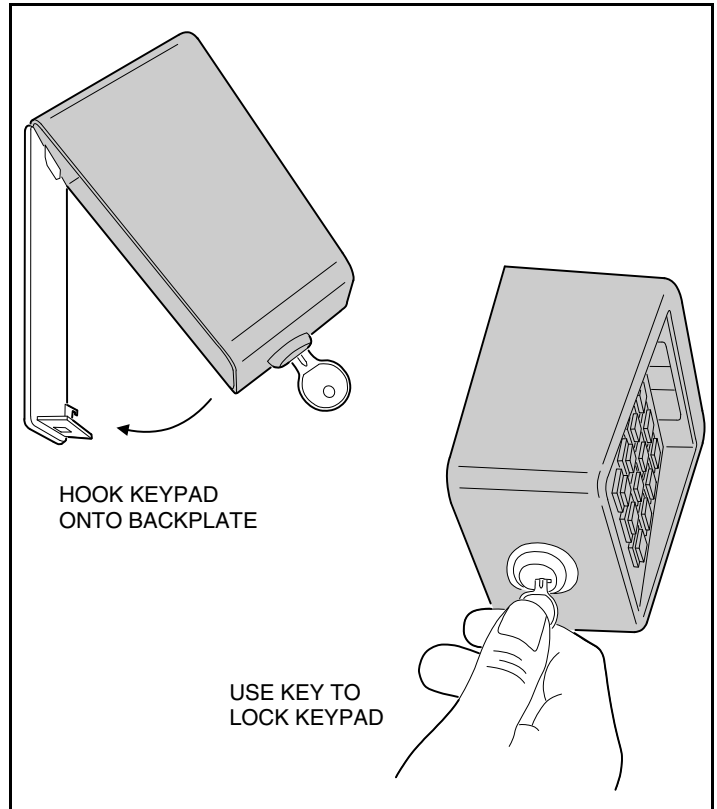


Figure 9. Locking the Keypad Case

AK-11 OPERATION

- ✓ Users of the AK-11 have up to 40 seconds to key in their entry code.
- ✓ Up to eight seconds are allowed between each keystroke.
- ✓ All digits of the entry code must be entered. Example: If the code is 0042, the user must enter "0 0 4 2".
- ✓ If the wrong key is pressed, pressing the ★ key will reset the keypad. The correct code can then be re-entered.
- ✓ After a correct code is entered, the red LED will turn green and the programmed relay will activate for the programmed time.
- ✓ If the number of incorrect codes entered exceeds the keypad lockout count, the yellow LED will light, indicating that the keypad is locked out. The lockout will remain for one minute.
- ✓ After a valid code has been entered, it will be unusable until the anti-passback time expires.

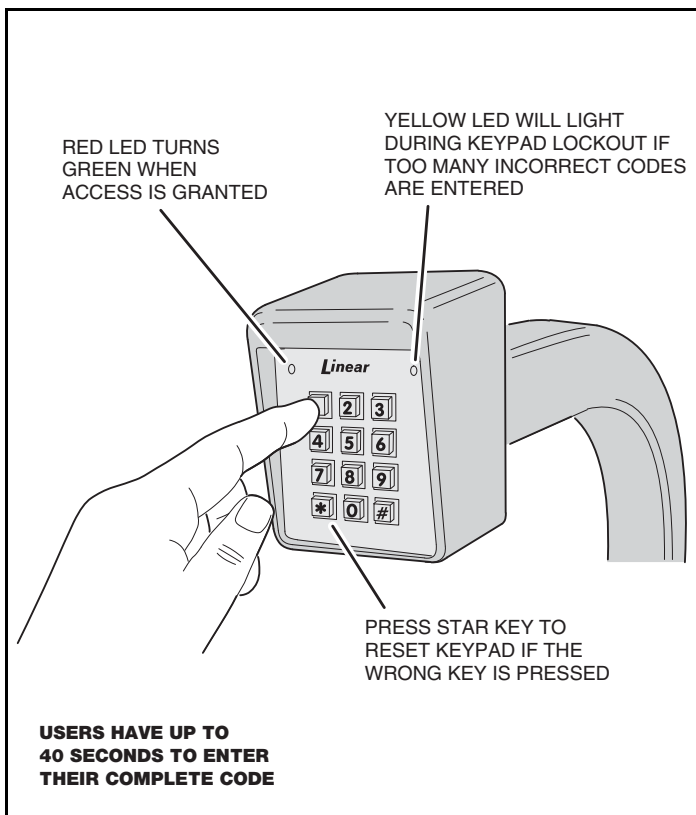


Figure 10. Operating AK-11

MANAGER'S ENTRY CODE LOG

NAME	ADDRESS OR APARTMENT NUMBER	ENTRY CODE	RELAY NUMBER	
			◇ 1 Timed	◇ 2 Timed
			◇ 1 Toggled	◇ 2 Toggled
			◇ 1 Timed	◇ 2 Timed
			◇ 1 Toggled	◇ 2 Toggled
			◇ 1 Timed	◇ 2 Timed
			◇ 1 Toggled	◇ 2 Toggled
			◇ 1 Timed	◇ 2 Timed
			◇ 1 Toggled	◇ 2 Toggled
			◇ 1 Timed	◇ 2 Timed
			◇ 1 Toggled	◇ 2 Toggled
			◇ 1 Timed	◇ 2 Timed
			◇ 1 Toggled	◇ 2 Toggled
			◇ 1 Timed	◇ 2 Timed
			◇ 1 Toggled	◇ 2 Toggled
			◇ 1 Timed	◇ 2 Timed
			◇ 1 Toggled	◇ 2 Toggled
			◇ 1 Timed	◇ 2 Timed
			◇ 1 Toggled	◇ 2 Toggled
			◇ 1 Timed	◇ 2 Timed
			◇ 1 Toggled	◇ 2 Toggled
			◇ 1 Timed	◇ 2 Timed
			◇ 1 Toggled	◇ 2 Toggled
			◇ 1 Timed	◇ 2 Timed
			◇ 1 Toggled	◇ 2 Toggled

LINEAR LIMITED WARRANTY

This Linear product is warranted against defects in material and workmanship for twenty-four (24) months. The Warranty Expiration Date is labeled on the product. **This warranty extends only to wholesale customers** who buy direct from Linear or through Linear's normal distribution channels. **Linear does not warrant this product to consumers.** Consumers should inquire from their selling dealer as to the nature of the dealer's warranty, if any. **There are no obligations or liabilities on the part of Linear LLC for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation, or reinstallation.** All implied warranties, including implied warranties for merchantability and implied warranties for fitness, are valid only until Warranty Expiration Date as labeled on the product. **This Linear LLC Warranty is in lieu of all other warranties express or implied.**

All products returned for warranty service require a Return Product Authorization Number (RPA#). Contact Linear Technical Services at 1-800-421-1587 for an RPA# and other important details.

FCC NOTICE

Changes or modifications not expressly described in this manual or approved by the manufacturer could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

PowerMaster

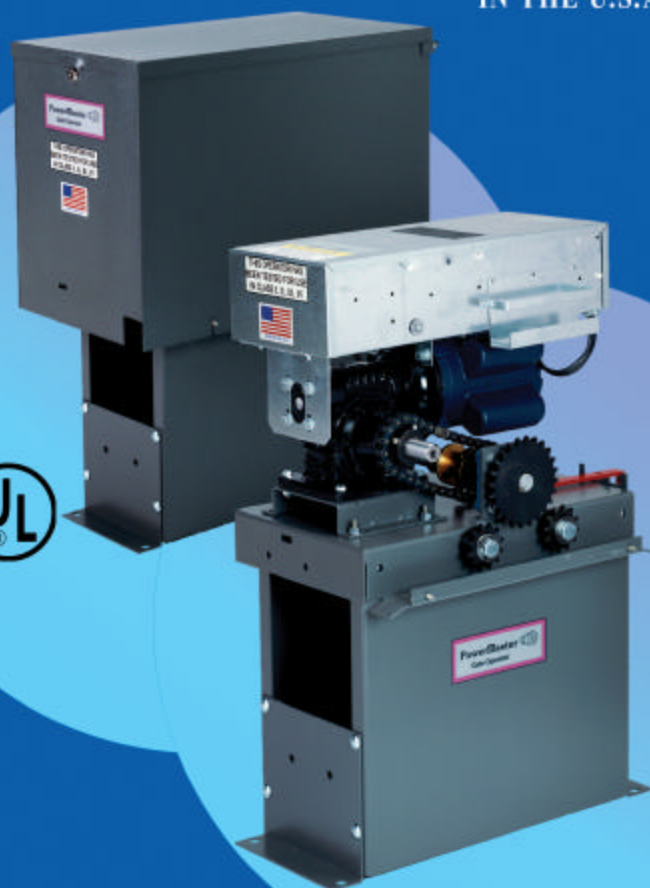


ASSEMBLED
IN THE U.S.A.

Model SG 2004 SLIDE GATE OPERATOR

ELECTRICAL FEATURES

- Solid state control board with diagnostic LED's to indicate all input and output functions.
- Three button control station on circuit board to facilitate installation and maintenance.
- External control input terminal connections for:
 - Radio Receiver
 - Push Button Control Station
 - Key Switches
 - Loop Detectors
 - Card Key Readers
 - Telephone Entry Systems, Etc.
- Timer to close with 0-60 sec. adjustment standard. Longer timer available upon request.
- Maximum run timer for equipment protection (self adjusting).
- Master/Slave selectable option with dedicated terminal connection provided.
- Easy Left/Right changeover.
- Time delay on reverse to insure smooth gate motion and less stress on equipment.
- Spike suppressing circuitry for surge and lightning protection.
- Emergency control enabling circuitry for safety with security.
- Electrical dynamic or solenoid brake for precise gate positioning.
- Magnetic gate lock circuitry with control relay.
- Integral, speed sensing, anti-entrapment circuitry with independent opening and closing sensitivity adjustment.
- External anti-entrapment circuitry with separate terminal connections for easy installation of contact and non-contact sensors.
- 1 Phase or 3 phase instant reversing motors with thermal overload protection and high speed ball bearings for smooth, quiet operation. Single phase motors available in capacitor start or switchless PSC styles.
- Internal On/Off power switch.
- Two grounded 115 Volt AC, 15 Amp. convenience receptacles (115V units only).
- NEMA 1 three-button control station included.
- Selectable three second advanced audio warning signal.



TECHNICAL SPECIFICATIONS

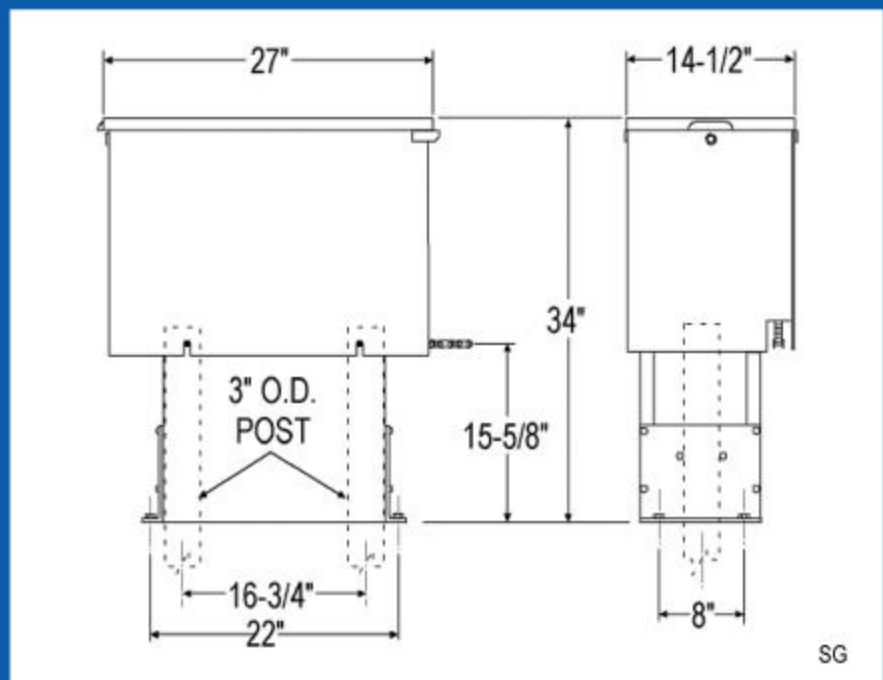
- Power requirements: 115/230V, 1 phase
230/460V, 3 phase.
- Class 2 low voltage control circuit.
- Available horse power: 1/2 to 1-1/2 HP.
- Maximum gate weight: 1500 LBS.
- Maximum cycles per hour: 30 CPH.
- Maximum gate width: 50 feet.
- Gate speed: 11 inches per second.
- UL 325 Listed for use in
Class I through IV application.
- Shipping weight: approx. 235 LBS.

MECHANICAL FEATURES

- Heavy duty #11 Ga. galvanized steel frame providing a strong and durable unit.
- #16 Ga. galvanized steel, lockable exterior cover for drip proof water protection.
- Hard shell baked-on weather resistant powder coating with an attractive textured finish for years of aesthetic protection from the elements.
- 40:1, oil bath type, gear reducer for long service and smooth, quiet operation.
- Heavy duty #50 drive chain with a spring loaded tensioning system for smooth starts, stops and reversals.
- Heavy duty pillow block type ball bearings supporting output drive shaft and enabling extended endurance under heavy loads with low maintenance.
- Padlockable drive disconnect with brass slide for manual operation in case of power failure.
- Positive chain driven rotary limit switches for precision gate positioning. Settings are never affected by manual operation.
- Post or pad mountable for easy installation.

OPTIONAL EQUIPMENT

- Radio Control.
- Safety Edge (contact safety sensor).
- Push Buttons with Keyed Lockout
- Loop Detector.
- Card Key Reader.
- Magnetic Gate Lock.
- Gear Box Heater (for cold climates).
- Thermostatically Controlled Cooling Fan (for hot climates).
- Interior and Exterior Control Stations:
 - Push Buttons
 - Push Button with Keyed Lockout
 - Key Switches
- Padlockable Option to secure cover for increased tamper proof protection.
- Foot disconnect system.
- Polyethylene rust and dent proof cover.
- Torque limiting clutch.

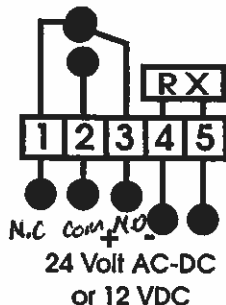
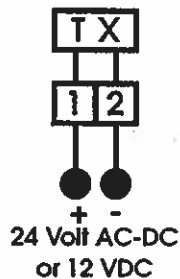
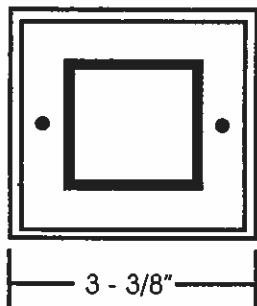
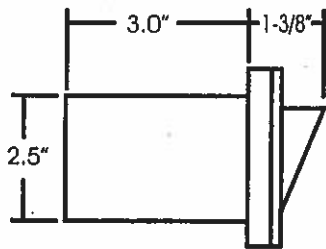


Gate Operators are to be installed on 3" O.D. Sch. 40 Galvanized Steel Posts set in concrete footings.

POWER DOOR PRODUCTS, INC.

(914) 698-5083

UL 325 Certified - INFRARED PHOTOELECTRIC CELL MODEL IR-55 FOR OUTDOOR USE



IMPORTANT INSTRUCTIONS

The Albano photoelectric beams Model AE/IR -55 are constructed to throw a single-pole relay when an object interrupts the beam. These units were constructed from high quality materials and rigorously tested before being placed in service.

Technical Characteristics

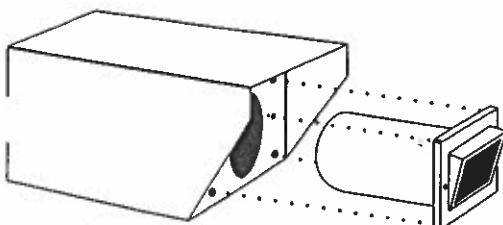
- Nylon fiberglass reinforced enclosures
- Transmitter: Modulated pulsing Gallium Arsenide Infrared diode
- Transmitter; Green LED ON shows power applied and transmitter functioning
- Receiver: Red LED ON shows power applied. LED drops out when aligned.
- Heaters incorporated behind both transmitter and receiver lenses to eliminate dampness
- Two relays incorporated in receiver in parallel to avoid product failure by one relay
- Maximum operating range 165 feet
- Relay rating 1A. at 120V.
- Power 12 VDC or 24VDC/DC (specify when ordering)

Mounting & Alignment Instructions

Mount outside housings to a firm stand or wall. Check power line voltage with a meter to insure correct power (12VDC or 24VAC) for the unit you have. Remove front cover, and when necessary loosen the three alignment screws. Aim transmitter toward receiver until red receiver LED turns off. (Make sure the green transmitter LED remains lit.) Tighten the three alignment holding screws in both receiver and transmitter. Use alignment test strip supplied to test alignment at different ranges.

If alignment is not satisfactory, repeat above procedure.

"Service With A Personal Touch"



LMA-1250 SERIES



INDUCTIVE LOOP VEHICLE DETECTORS

- SINGLE CHANNEL
- DUAL PROGRAMMABLE RELAY OUTPUTS

Eberle Design, Inc. (EDI) provides access professionals with reliable, high quality mission critical vehicle detection products that will improve the performance and lifecycle of your access control systems.

EDI's wide range of vehicle detection products help technicians save valuable time and maximize profits by quickly installing, accurately trouble-shooting, and reliably maintaining access control systems with easy to use hi-tech vehicle detectors that provide built-in set-up tools, frequency & sensitivity meters, and non-volatile memory to maintain diagnostic history, all of which are invaluable and always available – Because they're built-in!

ENHANCED FEATURES

DEFLECTOMETER™:	The front panel 7-segment LED DEFLECTOMETER™ provides visual feedback and assistance for setting the correct sensitivity, reading the frequency of the loop, reporting Loop Faults, and indicating Delay & Extension Timing functions.
Sensitivity Meter:	With a typical size vehicle over the roadway loop, the DEFLECTOMETER™ functions as a Sensitivity Meter. The optimum sensitivity setting should provide a reading of "5". You can adjust the DEFLECTOMETER™ reading by using the front panel UP or DOWN sensitivity buttons. Automatic quantitative feedback of the loop system operation ensures that the detector is set to the most optimum sensitivity level to detect ALL vehicles, including motorcycles and high-bed vehicles.
Frequency Meter:	Following power-up or reset, the DEFLECTOMETER™ will indicate a 2 or 3 digit number (quickly flashes) that indicates the loop frequency of the loop & loop network. Keeping your loops separated by at least 5 KHz avoids crosstalk problems and future service calls.
Ten (10) Levels of Sensitivity:	10 levels of sensitivity (0 to 9) can be easily set using the UP or DOWN push buttons.
Two Models Cover ALL Voltages:	LMA-1250-LV operates on 12VDC, 24VDC, and 24VAC LMA-1250-HV operates on 120VAC and 240VAC
Advanced Loop Diagnostics:	The Loop Fault Monitor continually checks the integrity of the loops and will report and store three types of loop faults; Open Loops, Shorted Loops, and 25% sudden changes in inductance.
Loop Fault Memory:	The Loop Fault Memory uses internal Non-Volatile memory to store and display the current and previous loop faults utilizing the front panel "Loop Fault" LED and DEFLECTOMETER™. A power loss or reset will not delete this memory. A MUST FOR TROUBLESHOOTING!
Call Output Memory:	The detector will not drop a Call state if power is lost for a minimum of 4 seconds or less.
"Delayed" & "Extended" Detection:	A 2-second CALL "Delay" time and 2, 5, or 10-second CALL "Extension" time can be provided.

STANDARD FEATURES

- ☒ Automatic Tuning - Lightning & Surge Protection - Four (4) Frequency Levels - Compatible with ALL radio controls & remote openers - Sensitivity Boost - Fail Safe and Fail Secure Configurations - Separate Color-Coded LED indicators - Wide Loop Inductance Range: 20 to 2500 micro Henries.

Deflectometer is a trademark of Eberle Design Inc.

EBERLE DESIGN INC.

3819 East La Salle Street
Phoenix, AZ 85040 USA
www.EDIttraffic.com

Tel (480) 968-6407
Fax (602) 437-1996



LMA-1250 DEFLECTOMETER™ SERIES INDUCTIVE LOOP VEHICLE DETECTORS

Single Channel with Dual Programmable Relay Outputs SPECIFICATION

Controls: Rear mounted DIP switches and front panel push buttons allow the user to set up operational parameters including frequency & sensitivity.

Reset (Power up): The Detector can be manually reset by pressing the front panel RESET button or interrupting power. Upon power up, the loop frequency is displayed (quickly flashes) on the 7-segment DEFLECTOMETER™. Following power-up, two or three numbers will display (quickly flashing) within two seconds. As an example, you may see a "2" then a "5", indicating 25 kilohertz. The reset button is also used for reviewing previous loop fault conditions stored in the internal memory.

Setting Sensitivity - Front Panel Sensitivity Push Buttons

The DEFLECTOMETER™ (front panel 7-segment LED) aids in setting the DETECTOR quickly and easily to the most optimum sensitivity level to ensure the trouble-free detection of all vehicles, including motorcycles and high bed vehicles. For typical vehicles (mid-size vehicle / small pick up) utilizing properly installed roadway loops, a value of 5 displayed on the DEFLECTOMETER™ during the DETECT output period indicates an optimum sensitivity setting. For high profile vehicles (commercial trucks, 4x4's, etc...), a DEFLECTOMETER™ reading of 4 will be optimum. For low profile vehicles (sports cars, etc...), a DEFLECTOMETER™ reading of 6 will be optimum.

Adjusting sensitivity using the DEFLECTOMETER™ (recommended):

The DEFLECTOMETER™ should read zero (0) with no vehicle over the roadway loop. When the typical vehicle is completely in the detection zone (OUTPUT indicator On), the sensitivity should be adjusted up or down until the DEFLECTOMETER™ displays the desired optimum value of 5 (or 4 or 6 as described above).

If a typical vehicle located over the roadway loop causes the number "7" to be displayed on the DEFLECTOMETER™, the sensitivity should be decreased two levels. This can be done by pressing the front panel SENS ⬇ button two times.

If a typical vehicle located over the roadway loop causes the number "2" to be displayed on the DEFLECTOMETER™, the sensitivity should be increased three levels. This can be done by pressing the front panel SENS ⬆ button three times.

NOTE: THE DEFLECTOMETER™ DYNAMICALLY UPDATES AFTER EACH SENSITIVITY LEVEL CHANGE, ALLOWING YOU TO CHANGE SENSITIVITY SETTINGS WHILE A VEHICLE REMAINS IN THE LOOP DETECTION ZONE.

Adjusting sensitivity without using the DEFLECTOMETER™ (manually setting sensitivity):

The DETECTOR offers 10 levels of sensitivity (0 to 9). Level 9 is the highest sensitivity. Sensitivity can be manually set to any desired level by pressing the front panel SENS buttons (⬆ or ⬇) when a vehicle is NOT over the roadway loop. The first time a SENS button (⬆ or ⬇) is pressed, the current sensitivity level is displayed on the DEFLECTOMETER™ for 5 seconds. If either SENS button (⬆ or ⬇) is pressed again before the 5 second period ends, the sensitivity setting will increase (SENS ⬆) or decrease (SENS ⬇). The new sensitivity value will be displayed on the DEFLECTOMETER™ display for 5 seconds. The factory default Sensitivity setting is level 4.

Loop Frequency (2 Position DIP Switch - DIP 1 & 2): One of four settings (normally in the range of 13 to 150 kilohertz) may be selected to alleviate interference which may occur when loops connected to different detectors are located adjacent to one another. To help eliminate crosstalk problems, the loop frequency is displayed on the front panel DEFLECTOMETER™ following power-up or Reset. The display will indicate a two or three digit number (quickly flashing) that indicates the loop frequency. As an example you may see a "2" followed by a "5", indicating 25 kilohertz. This feature is a great tool for separating frequencies of adjacent loops to avoid crosstalk. Detectors on adjacent loops should all be separated by at least 5 kilohertz.

Sensitivity Boost (8 Position DIP Switch - DIP 1): When ON, sensitivity will increase only during the DETECT Output period without changing the sensitivity of a vacant loop. When a vehicle enters the loop, the Detector sensitivity is boosted to a higher level than the vacant loop setting. The boosted sensitivity remains throughout the DETECT Output period. When the vehicle leaves the loop, the sensitivity returns to the vacant loop setting. This feature helps prevent dropouts during the passage of high bed vehicles and is exceptionally useful in sliding gate situations.

Output "A" Relay Modes (8 Position DIP Switch - DIP 2): Two modes of Presence operation are selectable: Limited Presence or Infinite Presence. When ON (Limited Presence Mode), the presence DETECT Output hold time is between 5 minutes minimum and 3 hours maximum. Hold time depends on loop geometry; number of wire turns in the loop, vehicle size, and position of the vehicle relative to the loop zone. When OFF (Infinite Presence Mode), the presence DETECT Output hold time will always be maintained as long as a vehicle is located over the loop zone and power is not removed from the Detector.

2-Second Output Delay (8 Position DIP Switch - DIP 3): This feature may be turned ON so the DETECT output will be delayed for a period of 2 seconds after a vehicle has entered the detection zone. Note, the DEFLECTOMETER™ will display the letter "d" during the delay period. If the vehicle does not remain in the loop zone for the full 2 seconds the delay will terminate and no DETECT output will be produced.

2, 5, or 10-Second Output Extension (8 Position DIP Switch - DIP 4 & 5): One of three Extend times, or OFF may be selected for either presence modes. The DETECT output is held for the selected time after the vehicle has left the zone of detection. Note, the DEFLECTOMETER™ will display the letter "E" during the Extend period. This feature does not affect Pulse mode.

Switch 4	Switch 5	Function
OFF	OFF	0 seconds Extend time.
ON	OFF	2 seconds Extend time.
OFF	ON	5 seconds Extend time.
ON	ON	10 seconds Extend time.

Output "B" Relay Modes (8 Position DIP Switch - DIP 6 & 7): Four modes of operation are selectable from DIP switches 6 & 7; Presence, Pulse on Entry, Pulse on Exit, or Fault.

Switch 6	Switch 7	Function
OFF	OFF	250 millisecond pulse on vehicle entry.
OFF	ON	250 millisecond pulse on vehicle exit.
ON	OFF	Duplicates operation of Output "A".
ON	ON	Output is ON during loop fault condition.

Fail Safe Operation (Models LMA-1250-LV & LMA-1250-HV): When the loop fails or power is removed, continuity exists between Common & Normally Open. Continuity exists between Common & N.C. for Relay B.

Fail Secure Operation (Models LMA-1250S-LV & LMA-1250S-HV): When the loop fails or power is removed, continuity exists between Common & Normally Closed on both relays "A" & "B".

Loop Fault Monitoring: The Detector continuously checks the integrity of the loop. The system is able to detect shorted or open circuit loops, or sudden changes in inductance exceeding 25% of the nominal inductance. If a fault is detected, the OUTPUT and LOOP FAULT indicators continuously emit a sequence of flashes.

Additionally, the 7-Segment DEFLECTOMETER™ displays the letter "F" indicating a current loop fault. Each type of fault is identified by a different flash sequence:

Flash Sequence	Fault
1 flash	Open Circuit Loop.
2 flashes	Shorted Circuit Loop.
3 flashes	25% excessive change in inductance.

If the Open or Shorted fault condition self heals, the DETECT Output indicator and 7-Segment DEFLECTOMETER™ will return to normal operation. The LOOP FAULT indicator will continue to flash with the sequence signifying the type of fault that was last detected. In the case of the excessive inductance change fault, the unit will return to the new inductance after a period of two seconds and continue operation. The fault condition will be indicated by the flash sequence of the LOOP FAULT indicator.

Pressing the "Reset" button will reset the Detector and clear the flash sequence from the LOOP FAULT indicator. To review the last loop fault condition, simply press and hold the "Reset" button for 2 seconds. See "Loop Fault Memory" below.

Power Status Indicators (Green LED): Solid ON indicates normal power status during detector operation. The POWER Indicator will flash every 2 seconds during low input voltage (Brown out) conditions, indicating insufficient input voltage. In addition to the POWER indicator, the seven (7) segment DEFLECTOMETER™ display will be illuminated during normal detector operation.

Output "A" & "B" Detect Output Status Indicator (Red LED's):

- Vehicle Detection = Steady ON
- 2-Second Delay = Flashes at a 2 Hz rate
- 2, 5, or 10 Seconds of Extension Time = Flashes at a 4 Hz rate (Presence modes only).

Fault Status Indicator (Yellow LED): While a current fault is being detected, the red OUTPUT and the yellow LOOP FAULT indicator continuously emit a sequence of flashes together. When only the yellow LOOP FAULT indicator continuously emits a sequence of flashes, a fault has occurred and the Detector had self corrected. Each type of fault is identified by a different flash sequence.

Loop Fault Memory: Previous loop faults are stored in non-volatile (internal) memory. If power is interrupted, for any length of time, the Detector will not lose the last loop condition status, which is valuable information for troubleshooting purposes. When power is restored to the Detector, the yellow LOOP FAULT indicator will automatically display the last loop fault status condition (open loop, shorted loop, 25% change in inductance or no loop problem occurred). Momentarily pressing the front panel Reset button will reset the loop fault memory and the Detector. To review the last loop fault condition, simply press and hold the reset button for 2 seconds. See "Loop Fault Monitoring".

DETECT Output Memory: A power loss of 4 seconds or less from nominal input voltage will not lose the DETECT state. If power is removed for 4 seconds or less and then restored, the Detector will automatically restore the DETECT state present before the power loss.

Loop Inductance (Tuning) Range: 20 to 2500 micro-Henry with a Q factor greater than 5.

Self Tuning: The Detector will automatically tune to any loop and lead-in combination within the tuning range upon application of power.

Environmental Tracking: The Detector automatically and continuously compensates for component drift and environmental effects throughout the tuning range and across the entire temperature range.

Loop Input (Lightning Protection): The loop input incorporates lightning and transient protection devices and the loop oscillator circuitry is transformer-isolated. The lightning protection will withstand the discharge of a 10 uF capacitor charged to 2,000V across the loop inputs or between either loop input and earth ground. The transformer isolation allows operation with a loop which is grounded at a single point.

Grounded Loop Operation: The Detector will operate when connected to poor quality loops including those that have a short to ground at a single point.

Input / Output Circuitry Isolation: The loop inputs are isolated by means of the internal loop isolation transformer. The outputs are isolated by means of the output relay.

Lead-in Length: The Detector will operate with lead-in (feeder) lengths up to 5,000 feet with appropriate loops and proper lead-in cable.

Output Relay Rating(s): Contacts are rated 5A, 250 VAC, 30 VDC.

Environmental:

- Operating Temperature Range: -34°C to +74°C (-30°F to 165°F)
- Humidity Range: 0 to 95% relative.

Mechanical:

- Dimensions: 2.875" (7.30 cm.) long x 1.3750" (3.49 cm.) wide x 3.0625" (7.78 cm.) tall
- Weight: 10 oz.

Power Supply:

- Model LMA-1250-LV & LMA-1250S-LV: 10 to 32 VDC or 14 to 28 VAC, 50 mA max.
- Model LMA-1250-HV & LMA-1250S-HV: 95 to 250 VAC, 50/60 Hz, 0.5 Watts max.

Connector: Rear mount 11 pin male Molex "Amphenol" P/N 86CP11.

Pin Assignment (Connections):

Pin	Function
1	DC / AC (+) / Line
2	DC Ground / AC (-) / Neutral
3	Output Relay "B", Normally Open (Closes for DETECT)
4	No Connection
5	Output Relay "A", Common
6	Output Relay "A", Normally Open (Closes for DETECT)
7	Loop Input
8	Loop Input
9	Output Relay "B", Common
10	Output Relay "A", Normally Closed (Opens for DETECT)
11	Output Relay "B", Normally Closed (Opens for DETECT)

NOTE: Relay contacts are shown with power applied, loops connected and no vehicle in the loop zone (No DETECT Output).

Default Settings:

- Sensitivity Level 4
- Output "A" Relay Infinite Presence
- Output "B" Relay Pulse on Entry
- Sensitivity Boost OFF
- 2-Second DETECT Delay OFF
- 2, 5, or 10-Second DETECT Extend OFF

FORTRESS GATE ORNAMENTAL

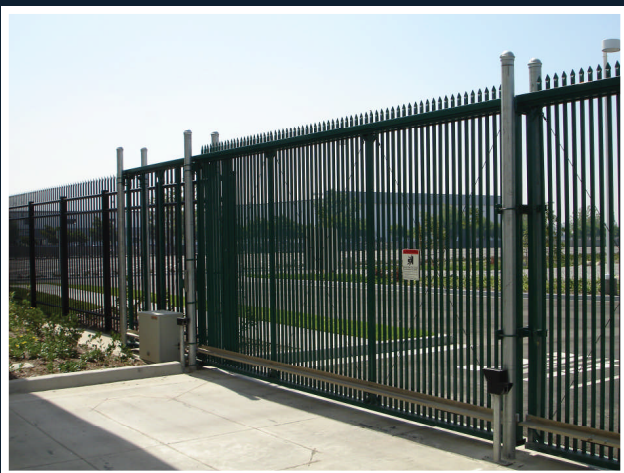
BY TYMETAL CORP.

Fortress Ornamental Gates are adaptable to nearly any type of Tymetal gate configuration and are the perfect choice for closures that need security with an attractive design and finish. Some options of gate choices available include: heavy duty, structural and box frame slide gates, swing gates and vertical lift gates to name a few.

The frame and pickets are fabricated from aluminum alloy extrusions with primary members on the top and bottom, as specified per gate type. Pickets are 1" x 1" square aluminum and can be internal or external, flat top or smashed point and can be arranged in a convex or concave configuration.

Picket spacing is available on 2"-5" centers, or other spacing upon request. Finishes are available in mill aluminum or baked on powder coating in standard or custom colors.

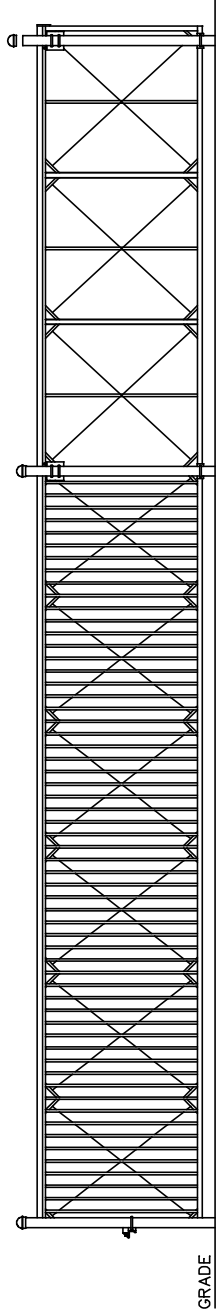
NOTE: Industry safety standards require openings on automated slide gates to be no greater than 2.25" up to 72" height above grade. Tymetal Corp. will supply screening (black plastic fabric) to be attached to the gates that have spacing exceeding the 2.25" maximum.



Tymetal Corp.

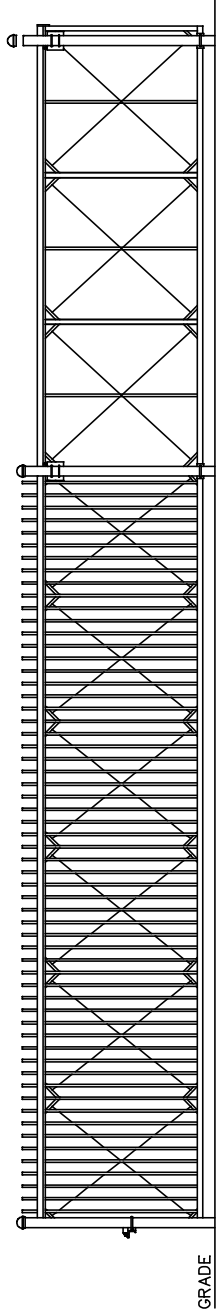
(800) 328-GATE (4283) • www.tymetal.com
Greenwich, NY • Pearland, TX

We Close  Openings



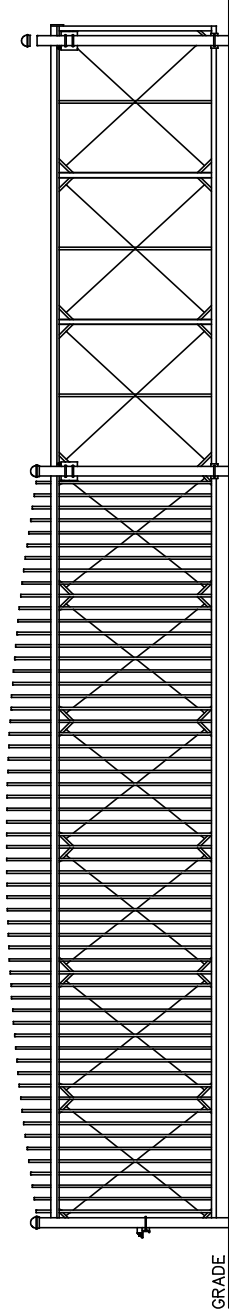
INTERNAL PICKET

Scale: None



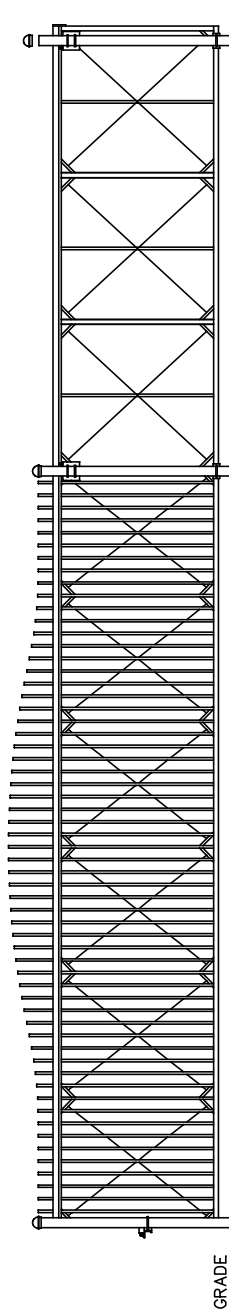
EXTENDED PICKET

Scale: None



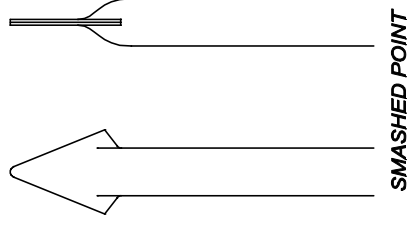
CONVEX PICKET

Scale: None



COMPOUND PICKET

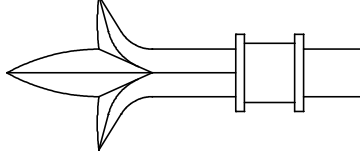
Scale: None



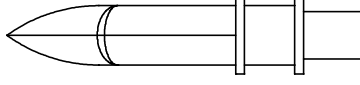
SMASHED POINT



FLAT TOP



3 POINT FINIAL



BALL TOP FINIAL

TYPICAL PICKET STYLES

- NOTES:
1. ALL ORNAMENTAL PICKET STYLES SHOWN ARE AVAILABLE ON ANY TYMETAL GATE TYPE.
 2. THE STYLES SHOWN ARE TYPICAL. TYMETAL CAN MANUFACTURE ALL GATE TYPES TO MATCH VIRTUALLY ANY COMMERCIALLY PRODUCED FENCE. IN ADDITION, TYMETAL CAN MANUFACTURE CUSTOM DESIGNS BASED ON CUSTOMER SPECIFICATIONS.
 3. INDUSTRY SAFETY STANDARDS REQUIRE OPENINGS ON AUTOMATED SLIDE GATES TO BE NO GREATER THAN 2.25" UP TO 72" HEIGHT ABOVE GRADE. TYMETAL CORP. WILL SUPPLY SCREENING (BLACK PLASTIC FABRIC) TO BE ATTACHED TO GATES THAT HAVE PICKET SPACING EXCEEDING THE 2.25" MAXIMUM.

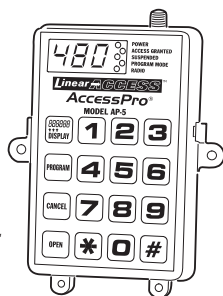


2549 STATE ROUTE 40
GREENWICH, N.Y. 12834
PH: (800) 328-4283 - FX: (518) 692-9404

ORNAMENTAL OPTIONS

Linear ACCESS**AccessPro****AP-5****Multi-purpose****Wireless****Access Controller****With High-gain Superheterodyne Receiver****Installation Instructions****Linear**

(760) 438-7000 • FAX (760) 438-7043
 USA & Canada (800) 421-1587 & (800) 392-0123
 Toll Free FAX (800) 468-1340
 www.linearcorp.com

MEGACODE**INTRODUCTION**

The AP-5 is designed for a broad range of access control applications. Its wireless design and small size make it easily adaptable for a variety of access control requirements. Typically, the AP-5 is used to control one or two door strikes, barrier gates, automatic gates, or door operators.

The AP-5 contains a high-gain superheterodyne UHF receiver which uses an external antenna to pick up signals from up to 500 feet away. Up to 480 Linear MegaCode® transmitters and six Model MGT safety edge transmitters can be programmed into the AP-5's memory. The AP-5 will retain its memory, even without power.

Three dry contact relays are provided. The first relay (K1) is always for ACCESS. The second relay (K2) can be set for ACCESS or OBSTACLE. The third relay (K3) is always an OBSTACLE relay. An ACCESS relay can be programmed to be either timed or toggled. In *timed* mode, the relay can each be programmed to activate from 1 to 120 seconds (default 2 seconds). In *toggle* mode, activating a transmitter will latch the relay, activating the transmitter again will un-latch the relay. An OBSTACLE relay will activate for 2 seconds when a valid signal is received from a Model MGT transmitter. During an obstacle condition, all ACCESS relays will be disabled.

For manual activation, pressing OPEN then the "1" key will activate relay K1. Pressing OPEN then the "2" key will activate relay K2. Each relay will activate for its programmed time only. If relay K2 is programmed as an OBSTACLE relay, it cannot be manually activated.

Relays K1 and K2 can also be activated using the two OPEN REQUEST inputs. Each input (1 or 2) will activate an ACCESS relay (K1 or K2) for its timed amount, or as long as the input is active. OPEN REQUEST inputs override any MGT obstacle activity on relay K3 (but not on K2).

The AP-5 can fully supervise up to six MGT safety edge transmitters stored in six memory locations (1-6). The system monitors each MGT transmitter for hourly status reports, tamper signals, and low battery signals. A beep will sound every 5 seconds if a fault occurs and the trouble source can be displayed by pressing #1 then 1-6. **A transmitter must be activated twice to trigger the ACCESS RELAY if a supervisory trouble condition exists on any MGT transmitter** (unless the MGT has been suspended). MGT supervisory conditions can be canceled per individual unit, or globally.

The AP-5 can be powered from 12-24 Volts AC or DC. The three Form C relay outputs can each switch up to 1 Amp @ 24 Volts AC/DC. An EARTH GROUND terminal is provided as a recommended connection for maximum lightning and static protection.



MODEL AP-5 RECEIVER

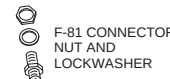


3-FOOT ANTENNA CABLE

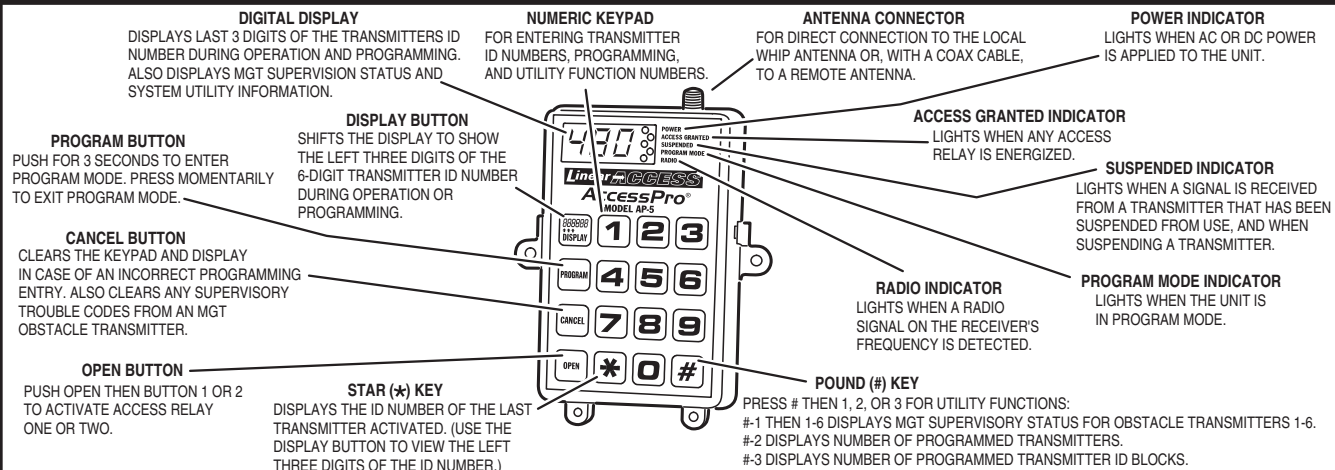


MOUNTING SCREWS

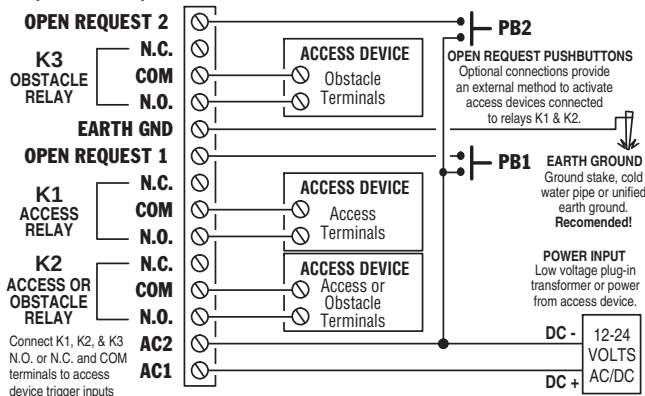
CASE SCREWS



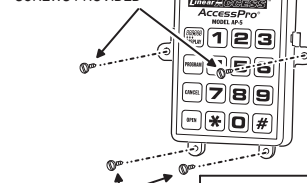
F-81 CONNECTOR NUT AND LOCKWASHER

SAFETY WARNING**WARNING****MOVING DOOR OR GATE CAN CAUSE SERIOUS INJURY OR DEATH****THIS UNIT CAUSES OPERATION OF A DOOR OR GATE MOTOR.****STAY CLEAR OF MOVING PARTS IF THIS UNIT IS MOUNTED INSIDE THE DOOR OR GATE OPERATOR!****STAY CLEAR OF THE DOOR/GATE OR DISCONNECT THE ACCESS RELAY WIRES WHEN PROGRAMMING OR SERVICING THIS UNIT!****AP-5 FEATURES****ELECTRICAL CONNECTIONS****AP-5 WIRING DIAGRAM**

Relay K1 = Access Only
 Relay K2 = Access or Obstacle
 Relay K3 = Obstacle Only

**RECEIVER INSTALLATION & SPECIFICATIONS**

MOUNT THE RECEIVER USING THE TWO SCREWS PROVIDED



CLOSE THE CASE AND SECURE IT USING THE TWO SCREWS PROVIDED

NOTES:

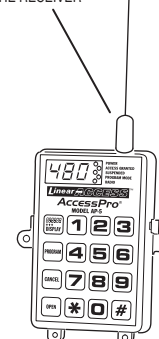
1. MOUNT RECEIVER IN AN AREA PROTECTED FROM THE ELEMENTS
2. IF USING THE LOCAL WHIP ANTENNA, THE HIGHER THE RECEIVER IS MOUNTED, THE BETTER THE RADIO RANGE WILL BE
3. OPTIONALLY, MOUNT THE RECEIVER IN A METAL CABINET AND USE AN EXTERNAL ANTENNA

SPECIFICATIONS:

SIZE: 4.5" W x 6" H x 1.5" D
 SUPPLY VOLTAGE: 12-24 VOLTS AC/DC
 OPERATING CURRENT: 250 mA MAXIMUM
 OPERATING TEMPERATURE RANGE: -22° TO +158° F (-30° TO +70° C)
 SENSITIVITY: -102 dBm MINIMUM
 BANDWIDTH (3 db): 300 KHz TYPICAL
 FREQUENCY: 318 MHz
 RELAY CONTACT RATING: 1 AMP @ 24 VOLTS AC/DC
 MAXIMUM NUMBER OF TRANSMITTERS: 480
 MAXIMUM NUMBER OF TRANSMITTER BLOCKS: 238
 MAXIMUM NUMBER OF FACILITY CODES: 4

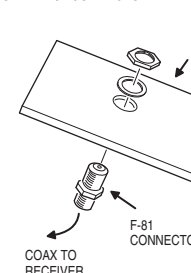
ANTENNA INSTALLATION**LOCAL WHIP ANTENNA**

ATTACH THE LOCAL WHIP ANTENNA DIRECTLY TO THE RECEIVER

**REMOTE WHIP ANTENNA**

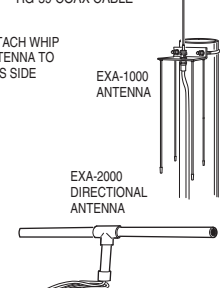
MOUNT THE F-81 CONNECTOR ON THE SURFACE USING THE LOCKWASHER AND NUT

CONNECT TO THE RECEIVER WITH THE COAX CABLE AND SCREW THE WHIP ANTENNA TO THE F-81 CONNECTOR

**REMOTE FIXED ANTENNA**

USE THE OPTIONAL EXA-1000 OR EXA-2000 ANTENNA MOUNTED AS HIGH AS POSSIBLE FOR THE BEST RADIO RANGE

CONNECT TO THE RECEIVER WITH AN RG-59 COAX CABLE



- 1 - ADDING TRANSMITTERS

STEP 1: PRESS **PROGRAM** FOR 3 SECONDS ← ENTERS PROGRAM MODE
↓
DISPLAY: **P 1 2** THEN: **8 8 8** ← READY FOR PROGRAMMING
↓
STEP 2: PRESS **3 0 #** ← TRANSMITTER ADDING FUNCTION NUMBER
↓
STEP 3: PRESS **0 0 0 0 0** ← SINGLE TRANSMITTER ID # OR STARTING TRANSMITTER BLOCK ID # (FROM 1-65535)
↓
STEP 4: PRESS **#** ← ENTERS ID #
↓
SKIP TO STEP 6 FOR SINGLE TRANSMITTERS
↓
STEP 5: PRESS **0 0 0 0 0** ← ENDING TRANSMITTER BLOCK ID # (FROM 1-65535)
↓
STEP 6: PRESS **#** ← COMPLETE ID # ENTRY
↓
STEP 7: PRESS **1 #** OR **0 #** ← ENTER "1" FOR TIMED RELAY ENTER "0" TO TOGGLE RELAY
↓
REPEAT STEPS 2-7 TO ADD MORE TRANSMITTERS
↓
STEP 8: PRESS **PROGRAM** ← EXITS PROGRAM MODE

NOTE:
IF THE TRANSMITTER ID # IS NOT LABELED ON A TRANSMITTER, TRIGGER THE TRANSMITTER TO VIEW THE ID # ON THE AP-5 DISPLAY. USE THE STAR KEY TO REVIEW THE LAST RECEIVED ID # (PRESS THE DISPLAY BUTTON TO VIEW THE LEFT THREE DIGITS OF THE ID #)

- 2 - ADDING AN MGT TRANSMITTER

STEP 1: PRESS **PROGRAM** FOR 3 SECONDS ← ENTERS PROGRAM MODE
↓
DISPLAY: **P 1 2** THEN: **8 8 8** ← READY FOR PROGRAMMING
↓
STEP 2: PRESS **9 9 #** ← MGT TRANSMITTER ADDING FUNCTION NUMBER
↓
STEP 3: PRESS **2 #** OR **3 #** ← ENTER "2" FOR RELAY K2 ENTER "3" FOR RELAY K3
↓
STEP 4: PRESS **0 #** ← ENTER "1-6" FOR MGT MEMORY LOCATION NUMBER
↓
STEP 5: PRESS **0 0 0 0 0** ← MGT TRANSMITTER ID # (FROM 1-65535)
↓
STEP 6: PRESS **#** ← ENTERS MGT ID #
↓
STEP 7: PRESS **PROGRAM** ← EXITS PROGRAM MODE

NOTES:
1. IF THE TRANSMITTER ID # IS NOT LABELED ON THE TRANSMITTER, TRIGGER THE TRANSMITTER TO VIEW THE ID # ON THE AP-5 DISPLAY. USE THE STAR KEY TO REVIEW THE LAST RECEIVED ID # (PRESS THE DISPLAY BUTTON TO VIEW THE LEFT THREE DIGITS OF THE ID #)
2. RELAY K1 CANNOT BE PROGRAMMED AS AN OBSTACLE RELAY
3. IF RELAY K2 IS CONFIGURED FOR OBSTACLE, IT CANNOT BE CHANGED BACK TO ACCESS UNTIL THE ALL MGT TRANSMITTERS SET TO RELAY K2 ARE REMOVED

- 3 - ADDING MDKP OR MDTK KEYPADS

STEP 1: PRESS **PROGRAM** FOR 3 SECONDS ← ENTERS PROGRAM MODE
↓
DISPLAY: **P 1 2** THEN: **8 8 8** ← READY FOR PROGRAMMING
↓
STEP 2: PRESS **3 2 #** ← ADDING KEYPAD FUNCTION NUMBER
↓
STEP 3: PRESS **1 #** OR **2 #** ← ENTER "1" TO ACTIVATE RELAY K1 ENTER "2" TO ACTIVATE RELAY K2
↓
STEP 4: PRESS **0 0 0 0 0 #** ← ONE TO FIVE DIGIT KEYPAD TRANSMITTER ID CODE FOR THE PIN
↓
STEP 5: PRESS **1 #** OR **0 #** ← ENTER "1" FOR TIMED RELAY ENTER "0" TO TOGGLE RELAY
↓
REPEAT STEPS 2-5 FOR ADDITIONAL KEYPADS OR KEYPAD PIN CODES
↓
STEP 6: PRESS **PROGRAM** ← EXITS PROGRAM MODE

NOTES:
TO DETERMINE THE TRANSMITTER ID CODE SENT BY A KEYPAD WHEN A PARTICULAR PIN CODE IS ENTERED AT THE KEYPAD, OBSERVE THE AP-5 DISPLAY.
1. ENTER A PIN AND SEND A SIGNAL FROM THE KEYPAD
2. PRESS STAR ON THE AP-5 TO VIEW THE LAST THREE DIGITS OF THE ID CODE
3. PRESS DISPLAY ON THE AP-5 TO VIEW THE FIRST THREE DIGITS OF THE ID CODE

- 4 - RELAY ACTIVATION TIME

STEP 1: PRESS **PROGRAM** FOR 3 SECONDS ← ENTERS PROGRAM MODE
↓
DISPLAY: **P 1 2** THEN: **8 8 8** ← READY FOR PROGRAMMING
↓
STEP 2: PRESS **2 6 #** ← RELAY ACTIVATION TIME FUNCTION NUMBER
↓
STEP 3: PRESS **1 #** OR **2 #** ← ENTER "1" FOR RELAY K1 ENTER "2" FOR RELAY K2
↓
STEP 4: PRESS **0 0 0 #** ← ENTER "01" TO "120" SECONDS FOR THE RELAY ACTIVATION TIME (TWO DIGITS REQUIRED)
↓
REPEAT STEPS 2-4 IF PROGRAMMING THE OTHER RELAY
↓
STEP 5: PRESS **PROGRAM** ← EXITS PROGRAM MODE

NOTES:
1. THE FACTORY DEFAULT ACTIVATION TIME FOR ACCESS RELAYS IS TWO SECONDS
2. OBSTACLE RELAYS ALWAYS ACTIVATE FOR TWO SECONDS AND CANNOT BE PROGRAMMED DIFFERENTLY

- 5 - SET TRANSMITTER BUTTONS

USE THESE STEPS TO CHANGE WHICH BUTTONS ON MULTI-BUTTON TRANSMITTERS WILL ACTIVATE WHICH ACCESS RELAY

STEP 1: PRESS **PROGRAM** FOR 3 SECONDS ← ENTERS PROGRAM MODE
↓
DISPLAY: **P 1 2** THEN: **8 8 8** ← READY FOR PROGRAMMING
↓
STEP 2: PRESS **2 0 #** ← TRANSMITTER BUTTON FUNCTION NUMBER (ENTER 21-25: 21 = LEFT; 22 = RIGHT; 23 = TOP; 24 = LOWER LEFT; 25 = LOWER RIGHT)
↓
STEP 3: PRESS **1 #** OR **2 #** ← ENTER "1" ACTIVATES RELAY K1 ENTER "2" ACTIVATES RELAY K2
↓
STEP 4: PRESS **1 #** OR **0 #** ← ENTER "1" TO ENABLE BUTTON ENTER "0" TO DISABLE BUTTON
↓
STEP 5: PRESS **PROGRAM** ← EXITS PROGRAM MODE

NOTES:
1. THE FACTORY DEFAULT SETTING ONLY ALLOWS THE LEFT TRANSMITTER BUTTON TO ACTIVATE ACCESS RELAY K1
2. THE BUTTON SETTING WILL BE USED BY ALL TRANSMITTERS PROGRAMMED
3. REPEAT STEPS 2-4 TO PROGRAM OTHER BUTTONS

- 6 - SET FACILITY CODES

USE THESE STEPS ONLY IF TRANSMITTER BLOCKS HAVE BEEN ORDERED WITH A PRE-SET FACILITY CODE

STEP 1: PRESS **PROGRAM** FOR 3 SECONDS ← ENTERS PROGRAM MODE
↓
DISPLAY: **P 1 2** THEN: **8 8 8** ← READY FOR PROGRAMMING
↓
STEP 2: PRESS **1 0 #** ← FACILITY CODE FUNCTION NUMBER
↓
STEP 3: PRESS **0 #** ← RECEIVER FACILITY CODE LOCATION (FROM 1-4)
↓
STEP 4: PRESS **0 0 #** ← TRANSMITTER FACILITY CODE NUMBER (FROM 1-15; 0 = IGNORE FACILITY CODE)
↓
STEP 5: PRESS **PROGRAM** ← EXITS PROGRAM MODE

NOTES:
1. REPEAT STEPS 2-4, IF REQUIRED, FOR EACH OF THE FOUR RECEIVER FACILITY CODE LOCATIONS
2. WHEN THE TRANSMITTER FACILITY CODE IS SET TO "0", THE RECEIVER WILL ACCEPT ALL TRANSMITTERS REGARDLESS OF THEIR FACILITY CODE

- 7 - MGT TRANSMITTER SUPERVISION

IF THE AP-5 BEEPS EVERY 5 SECONDS, ONE OR MORE MGT OBSTACLE TRANSMITTER HAS SENT A SUPERVISORY SIGNAL

NOTE: WHEN ANY MGT HAS A SUPERVISORY CONDITION, TRANSMITTERS WILL HAVE TO BE TRIGGERED TWICE TO GAIN ACCESS

PRESS **# 1 0** ← UTILITY FUNCTION #1 THEN 1-6 TO DISPLAY STATUS FOR MGT TRANSMITTERS IN MEMORY LOCATIONS 1-6
↓
1 8 8 ← INDICATES MGT TRANSMITTER LOW BATTERY
↓
8 F 8 ← INDICATES AN MGT TAMPER OR LOOP FAULT
↓
8 8 5 ← INDICATES THAT HOURLY STATUS REPORTS HAVE NOT BEEN RECEIVED FROM THE MGT TRANSMITTER IN THE PREVIOUS FOUR HOURS
↓
8 8 8 ← AFTER CLEARING, DASHES INDICATE THAT NO SUPERVISORY CONDITIONS EXIST WITH THE MGT TRANSMITTER
↓
PRESS **CANCEL** ← CLEARS MGT STATUS FROM AP-5 MEMORY AND STOPS BEEPER
NOTE: PRESS CANCEL WITHOUT PRESSING #1 TO CLEAR MGT SUPERVISORY INDICATIONS FROM ALL MGT TRANSMITTERS

- 8 - SUSPENDING/ACTIVATING MGT TXS

TO DISABLE MGT SUPERVISION ON A SPECIFIC TRANSMITTER AND PREVENT THE AP-5 FROM SOUNDING THE 5-SECOND MGT SUPERVISORY BEEPS

STEP 1: PRESS **PROGRAM** FOR 3 SECONDS ← ENTERS PROGRAM MODE
↓
DISPLAY: **P 1 2** THEN: **8 8 8** ← READY FOR PROGRAMMING
↓
STEP 2: PRESS **9 8 #** ← MGT TRANSMITTER FUNCTION NUMBER
↓
STEP 3: PRESS **0 #** ← ENTER "1-6" FOR MGT MEMORY LOCATION NUMBER
↓
STEP 4: PRESS **9 9 9 #** ← SUSPEND/ACTIVATE COMMAND
↓
DISPLAY: **P 1 2** THEN: **8 8 8** ← MGT SUPERVISION CHANGED (SUSPEND INDICATOR LIGHTS FOR 2 SECONDS WHEN MGT HAS BEEN SUSPENDED)
↓
STEP 5: PRESS **PROGRAM** ← EXITS PROGRAM MODE

NOTES:
1. USE THE SAME COMMAND TO ACTIVATE (UNSUSPEND) THE MGT TRANSMITTER
2. SUSPENDING AN MGT WITH A SUPERVISORY CONDITION WILL ALLOW TRANSMITTERS TO GAIN ACCESS WITH ONE ACTIVATION INSTEAD OF TWO

- 9 - SUSPENDING/ACTIVATING TRANSMITTERS

STEP 1: PRESS **PROGRAM** FOR 3 SECONDS ← ENTERS PROGRAM MODE
↓
DISPLAY: **P 1 2** THEN: **8 8 8** ← READY FOR PROGRAMMING
↓
STEP 2: PRESS **9 0 #** ← TRANSMITTER STATUS FUNCTION NUMBER
↓
STEP 3: PRESS **0 0 0 0 0 #** ← TRANSMITTER ID # (FROM 1-65535)
↓
STEP 4: PRESS **0 #** OR **1 #** ← ENTER "0" TO SUSPEND XMTR ENTER "1" TO ACTIVATE XMTR
↓
REPEAT STEPS 2-4 TO SUSPEND OR ACTIVATE ADDITIONAL TRANSMITTERS
↓
STEP 5: PRESS **PROGRAM** ← EXITS PROGRAM MODE

NOTES:
1. SUSPENDED TRANSMITTERS CAN NOT TRIGGER ANY ACCESS RELAY, THE SUSPENDED INDICATOR WILL LIGHT INSTEAD
2. ACTIVATED TRANSMITTERS CAN TRIGGER ANY ACCESS RELAY

- 10 - REMOVING ALL TRANSMITTERS

STEP 1: PRESS **PROGRAM** FOR 3 SECONDS ← ENTERS PROGRAM MODE
↓
DISPLAY: **P 1 2** THEN: **8 8 8** ← READY FOR PROGRAMMING
↓
STEP 2: PRESS **9 1 #** ← TRANSMITTER REMOVING FUNCTION NUMBER
↓
STEP 3: PRESS **0 0 0 0 #** ← REMOVE COMMAND
↓
STEP 4: PRESS **0 0 0 0 #** ← VERIFY REMOVE COMMAND
↓
DISPLAY: **8 8 8** THEN: **8 8 8** ← MEMORY CLEAR
↓
STEP 5: PRESS **PROGRAM** ← EXITS PROGRAM MODE

NOTES:
1. WARNING! ALL TRANSMITTERS INCLUDING THE MGT TRANSMITTER WILL BE REMOVED (TRANSMITTERS CANNOT BE INDIVIDUALLY REMOVED)
2. WARNING! ALL OTHER OPTIONS WILL BE RESET TO THE FACTORY DEFAULTS

- 11 - REMOVING MGT TRANSMITTERS

STEP 1: PRESS **PROGRAM** FOR 3 SECONDS ← ENTERS PROGRAM MODE
↓
DISPLAY: **P 1 2** THEN: **8 8 8** ← READY FOR PROGRAMMING
↓
STEP 2: PRESS **9 8 #** ← MGT TRANSMITTER FUNCTION NUMBER
↓
STEP 4: PRESS **0 #** ← ENTER "1-6" FOR MGT MEMORY LOCATION NUMBER
↓
STEP 3: PRESS **0 0 0 0 #** ← REMOVE COMMAND
↓
DISPLAY: **8 8 8** THEN: **8 8 8** ← MGT REMOVED
↓
STEP 4: PRESS **PROGRAM** ← EXITS PROGRAM MODE

- 12 - SYSTEM TESTING

ACTIVATE A TRANSMITTER THAT HAS BEEN PROGRAMMED (AND IS NOT SUSPENDED) → THE RADIO AND ACCESS GRANTED INDICATORS SHOULD LIGHT AND THE ACCESS DEVICE SHOULD OPERATE
IF MGT OBSTACLE TRANSMITTERS ARE PROGRAMMED, RUN THE ACCESS DEVICE AND TRIGGER EACH OBSTACLE SENSOR → VERIFY THAT THAT ACCESS DEVICE STOPS OR REVERSES
IF OPEN REQUEST PUSHBUTTONS ARE INSTALLED, PRESS EACH ONE → THE ACCESS GRANTED INDICATOR SHOULD LIGHT AND THE ACCESS DEVICE SHOULD OPERATE

LINEAR LIMITED WARRANTY

This Linear product is warranted against defects in material and workmanship for twenty-four (24) months. **This warranty extends only to wholesale customers** who buy direct from Linear or through Linear's normal distribution channels. **Linear does not warrant this product to consumers.** Consumers should inquire from their selling dealer as to the nature of the dealer's warranty, if any. **There are no obligations or liabilities on the part of Linear LLC for consequential damages arising out of or in connection with use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation, or reinstallation.** All implied warranties, including implied warranties for merchantability and implied warranties for fitness, are valid only until the warranty expires. **This Linear LLC Warranty is in lieu of all other warranties express or implied.** All products returned for warranty service require a Return Product Authorization Number (RPA#). Contact Linear Technical Services at 1-800-421-1587 for an RPA# and other important details.

IMPORTANT!!!

Linear radio controls provide a reliable communications link and fill an important need in portable wireless signalling. However, there are some limitations which must be observed.

- The radios are required to comply with FCC Part 15 and Industry Canada Rules and Regulations. As such, they have limited transmitter power and therefore limited range.
- A receiver cannot respond to more than one transmitted signal at a time and may be blocked by radio signals that occur on or near their operating frequencies, regardless of code settings.
- Changes or modifications to the device may void FCC compliance.
- Infrequently used radio links should be tested regularly to protect against undetected interference or fault.
- A general knowledge of radio and its vagaries should be gained prior to acting as a wholesale distributor or dealer, and these facts should be communicated to the ultimate users.

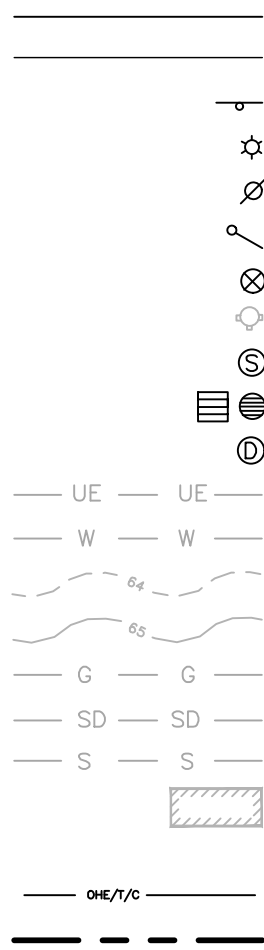
RIVERSIDE SELF-STORAGE CONTAINERS

547 RIVERSIDE LLC
PORTLAND, MAINE

LEGEND

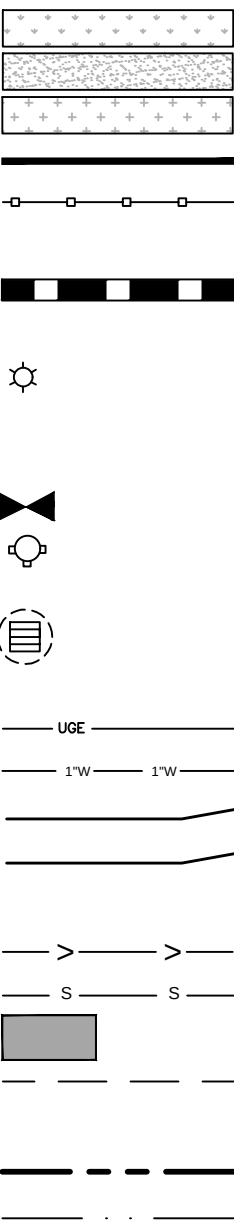
EXISTING

REFER TO THE
EXISTING
CONDITIONS PLAN
FOR ADDITIONAL
INFORMATION



UNDERDRAIN
GREEN SPACE
PAVEMENT
UTILITY PAVEMENT CUTS
STRIPING
SEDIMENTATION BARRIER
EDGE OF EX. PAVEMENT
CURB
SIGN
LAMP OR LIGHT POLE
UTILITY POLE
GUY WIRE
WATER VALVE
FIRE HYDRANT
SEWER MANHOLE
CATCH BASIN
DRAIN MANHOLE
UNDERGROUND ELECTRIC LINE
UNDERGROUND WATER LINE
MINOR CONTOURS (1 FT)
MAJOR CONTOURS (5 FT)
GAS LINE
STORM DRAIN LINE
SEWER LINE
EXISTING/PROPOSED BUILDING
FOUNDATION DRAIN
OVERHEAD ELECTRICAL/TELEPHONE/CABLE
PROPERTY LINE
SETBACKS

PROPOSED



UTILITIES

SEWER:

DEPARTMENT OF PUBLIC WORKS (DPW)
55 PORTLAND STREET
PORTLAND, MAINE 04101
CONTACT: BRAD ROLAND, P.E.
(207) 874-8846

WATER:

PORTLAND WATER DISTRICT
225 DOUGLASS STREET
PO BOX 3553
PORTLAND, MAINE 04103
ATTN: MEANS DIVISION
(207) 774-5961

ELECTRIC:

CENTRAL MAINE POWER COMPANY (CMP)
162 CANCO ROAD
PORTLAND, MAINE 04103
CONTACT: PAUL DUPERRÉ
(207) 828-2882

CABLE:

CHARTER COMMUNICATIONS
(FORMERLY TIME WARNER CABLE)
118 JOHNSON ROAD
PORTLAND, MAINE, 04102
CONTACT: MARK PELLETIER
(877) 546-0962

TELEPHONE

FAIRPOINT COMMUNICATIONS
45 FOREST AVENUE
PORTLAND, MAINE 04101
CONTACT: BRIAN BOUCHARD
(207) 712-1063

PROJECT TEAM

DEVELOPER:

547 RIVERSIDE LLC
PORTLAND, MAINE
CONTACT: BOB LEBLANC
(207) 879-2222

SURVEYOR:

OWEN HASKELL, INC
FALMOUTH, MAINE
CONTACT: SAMUEL GLIDDEN, P.L.S.
(207) 774-0424

STRUCTURAL ENGINEER:

STRUCTURAL INTEGRITY CONSULTING ENGINEERS, INC.
PORTLAND, MAINE
CONTACT: AARON JONES, P.E.
(207) 774-4614

WETLAND SCIENTIST:

MARK CENCI GEOLOGIC, INC.
NORTH YARMOUTH, MAINE
CONTACT: MARK CENCI, C.G.
(207) 329-3524

ABBREVIATIONS

PARTIAL LIST OF ABBREVIATIONS AND THEIR CORRESPONDING MEANING. PLEASE
CONTACT THE ENGINEER FOR ANY CLARIFICATION

APPROX.	APPROXIMATE
BC	BOTTOM OF CURB
BMP	BEST MANAGEMENT PRACTICE
BOT.	BOTTOM
CB	CATCH BASIN
CF	CUBIC FOOT
CIP	CAST IN PLACE
CM	CONSTRUCTION MANAGER
CMP	CENTRAL MAINE POWER
CONC.	CONCRETE
CY	CUBIC YARD
DIP	DUCTILE IRON PIPE
DIA.	DIAMETER
DIM.	DIMENSION
EA.	EACH
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EQUIV.	EQUIVALENT
EST.	ESTIMATE
EX.	EXISTING
FFE	FINISH FLOOR ELEVATION
FT.	FEET
GAL.	GALVANIZED
ID	INNER DIAMETER
IN.	INCH
INV.	INVERT
L	LENGTH
MAX.	MAXIMUM
MDOT	MAINE DEPARTMENT OF TRANSPORTATION
MFG.	MANUFACTURED
MH	MANHOLE
MIN.	MINIMUM
OD	OUTSIDE DIAMETER
OHE/T/C	OVERHEAD ELECTRIC/TELEPHONE/CABLE
PC	PRECAST
PE	PROFESSIONAL ENGINEER
PL	PROPERTY LINE
PLS	PROFESSIONAL LAND SURVEYOR
PROP.	PROPOSED
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
R	RADIUS
RD	ROOF DRAIN
RET.	RETAINING
ROW	RIGHT OF WAY
S	SLOPE
SD	STORM DRAIN
SDR	STANDARD DIMENSION RATIO
SF	SQUARE FEET
SMH	SEWER MANHOLE
SPEC.	SPECIFICATION
TC	TOP OF CURB
TW	TOP OF WALL
TWC	TIME WARNER CABLE
TYP.	TYPICAL
UD	UNDERDRAIN
UGE	UNDERGROUND ELECTRIC

INDEX

C-01	COVER SHEET & LEGEND
C-02	GENERAL NOTES
EX	EXISTING CONDITIONS PLAN – BY OWEN HASKELL, INC.
C-03	CONSTRUCTION MANAGEMENT PLAN
C-10	SITE LAYOUT PLAN
L-1	LANDSCAPE PLAN
C-20	UTILITY PLAN
C-30	GRADING & DRAINAGE PLAN
C-40	SITE DETAILS – 1
C-41	SITE DETAILS – 2
C-42	UTILITY DETAILS – 1
C-43	UTILITY DETAILS – 2
C-44	DRAINAGE DETAILS
C-45	CONTAINER AND POROUS PAVEMENT SECTIONS
C-46	EROSION & SEDIMENTATION CONTROL NOTES
C-47	EROSION & SEDIMENTATION CONTROL DETAILS

CALL BEFORE YOU DIG
1-888-DIG-SAFE
1-888-344-7233

APPLICABLE PERMITS

1. LEVEL III SITE PLAN PERMIT – CITY OF PORTLAND
2. SITE LOCATION OF DEVELOPMENT PERMIT – CITY OF PORTLAND
3. MAINE CONSTRUCTION GENERAL PERMIT – MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION
4. TIER 1 NRPA PERMIT – MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR: PRELIM. APP. SLODA APP. FINAL APP.

BY: DATE: WHS 2/2/17 WHS 3/3/17 WHS 4/18/17

COVER SHEET & LEGEND

RIVERSIDE SELF-STORAGE CONTAINERS

547 RIVERSIDE LLC
59 MOODY STREET, PORTLAND, MAINE 04101

ENGINEERING, INC.

158 DANFORTH ST. PORTLAND, MAINE 04102
(207) 775-2655

FILE: 1080_CIVIL

JN: 1080

SCALE: NTS

DESIGNED BY: WHS

DRAWN BY: MCB

CHECKED BY: WHS

STATE OF MAINE
WILLIAM F. SAVAGE
No. 11418
4-18-17
PROFESSIONAL ENGINEER

DRAWING NO. C-01

3. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF UNDERGROUND UTILITIES AND LOCATE ANY POTENTIAL CONFLICTS WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES SHOWN ON THE PLAN. IF DEEMED NECESSARY BY THE OWNER OR OWNER'S REPRESENTATIVE, ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL PREPARE THEIR OWN MATERIAL SCHEDULE BASED ON THE PLANS AND FIELD VERIFICATION BY THE CONTRACTOR. ALL MATERIAL SCHEDULES SHOWN WITHIN THE PLAN SET ARE FOR GENERAL INFORMATION ONLY.
4. ALL CONSTRUCTION METHODS, TESTING AND MATERIALS SHALL CONFORM TO THE MAINE DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, THE CITY OF PORTLAND AND SERVING UTILITY REQUIREMENTS, IF ANY. IN CASES WHERE THESE CONFLICT THE MOST STRINGENT SPECIFICATION SHALL APPLY AT NO ADDITIONAL COST TO THE OWNER.
5. THE SITE CONTRACTOR SHALL MAINTAIN A SET OF PAPER AND CAD DRAWINGS WHICH SHALL RECORD THE ACTUAL LOCATION, DIMENSIONS, ELEVATIONS, MATERIALS OF THEIR WORK, INDICATING THEREON ALL VARIATIONS FROM THE CONTRACT DRAWINGS. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH ONE COMPLETE SET OF REPRODUCIBLE RECORD DRAWINGS, IN AUTOCAD FORMAT AND PAPER, STAMPED "AS-BUILT". IF AUTOCAD NOT AVAILABLE EXCLUDE FROM BID IN WRITING.
6. THE CONTRACTOR WILL REMAIN SOLELY AND COMPLETELY RESPONSIBLE FOR ENFORCEMENT OF AND COMPLIANCE WITH 1) ALL CONTRACT PLANS AND SPECIFICATIONS, 2) APPLICABLE INTERNATIONAL BUILDING CODE REQUIREMENTS, AND 3) ALL SITE WORKING CONDITIONS AND SAFETY REQUIREMENTS, DAY AND NIGHT, FOR BOTH PERSONS AND PROPERTY, IN EACH CASE BOTH BY THE CONTRACTOR AND ITS SUBCONTRACTORS. THESE INCLUDE ALL OSHA, NIOSH, U.S. EPA AND ANY OTHER APPLICABLE GOVERNMENTAL REGULATIONS.
7. EXISTING CONDITIONS, BOUNDARY SURVEY AND TOPOGRAPHIC FROM THE PLAN TITLED EXISTING CONDITIONS SURVEY BY OWEN HASKELL, INC. SURVEYING FOR 547 RIVERSIDE STREET, DATED DECEMBER 16, 2016.
8. CONTRACTOR SHALL REVIEW THE WETLAND INVESTIGATION AND REPORT PREPARED BY MARK CENCI GEOLOGIC, INC. AND THE ASSOCIATED PERMITTING ASSOCIATED WITH THE WETLANDS.
9. CONTRACTOR SHALL REVIEW THE CLASS B HIGH INTENSITY SOIL SURVEY PREPARED BY MARK HAMPTON ASSOCIATES AS WELL AS THE SOIL EXPLORATIONS THAT WERE PART OF THIS SURVEY.
10. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO THE SITE AND ALL ADJACENT PROPERTIES AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY MARKINGS, SIGNAGE AND INCIDENTALS TO MAINTAIN A SAFE VEHICLE AND PEDESTRIAN ACCESS THOUGH THE LIFE OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE PORTLAND PUBLIC SAFETY DIVISION ROUTINELY REGARDING TEMPORARY IMPACTS OR CHANGES TO SITE ACCESS CONDITIONS.
11. CONSTRUCTION MANAGEMENT PLAN AND SITE LOGISTICS NARRATIVE DATED JANUARY 31, 2017 BY ACORN ENGINEERING, INC. SHALL BE REFERRED TO FOR ANTICIPATED PROJECT SCHEDULE AND CLOSURES. TRAFFIC CONTROL SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
12. CONTRACTOR TO DETERMINE SOIL CLASSIFICATION INDEPENDENTLY FOR TRENCH, SHORING, AND OTHER SIMILAR CONSTRUCTION MEANS AND METHODS APPLICATIONS.
13. THE CONTRACTOR SHALL SURVEY ROCK SURFACE PRIOR TO EXCAVATION AND DEVELOP VOLUME CALCULATIONS TO SHARE WITH ACORN, IF ANY.
14. THE CONTRACTOR SHALL CONDUCT A PRE-CONSTRUCTION SURVEY OF ADJACENT PROPERTIES INTERIOR SUBGRADE AND ABOVE GRADE ACCESSIBLE WALLS, CEILINGS, FLOORS, ROOF AND VISIBLE EXTERIOR AS VIEWED FROM THE GRADE LEVEL.

1. THE CONTRACTOR SHALL SUBMIT IN WRITING ANY REQUESTS TO MODIFY THE CONTRACT DOCUMENTS.
2. ALL SHOP AND ERECTION DRAWINGS SHALL BE CHECKED AND STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMISSION FOR ENGINEER'S REVIEW. ANY UNCHECKED OR NON-STAMPED SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.
3. CONTRACTOR SHALL THOROUGHLY INSPECT AND SURVEY EXISTING SITE TO VERIFY CONDITIONS THAT AFFECT THE WORK SHOWN ON THE DRAWINGS. CONTRACTOR TO NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO PROCEEDING.
4. DETAILS SHOWN APPLY TO ALL SIMILAR CONDITIONS UNLESS OTHERWISE INDICATED.
5. ALTHOUGH ALL DUE DILIGENCE HAS BEEN APPLIED TO MAKE THE DRAWINGS AS COMPLETE AS POSSIBLE, NOT ALL DETAILS ARE ILLUSTRATED, NOR IS EVERY EXCEPTION CONDITION ADDRESSED WITHIN THE CONTRACT DOCUMENTS.
6. ALL PROPRIETARY CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
7. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK, INCLUDING DIMENSION AND LAYOUT VERIFICATION, MATERIALS COORDINATION, SHOP DRAWING REVIEW, AND THE WORK OF ANY SUBCONTRACTORS.
8. UNLESS OTHERWISE SPECIFICALLY INDICATED, THE DRAWINGS DO NOT DESCRIBE OR DIRECT MEANS OR METHODS OF CONSTRUCTION.
9. THE ENGINEER BEARS NO RESPONSIBILITY FOR THE ABOVE ITEMS, AND OBSERVATION VISITS TO THE SITE DO NOT IN ANY WAY INCLUDE INSPECTION OF THEM.

1. ALL SITE SOILS-RELATED WORK AND SITE DRAINAGE SHALL BE REVIEWED BY THE PROJECT ENGINEER.
2. NORMAL REVIEWS BY LOCAL BUILDING DEPARTMENT.
3. NOTIFY 48 HOURS PRIOR TO REQUIRED REVIEW.
4. REQUIRED SPECIAL INSPECTIONS PER I.B.C. SECTION 1705.6 BY AN APPROVED SPECIAL INSPECTOR RETAINED BY OWNER. CONTRACTOR TO COORDINATE SPECIAL INSPECTIONS.
5. SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL, FOR INSPECTION OF THE PARTICULAR TYPE OF CONSTRUCTION OR OPERATION REQUIRING SPECIAL INSPECTION.
6. DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR SHALL BE TO OBSERVE AND/OR TEST THE WORK ASSIGNED AND OUTLINE ABOVE FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS, ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.
7. THE SPECIAL INSPECTOR SHALL FURNISH REGULAR REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT AND ENGINEER OF RECORD, AND OTHER DESIGNATED PERSONS. PROGRESS REPORTS FOR CONTINUOUS INSPECTION SHALL BE FURNISHED WEEKLY. INDIVIDUAL REPORTS OF PERIODIC INSPECTIONS SHALL BE FURNISHED WITHIN ONE WEEK OF INSPECTION DATES. THE REPORTS SHALL NOTE UNCORRECTED DEFICIENCIES, AND NET CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS AUTHORIZED BY THE ENGINEER OF RECORD.
8. THE SPECIAL INSPECTOR SHALL SUBMIT A FINAL SIGNED REPORT WITHIN TEN DAYS OF THE FINAL INSPECTION STATING WHETHER THE WORK REQUIRING A SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE AND BELIEF, IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE INTERNATIONAL BUILDING CODE. WORK NOT IN COMPLIANCE SHALL BE NOTED IN THE REPORT.
9. SPECIAL INSPECTION FIRM SHALL BE EMPLOYED BY 547 RIVERSIDE LLC AND COORDINATED BY THE CONTRACTOR.

1. MONUMENTS DELINEATING PROPERTY LINES OR RIGHT OF WAYS SHALL NOT BE DISTURBED DURING CONSTRUCTION OPERATIONS. IN THE CASE A MONUMENT IS DISTURBED, OR ELEVATION AT THE CONTRACTOR'S EXPENSE, THE MONUMENT SHALL BE RESET TO THEIR ORIGINAL LOCATION BY A REGISTERED LAND SURVEYOR.
2. ALL DIMENSIONS ON THE FOLLOWING SHEETS TAKE PRECEDENT OVER SCALE DIMENSIONS. EACH DRAWING WITH A BAR SCALE MEANS THAT THE DRAWING/DETAIL HAS BEEN SCALED AS ACCURATELY AS POSSIBLE, AND THE BAR SCALE IS FOR GENERAL REFERENCE ONLY. IF NO BAR SCALE IS PRESENT, THEN THERE IS NO SCALE TO THAT DRAWING/DETAIL. AT NO TIME SHOULD DRAWINGS BE SCALED FROM. ANY DISCREPANCIES BETWEEN DRAWINGS, DETAILS, SPECIFICATIONS AND THE FIELD CONDITION SHALL BE IMMEDIATELY REPORTED TO THE CIVIL ENGINEER FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL

3. SIGNAGE, STRIPING AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
4. ALL TRAFFIC CONTROL SIGNS INDICATED ON THE SITE LAYOUT PLAN ARE TO MEET ALL REQUIREMENTS & CONDITIONS OF THE CITY OF PORTLAND, MAINE DEPARTMENT OF TRANSPORTATION AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
5. THE CONTRACTOR SHALL OBTAIN THE SERVICES OF A LICENSED PROFESSIONAL LAND SURVEYOR TO PROVIDE A MINIMUM OF TWO TEMPORARY BENCHMARKS WITHIN THE SITE AND TO LOCATE PROPOSED STORAGE CONTAINER PAD CORNERS.
6. CONTRACTOR TO ENSURE THAT DRIVEWAYS AND MAILBOXES ADJACENT TO THE PROJECT REMAIN FUNCTIONAL AND IN USE AT ALL TIMES.

1. THIS PROJECT IS SUBJECT TO THE TERMS AND CONDITIONS OF A SITE PLAN - LEVEL III PERMIT FROM THE CITY OF PORTLAND, A SITE LOCATION OF DEVELOPMENT PERMIT FROM THE CITY OF PORTLAND, A GENERAL CONSTRUCTION PERMIT FROM THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION, AND A TIER 1 NATURAL RESOURCES PROTECTION ACT PERMIT FROM THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION.
2. THE CONTRACTOR SHALL REVIEW THE ABOVE REFERENCED PERMITS PRIOR TO SUBMITTING A BID FOR THIS PROJECT, AND INCLUDE COSTS AS NECESSARY TO COMPLY WITH THE CONDITIONS OF THESE PERMITS.

1. TOPSOIL STRIPPED FROM THE SITE THAT IS SUITABLE FOR REUSE AS LOAM SHALL BE STOCKPILED WITHIN THE PROPOSED LIMIT OF WORK AREA. THE CONTRACTOR SHALL NOT ASSUME THAT ANY LOAM WILL BE ACCEPTABLE FOR REUSE WITH THEIR ESTIMATE.
2. THE CONTRACTOR SHALL ANTICIPATE THAT GROUNDWATER WILL BE ENCOUNTERED DURING CONSTRUCTION AND SHALL INCLUDE SUFFICIENT COSTS WITHIN THEIR BID TO PROVIDE DEWATERING AS NECESSARY; NO SEPARATE PAYMENT SHALL BE MADE TO THE CONTRACTOR FOR DEWATERING.
3. THE OWNER SHALL BE RESPONSIBLE FOR OBTAINING ANY EASEMENT OR TEMPORARY CONSTRUCTION RIGHTS AS NECESSARY BY PRIVATE ADJACENT LAND OWNERS. THE CONTRACTOR SHALL NOT DISTURB ANY SOIL BEYOND THE PROPERTY LINE WITHOUT NOTIFYING AND OBTAINING SUCH EASEMENT OR TEMPORARY CONSTRUCTION RIGHT FROM THE OWNER. PRIOR TO THE CONTRACTOR PRICING THE WORK THE CONTRACTOR SHALL REQUEST PROOF OF SUCH EASEMENT OR TEMPORARY RIGHTS. SHOULD EASEMENTS OR TEMPORARY RIGHTS NOT BE AVAILABLE THE CONTRACTOR SHALL INCLUDE COST FOR BRACING AND SHORING AS NECESSARY.
4. THE CONTRACTOR SHALL NOT IMPACT THE EXISTING SEPTIC FIELD AT THE ENTRANCE OF THE PROPERTY.
5. THE CONTRACTOR SHALL PROVIDE A FINISH PAVEMENT SURFACE FREE OF LOW SPOTS AND PONDING AREAS. THE MINIMUM SLOPE SHALL MEET OR EXCEED 0.5% IN ALL CASES EXCEPT FOR THE MIDPOINT HIGH SPOTS WITHIN THE POROUS PAVEMENT DRIVE AISLES WHICH SHALL HAVE A CROSS SLOPE OF 0.4%. ALL SLOPES SHALL BE AWAY FROM BUILDINGS AND TOP OF PAVEMENT SHALL BE AT OR BELOW EXISTING FINISH FLOOR ELEVATIONS.
6. NO ADDITIONAL PAYMENT FOR UNSUITABLE MATERIALS.
7. ALL STORM DRAIN PIPE SHALL BE SMOOTH BORE INTERIOR PROVIDING A MANNINGS ROUGHNESS COEFFICIENT OF $N=0.012$ OR LESS.
8. ADJUST ALL CATCH BASINS, CURB BOXES, ETC. WITHIN LIMITS OF WORK TO FINISH GRADE.
9. NATIVE SOILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LIMIT THE DISTURBANCE TO SUBGRADE SOILS. SHOULD THE SUBGRADE BECOME YIELDING OR DIFFICULT TO WORK, DISTURBED AREAS SHALL BE EXCAVATED AND BACKFILLED WITH COMPACTED SELECT FILL OR CRUSHED STONE AT NO ADDITIONAL EXPENSE TO THE OWNER. ALL SUBGRADE PREPARATION IS SUBJECT TO THE RECOMMENDATIONS OF THE PROJECT ENGINEER.

1. ALL ROUTINE MAINTENANCE ACTIVITIES SHALL BE CONDUCTED IN SUCH A WAY TO LIMIT THE AMOUNT OF DISTURBED AREA AT ONE TIME TO THE EXTENT PRACTICABLE.
2. PRIOR TO THE START OF ANY CLEARING/LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL INSTALL APPLICABLE EROSION CONTROL DEVICES SUCH AS PERIMETER SILT FENCE, AND OTHER APPLICABLE MEASURES. IN THE EVENT THE CONTRACTOR IS NOT SURE A EROSION CONTROL MEASURE SHOULD BE IMPLEMENTED, THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD TO CONFIRM IMPLEMENTATION OF ANY EROSION CONTROL DEVICES.
3. ALL GROUND AREAS GRADED FOR CONSTRUCTION SHALL BE GRADED, LOAMED, SEEDED AND MULCH SHALL BE APPLIED AS SOON AS POSSIBLE WITHIN 7 DAYS FOLLOWING THE COMPLETION OF ANY SOIL DISTURBANCE, AND PRIOR TO ANY STORM EVENT.
4. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED TO THE SATISFACTION OF THE CITY. THE CONTRACTOR SHALL REFERENCE THE APPROVED EROSION AND SEDIMENTATION CONTROL REPORT FOR TEMPORARY AND PERMANENT EROSION AND SEDIMENTATION CONTROL DEVICES IN ADDITION TO THE PLAN SET. THE CONTRACTOR SHALL ALSO REFER TO THE MAINE D.E.P.'S PERMIT CONDITIONS, FINDINGS OF FACT AND ORDER (IF ANY), AND THE CURRENT MAINE EROSION AND SEDIMENT CONTROL BMP MANUAL FOR ADDITIONAL INFORMATION.
5. PRIOR TO PAVING OPERATIONS, THE CONTRACTOR SHALL REMOVE ALL SEDIMENT FROM STORM DRAINS, CATCH BASINS, AND APPURTENANCES.
6. REFER TO THE EROSION CONTROL DETAILS & NOTES FOR ADDITIONAL INFORMATION.

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND ELEVATION OF THE EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED UPON RECORDS OF VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO TEST PIT TO DETERMINE THE EXACT LOCATION AND ELEVATION OF UTILITIES TO COORDINATE WITH THE PROPOSED CONNECTIONS OR CROSSING. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE CIVIL ENGINEER FOR FURTHER DIRECTIONS BEFORE ANY ADDITIONAL WORK PROCEEDS.
2. CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, CONDUCT EXPLORATORY EXCAVATIONS AT LOCATIONS WHERE PROPOSED EXCAVATION WILL INTERSECT WITH EXISTING UTILITIES, PRIOR TO THE ORDERING OF STRUCTURES.
3. WATER INFRASTRUCTURE SHALL BE TESTED IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT DOCUMENT "WATER AND SEWER CONSTRUCTION SPECIFICATIONS AND PROCEDURES", MOST RECENT REVISION.
4. ALL REQUIRED FITTINGS FOR THE WATER MAIN ARE NOT SHOWN ON DRAWINGS. CONTRACTOR SHALL FURNISH AND INSTALL ALL NECESSARY FITTINGS REQUIRED TO CONSTRUCT THE WATER MAIN IN ACCORDANCE WITH CITY OF PORTLAND, STATE OF MAINE, AND AMERICAN WATER WORKS ASSOCIATION STANDARDS AND REGULATIONS.
5. CONTRACTOR SHALL COORDINATE WORK REGARDING ANY WATER MAIN CONNECTION AND WATER MAIN SHUTDOWN WITH THE PORTLAND WATER DISTRICT AT LEAST SEVEN (7) DAYS PRIOR TO CONSTRUCTION.
6. ALL WATER PIPE INSTALLATION SHALL CONFORM WITH THE PORTLAND WATER DISTRICT SPECIFICATIONS AND PROCEDURES, MOST RECENT EDITION.
7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
8. SEWER, WATER, ELECTRICITY, AND ANY OTHER UTILITY CONNECTIONS SHALL BE REVIEWED BY PLUMBING, ELECTRICAL, AND MECHANICAL DESIGNER FOR CONSISTENCY WITH THEIR PLANS PRIOR TO CONSTRUCTION.
9. COORDINATE EXIT POINT FOR SECONDARY SERVICE WITH THE ELECTRICAL ENGINEER. SECONDARY LINE LOCATIONS NOT PROVIDED BY ACORN ENGINEERING WITHIN THE UTILITY PLAN.
10. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ALL THE NECESSARY PERMITS FOR THE INSTALLATION OF THE UTILITIES AND STORMDRAINS WITHIN THE PUBLIC RIGHT OF WAY. THE CONTRACTOR SHALL SUBMIT A MAINTENANCE OF TRAFFIC PLAN TO THE CITY IN ACCORDANCE WITH THE CITY OF PORTLAND TECHNICAL MANUAL PRIOR TO ANY WORK.
11. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL BOXES, FITTINGS, CONNECTORS, COVER PLATES AND OTHER MISCELLANEOUS ITEMS NOT NECESSARILY DETAILED ON THE DRAWINGS TO RENDER INSTALLATION OF UTILITIES COMPLETE AND OPERATIONAL AT NO EXTRA EXPENSE TO THE OWNER.

[illegible]

LINE AND CURVE TABLES

LINE	BEARING	DISTANCE
LT	N1722°51'E	2.68'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
CT	5766.72'	68.83'	68.83'	N1702°20'E	0°41'02"

EASEMENT LINE TABLE

LINE	BEARING	DISTANCE
L2	N13732°28'E	5.41'
L3	N0329°30'E	9.78'
L4	S81°33'56"E	17.43'
L5	S78°41'09"E	35.16'
L6	S67°39'56"E	20.53'
L7	S26°25'08"E	70.89'
L8	N76°37'59"W	58.03'
L9	S86°05'12"W	21.00'
L10	N76°37'59"W	28.23'

PLAN REFERENCES

- "PLAN SHOWING A STANDARD BOUNDARY SURVEY MADE FOR ELLEN MARY KNOWLES, LEIGHTON AVENUE, PORTLAND, MAINE," BY DANIEL J. DALFONSO LLC DATED 12-20-00.
- "BOUNDARY SURVEY, 541 RIVERSIDE STREET, PORTLAND, ME FOR DAVID PIRONE," BY SURVEY INC. DATED JULY 2015 AND REVISED 8-27-15.
- "STANDARD BOUNDARY SURVEY OF: PHOENIX WELDING FOR RECORD OWNERS: RIVERSIDE WELDERS LLC," BY SEBAGO TECHNICS DATED 08-03-00.
- "PLAN OF LAND FOR EFFIE M. MINSTER, RIVERSIDE STREET, PORTLAND, MAINE," BY CH. BARRON DATED JUNE 1945. FILE NO 542. ON FILE AT THE OFFICE OF OWEN HASKELL, INC.
- "COPY OF A PORTION OF A PLAN OF LAND IN PORTLAND, MAINE MADE FROM SURVEYS IN 1914, 1939 AND 1936 AND DEED PLOTS BY H.I. JORDAN IN 1937 FOR ALFRED BATTY," BY H.I. & E.C. JORDAN - SURVEYORS DATED NOV. 27, 1956. FILE NO. 1757. ON FILE AT THE OFFICE OF OWEN HASKELL, INC.

- "ALTA/KSM LAND TITLE SURVEY, 536 RIVERSIDE STREET PORTLAND, CUMBERLAND COUNTY, MAINE MADE FOR AZM PARTNERS LLC, BY OWEN HASKELL, INC. DATED APRIL 22, 2008 AND REVISED MAY 2, 2014."
- PLAN OF LAND OWNED BY LEE. H. DONNELLY WESTERLY OF LANE AVENUE, PORTLAND, MAINE," BY CH. BARRON DATED OCT. 1955 AND REVISED JAN. 1956. FILE R41.10, PD-1. ON FILE AT THE OFFICE OF OWEN HASKELL, INC.
- "STANDARD BOUNDARY SURVEY OF LUCAS TREE COMPANY SITE, RIVERSIDE STREET, PORTLAND, MAINE PREPARED FOR JOHN LUFKIN," BY CITY OF PORTLAND, MAINE PUBLIC WORKS DEPARTMENT, ENGINEERING SECTION DATED DEC. 16, 2005 AND REVISED THROUGH 04/11/2006.
- "RIVERSIDE STREET AS-BUILT BY CITY OF PORTLAND, MAINE DEPARTMENT OF PUBLIC WORKS. FILE NO 709/12. SHEETS 6 AND 7."
- "STATE OF MAINE DEPARTMENT OF TRANSPORTATION RIGHT OF WAY MAP, STATE AID HIGHWAY NO. 18, FEDERAL AID PROJ. NO. M-STP-0607(2)X," DATED DECEMBER 1998, SHEETS 6 AND 7. D.O.T. FILE NO. 3-444. AS FOUND IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS PLAN BOOK 202 PAGES 180 AND 181.

TM 312-B-3
TM 306-B-1-7
N/F
SK GS CODED LLC
13944/263

TM 312-B-2
N/F
RIVERSIDE WELDERS LLC
11934/41

TM 312-B-1
N/F
SCOTT W. HOPKINS
16006/340

TM 312-A-3
N/F
PAUL & PATRICIA A. WHEELER
28774/248

GENERAL NOTES

- OWNER OF RECORD: 547 RIVERSIDE STREET, LLC
TAX MAP 312 LOTS B-012, B-009, B-005
TAX MAP 306 LOTS B-008, B-014, B-010
C.C.R.D. BOOK 33639 PAGE 291
- BEARINGS ARE BASED ON MAINE STATE PLANE COORDINATE SYSTEM, MAINE WEST ZONE, NAD 83. PER POST-PROCESSED GPS OBSERVATIONS.
- ELEVATIONS ARE BASED ON NAVD 88 DATUM. PER POST-PROCESSED GPS OBSERVATIONS.
- NO MONUMENTATION WAS FOUND FOR PLAN REFERENCE 9 AND 10 (CITY AND STATE TAKINGS OF RIVERSIDE STREET). THEREFORE THE STRETLINE IS CONSIDERED APPROXIMATE AND IS BASED OFF WORK DONE BY THE CITY OF PORTLAND AND OWEN HASKELL, INC. IN CONNECTION WITH PLAN REFERENCES 6 AND 8.
- LEIGHTON AVENUE, FORMERLY AUBURN PLACE, IS A PRIVATE STREET. RIGHT OF WAY LINES ARE TAKEN FROM PLAN REFERENCE 1.
- WETLANDS DELINEATED BY OTHERS. FLAGS WERE FIELD LOCATED BY OWEN HASKELL, INC.
- THIS SURVEY WAS PERFORMED UNDER CONDITIONS OF SNOW AND ICE.

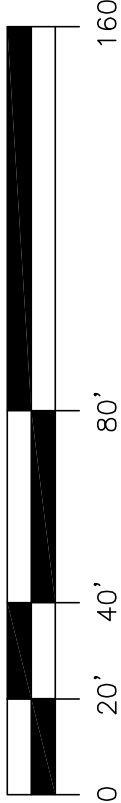
UTILITY NOTE

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 ACCURATELY LOCATED OR DEPTHS. THE SURVEYOR HAS NO PHYSICAL 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.

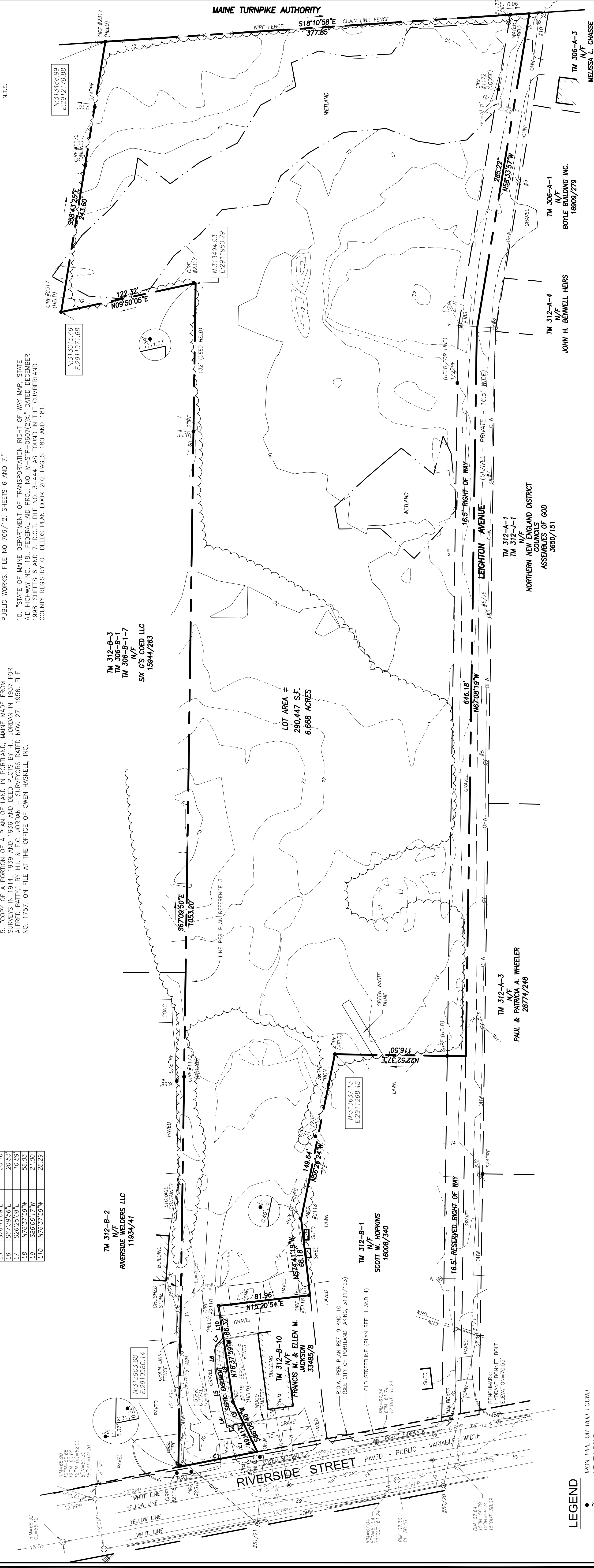
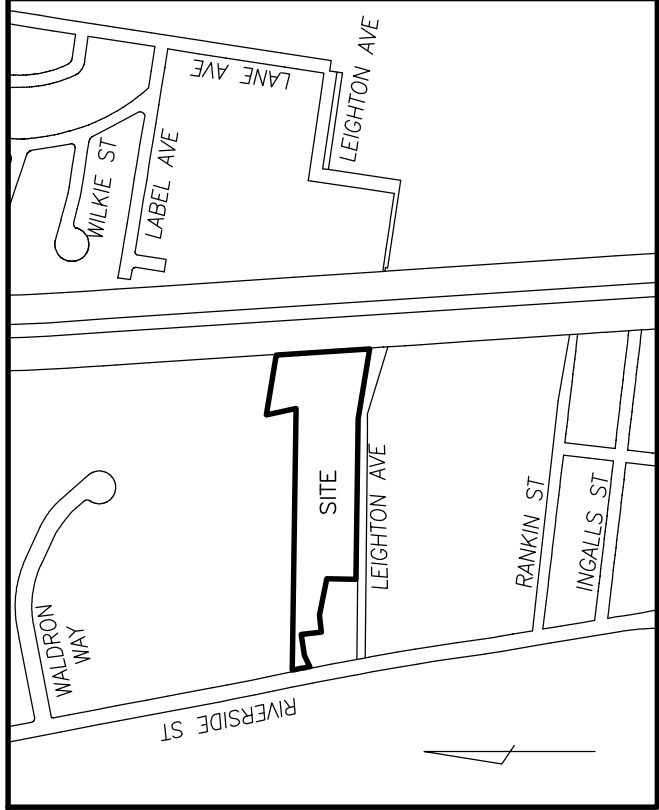
LEGEND

- IRON PIPE OR ROD FOUND
- UTILITY POLE
- HYDRANT
- MANHOLE
- CATCH BASIN
- WATER VALVE OR SHUTOFF
- DECIDUOUS TREE
- FENCE
- CURE
- OVERHEAD WIRES
- STORM DRAIN
- SANITARY SEWER
- WATER LINE
- GAS LINE
- 1' CONTOUR
- IRON PIPE OR ROD FOUND
- CONCRETE
- N/F
- NOW OR FORMERLY
- DEED BOOK AND PAGE
- EASEMENT
- CAPPED IRON ROD FOUND
- CIRF

GRAPHIC SCALE

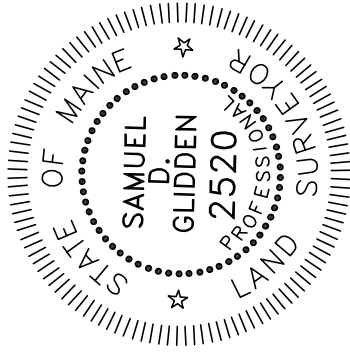


LOCATION MAP



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.



Samuel D. Glidden
Samuel D. Glidden, P.L.S. #2520

BOUNDARY & TOPOGRAPHIC SURVEY

AT
547 RIVERSIDE STREET, PORTLAND, MAINE
MADE FOR

ROBERT LEBLANC

59 MOODY STREET, PORTLAND, MAINE

OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS
300 U.S. ROUTE ONE, FALMOUTH, ME 04105 (207) 774-0624

Drawn By	SDG	Date	Job No.
Trace By	JLW	DECEMBER 16, 2016	2016-347P
Check By	SDG	Scale	Drwg. No.
Book No.	FILE	1" = 40'	1

2. ANY EXISTING ASPHALT TO BE REMOVED SHALL BE STRIPPED AND PROPERLY DISPOSED OF OFFSITE.
3. GRANITE CURB TO BE REMOVED, STOCKPILED AND RESET IN ACCORDANCE WITH DETAIL. BROKEN CURB SHALL BE PROPERLY DISPOSED OF AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
4. IN ADDITION TO THE CITY OF PORTLAND'S STANDARD SPECIFICATIONS, THE CONTRACTOR SHALL FOLLOW THE FEDERAL REGULATIONS, CONTRACTOR SHALL PROVIDE OWNER WITH APPROPRIATE "BILLS OF LADING" TO DEMONSTRATE PROPER DISPOSAL OF ALL MATERIALS.
5. SITE DEMOLITION SHALL OCCUR UNTIL THE CITY OF PORTLAND'S EASEMENT PROCEDURES HAVE OCCURRED, IF NECESSARY, THE CONTRACTOR SHALL BE RESPONSIBLE OF THE CONTRACTOR.
6. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND DIG SAFE AT LEAST 72 HOURS PRIOR TO EXCAVATION TO REQUEST EXACT FIELD LOCATION FOR UTILITIES. OTHERWISE IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE FIELD LOCATION OF ALL UTILITIES, LOCATIONS AND LOCATE POTENTIAL CONFLICT WITH THE APPROVED PLANS PRIOR TO CONSTRUCTION.
7. CONTRACTOR TO COORDINATE SITE DEMOLITION WITH 547 RIVERSIDE LLC.
8. THE CITY SHALL CONSTRUCTION SIGNAGE IS TEMPORARY AND WILL BE REMOVED AT PROJECT COMPLETION.
9. SEDIMENT BARRIERS TO BE PLACED DIRECTLY ON THE FRONT AND SIDE PROPERTY LINES, DOWN THE CENTER OF THE PROJECT.
10. CONSTRUCTION FENCE AND SEDIMENT BARRIER ARE OFFSET THE PROPERTY LINE AS SHOWN ON THE PLAN FOR CLARITY PURPOSES AND DOES NOT NECESSARILY REPRESENT THE PHYSICAL LOCATION.
11. CONTRACTOR SHALL PLACE CATCH BASIN INLET PROTECTION ON CATCH BASINS AND FIELD INLETS PRIOR TO CONSTRUCTION.
12. CONTRACTOR SHALL INSTALL CONSTRUCTION ENTRANCE AT ALL LOCATIONS OF INGRESS AND EGRESS DURING CONSTRUCTION TO THE SITE. SEE DETAIL.
13. SHALL BE PLANNED TO BE REMOVED AFTER THE EXISTING ITEMS TO BE REMOVED AS PART OF SITE CONSTRUCTION INCLUDING BUT NOT LIMITED TO LANDSCAPING, UTILITIES, WORK WITHIN THE ROW, ETC. ALL DEMOLITION WORK SHALL BE IN ACCORDANCE WITH THE CITY OF PORTLAND REGULATIONS.
14. CONSTRUCTION ROWWAY A MINIMUM OF 10' FOOT OF THE EXISTING SEPTIC EASEMENT WITH FRANCIS & ELLEN JACKSON.



ISSUED FOR	BY
PRELIM. APP.	DATE WHS 2/2/17
SLODA APP.	WHS 3/3/17
FINAL APP.	WHS 4/18/17

547 RIVERSIDE LLC

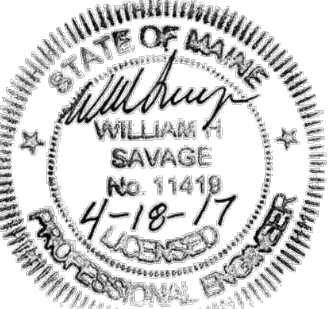
• **THE**

ACCO

THIS PLAN SHALL NOT BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF THE ENGINEER. ANY VIOLATION OF THIS STATEMENT SHALL BE CONSIDERED A VIOLATION OF THE PROFESSIONAL ETHICS OF THE ENGINEER AND SHALL BE SUBJECT TO THE WITHOUT LIABILITY TO THE ENGINEER.

ACORN ENGINEERING, INC.
158 DANFORTH ST, PORTLAND MAINE 04102
(207) 775-2655

CHECKED BY: WHS

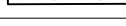


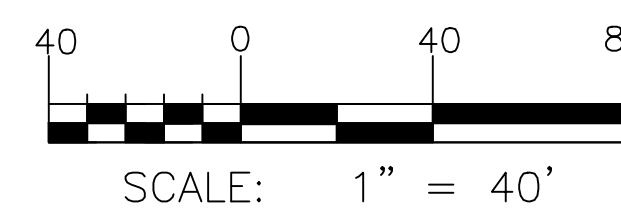
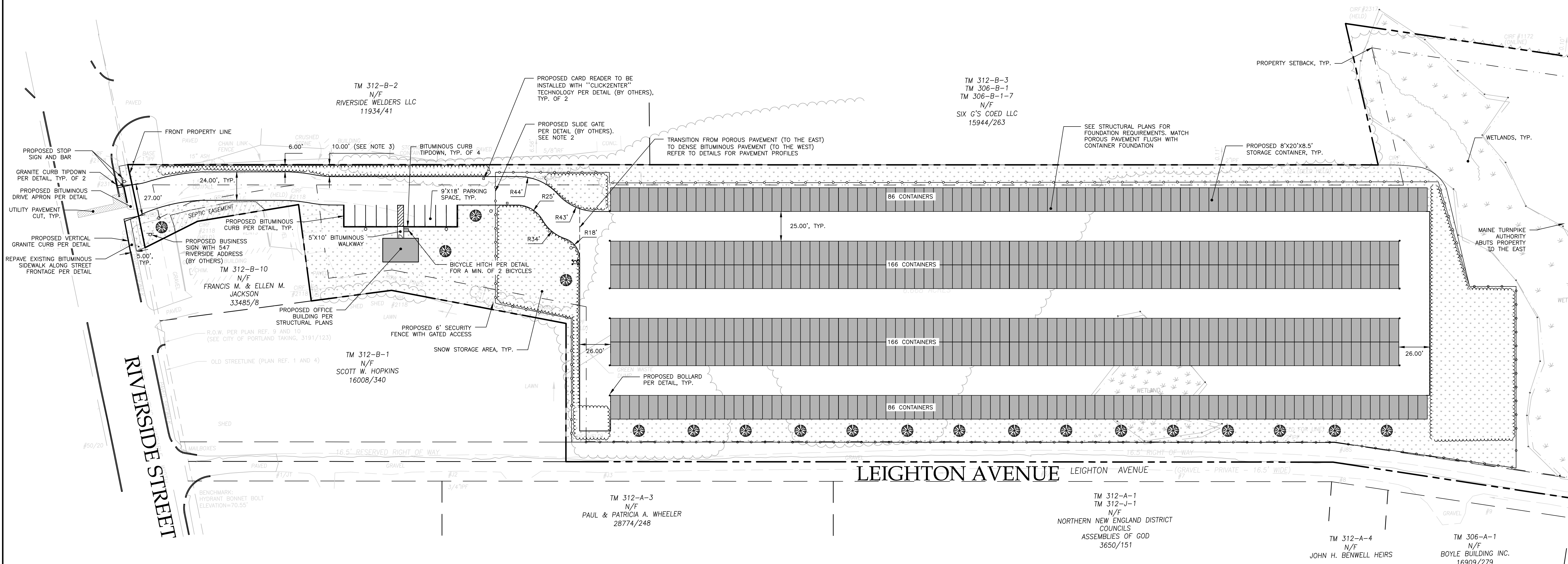
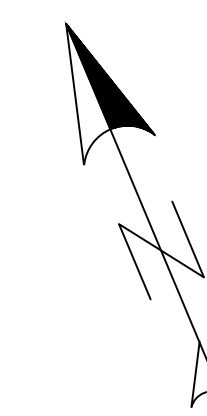
C-03

1. ALL PARKING AND STRIPING SHALL BE 4" AND WHITE UNLESS OTHERWISE NOTED.
2. PER CITY OF PORTLAND TECHNICAL MANUAL, SLIDE GATE SHALL PROVIDE AN ACCESS WIDTH 2 FEET GREATER THAN THE TRAVEL WIDTH, YIELDING A MINIMUM WIDTH OF 26 FEET.
3. DRIVEWAY SHALL COMPLY WITH 10' PAVEMENT SETBACK FROM ALL POINTS EAST OF THE 10' DIMENSION ARROWS.

SPACE AND BULK STANDARDS		
ZONE: I-M	REQUIRED	PROPOSED
MINIMUM LOT SIZE	NONE	290,450 SF
MINIMUM STREET FRONTAGE	60 FT	72 FT
MAXIMUM BUILDING HEIGHT	75 FT	17 FT
FRONT YARD SETBACK	1 FT / 1 FT BLDG HEIGHT	17 FT
REAR YARD SETBACK	1 FT / 1 FT BLDG HEIGHT	17 FT
SIDE YARD SETBACK	1 FT / 1 FT BLDG HEIGHT	17 FT
PAVEMENT SETBACK	10'	VARIES (SEE NOTE 3)
MAXIMUM IMPERVIOUS SURFACE RATIO	75%	54%
PARKING SPACES	1 SPACE / 1,000 SF FLOOR SPACE = 81	10

SURFACE SUMMARY	
8'X20' STORAGE CONTAINER COUNT	504
STORAGE CONTAINER SURFACE AREA	80,640 SF
OFFICE SURFACE AREA	600 SF
DENSE PAVEMENT SURFACE AREA	11,425 SF
POROUS PAVEMENT SURFACE AREA	58,905 SF
TOTAL	151,040 SF

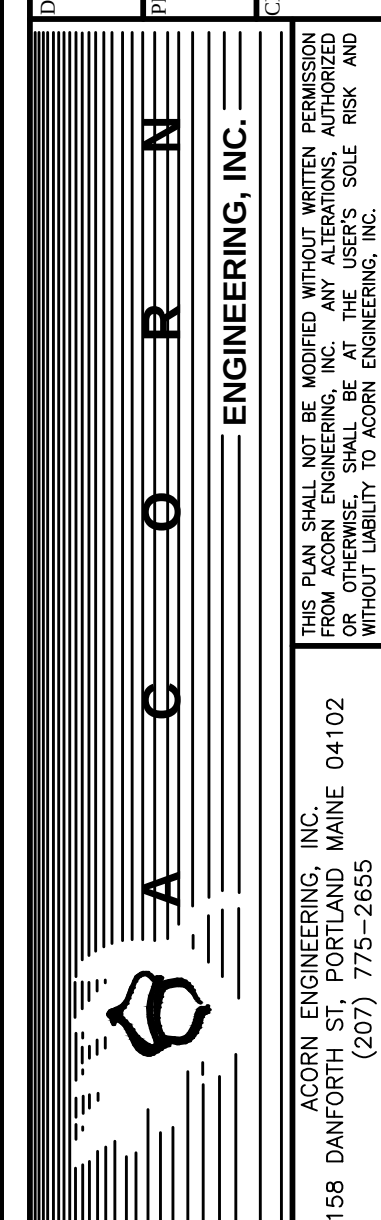
LEGEND	
HATCH STYLE	ASSOCIATED AREAS
	GREEN SPACE
	CONCRETE
	SNOW STORAGE AREA



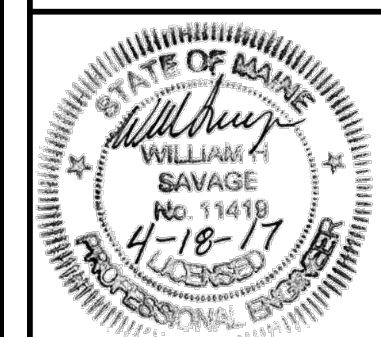
PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

DRAWING NAME: **SITE PLAN**
PROJECT NAME: **RIVERSIDE SELF-STORAGE CONTAINERS**
CLIENT: **547 RIVERSIDE LLC
59 MOODY STREET, PORTLAND, MAINE 04101**



FILE:	1080_CIVIL
JN:	1080
SCALE:	1"=40'
DESIGNED BY:	WHS
DRAWN BY:	SJL
CHECKED BY:	WHS

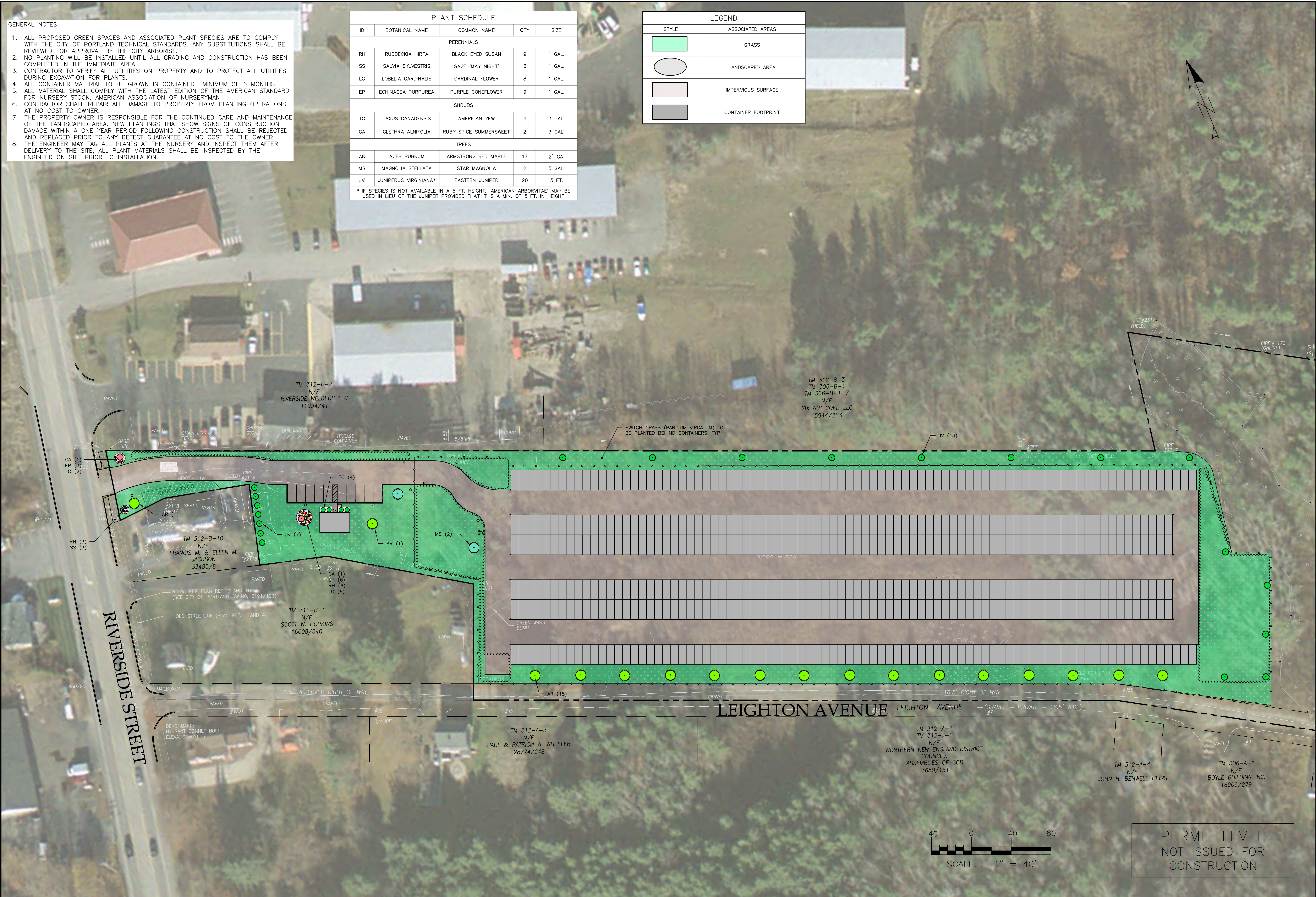


DRAWING NO.
C-10

- GENERAL NOTES:
1. ALL PROPOSED GREEN SPACES AND ASSOCIATED PLANT SPECIES ARE TO COMPLY WITH THE CITY OF PORTLAND TECHNICAL STANDARDS. ANY SUBSTITUTIONS SHALL BE REVIEWED FOR APPROVAL BY THE CITY ARBORIST.
 2. NO PLANTING WILL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
 3. CONTRACTOR TO VERIFY ALL UTILITIES ON PROPERTY AND TO PROTECT ALL UTILITIES DURING EXCAVATION FOR PLANTS.
 4. ALL CONTAINER MATERIAL TO BE GROWN IN CONTAINER MINIMUM OF 6 MONTHS.
 5. ALL MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMEN.
 6. CONTRACTOR SHALL REPAIR ALL DAMAGE TO PROPERTY FROM PLANTING OPERATIONS AT NO COST TO OWNER.
 7. THE PROPERTY OWNER IS RESPONSIBLE FOR THE CONTINUED CARE AND MAINTENANCE OF THE LANDSCAPED AREA. NEW PLANTINGS THAT SHOW SIGNS OF CONSTRUCTION DAMAGE WITHIN A ONE YEAR PERIOD FOLLOWING CONSTRUCTION SHALL BE REJECTED AND REPLACED PRIOR TO ANY DEFECT GUARANTEE AT NO COST TO THE OWNER.
 8. THE ENGINEER MAY TAG ALL PLANTS AT THE NURSERY AND INSPECT THEM AFTER DELIVERY TO THE SITE; ALL PLANT MATERIALS SHALL BE INSPECTED BY THE ENGINEER ON SITE PRIOR TO INSTALLATION.

PLANT SCHEDULE				
ID	BOTANICAL NAME	COMMON NAME	QTY	SIZE
PERENNIALS				
RH	RUDBECKIA HIRTA	BLACK EYED SUSAN	9	1 GAL.
SS	SALVIA SYLVESTRIS	SAGE 'MAY NIGHT'	3	1 GAL.
LC	LOBELIA CARDINALIS	CARDINAL FLOWER	8	1 GAL.
EP	ECHINACEA PURPUREA	PURPLE CONEFLOWER	9	1 GAL.
SHRUBS				
TC	TAXUS CANADENSIS	AMERICAN YEW	4	3 GAL.
CA	CLETHRA ALNIFOLIA	RUBY SPICE SUMMERSWEET	2	3 GAL.
TREES				
AR	ACER RUBRUM	ARMSTRONG RED MAPLE	17	2" CA.
MS	MAGNOLIA STELLATA	STAR MAGNOLIA	2	5 GAL.
JV	JUNIPERUS VIRGINIANA*	EASTERN JUNIPER	20	5 FT.
* IF SPECIES IS NOT AVAILABLE IN A 5 FT. HEIGHT, 'AMERICAN ARBORVITAE' MAY BE USED IN LIEU OF THE JUNIPER PROVIDED THAT IT IS A MIN. OF 5 FT. IN HEIGHT				

LEGEND	
STYLE	ASSOCIATED AREAS
	GRASS
	LANDSCAPED AREA
	IMPERVIOUS SURFACE
	CONTAINER FOOTPRINT



ISSUED FOR: PRELIM. APP. SLODA APP. FINAL APP.

BY: DATE: 2/2/17 2/2/17 2/2/17 2/18/17

LANDSCAPE PLAN

RIVERSIDE SELF-STORAGE CONTAINERS

547 RIVERSIDE LLC

59 MOODY STREET, PORTLAND, MAINE 04101

ENGINEERING, INC.

158 DANFORTH ST. PORTLAND, MAINE 04102

(207) 775-2655

FILE: 1080_CIVIL

JN: 1080

SCALE: 1"=40'

DESIGNED BY: SUL

DRAWN BY: SUL

CHECKED BY: WHS

STATE OF MAINE

WILLIAM SAVAGE

4-18-17

PROFESSIONAL ENGINEER

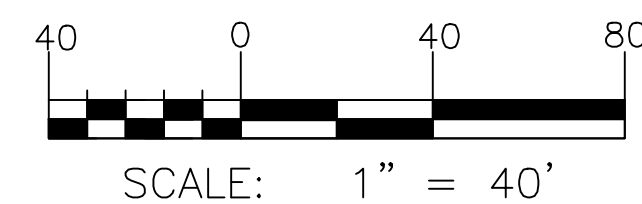
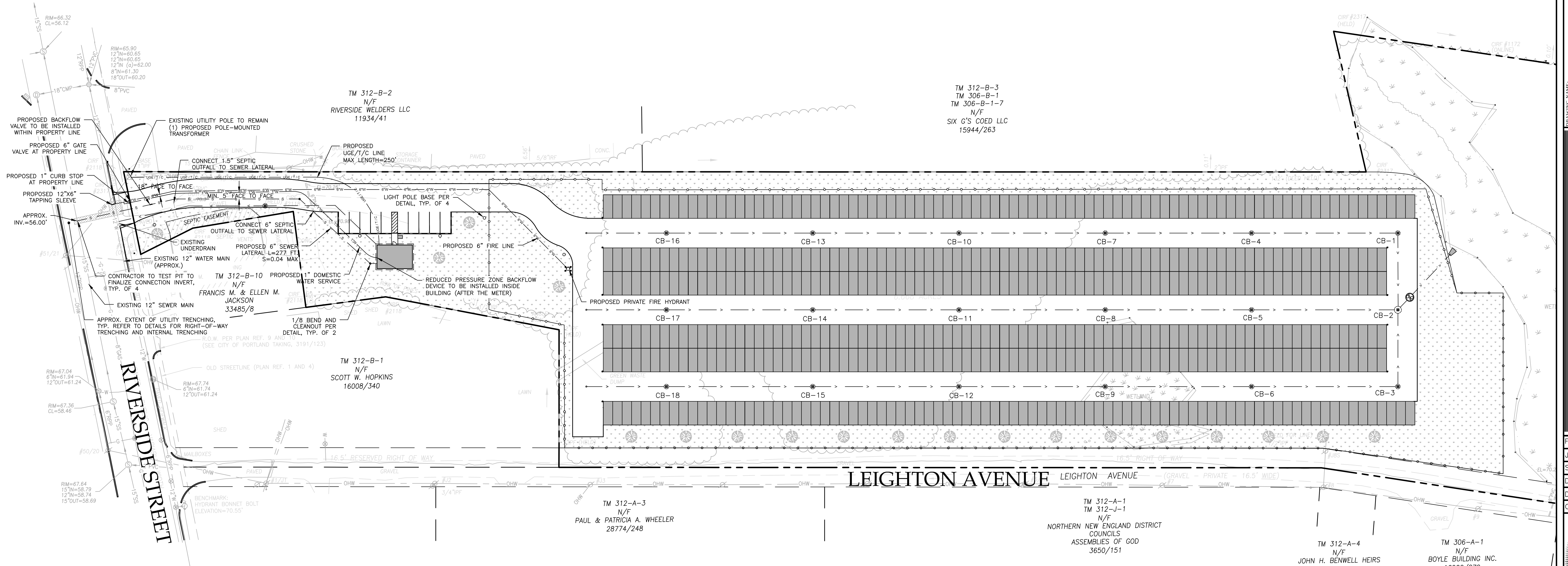
DRAWING NO.

L-1

4. LOCATION OF PROPOSED CONNECTIONS APPROXIMATE. CONTRACTOR TO CONTACT ENGINEER IF FIELD INFORMATION VARIES FROM INFORMATION ON PLANS.
5. CONTRACTOR IS TO BE CAUTIONED THAT CERTAIN LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES WHEN PROVIDED THROUGH THE CONSTRUCTION OR OTHER FIELD OBSERVATIONS, INFORMATION IS NOT TO BE RELIED UPON AS EXACT OR COMPLETE. CONTRACTOR TO FIELD VERIFY AND COORDINATE WITH UTILITY COMPANY AND DISG SAFE NO LESS THAN 72 HOURS PRIOR TO ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF ALL UTILITIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS INDICATED IN THE CONTRACT DOCUMENTS. CONTRACTOR TO NOTIFY ENGINEER OF ANY DIFFERENTIATIONS FROM THE FIELD CONDITIONS THROUGH THE SURVEY, PRIOR TO CONSTRUCTION.
6. FOR ALL UTILITIES, ACORN ENGINEERING DESIGN LIMITS EXTEND TO OUTSIDE WALL OF BUILDING. METERING OF UTILITIES TO BE COMPLETED BY M.E.P. UNLESS SPECIFIED OTHERWISE.
7. CONTRACTOR TO COORDINATE WITH STRUCTURAL ENGINEER AND M.E.P. ON FINAL UTILITY CONNECTION LOCATION TO THE UTILITY ROOM.
8. SEWER UTILITIES: CONTRACTOR TO COORDINATE WITH ARCHITECT FOR FINAL SERVICE CONNECTION. SEWER UTILITIES TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL STANDARDS. VALVE FOR BACKFLOW PREVENTION SHALL BE INSTALLED WITHIN THE PROPOSED MAINLINE SEWER. CONTRACTOR TO FOLLOW METERING GUIDELINES IF FIELD CONDITIONS FROM INVERT VARY FROM DESIGN.
9. WATER UTILITIES: FINAL PIPE SIZING PROVIDED BY M.E.P. ENGINEER AND FIRE PROTECTION DESIGNER. INTERNAL METERING, BACKFLOW PREVENTION, AND PRESSURE REDUCERS TO BE COORDINATED BY M.E.P. ENGINEER WITH CITY OF PORTLAND STANDARDS. CONTRACTOR TO FOLLOW METERING OPTIONS. METER MAY BE SMALLER THAN PROPOSED WATER MAIN. WATER METERING, PRESSURE REDUCER AND BACKFLOW PREVENTION TO BE IN ACCORDANCE WITH CITY OF PORTLAND AND WASHINGTON STATE STANDARDS. CONTRACTOR TO FOLLOW METERING GUIDELINES OF THE PORTLAND WATER DISTRICT AND CITY OF PORTLAND. SERVICE LINES TO MAINTAIN 1' FROM CENTER OF TREES.
10. ELECTRIC UTILITIES: ELECTRIC DESIGN TO BE FINALIZED BY M.E.P. ENGINEER. ELECTRICAL LOAD TO BE DETERMINED BY M.E.P. ENGINEER. METER LOCATION AND POLE-MOUNTED TRANSFORMER SIZE TO BE DETERMINED BY M.E.P. ENGINEER. CONSTRUCTION METHOD CONFIRM TO CMP GUIDEBOOK OF STANDARD REQUIREMENTS, MOST RECENT EDITION. DESIGN SUBJECT TO FINAL APPROVAL FROM CMP.
11. CABLE AND TELEPHONE PULLBOXES AND PEDESTAL LOCATIONS TO BE DETERMINED BY CHARTERED COMMUNICATIONS AND FAIRPOINT PRIOR TO CONSTRUCTION. CONTRACTOR TO COORDINATE.

UTILITY	UGE/T/C	WATER	SEWER	GAS	STORMWATER
UGE/T/C	–	6'	5'	4'	6'
WATER	6'	–	5'	6'	3'
SEWER	5'	5'	–	5'	5'
GAS	4'	6'	5'	–	6'
STORMWATER	6'	3'	5'	6'	–

*PERMISSIBLE ONLY IF SEWER IS LAID MIN. 18" BELOW WATER SERVICE; OTHERWISE, 10' OF HORIZONTAL SEPARATION MUST BE MAINTAINED.



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]

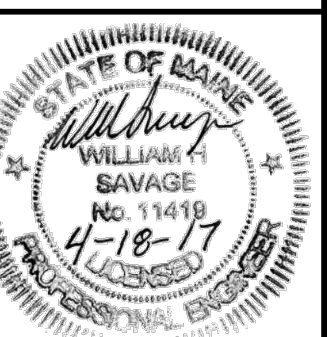
PROJECT NAME: **RIVERSIDE SELF-STORAGE CONTAINERS**

CLIENT: **547 RIVERSIDE LLC**
59 MOODY STREET, PORTLAND, MAINE 04101


A C O R N

ENGINEERING, INC.

LE:	1080_CIVIL
N:	1080
SCALE:	1"=40'
DESIGNED BY:	SJL
DRAWN BY:	SJL
CHECKED BY:	WHS



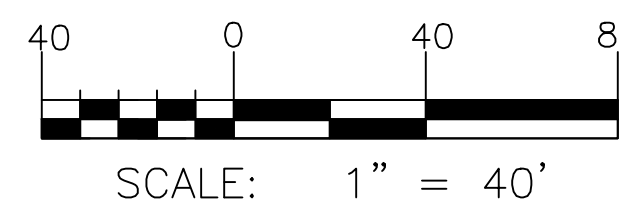
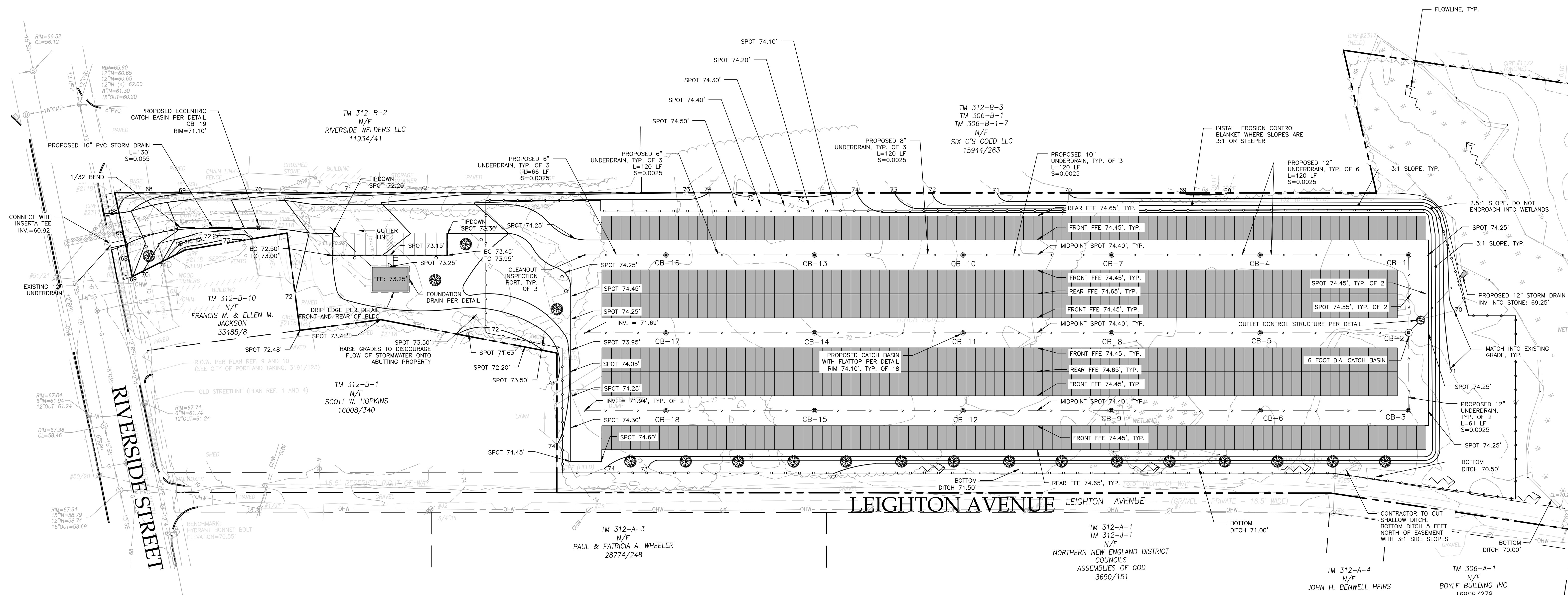
DRAWING NO.

C-20

1. ALL WORK WITHIN THE CITY STREET RIGHT OF WAY SHALL MEET CITY OF PORTLAND TECHNICAL MANUAL STANDARDS.
2. REFER TO STRUCTURAL PLANS FOR FOUNDATION REQUIREMENTS. DESIGN OF TEMPORARY SOIL RESTRAINT MEASURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IF NECESSARY FOR CONSTRUCTION.
3. CONTRACTOR SHALL ENSURE THAT FOUNDATION DRAINS AND UNDERDRAINS ARE CONSTRUCTED WITH POSITIVE OUTLET TO PROPOSED CONNECTIONS.

PIPE SUMMARY	
TYPE	LENGTH
6" PVC UNDERDRAIN	558 FT.
8" PVC UNDERDRAIN	360 FT
10" PVC UNDERDRAIN	360 FT.
12" PVC UNDERDRAIN	842 FT.
10" PVC STORM DRAIN	125 FT.
12" PVC STORM DRAIN	48 FT.

PROPOSED STRUCTURE SCHEDULE			
STRUCTURE	RIM	INVERT IN	INVERT OUT
OCS	74.20'	69.40'	69.30'
CB-1 & CB-3	74.10'	69.78'	69.68'
CB-2	74.10'	69.53'	69.43'
CB-4 & CB-6	74.10'	70.18'	70.08'
CB-5	74.10'	69.93'	69.83'
CB-7 & CB-9	74.10'	70.58'	70.48'
CB-8	74.10'	70.33'	70.23'
CB-10 & CB-12	74.10'	70.98'	70.88'
CB-11	74.10'	70.73'	70.63'
CB-13 & CB-15	74.10'	71.38'	71.28'
CB-14	74.10'	71.13'	71.03'
CB-16 & CB-18	74.10'	71.78'	71.68'
CB-17	74.10'	71.53'	71.43'
CB-19	71.10'	-	68.00'

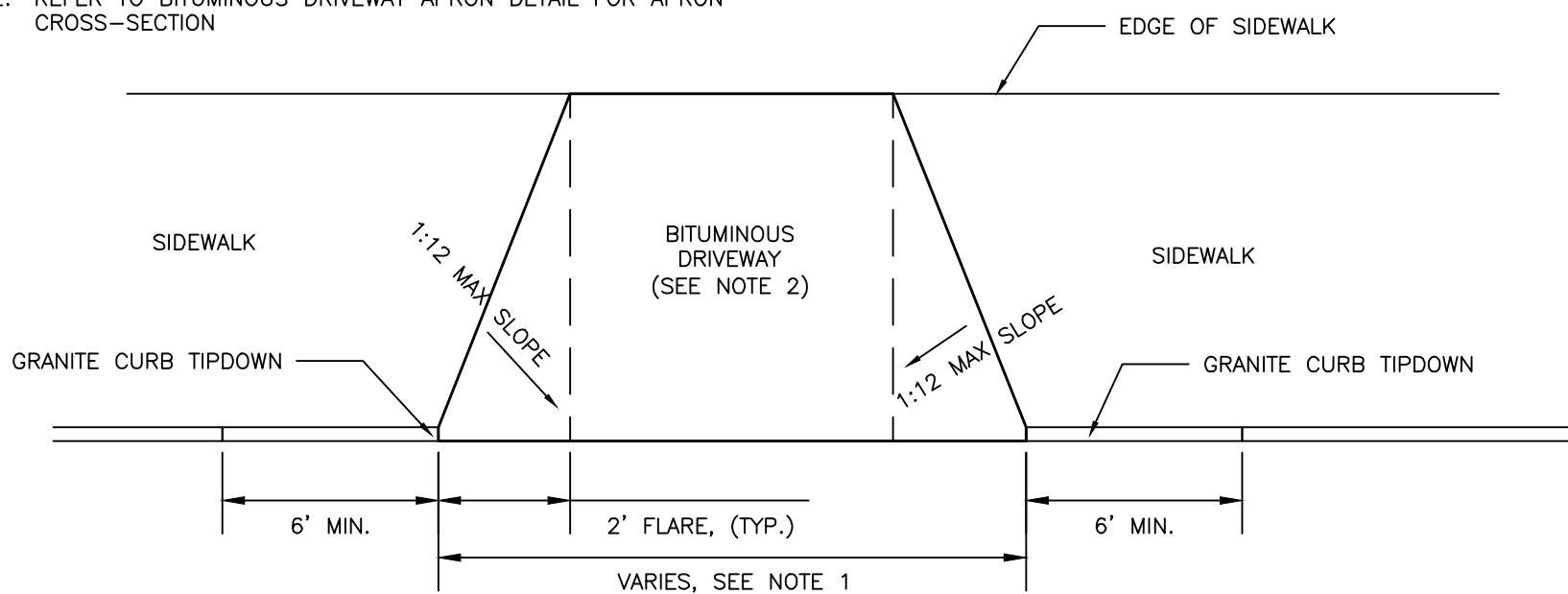


PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

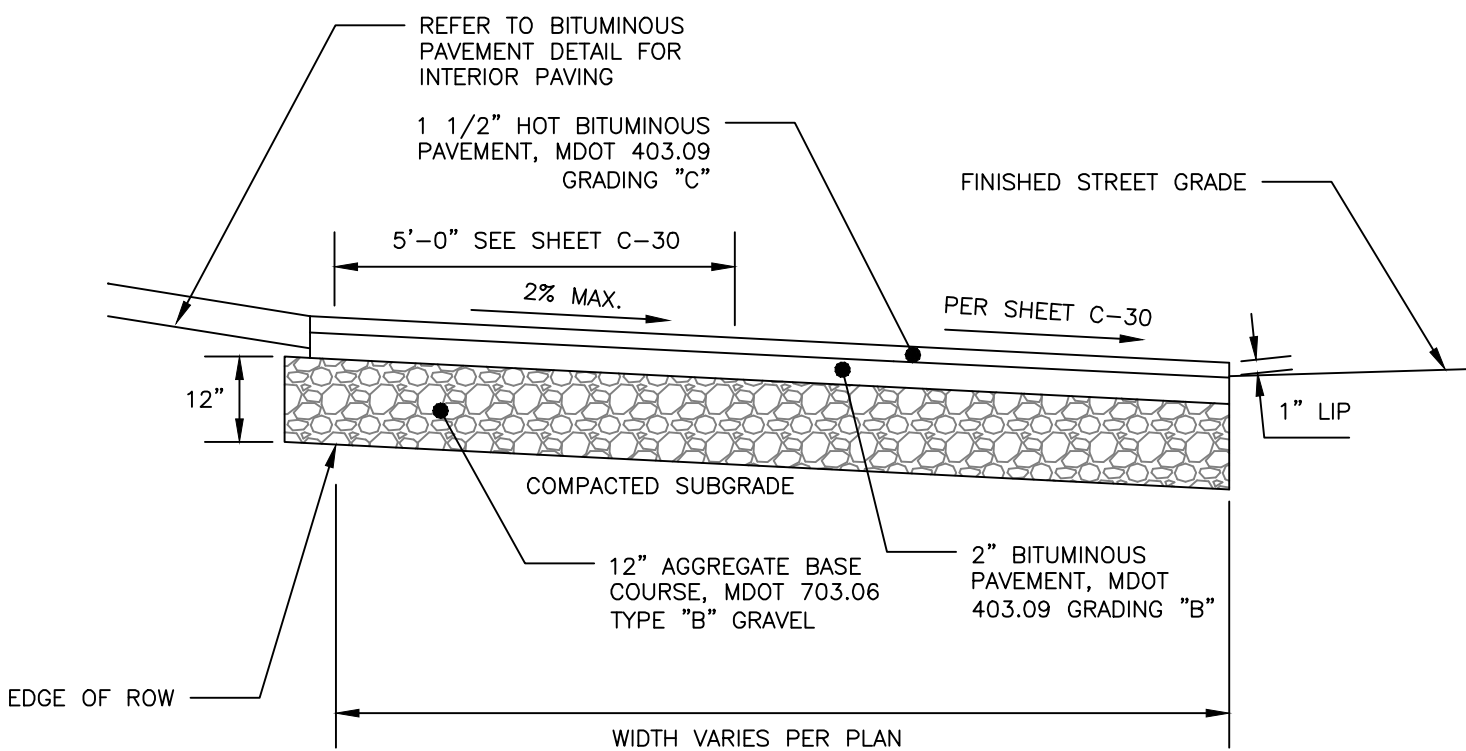
[illegible]

NOTES:

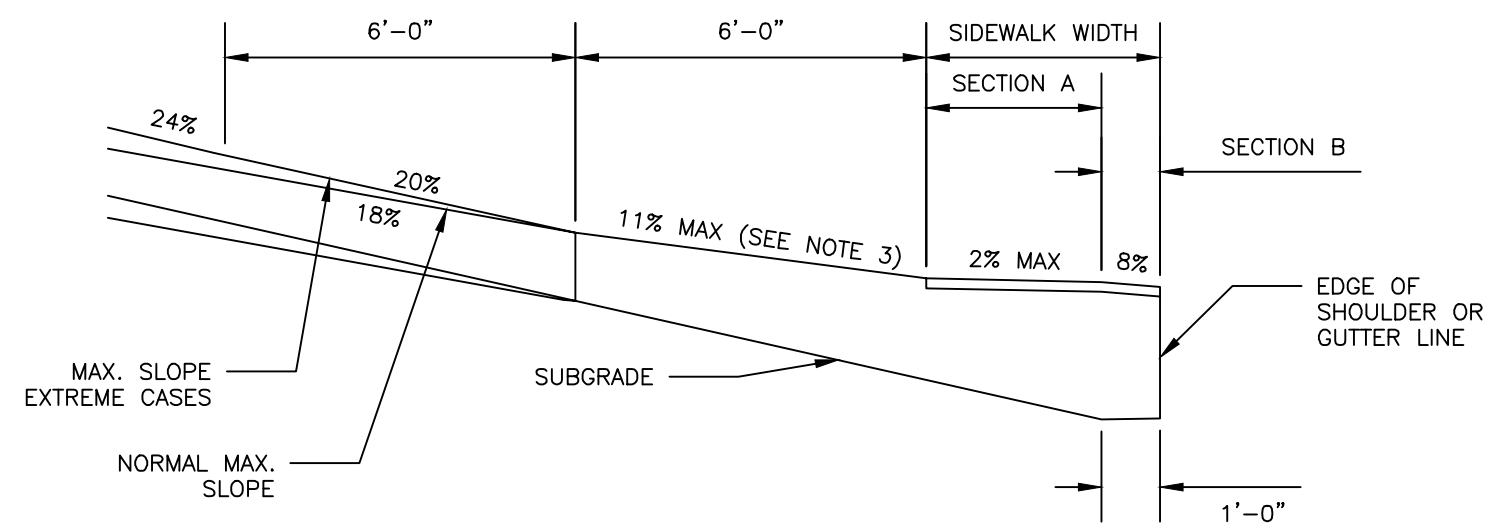
1. REFER TO GRADING, DRAINAGE AND EROSION CONTROL PLANS FOR SITE GRADING
2. REFER TO BITUMINOUS DRIVEWAY APRON DETAIL FOR APRON CROSS-SECTION



DRIVEWAY APRON LAYOUT DETAIL
NOT TO SCALE



BITUMINOUS DRIVEWAY APRON DETAIL
NOT TO SCALE



DRIVEWAYS UPGRADIENT FROM MAIN ROAD

GENERAL NOTES:

1. SEE DETAILS FOR SIDEWALK CONSTRUCTION MATERIALS.
2. SEE DETAILS FOR DRIVEWAY CONSTRUCTION MATERIALS.

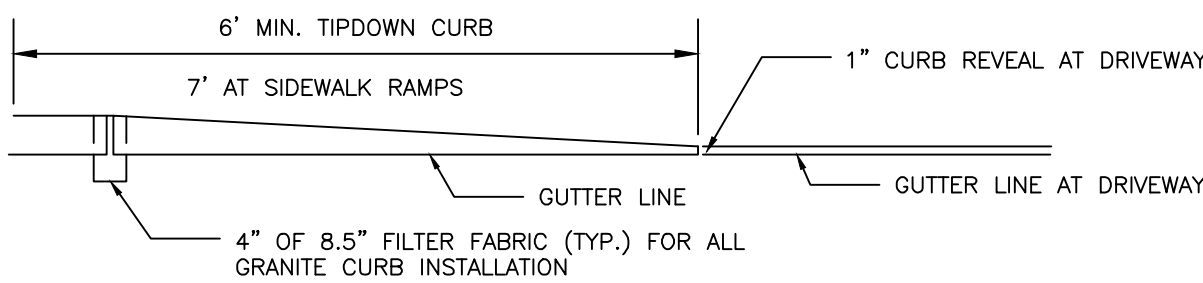
MAXIMUM DRIVEWAY PROFILE NOTES:

1. THESE PROFILES ARE A GUIDE FOR THE MAJORITY OF CASES. CONTRACTOR TO FIELD CHECK ALL DRIVEWAYS PRIOR TO CONSTRUCTION.
2. IT IS UNDERSTOOD THAT THIS DETAIL REPRESENTS THE EXTREME LIMITS OF CONSTRUCTION ANGLES, AND THAT THE MAJORITY OF DRIVEWAYS WILL BE CONSTRUCTED WELL WITHIN THESE BOUNDS.
3. WHEN GRADING DRIVES THAT ARE FLATTER THAN THE MAXIMUM PROFILES, CONTRACTOR SHOULD NOT EXCEED A GRADE PERCENT CHANGE OF MORE THAN 9% PER 6-FOOT INCREMENT OF DRIVEWAY LENGTH (APPLIES TO BOTH UP-GRADE AND DOWN-GRADE PROFILES).

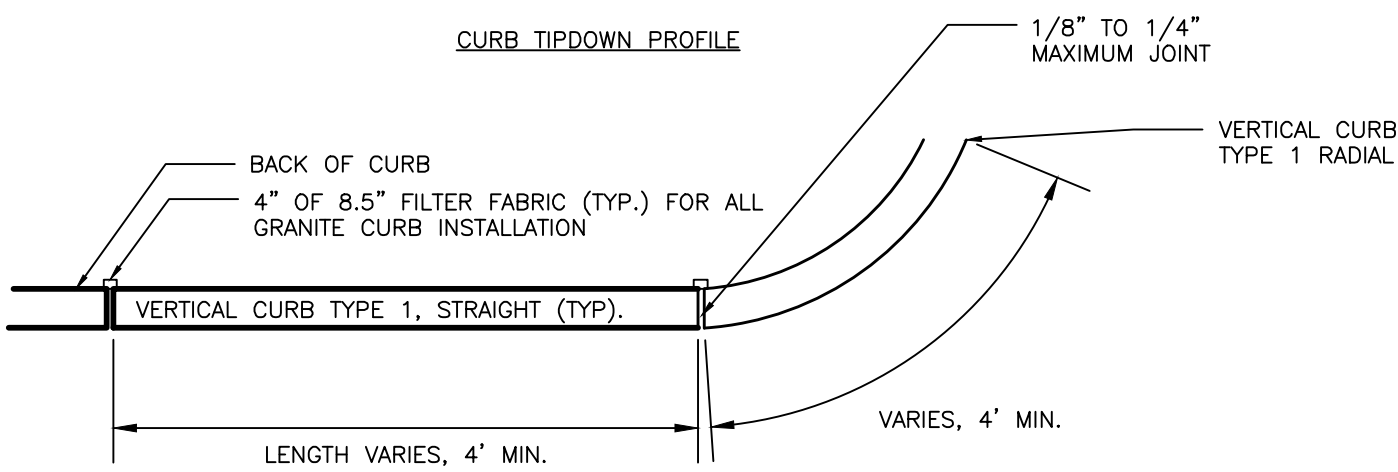
SIDEWALK CROWN TABLE

SIDEWALK WIDTH	
SECTION A	4'
SECTION B	1'

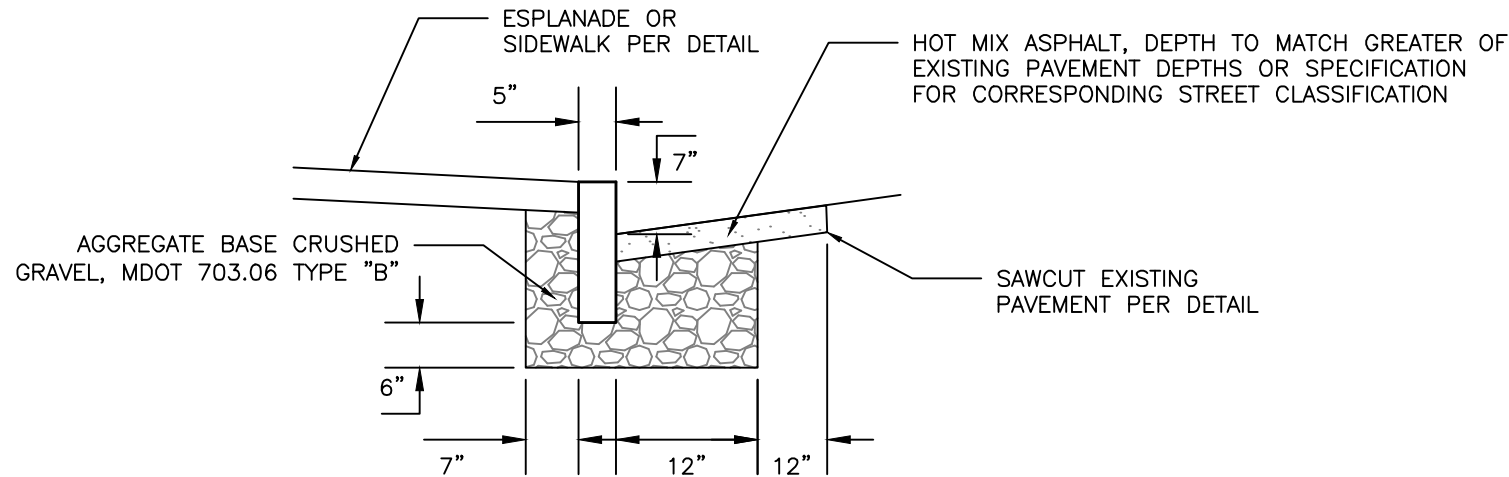
DRIVEWAY SLOPES ON SIDEWALK SECTION
NOT TO SCALE



CURB TIPDOWN PROFILE



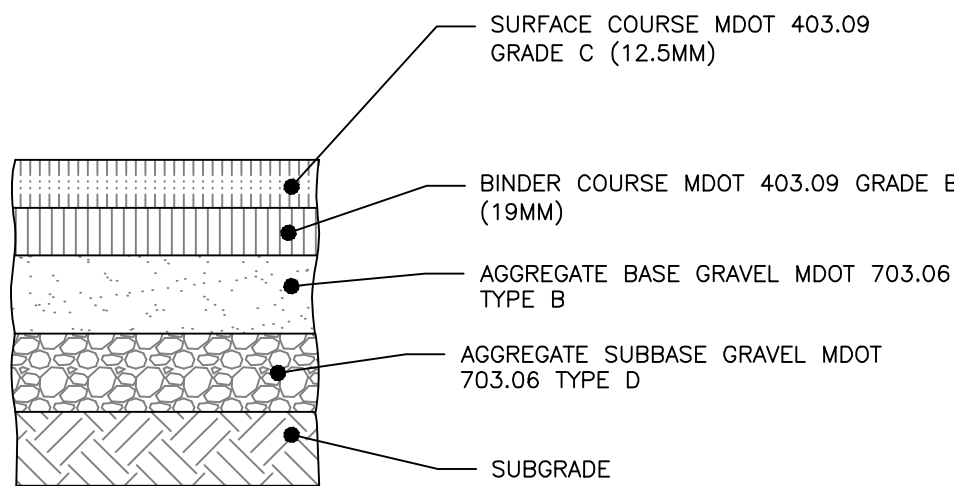
VERTICAL GRANITE CURB PLAN VIEW



VERTICAL GRANITE CURB CROSS SECTION

VERTICAL GRANITE CURB AND TIPDOWN INSTALLATION

NOT TO SCALE



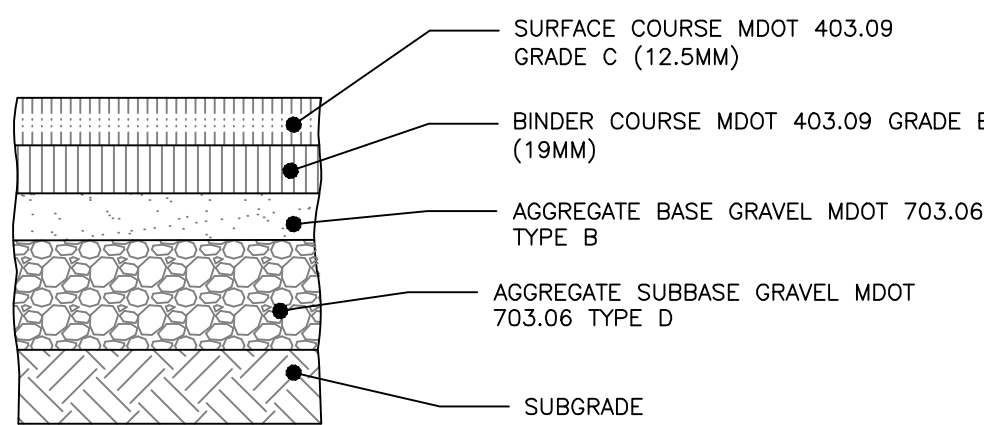
NOTES:

1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557
2. THIS DETAIL APPLIES TO RIVERSIDE STREET ONLY

STANDARD	THICKNESS OF LAYERS
2"	SURFACE COURSE MDOT 403.09 GRADE C (12.5mm)
3"	BINDER COURSE MDOT 403.09 GRADE B (19mm)
6"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B
18"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

CITY OF PORTLAND ARTERIAL
BITUMINOUS PAVEMENT PROFILE:
RIVERSIDE STREET

NOT TO SCALE



NOTES:

1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557

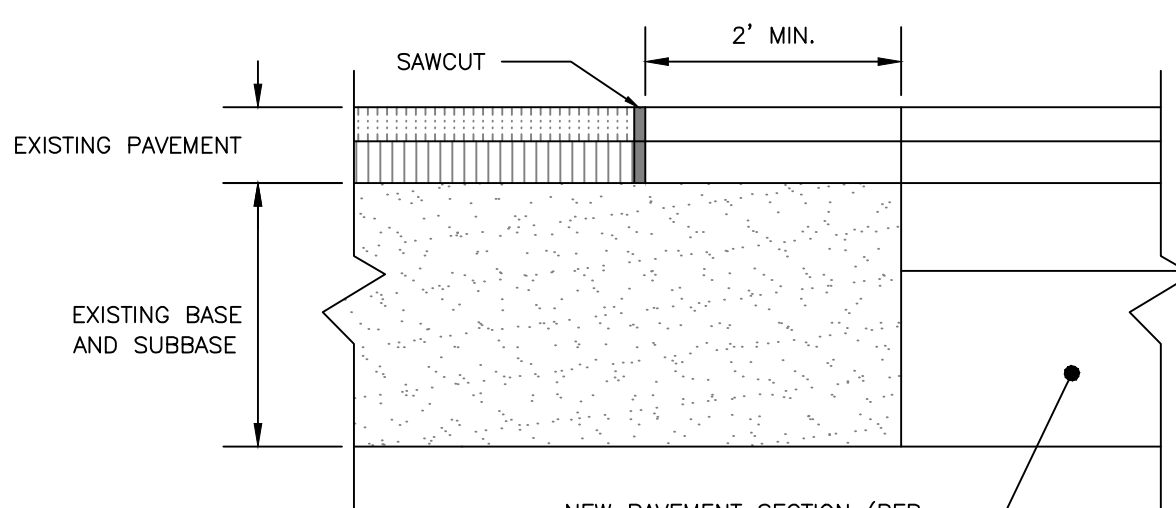
STANDARD	THICKNESS OF LAYERS
1-1/2"	SURFACE COURSE MDOT 403.09 GRADE C (12.5mm)
2"	BINDER COURSE MDOT 403.09 GRADE B (19mm)
3"	AGGREGATE BASE GRAVEL MDOT 703.06 TYPE B
15"	AGGREGATE SUBBASE GRAVEL MDOT 703.06 TYPE D

DENSE BITUMINOUS PAVEMENT PROFILE:
DRIVEWAY

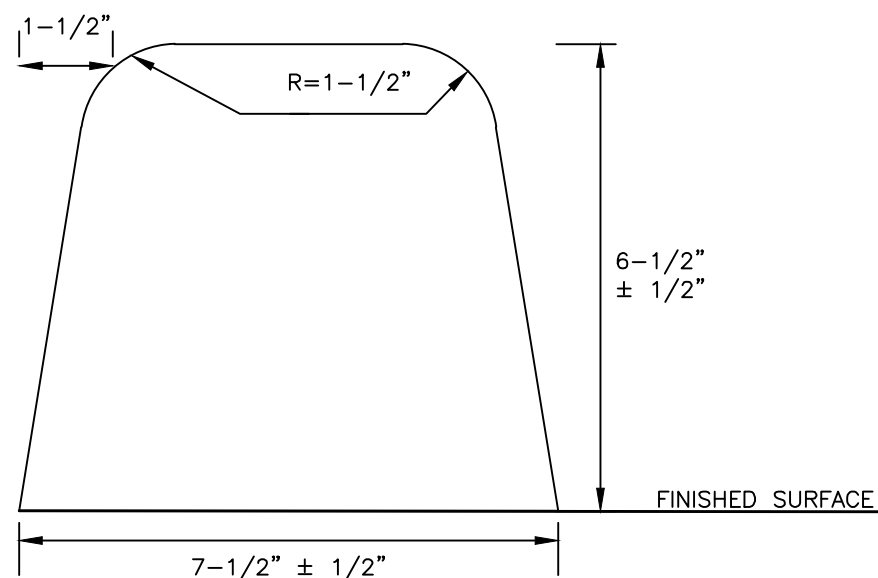
NOT TO SCALE

NOTES:

1. SAWCUT EXISTING PAVEMENT AND REMOVE 2' STRIP OF EXISTING PAVEMENT. APPLY BITUMINOUS TACK COAT PRIOR TO PLACEMENT OF NEW BITUMINOUS PAVEMENT.
2. THE NEW PAVEMENT SECTION SHALL MEET THE CITY OF PORTLAND ARTERIAL BITUMINOUS PAVEMENT SECTION DETAIL AT A MINIMUM OR THE EXISTING PAVEMENT AND AGGREGATE BASE AND SUBBASE DEPTH WHICHEVER IS GREATER.



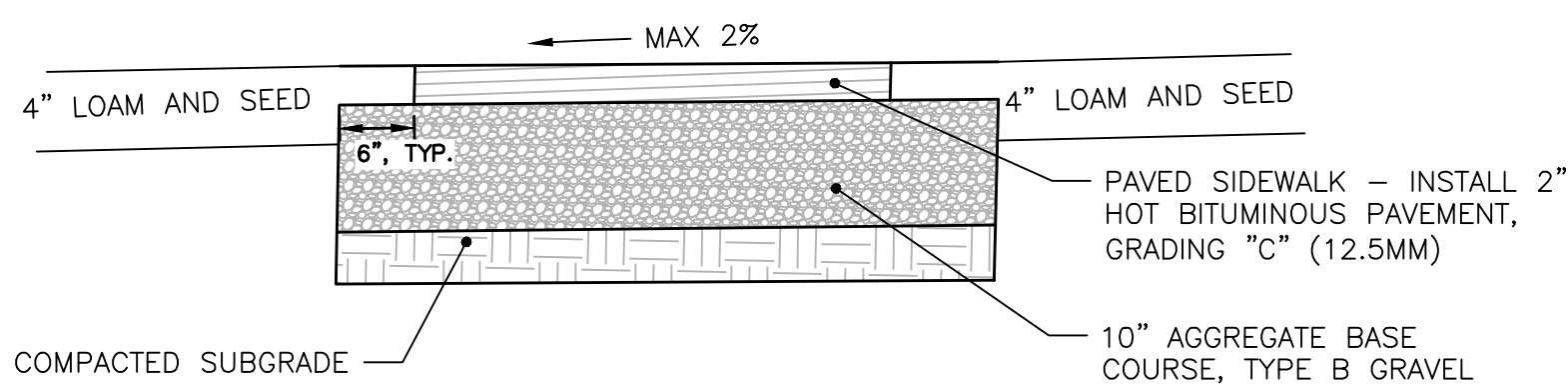
PAVEMENT SAWCUT DETAIL
NOT TO SCALE



VERTICAL BITUMINOUS CURB - MOLD 1
NOT TO SCALE

NOTE:

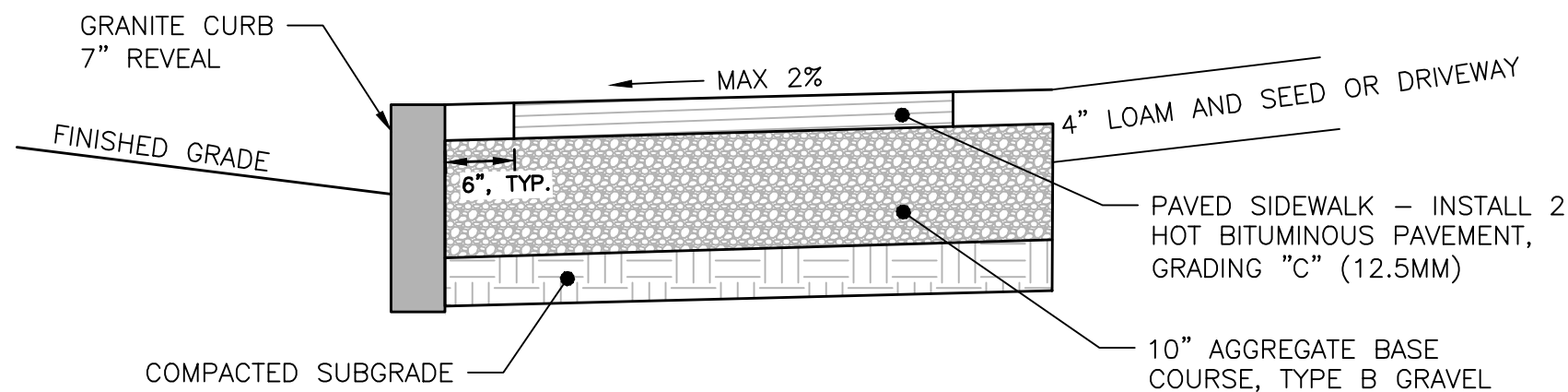
1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557



INTERNAL BITUMINOUS SIDEWALK DETAIL
NOT TO SCALE

NOTE:

1. COMPACT SUBGRADE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557



BITUMINOUS SIDEWALK ALONG RIVERSIDE ST. DETAIL
NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR: PRELIM. APP. SLODA APP. FINAL APP.

BY: DATE: 2/2/17 2/2/17 2/2/17 2/18/17

DRAWING NAME: SITE DETAILS - 1

PROJECT NAME: RIVERSIDE SELF-STORAGE CONTAINERS

CLIENT: 547 RIVERSIDE LLC 59 MOODY STREET, PORTLAND, MAINE 04101

ACORN ENGINEERING, INC.

ACORN ENGINEERS, INC. 158 DANFORTH ST. PORTLAND, MAINE 04102 (207) 775-2655

FOR THIS SEAL, I HAVE REVIEWED THE PROJECT AND I AM Satisfied THAT THE PROJECT MEETS THE REQUIREMENTS OF THE PROFESSIONAL ENGINEERING ACT AND I AM NOT PROVIDING ANY GUARANTEE OR WARRANTY FOR THE PROJECT.

FILE: 1080_CIVIL

JN: 1080

SCALE: NTS

DESIGNED BY: WHS

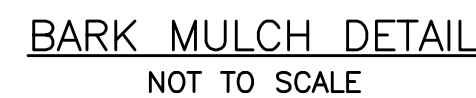
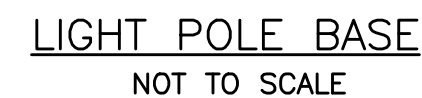
DRAWN BY: MCB

CHECKED BY: WHS

STATE OF MAINE
WILLIAM J. SAVAGE
No. 11416
4-18-17
Professional Engineer

DRAWING NO. C-40

1. ALL PLANT SELECTION AND INSTALLATION WILL BE IN COMPLIANCE WITH THE CITY OF PORTLAND TECHNICAL MANUAL (SECTION 4).
2. CONTRACTOR TO VERIFY ALL UTILITIES ON PROPERTY AND TO PROTECT ALL UTILITIES DURING EXCAVATION FOR PLANTS.
3. IF THERE IS A DISCREPANCY BETWEEN THE NUMBER OF PLANTS SHOWN ON THE PLAN AND THE NUMBER OF PLANTS SHOWN IN PLANT LIST (IF ANY), THE NUMBER OF PLANTS SHOWN ON PLAN WILL TAKE PRECEDENCE.
4. ALL MATERIAL SHALL COMPLY WITH THE LATEST EDITION OF THE AMERICAN STANDARD FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMAN.
5. THE ENGINEER MAY TAG ALL PLANTS AT THE NURSERY AND INSPECT THEM AFTER DELIVERY TO THE SITE. ALL PLANT MATERIALS SHALL BE INSPECTED BY THE ENGINEER ON SITE PRIOR TO INSTALLATION.
6. ALL PROPOSED PLANTS SHALL BE LOCATED CAREFULLY AS SHOWN ON THE PLANS AND THE PLACEMENTS SHALL BE APPROVED BY ENGINEER BEFORE THE PLANTS ARE INSTALLED.
7. ALL DISTURBED AREAS NOT TO BE PAVED OR PLANTED SHALL BE LOAMED AND SEEDED AS SHOWN. THE SEED MIX SPECIFICATIONS ARE AS FOLLOWS: LESCO FINE FESCUE LINKS BLEND OF 35% HARD FESCUE, 35% CREEPING REED FESCUE, 20% CHEWINGS FESCUE AND 10% SHEEP FESCUE. ADD 5% LITTLE BLUESTEM AND 5% NORTHEAST WILDFLOWER SEED MIXTURE BY WEIGHT TO THE LINKS BLEND.
8. STAKING AND GUYING SHALL BE DETERMINED BY THE ENGINEER ON A TREE BY TREE BASIS. FOR PRICING PURPOSES, PROVIDE A PER TREE UNIT COST FOR STAKING AND GUYING. IF STAKING AND GUYING IS REQUIRED, REMOVE TREE WRAP, STAKES, AND GUY WIRES AT END OF FIRST GROWING SEASON.
9. FOR TREE PLANTING IN LAWN AREAS, ANY DISTURBED LAWN SHALL BE LOAMED AND SEEDED AS NECESSARY.



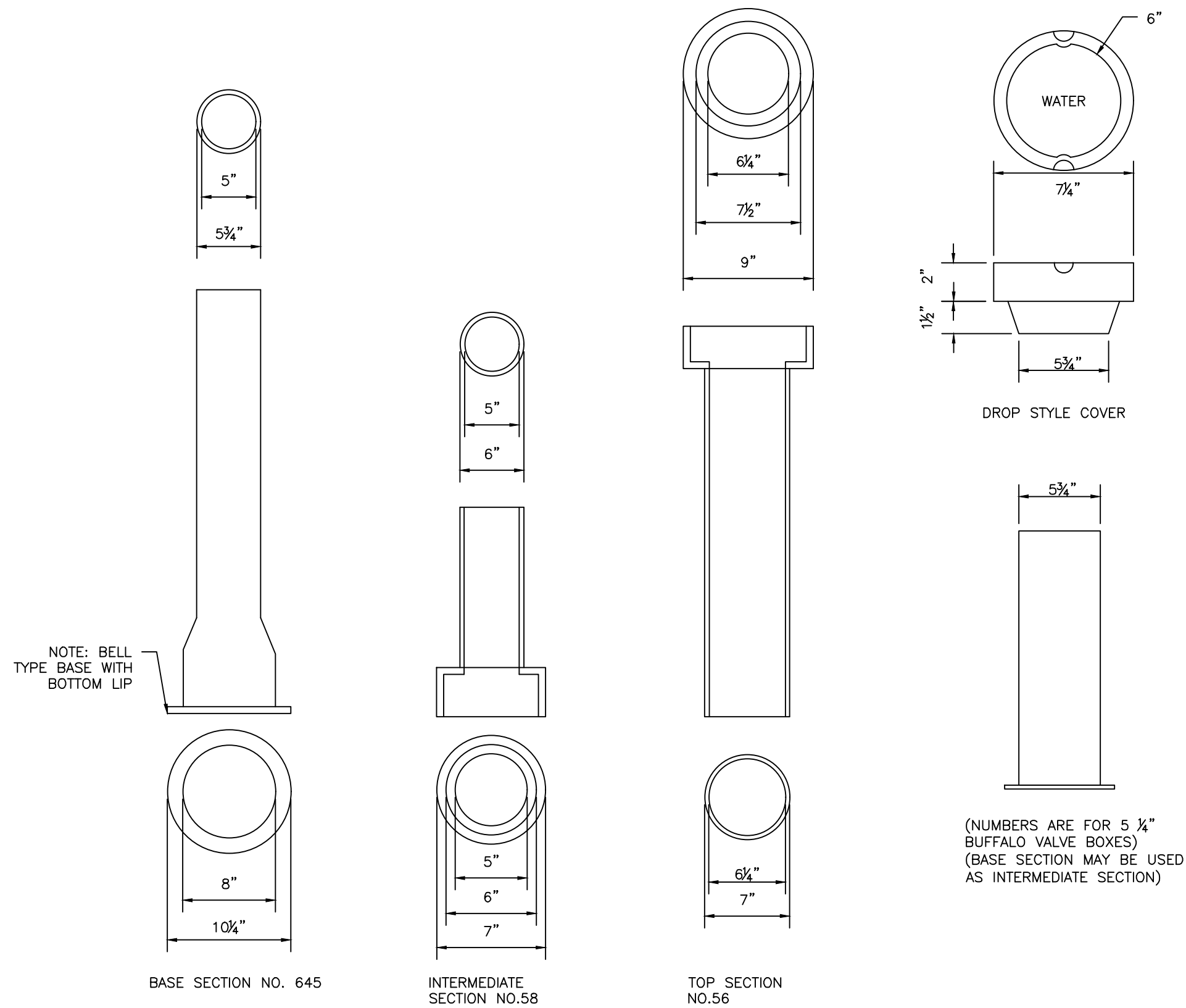
TYPICAL PLANTING
NOT TO SCALE

BICYCLE RACK DETAIL
NOT TO SCALE

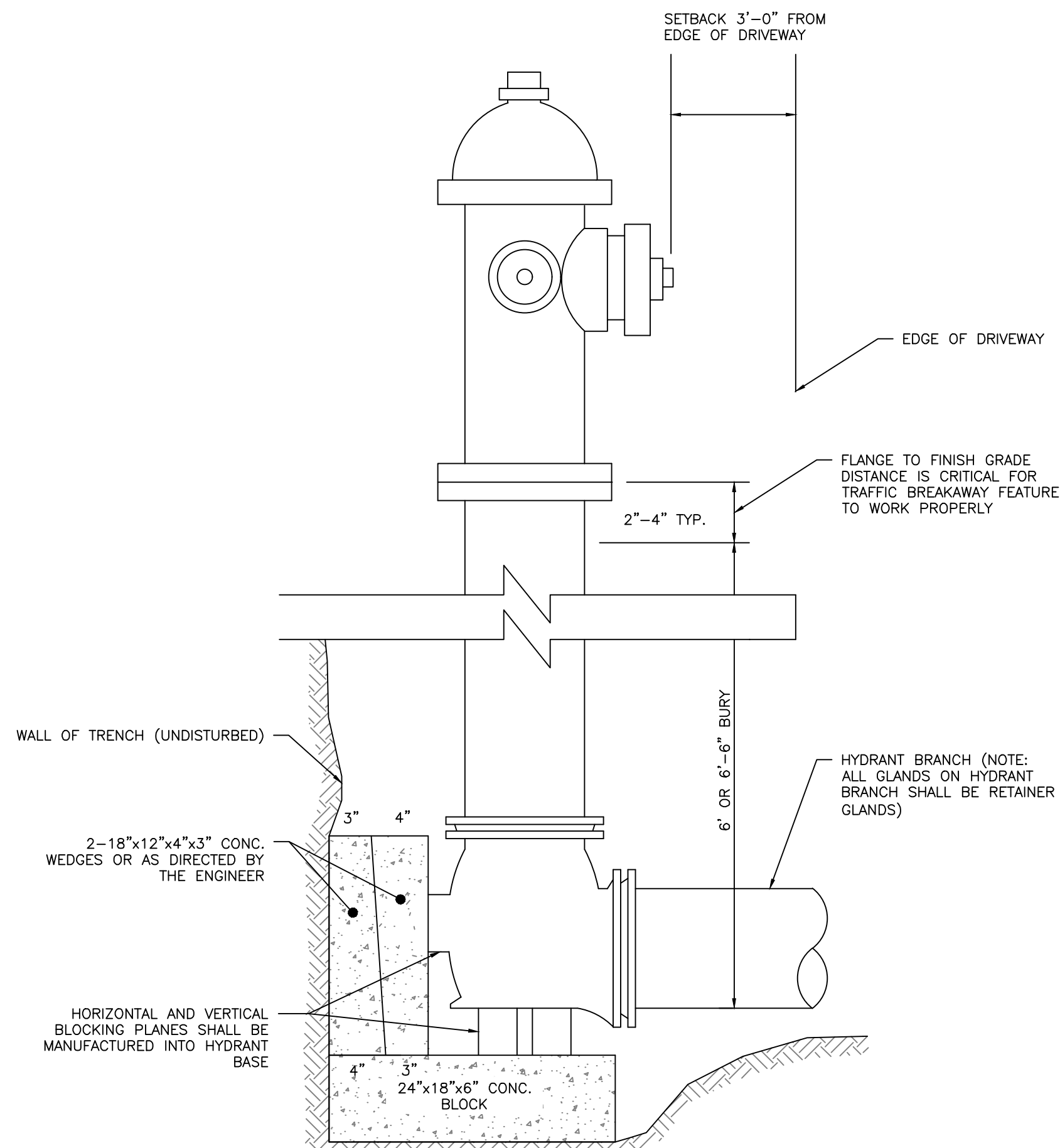


PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

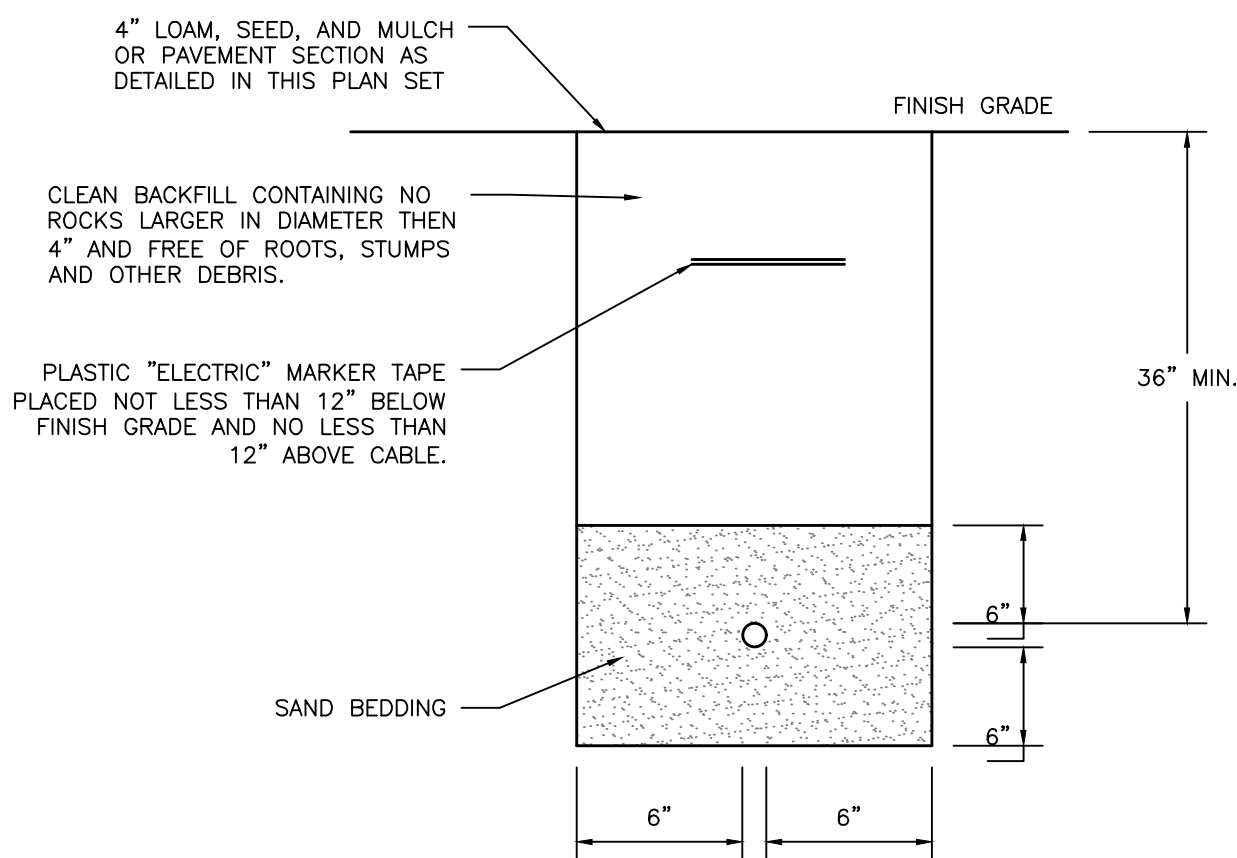
[illegible]



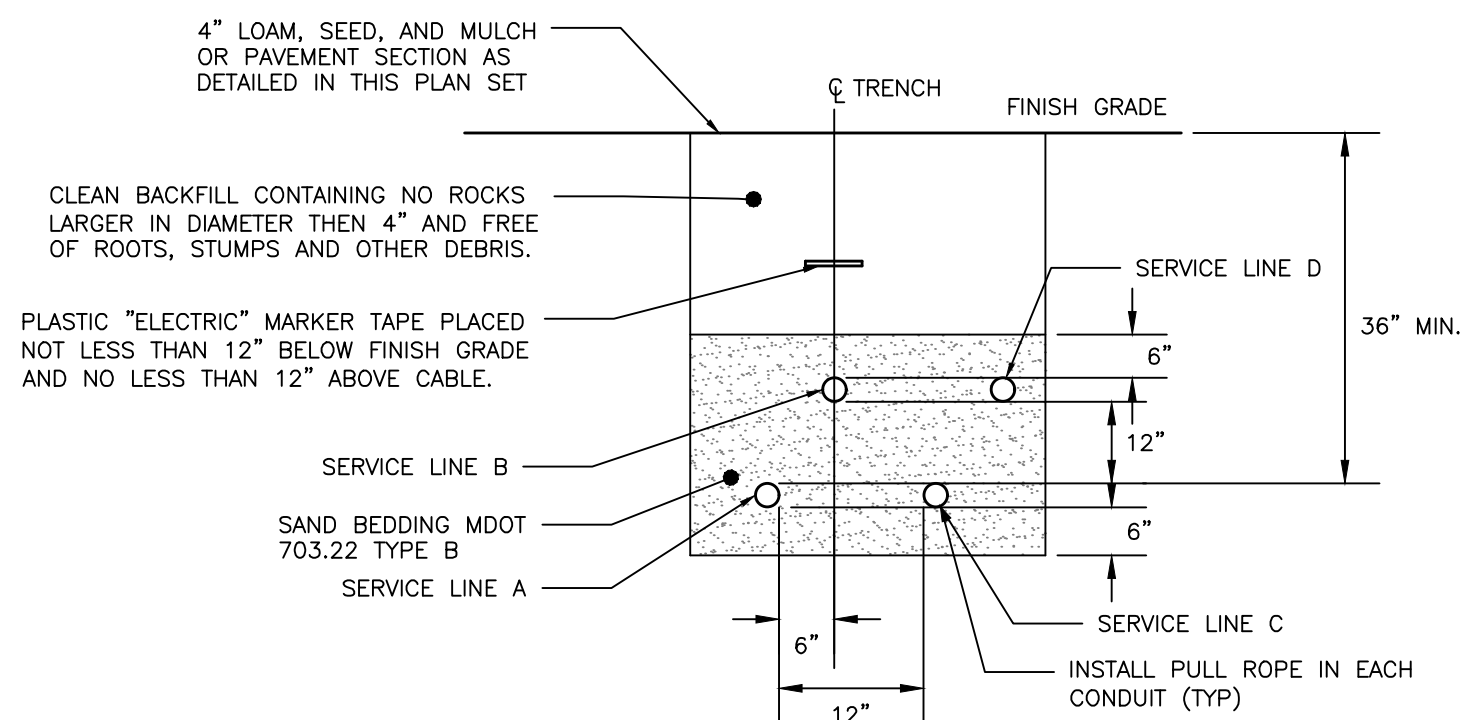
VALVE BOX & COVER
NOT TO SCALE



TYPICAL HYDRANT
INSTALLATION DETAIL
NOT TO SCALE



SECONDARY ELECTRICAL TRENCH
NOT TO SCALE

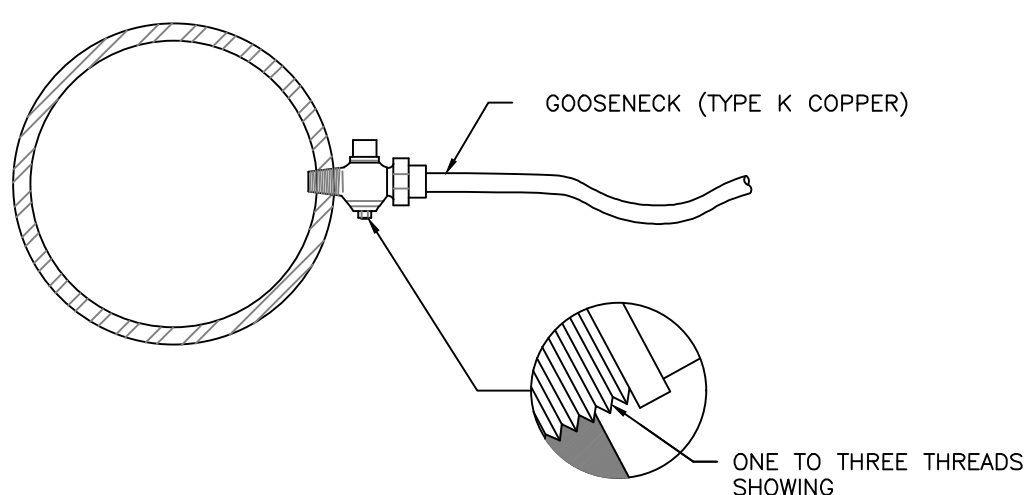


CONDUIT TYPE				
SERVICE	CONDUIT SIZE	GRASS AND PAVED AREAS	UTILITY	REMARKS
A	2-5"	SCHEDULE 40 PVC ELECTRICAL GRADE	PRIMARY POWER	SEE NOTE 1
B	2-4"	SCHEDULE 40 PVC	COMMUNICATION	-
C	2-4"	SCHEDULE 40 PVC ELECTRICAL GRADE	SPARE	IF REQUIRED
D	2-4"	SCHEDULE 40 PVC	CABLE	-

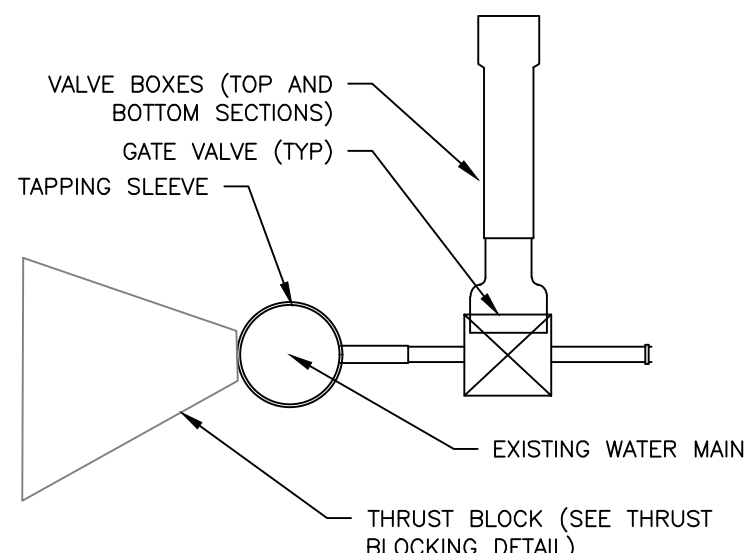
NOTES:

- ONE CONDUIT CAPPED FOR SPARE, PROVIDE GALVANIZED STEEL LONG SWEEP AT RISER POLE AND EXTEND GALVANIZED CONDUIT TO 10" ABOVE GRADE AT POLE WITH STAND-OFF BRACKETS.
- MINIMUM SEPARATION OF 24 INCHES BETWEEN PRIMARY CABLE/CONDUIT AND GAS LINES SHALL BE MAINTAINED.

UTILITY TRENCH:
PRIMARY AND SECONDARY POWER, TELEPHONE, AND CABLE
NOT TO SCALE



SERVICE TAP: 3/4" AND 1" C.C. THREAD
NOT TO SCALE

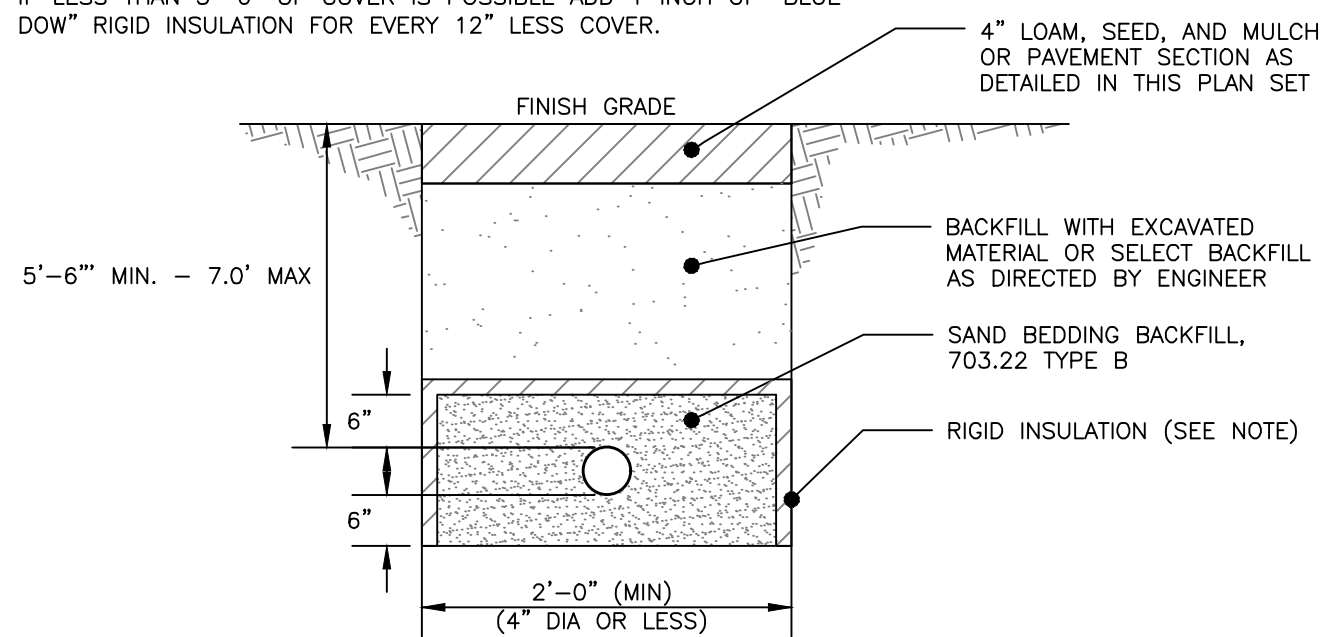


SIDE VIEW

TAPPING SLEEVE AND VALVE
NOT TO SCALE

NOTES:

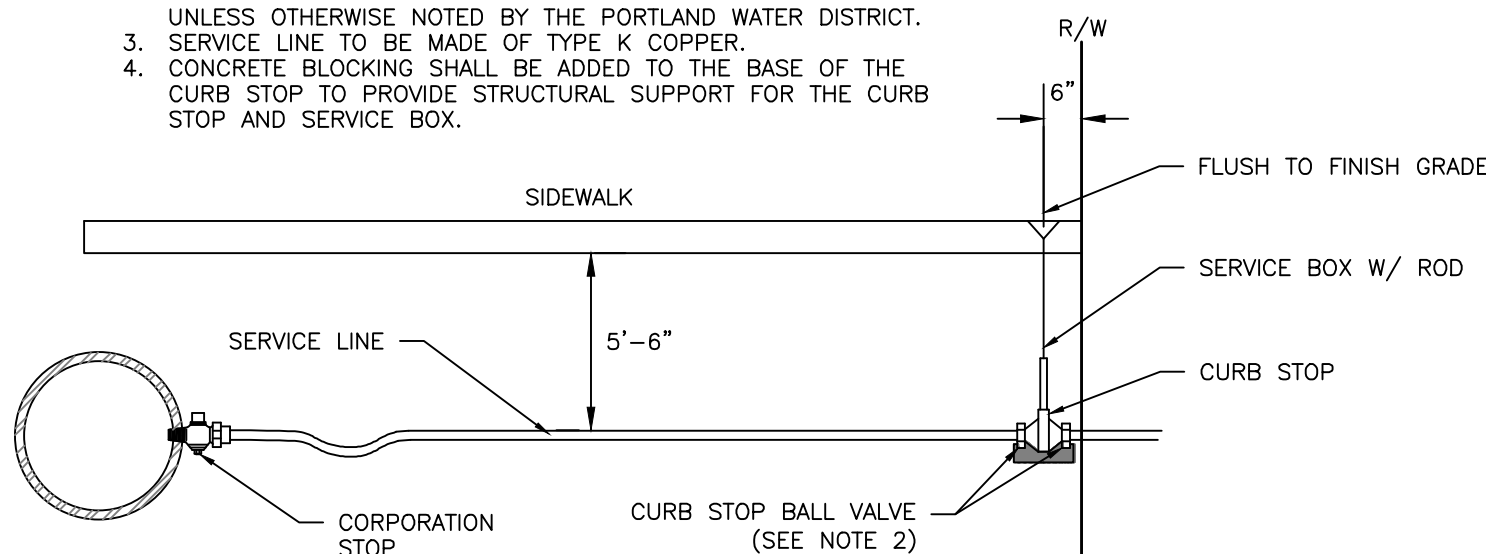
- THE WATER TRENCH SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PORTLAND WATER DISTRICT STANDARD DETAILS & SPECIFICATIONS.
- IF LESS THAN 5'-6" OF COVER IS POSSIBLE ADD 1 INCH OF "BLUE DOW" RIGID INSULATION FOR EVERY 12" LESS COVER.



WATER SERVICE TRENCH SECTION DETAIL
NOT TO SCALE

NOTES:

- ALL MATERIALS AND INSTALLATION PROCEDURES MUST COMPLY WITH THE CITY OF PORTLAND WATER DISTRICT (PWD) SPECIFICATIONS.
- CURB STOP BALL VALVE TO BE MADE OF COPPER OR BRASS UNLESS OTHERWISE NOTED BY THE PORTLAND WATER DISTRICT.
- SERVICE LINE TO BE MADE OF TYPE K COPPER.
- CONCRETE BLOCKING SHALL BE ADDED TO THE BASE OF THE CURB STOP TO PROVIDE STRUCTURAL SUPPORT FOR THE CURB STOP AND SERVICE BOX.



TYPICAL SERVICE CONNECTION
NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
PRELIM. APP.	WHS
SLODA APP.	WHS
FINAL APP.	WHS
	DATE
	2/2/17
	3/2/17
	4/18/17
DRAWING NAME:	
PROJECT NAME:	
CLIENT:	

UTILITY DETAILS - 1

RIVERSIDE SELF-STORAGE CONTAINERS

547 RIVERSIDE LLC

59 MOODY STREET, PORTLAND, MAINE 04101

ACORN ENGINEERING, INC.

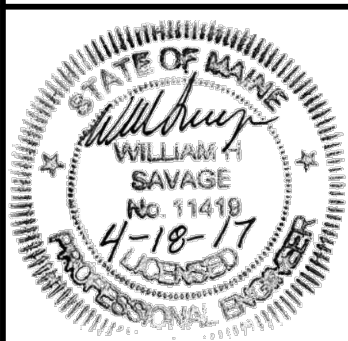
ACORN ENGINEERING, INC. ENGINEERING, INC.

FOR YOUR OWN PROTECTION, ANY CONTRACTOR OR USER OF THESE PLANS SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR THE ACCURACY OF THE PLANS. THE USER OF THESE PLANS SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE PLANS.

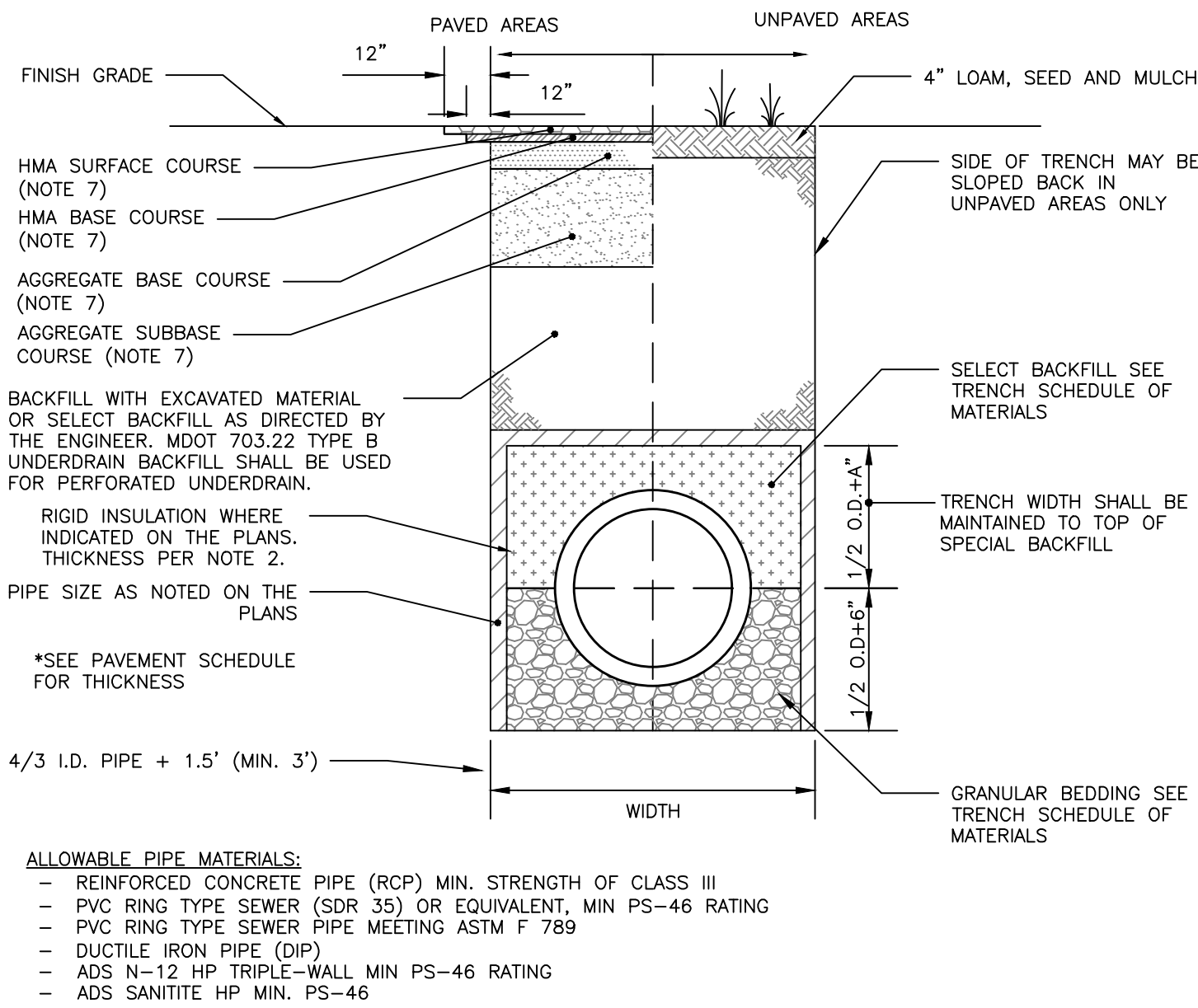
158 DANFORTH ST. PORTLAND, MAINE 04102

(207) 775-2655

FILE:	1080_CIVIL
JN:	1080
SCALE:	NTS
DESIGNED BY:	WHS
DRAWN BY:	MCB
CHECKED BY:	WHS



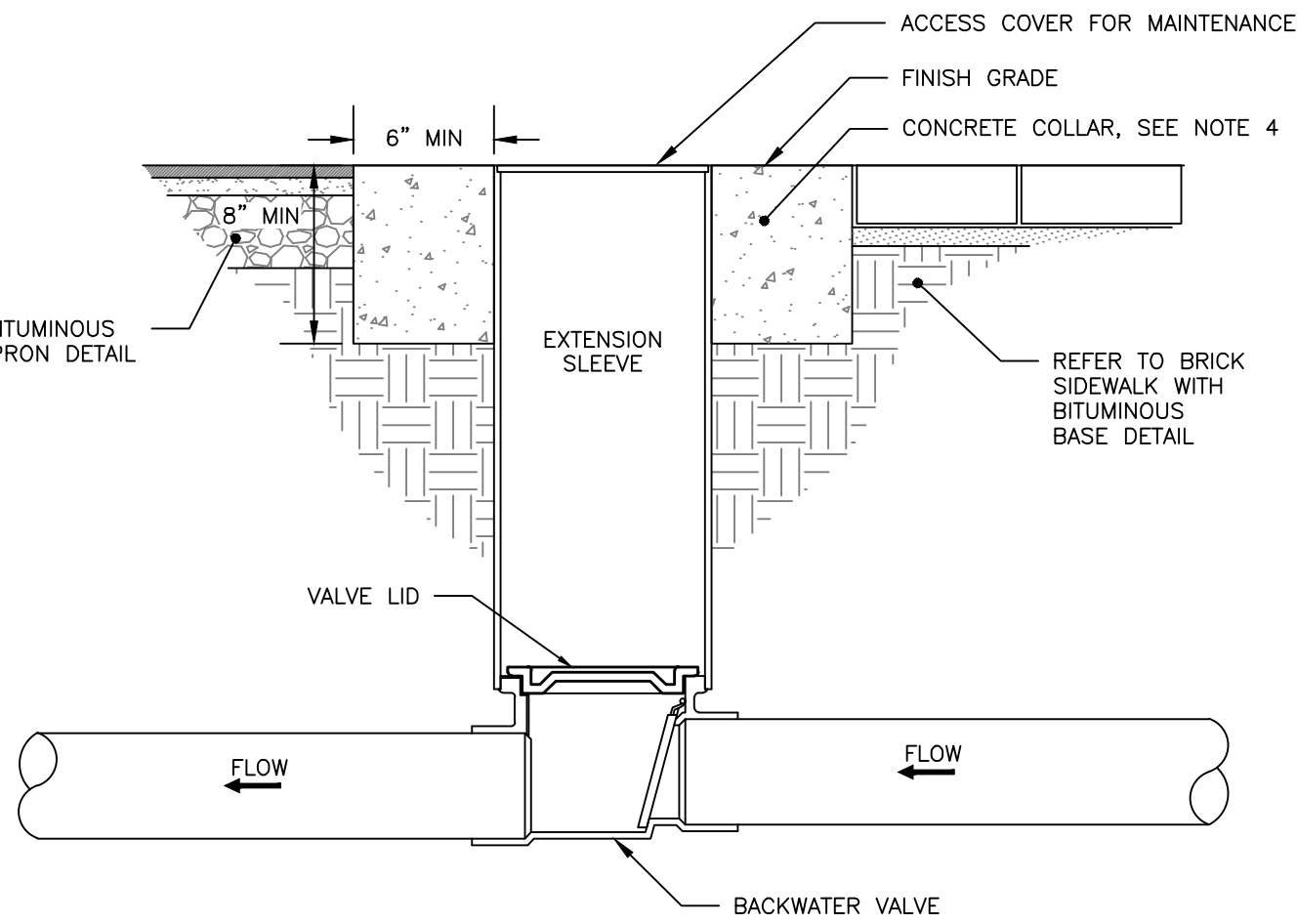
DRAWING NO.
C-42



INTERNAL STORM DRAIN AND SEWER TYPICAL TRENCH SECTION
NOT TO SCALE

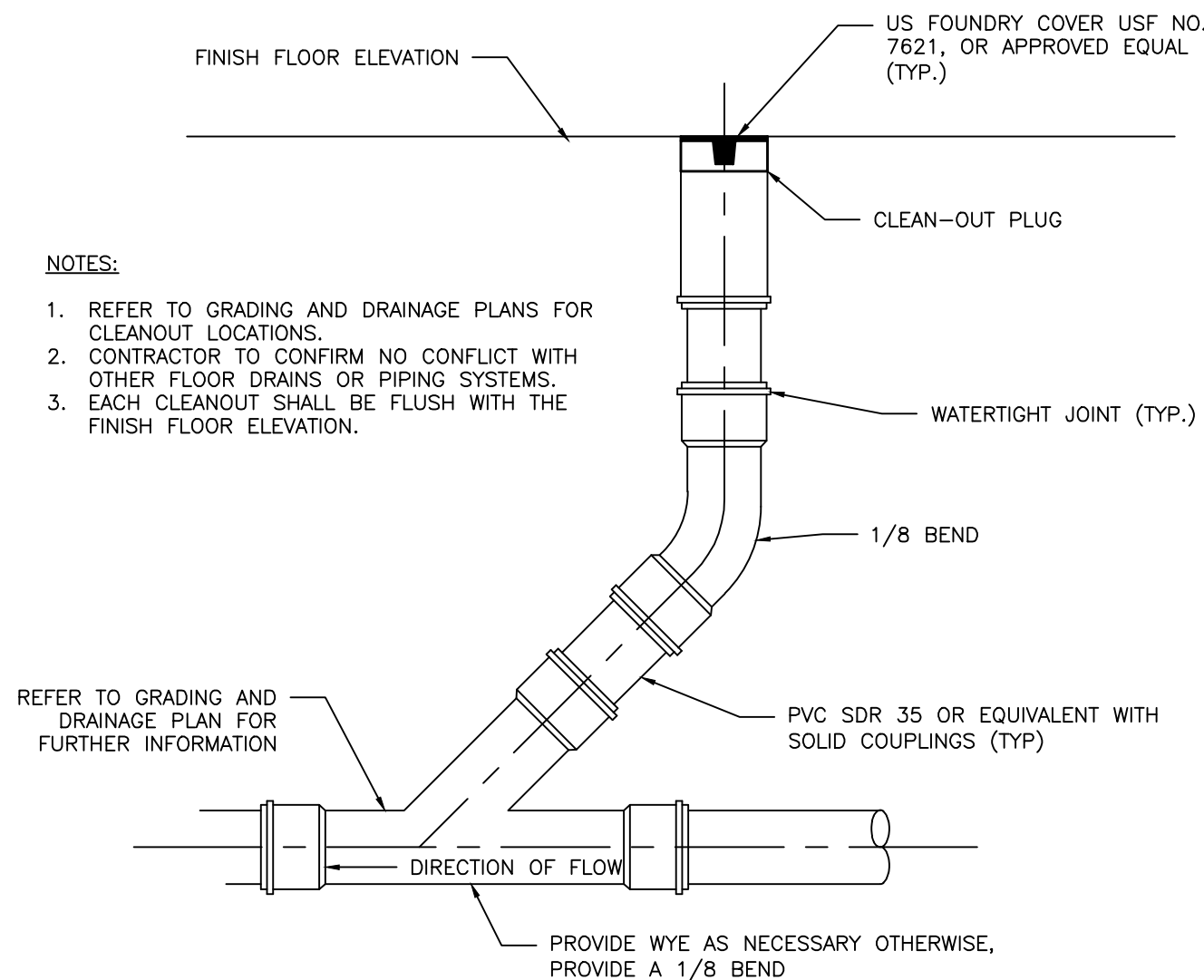
SCHEDULE OF MATERIALS		
TYPE OF PIPE	GRANULAR BEDDING	SELECT BACKFILL
CMP DUCTILE IRON RCP	MDOT 703.22 TYPE B UD BACKFILL	MDOT 703.22 TYPE B UD BACKFILL
PVC/HDPE	MDOT 703.22 TYPE C 3/4" CRUSHED STONE	MDOT 703.22 TYPE B UD BACKFILL
CMP	MDOT 703.22 TYPE C 3/4" CRUSHED STONE	MDOT 703.22 TYPE C 3/4" CRUSHED STONE

- NOTES:
- BRACING AND SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION TO BE THE RESPONSIBILITY OF THE CONTRACTOR.
 - STORM DRAIN COVER BETWEEN 2' AND 3' SHALL INCLUDE 4" OF RIGID INSULATION, COVER BETWEEN 3' AND 4' SHALL INCLUDE 2" RIGID INSULATION, OTHER UTILITIES; ADD 2" OF RIGID INSULATION FOR EACH FOOT ABOVE MINIMUM DEPTH.
 - INSTALL WARNING TAPE DIRECTLY ABOVE UTILITIES AT THE TOP OF SUBGRADE.
 - MINIMUM COVER
 - 2'-0" - STORM DRAIN
 - 5'-0" - SEWER
 - NO TREES SHALL BE PLANTED WITHIN 5' OF A SEWER PIPE OR SERVICE.
 - THIS DETAIL SHALL BE APPLIED ONLY TO DRAINAGE PIPE TRENCHES OUTSIDE OF THE CITY OF PORTLAND ROW. THICKNESS AS NOTED BY SURFACE DETAILS.



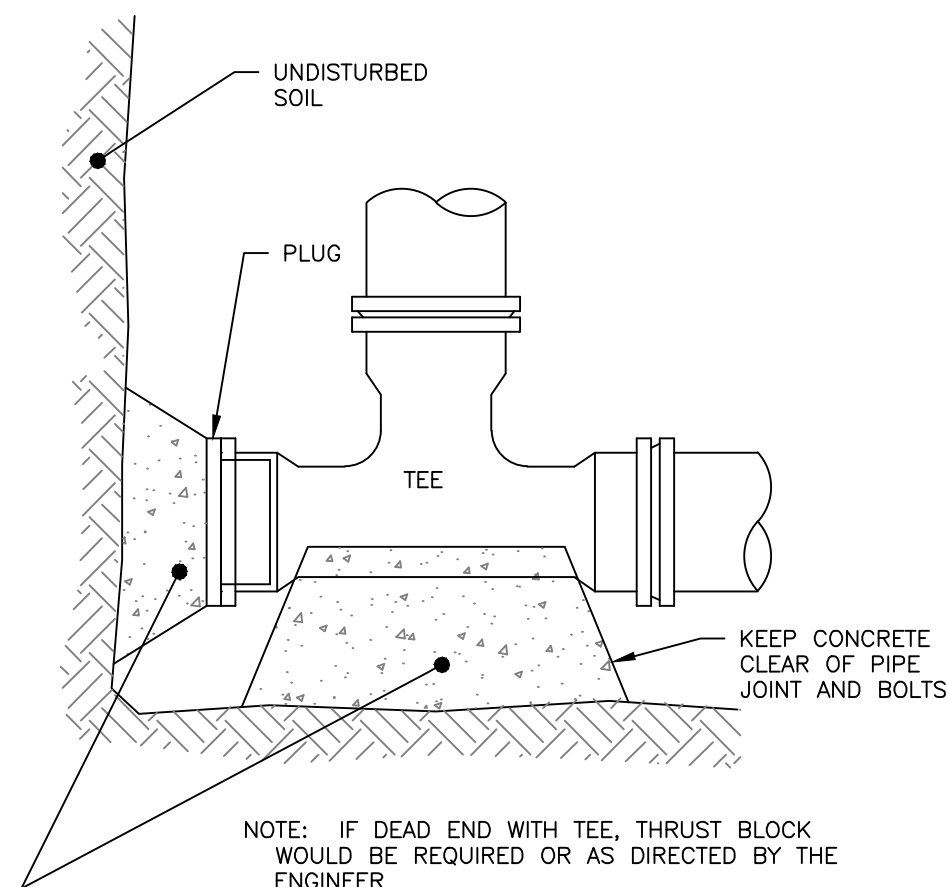
- NOTES:
- BACKFLOW VALVE TO BE PROVIDED BY AGRI DRAIN CORPORATION OR AN APPROVED EQUAL.
 - VALVE TO BE INSTALLED TO MANUFACTURER'S SPECIFICATIONS AND COMPLY WITH RULES AND REGULATIONS AS OUTLINED IN SECTION 2 OF THE CITY OF PORTLAND TECHNICAL MANUAL.
 - VALVE SHALL BE INSTALLED WITH A VALVE BOX AND COVER TO PROVIDE EASY ACCESS AND MAINTENANCE; VALVE COVER SHALL STATE 'SEWER' ON LID FLUSH TO SURFACE. REFER TO VALVE & BOX COVER DETAIL FOR ADDITIONAL INFORMATION.
 - CONCRETE COLLAR AT A MINIMUM 24-HOUR COMPRESSIVE STRENGTH OF 3,000 PSI.

BACKFLOW VALVE ASSEMBLY
NOT TO SCALE

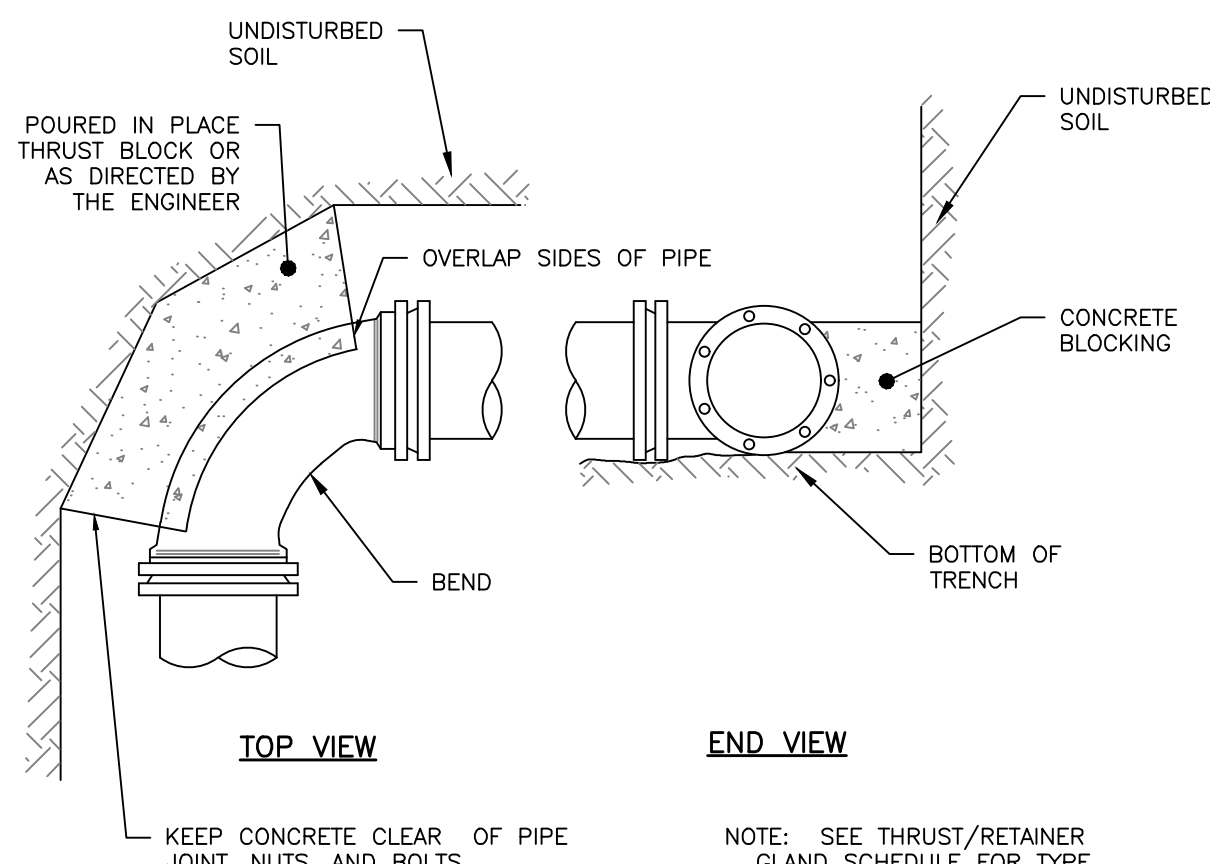


- NOTES:
- REFER TO GRADING AND DRAINAGE PLANS FOR CLEANOUT LOCATIONS.
 - CONTRACTOR TO CONFIRM NO CONFLICT WITH OTHER FLOOR DRAINS OR PIPING SYSTEMS.
 - EACH CLEANOUT SHALL BE FLUSH WITH THE FINISH FLOOR ELEVATION.

CLEANOUT DETAIL
NOT TO SCALE



END SECTION



TOP VIEW

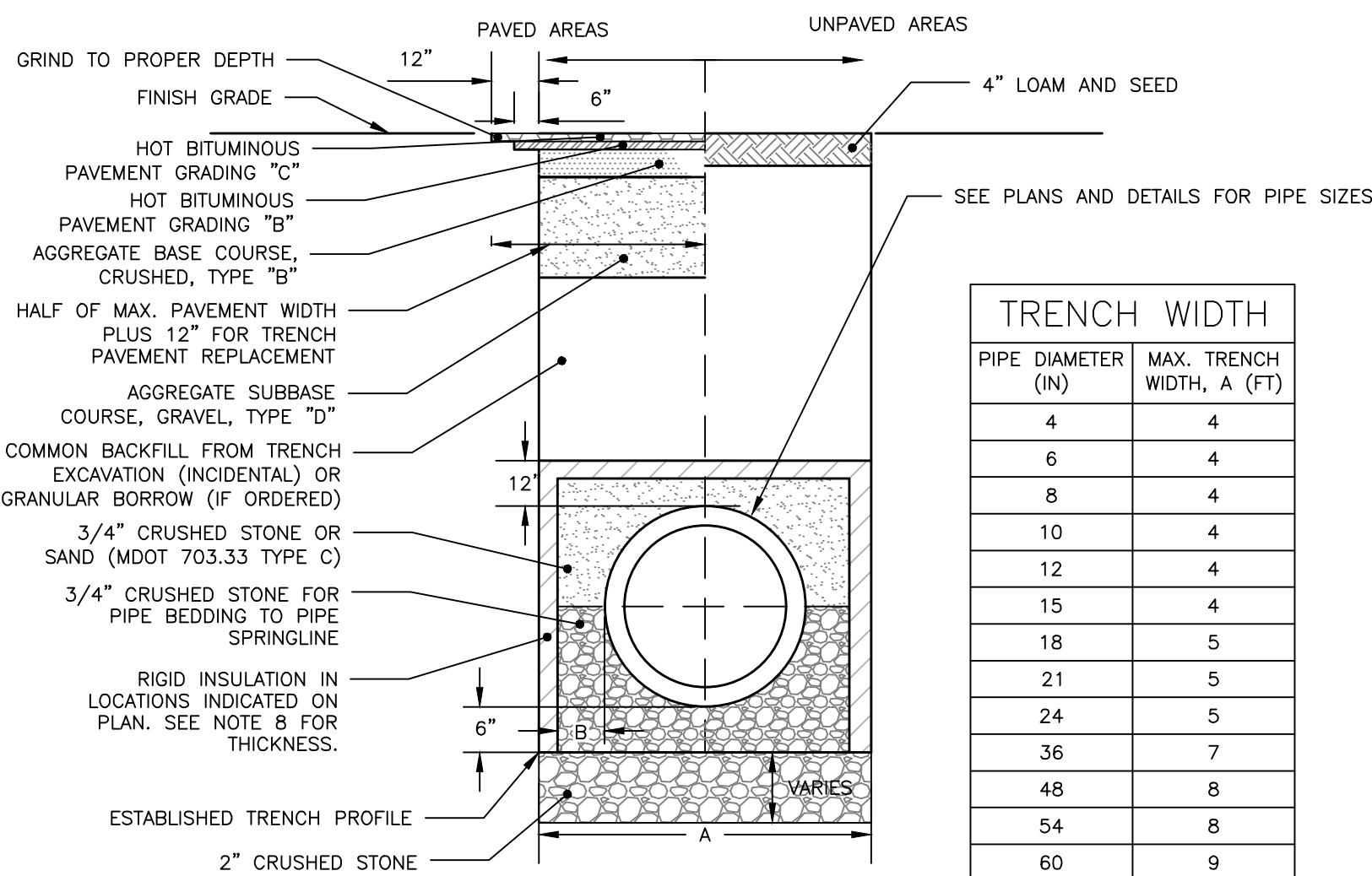
END VIEW

REGULAR BEND

THRUST BLOCKING
NOT TO SCALE

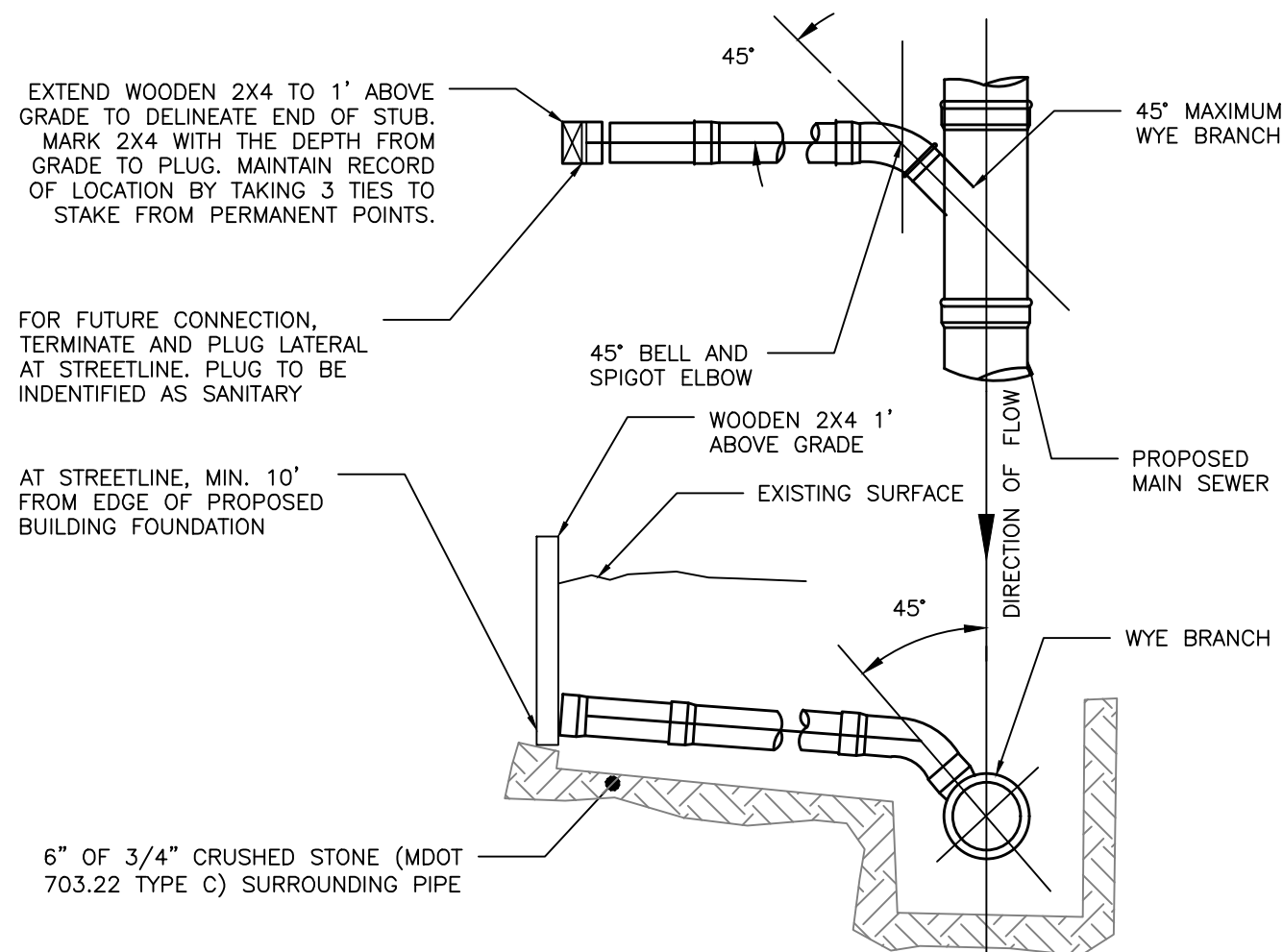
DESIGN NOTES:

- ANY ALTERNATE TRENCHING METHODS SHALL BE APPROVED IN ADVANCE BY THE CITY.
- ALL CONSTRUCTION METHODS SHALL CONFORM TO THE CITY OF PORTLAND TECHNICAL STANDARDS FIGURE II-2.
- BRACING & SHEETING OR OTHER TRENCH PROTECTION TO BE PROVIDED TO MEET APPLICABLE STATE AND O.S.H.A. SAFETY STANDARDS. ALL SUCH TRENCH PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- WHERE APPLICABLE, PERFORATIONS IN STORM DRAIN (PERF. SD) SHALL BE ORIENTED UP.
- ALL STORM DRAINS SHALL BE PVC SDR 35 MIN PS-46 RATING OR IN ACCORDANCE WITH CITY OF PORTLAND TECHNICAL MANUAL - SECTION 2 - SANITARY SEWER AND STORM DRAIN - PART 2.5.2.
- IN PAVED AREAS, DEPTHS OF GRAVEL AND HOT MIX ASPHALT PAVEMENT SHALL MATCH THE GREATER OF EXISTING CONDITIONS OR THE REQUIREMENTS FOR THE CORRESPONDING STREET CLASSIFICATION.
- THIS DETAIL SHALL BE APPLIED ONLY TO PIPE TRENCHES WITHIN OF THE CITY OF PORTLAND R.O.W.
- STORM DRAIN COVER BETWEEN 2' AND 3' SHALL INCLUDE 4" OF RIGID INSULATION, COVER BETWEEN 3' AND 4' SHALL INCLUDE 2" RIGID INSULATION, OTHER UTILITIES; ADD 2" OF RIGID INSULATION FOR EACH FOOT ABOVE MINIMUM DEPTH.
- DEPTH OF BITUMINOUS PAVEMENT AND AGGREGATE COURSES SHALL BE DETERMINED BY STREET CLASSIFICATION.
- DIMENSION B SHALL BE SUFFICIENT TO ALLOW CRUSHED STONE BEDDING TO BE PLACED AND COMPACTED UNDER THE HAUNCHES OF THE PIPE; BUT IN ALL CASES DIMENSION B SHALL BE AT LEAST 9".
- DIMENSION A IS THE MAXIMUM WIDTH ALLOWED FOR CALCULATING PAY QUANTITIES UNDER GRANULAR BORROW, CRUSHED STONE, STRUCTURAL EARTH EXCAVATION, AND STRUCTURAL ROCK EXCAVATION. DIMENSION A SHALL BE BASED ON PIPE DIAMETER D, AS SET FORTH IN THE TABLE BELOW.



TRENCH WIDTH	
PIPE DIAMETER (IN)	MAX. TRENCH WIDTH, A (FT)
4	4
6	4
8	4
10	4
12	4
15	4
18	5
21	5
24	5
36	7
48	8
54	8
60	9

CITY OF PORTLAND TYPICAL PIPE TRENCH DETAIL
NOT TO SCALE



SEWER TEE/WYE CONNECTION DETAIL
NOT TO SCALE

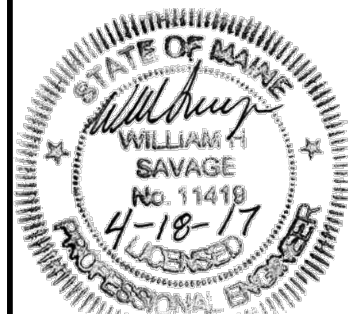
PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
PRELIM. APP.	WHS
SLODA APP.	WHS
FINAL APP.	WHS

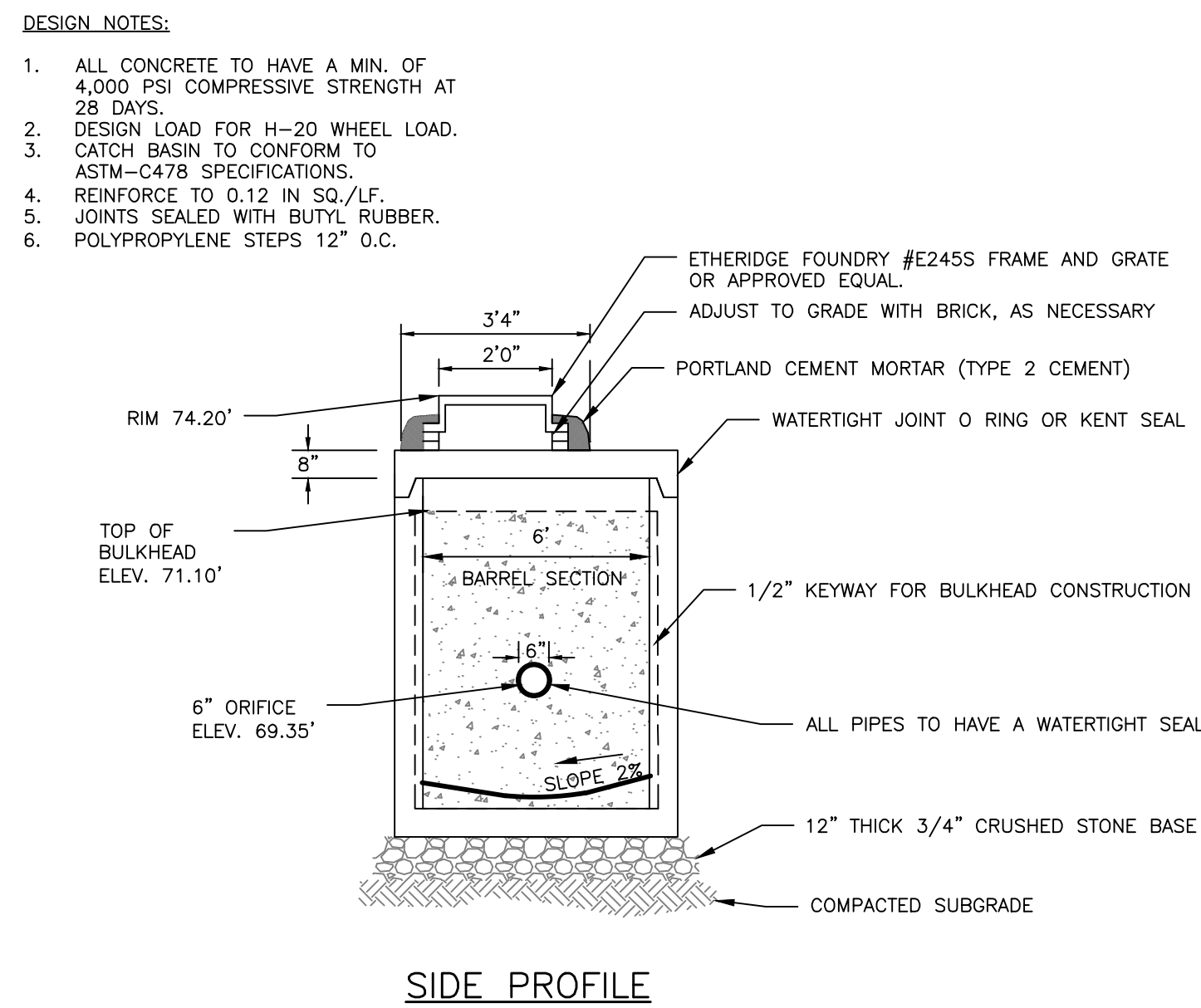
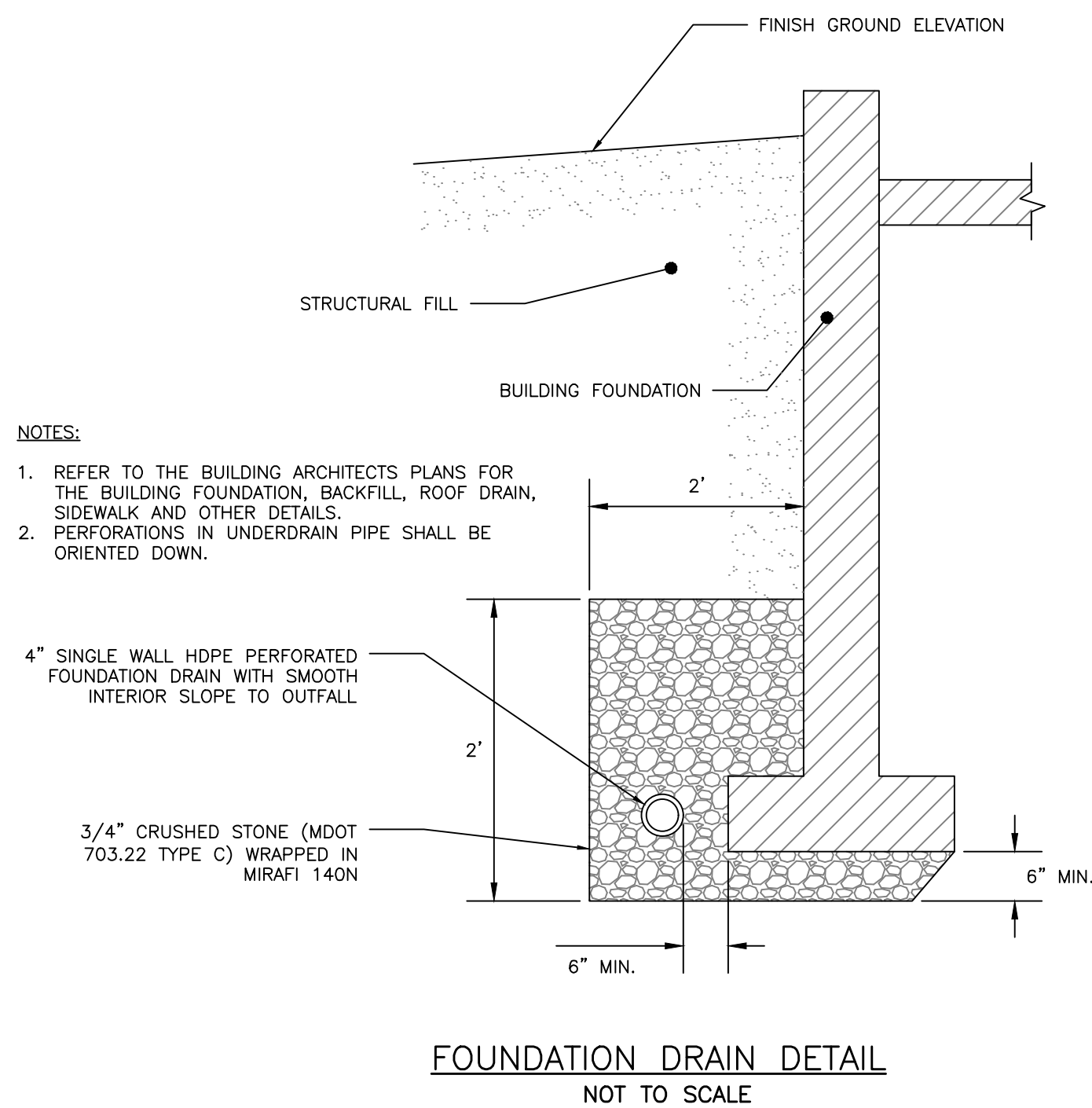
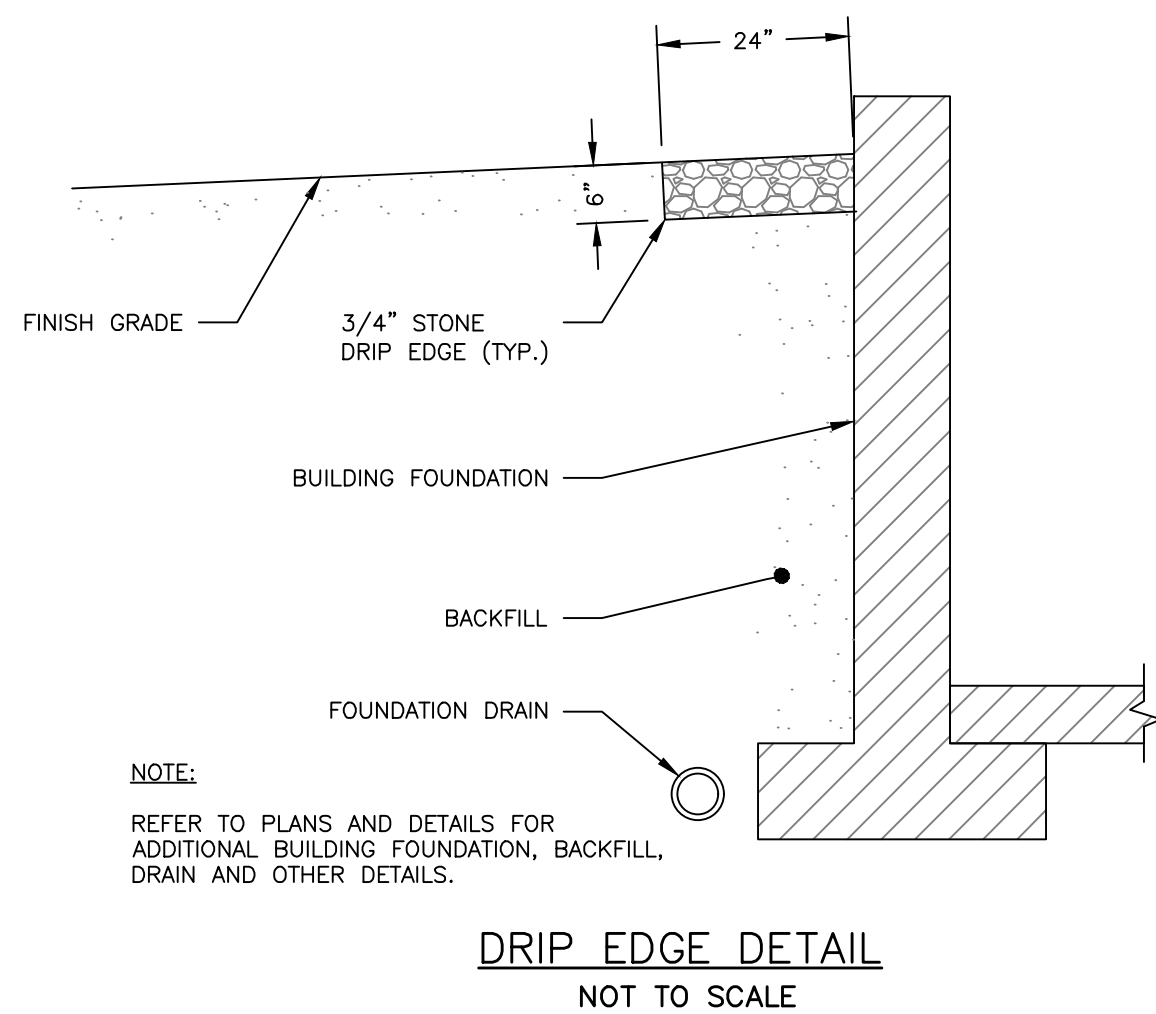
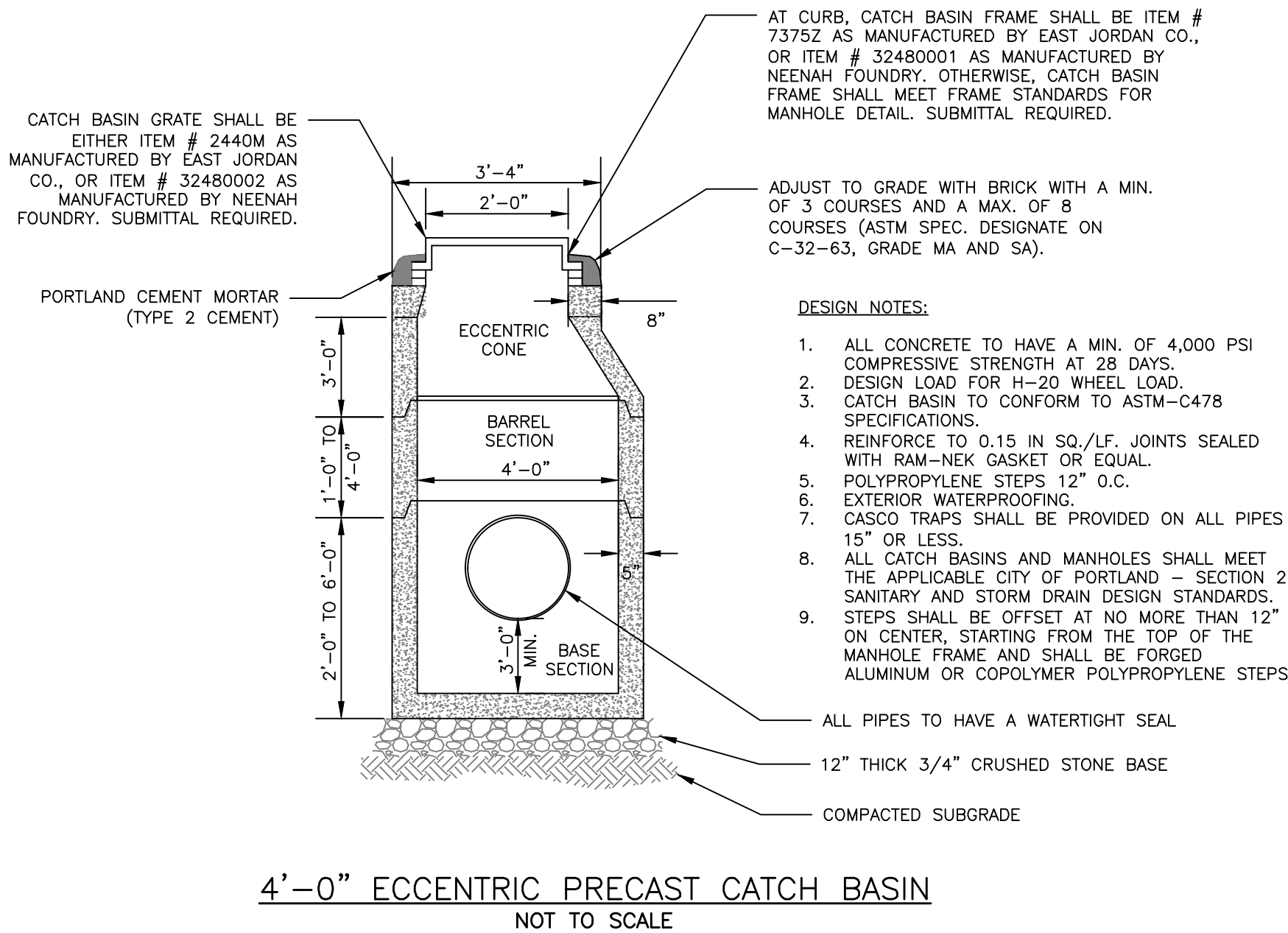
UTILITY DETAILS - 2	
RIVERSIDE SELF-STORAGE CONTAINERS	
547 RIVERSIDE LLC	
59 MOODY STREET, PORTLAND, MAINE 04101	

DRAWING NAME:	
PROJECT NAME:	
CLIENT:	

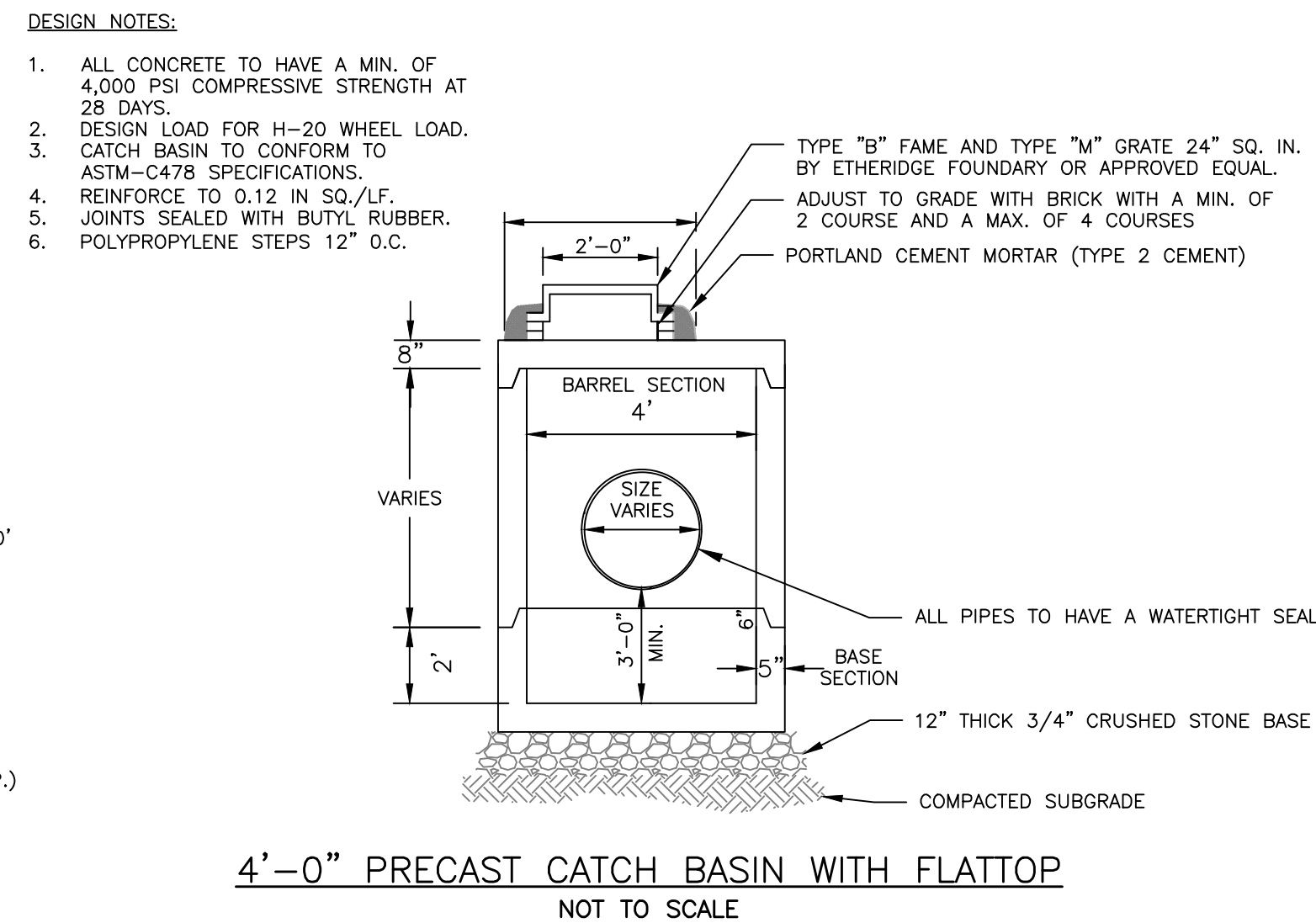
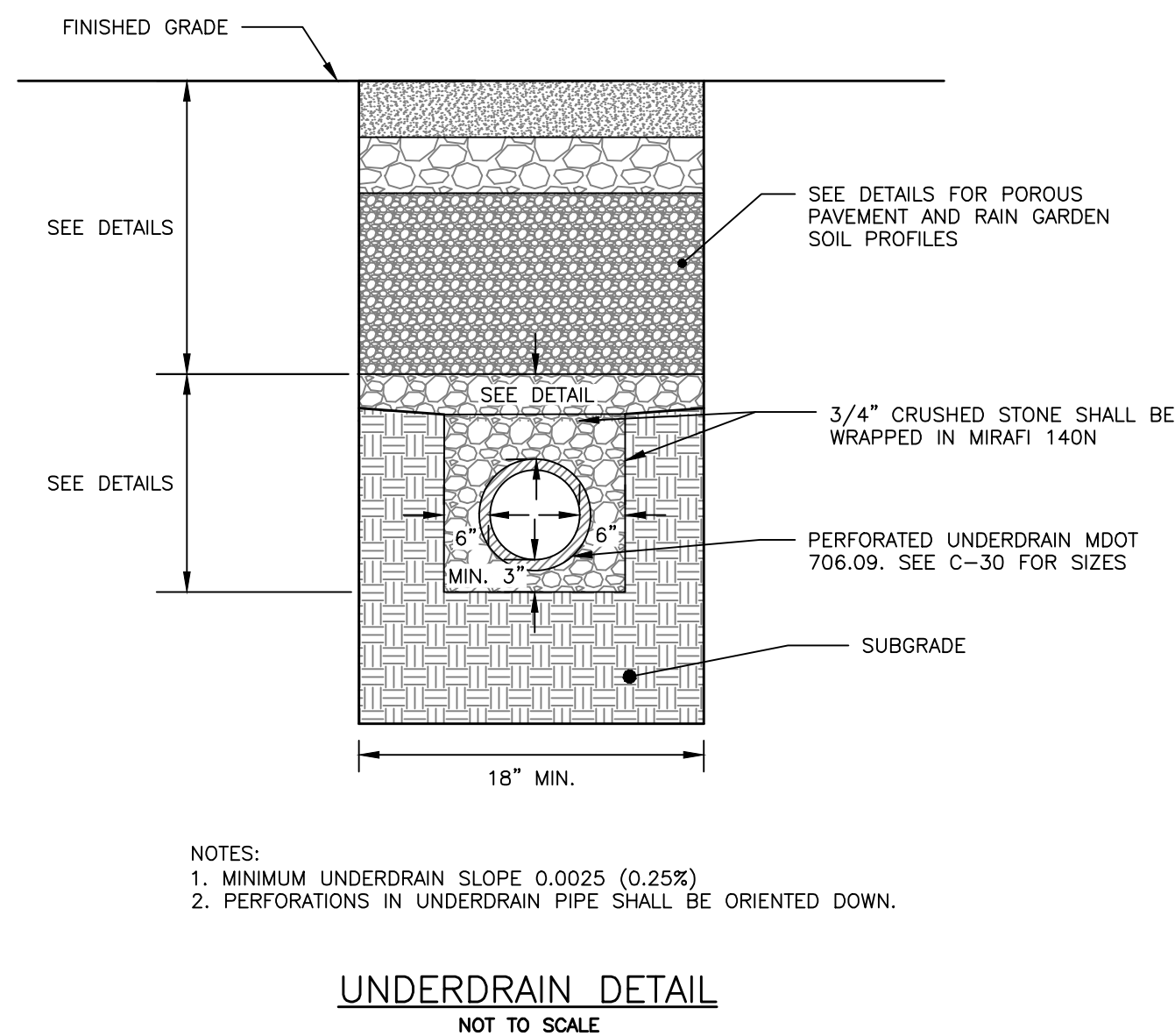
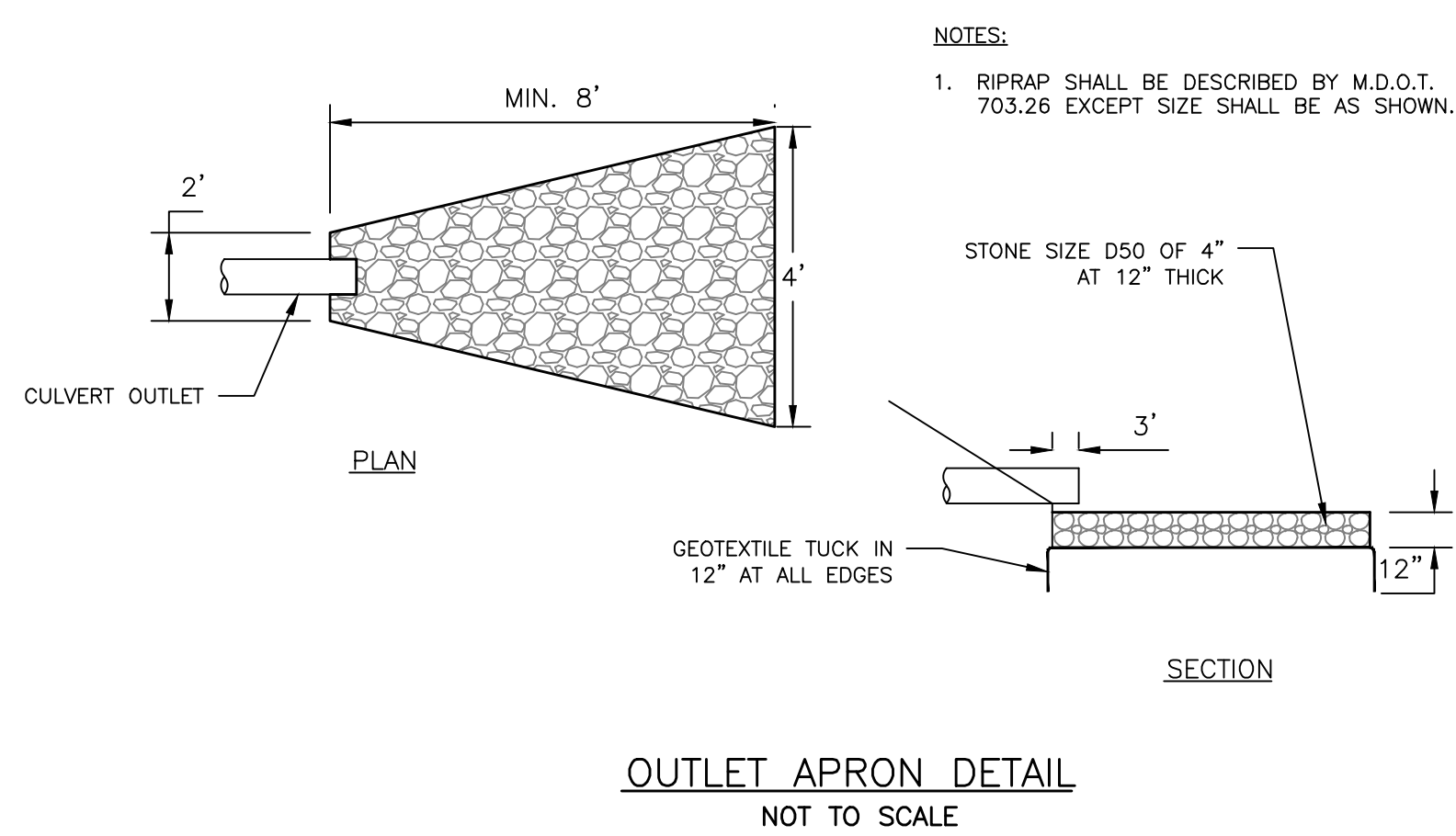
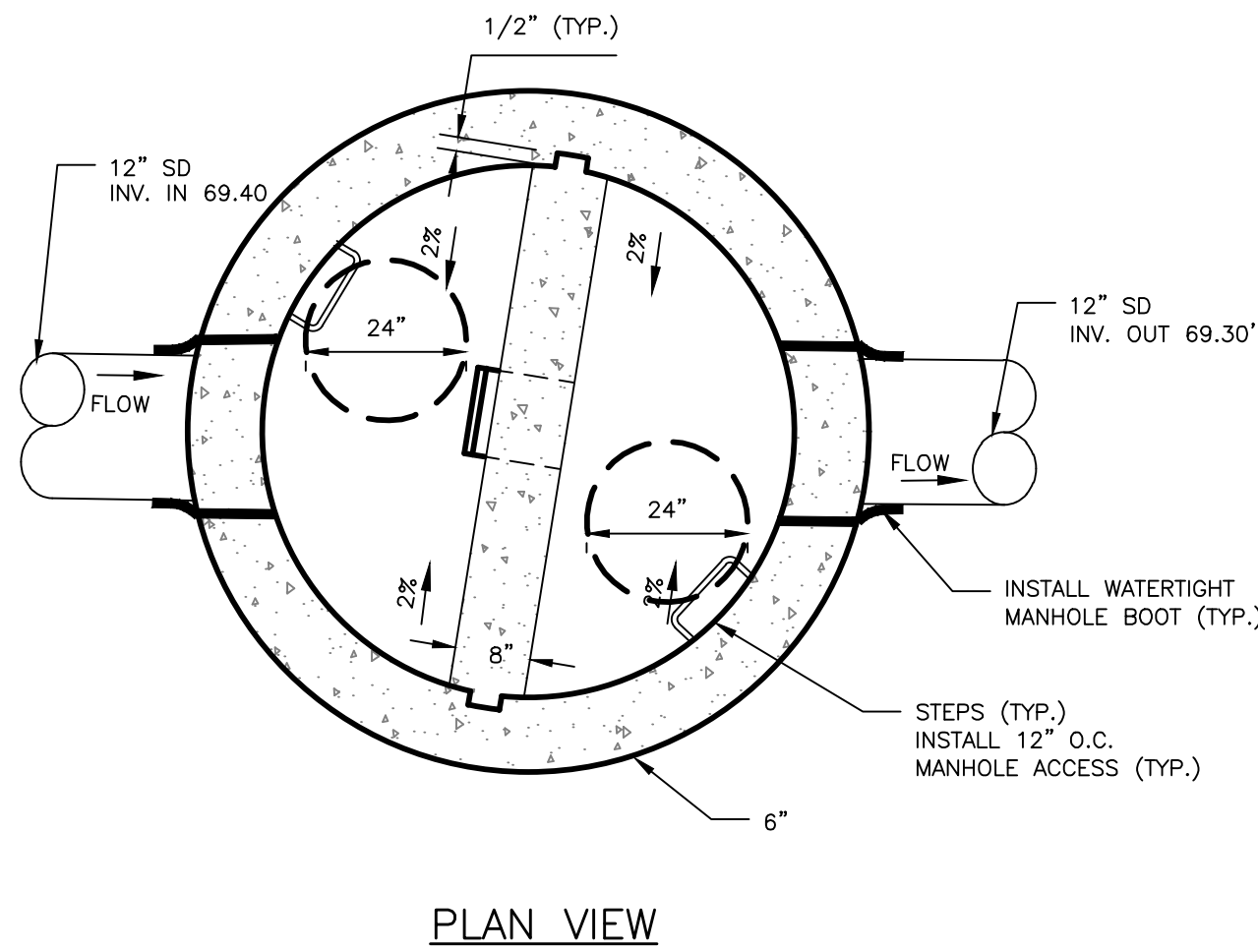
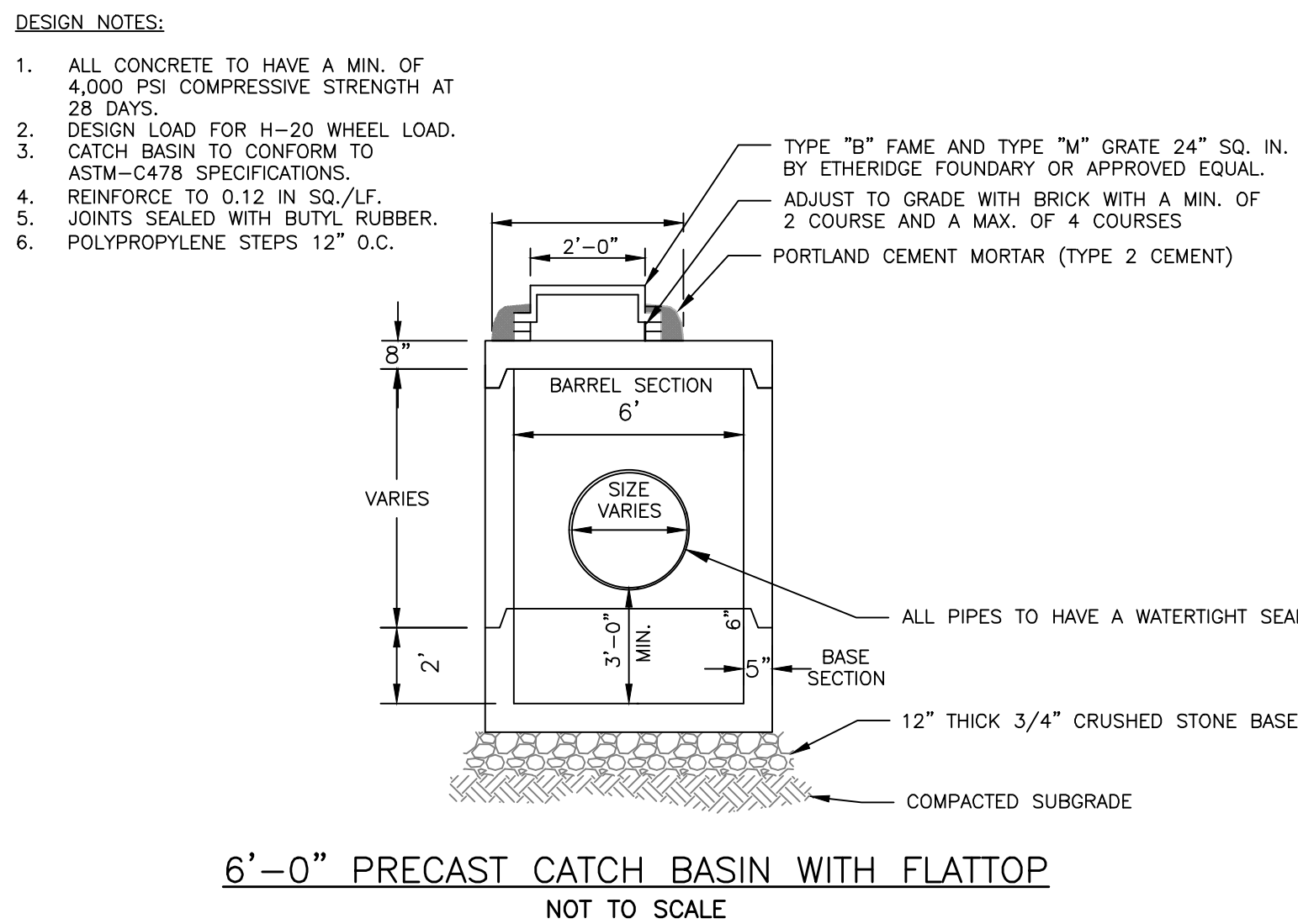
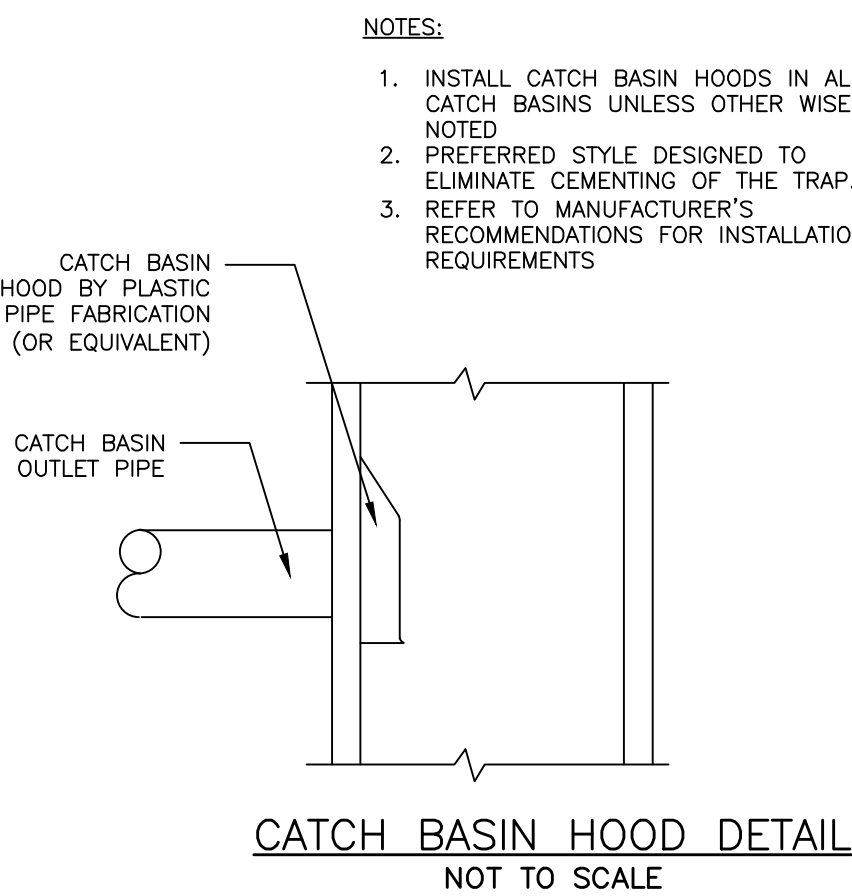
FILE:	1080_CIVIL
JN:	1080
SCALE:	NTS
DESIGNED BY:	WHS
DRAWN BY:	MCB
CHECKED BY:	WHS



DRAWING NO.
C-43



OUTLET CONTROL STRUCTURE
NOT TO SCALE



PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

ISSUED FOR	BY
PRELIM. APP.	WHS
SLODA APP.	WHS
FINAL APP.	WHS

DATE	BY
2/2/17	WHS
2/2/17	WHS
2/18/17	WHS

DRAINAGE DETAILS

RIVERSIDE SELF-STORAGE CONTAINERS

547 RIVERSIDE LLC

59 MOODY STREET, PORTLAND, MAINE 04101

CLIENT:

DRAWING NAME:

PROJECT NAME:

ENGINEERING, INC.

ACORN ENGINEERING, INC.

158 DANFORTH ST. PORTLAND, MAINE 04102

(207) 775-2655

FILE: 1080_CIVIL

JN: 1080

SCALE: NTS

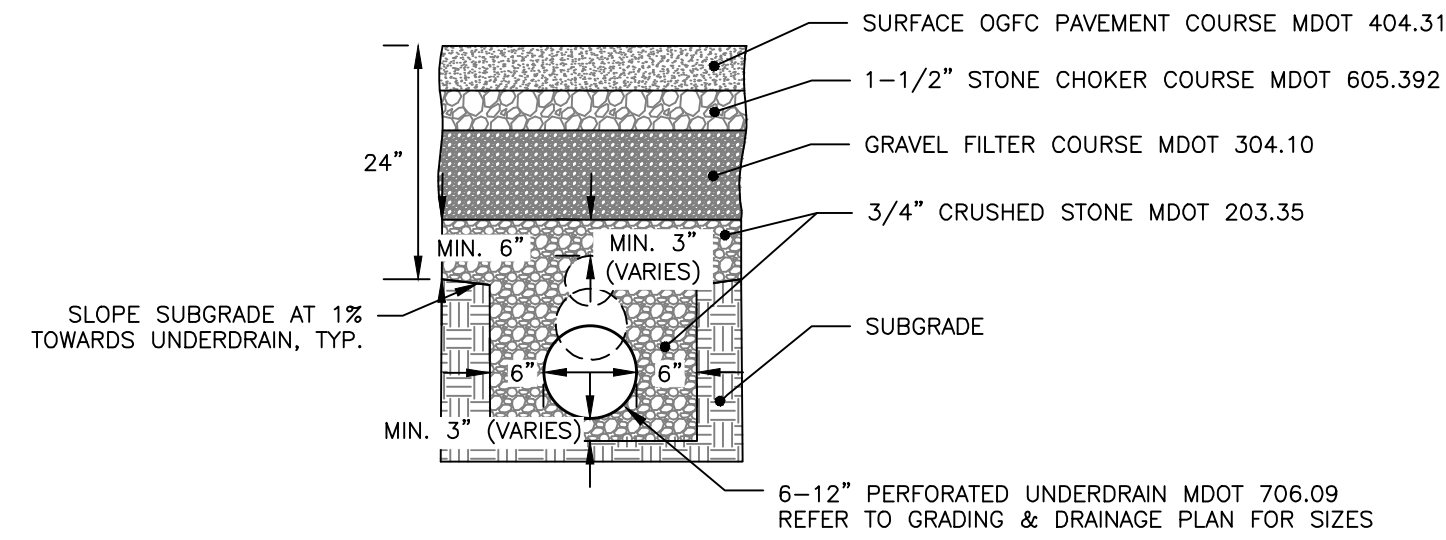
DESIGNED BY: WHS

DRAWN BY: MCB

CHECKED BY: WHS

DRAWING NO. C-44

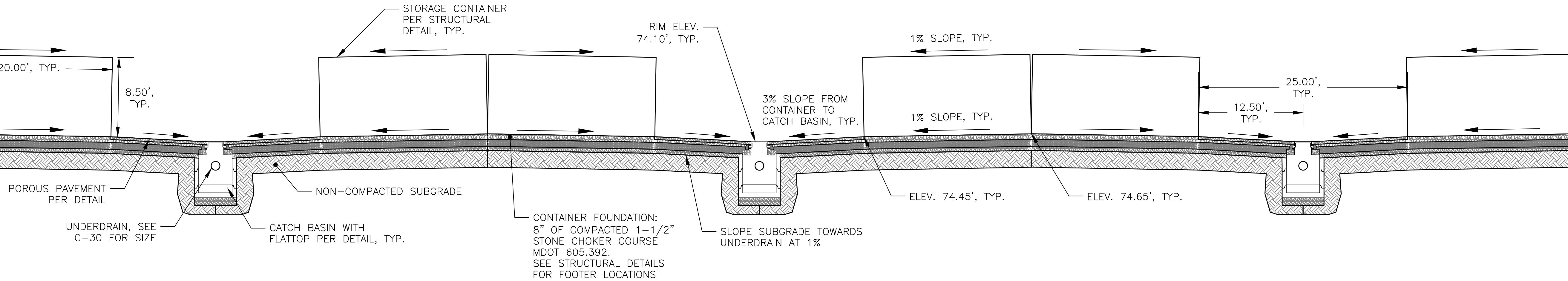
1. MAXIMUM CROSS-SLOPE FROM FFE TO CATCH BASIN RIM SHALL BE 3%. SEE SHEET C-30 FOR OTHER CROSS-SLOPES.



- NOTES:**
1. DO NOT COMPACT SUBGRADE.
 2. COMPACT THE GRAVEL FILTER COURSE TO 95% MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D-1557. DO NOT OVER-COMPACT.
 3. PAVING OPERATIONS SHALL BE SUBJECT TO THE MINIMUM REQUIREMENTS OF THE MAINE DOT SECTION 401.19 QUALITY CONTROL METHOD D, UNLESS WAIVED BY THE OWNER.
 4. THE ATMOSPHERIC TEMPERATURE MUST BE 60°F OR HIGHER FOR PLACEMENT OF OGFC.
 5. PLACEMENT OF OGFC SHALL BE COMPLETED NO LATER THAN SEPTEMBER 30, 2017.
 6. THE ACCEPTABLE TEMPERATURE RANGE FOR OGFC IS 290°F–340°F. ANY OGFC OUTSIDE OF THIS RANGE SHALL NOT BE PLACED.

	THICKNESS OF LAYERS
STANDARD	LAYERS
4"	OPEN-GRADED FRICTION COURSE MDOT 404.31
4"	1-1/2" STONE CHOKER COURSE MDOT 605.392
10"	GRAVEL FILTER COURSE MDOT 304.10 TYPE D (4-7% FINES)
VARIES - MIN. 6"	3/4" CRUSHED STONE MDOT 203.35

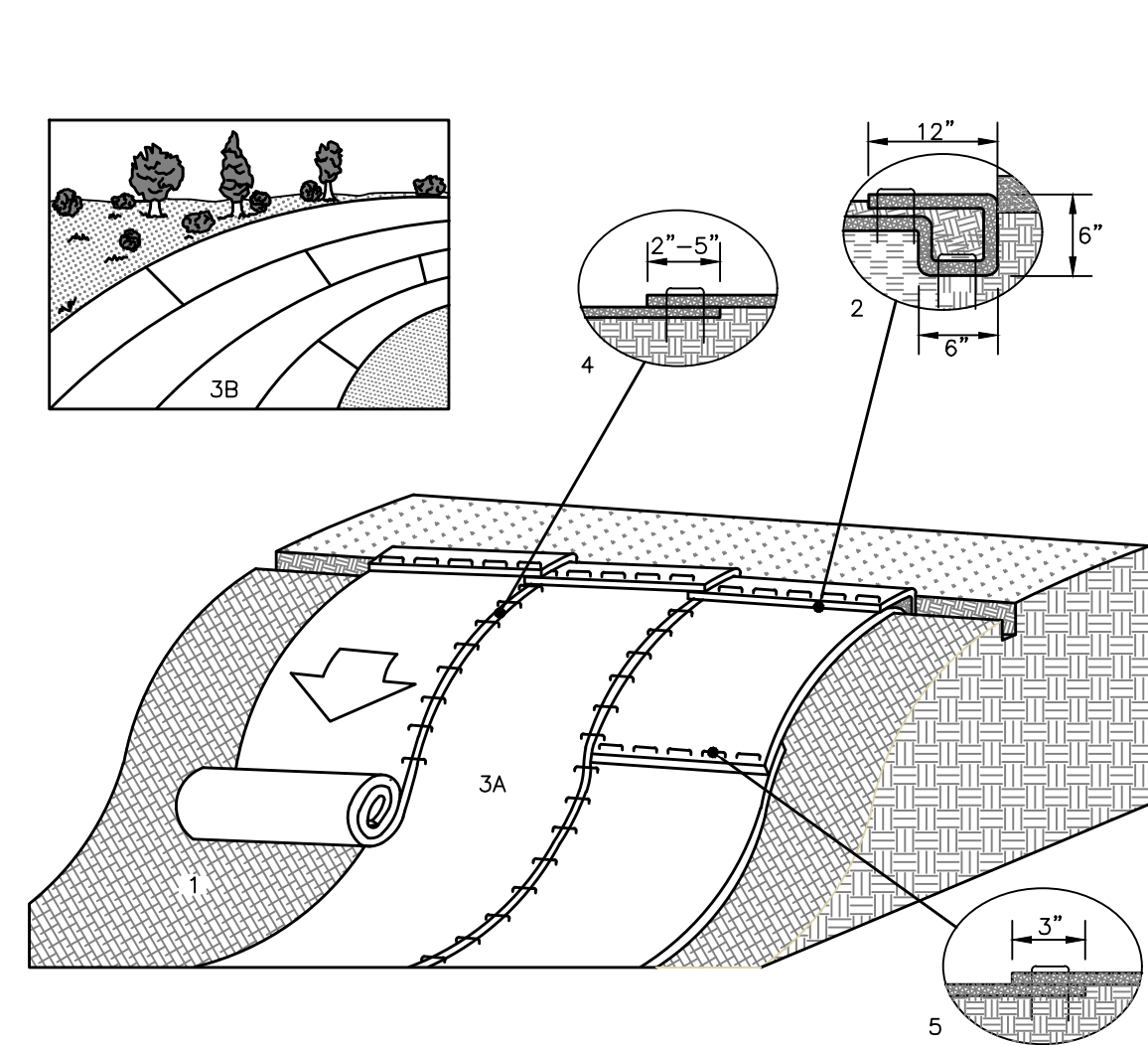
POROUS PAVEMENT PROFILE
NOT TO SCALE



FACILITY CROSS SECTION
NOT TO SCALE

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

[illegible]



EROSION CONTROL BLANKET SLOPE INSTALLATION

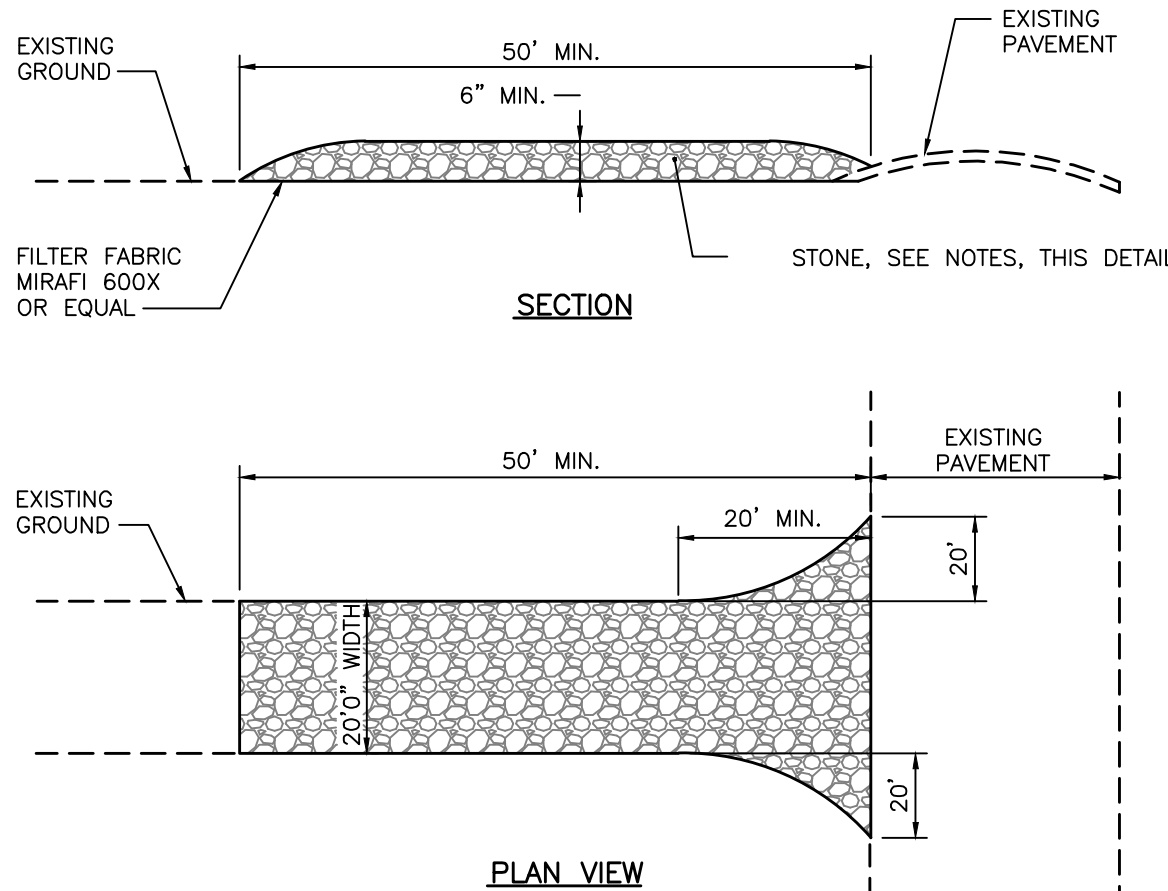
NOT TO SCALE

- SLOPE INSTALLATION DETAIL**
1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (ECB), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE ECB IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF ECB EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE ECB WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO THE COMPACTED SOIL AND FOLD THE REMAINING 12" PORTION OF ECB BACK OVER THE SEED AND COMPACTED SOIL. SECURE ECB OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE ECB.
 3. ROLL THE ECB (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE. ECB WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL ECB MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE.
 4. THE EDGES OF PARALLEL ECB MUST BE STAPLED WITH APPROXIMATELY 2" - 5" OVERLAP DEPENDING ON THE ECB TYPE.
 5. CONSECUTIVE ECB SPICED DOWN THE SLOPE MUST BE END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE ECB WIDTH.

***NOTE:**
IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE ECB.

NOTES:

1. CONTRACTOR SHALL ADD STONE TO ENTRANCE AS MUD/SILT MATERIAL ACCUMULATES
2. STONE SHALL BE 2"-3" COARSE AGGREGATE
3. CONSTRUCTION ENTRANCE SHALL BE GRADED TO NOT ALLOW ANY STORMWATER TO BE CONVEYED OFF SITE. IN SITUATIONS WHERE THIS IS NOT POSSIBLE, ANY STORMWATER CONVEYED OFFSITE SHALL BE TREATED OR RETAINED IN A MANNER APPROVED BY ENGINEER.
4. WHEN NECESSARY, ON-SITE VEHICLES SHALL HAVE THEIR WHEELS CLEANED PRIOR TO LEAVING SITE.
5. CONSTRUCTION ENTRANCE SHALL BE GRADED IN A MANNER THAT PREVENTS TRACKING OF SEDIMENTS ONTO PUBLIC RIGHT-OF-WAY

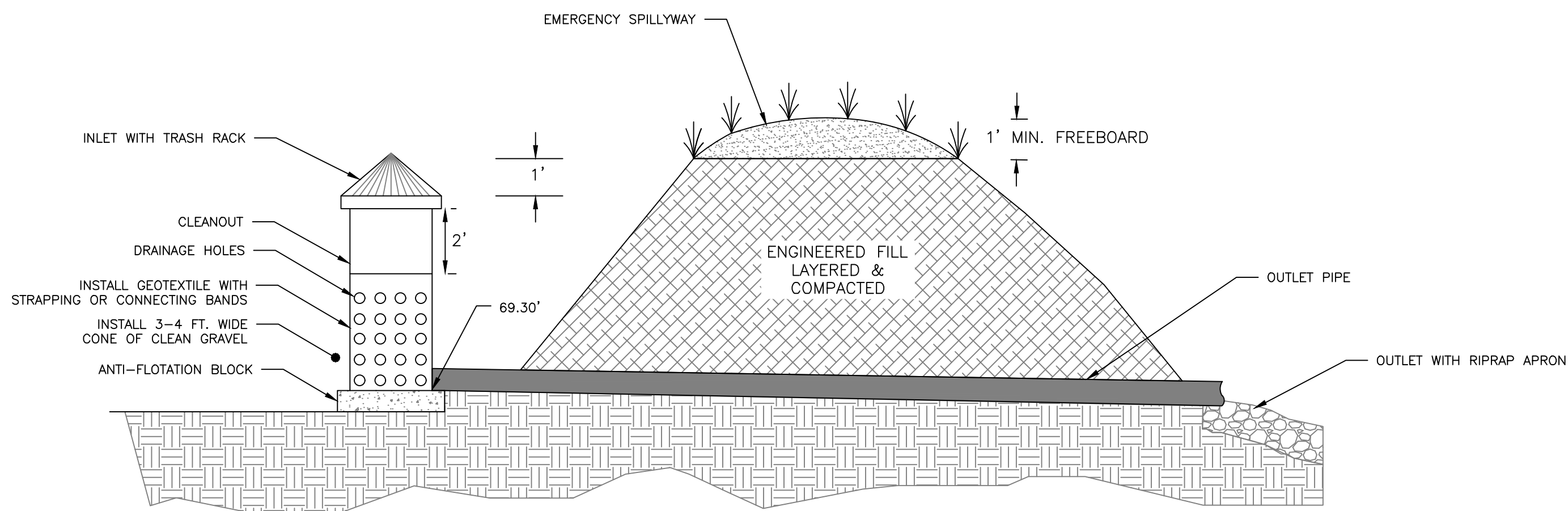


STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

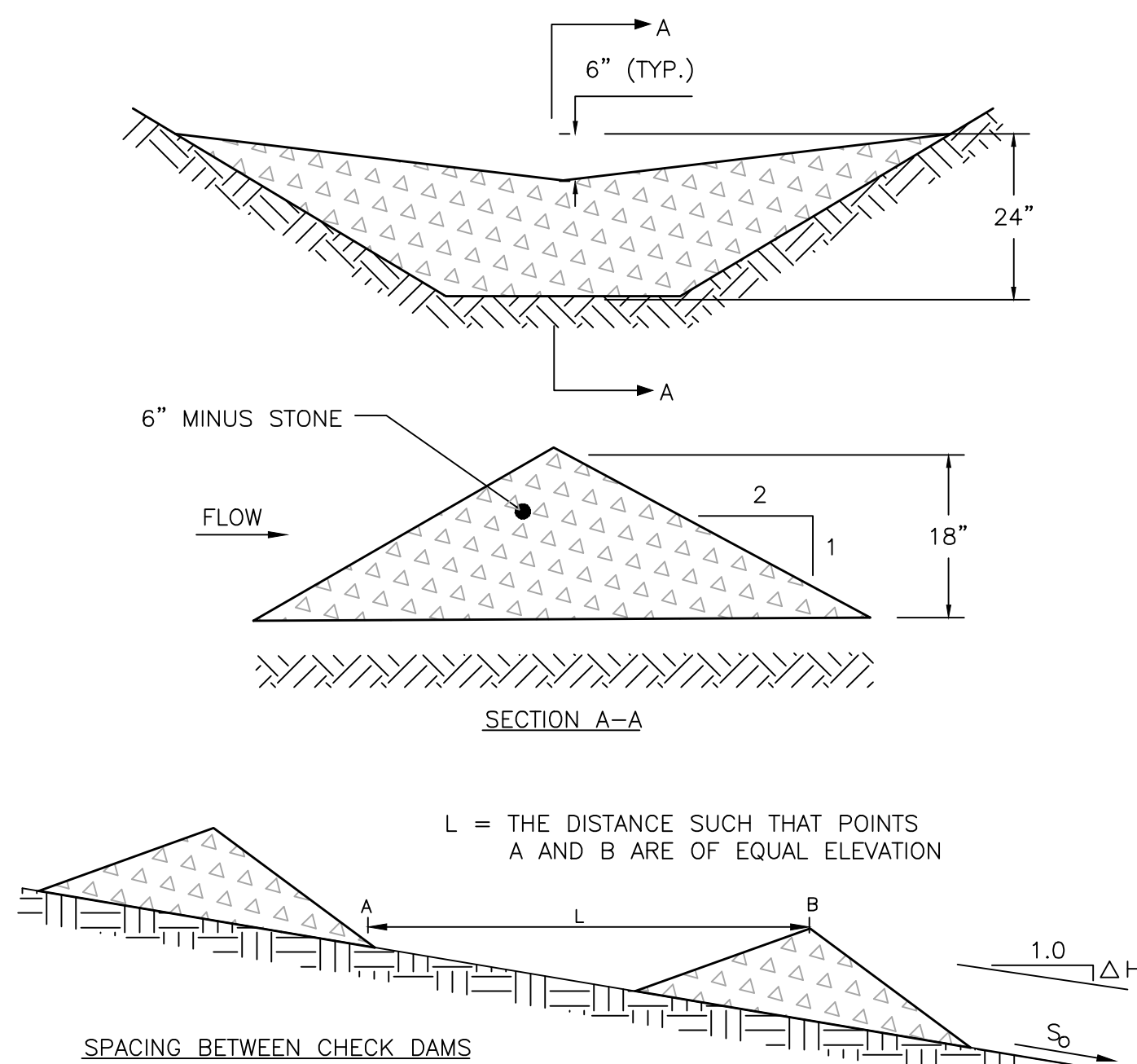
GENERAL NOTES:

1. EMBANKMENT FOUNDATION AREA SHALL BE CLEARED OF STUMPS, ROOTS, BRUSH, ETC. TO PROVIDE GOOD CONTACT.
2. BASINS ARE TO BE CONSTRUCTED BEFORE THE GROUND IS FROZEN.
3. ALL NATIVE SOIL IS TO BE SCARIFIED BEFORE THE FIRST LAYER OF FILL.
4. ALL EMBANKMENTS NOT SUPPORTED BY RIPRAP SHALL BE COVERED WITH EROSION CONTROL MIX IN ACCORDANCE WITH THE EROSION AND SEDIMENTATION CONTROL PLAN.



SEDIMENTATION BASIN CROSS-SECTION

NOT TO SCALE



STONE CHECK DAM

NOT TO SCALE

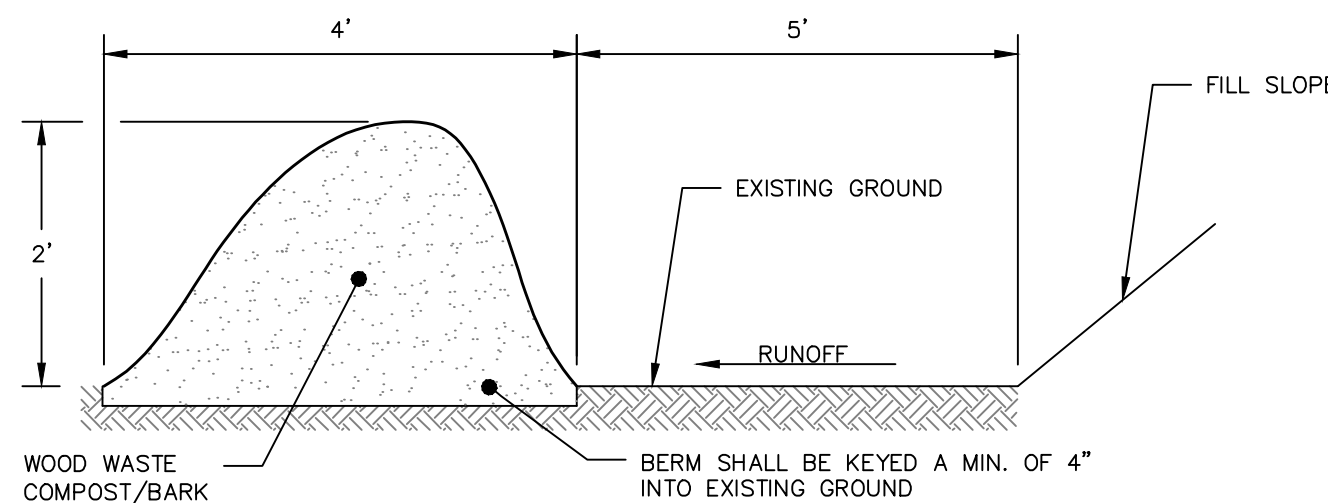
SPACING BETWEEN CHECK DAMS

S ₀ (FT./FT.)	L (FT.)
0.020	75
0.030	50
0.040	40
0.050	30
0.080	20
0.100	10

PERMIT LEVEL
NOT ISSUED FOR
CONSTRUCTION

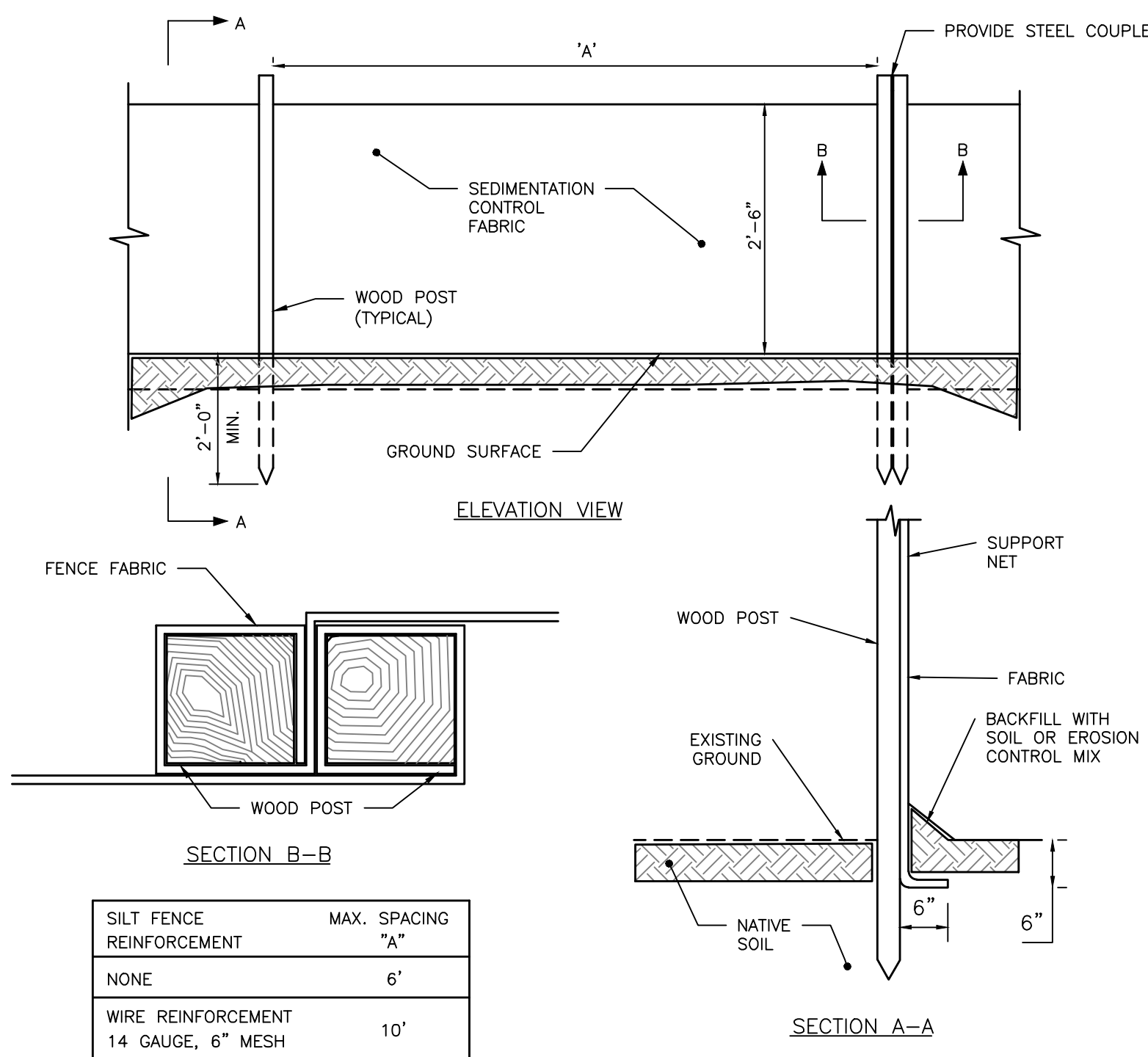
NOTES:

1. THE EROSION CONTROL MIX SHALL CONFORM TO THE FOLLOWING STANDARDS AND IN ACCORDANCE WITH THE MAINE DEP'S EROSION AND SEDIMENT CONTROL BMPs SECTION B-1:
 - A. THE ORGANIC PORTIONS SHALL BE FIBROUS AND ELONGATED TO ALLOW FOR THE INTERLOCKING OF MATERIAL
 - B. pH = 5.0 - 8.0.
 - C. PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70% TO A MAXIMUM 85% PASSING A 0.75" (3/4") SCREEN.
 - D. THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80 AND 100% DRY WEIGHT BASIS
 - E. NO STONES LARGER THAN 4" IN DIAMETER
 - F. LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
2. THE BERM SHOULD BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR, WHEN NECESSARY THE BERM MAY BE PLACED PERPENDICULAR TO THE SLOPE ALONG THE PROPERTY LINE TO CONTAIN THE SEDIMENT PROVIDED A BERM IS LOCATED AT THE BASE OF THE SLOPE.
3. THE BERM MAY BE USED IN LIEU OF SILTATION FENCE, AT THE TOE OF SHALLOW SLOPES, ON FROZEN GROUND, LEDGE OUT CROPS, VERY ROOTED FORESTED AREA OR AT THE EDGE OF GRAVEL PARKING AREAS.
4. BERMS SHALL REMAIN IN PLACE UNTIL UPSTREAM AREA IS STABILIZED OR 90% CATCH OF VEGETATION IS ATTAINED. BERMS SHALL BE REMOVED OFFSITE OR BY SPREADING SUCH THAT NATIVE EARTH CAN BE SEEN BELOW.



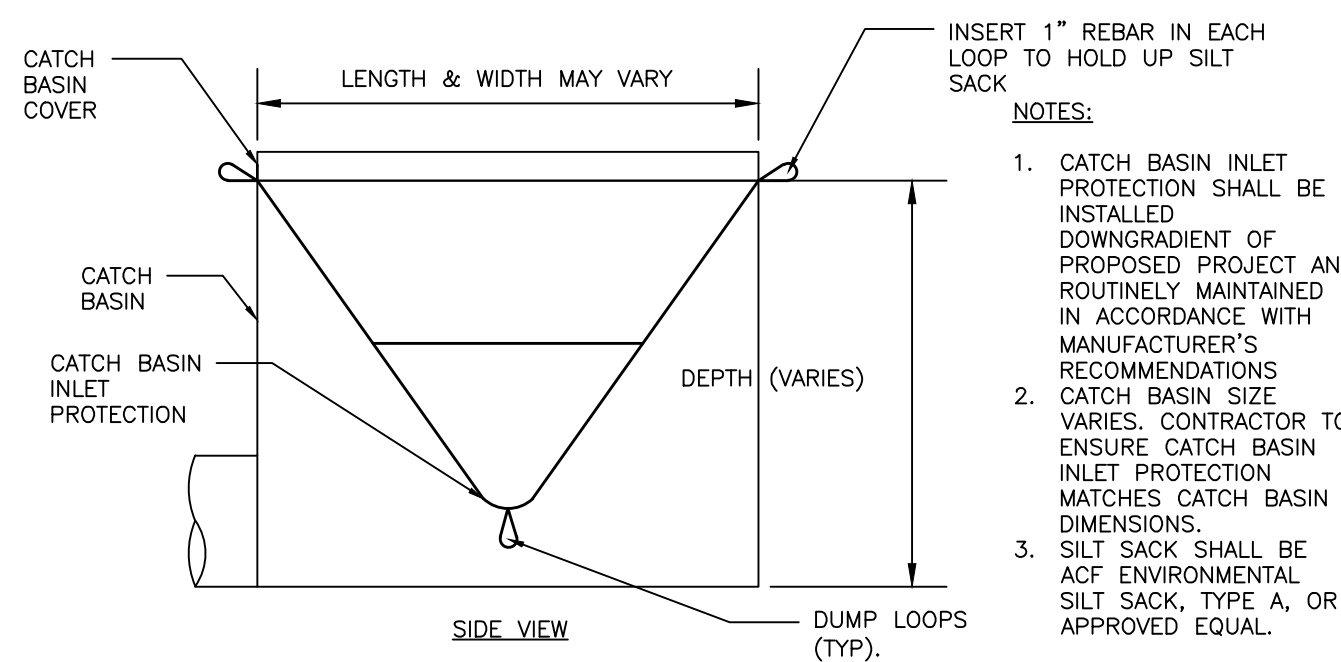
EROSION CONTROL MIX BERM DETAIL

NOT TO SCALE



SILTATION FENCE DETAIL

NOT TO SCALE



CATCH BASIN INLET PROTECTION

NOT TO SCALE

ISSUED FOR	BY
PRELIM. APP.	WHS
SLODA APP.	WHS
FINAL APP.	WHS

EROSION & SEDIMENTATION CONTROL DETAILS

RIVERSIDE SELF-STORAGE CONTAINERS

547 RIVERSIDE LLC

59 MOODY STREET, PORTLAND, MAINE 04101

ENGINEERING, INC.

ACORN ENGINEERING, INC.

158 DANFORTH ST. PORTLAND, MAINE 04102

(207) 775-2655

FILE: 1080_CIVL

JN: 1080

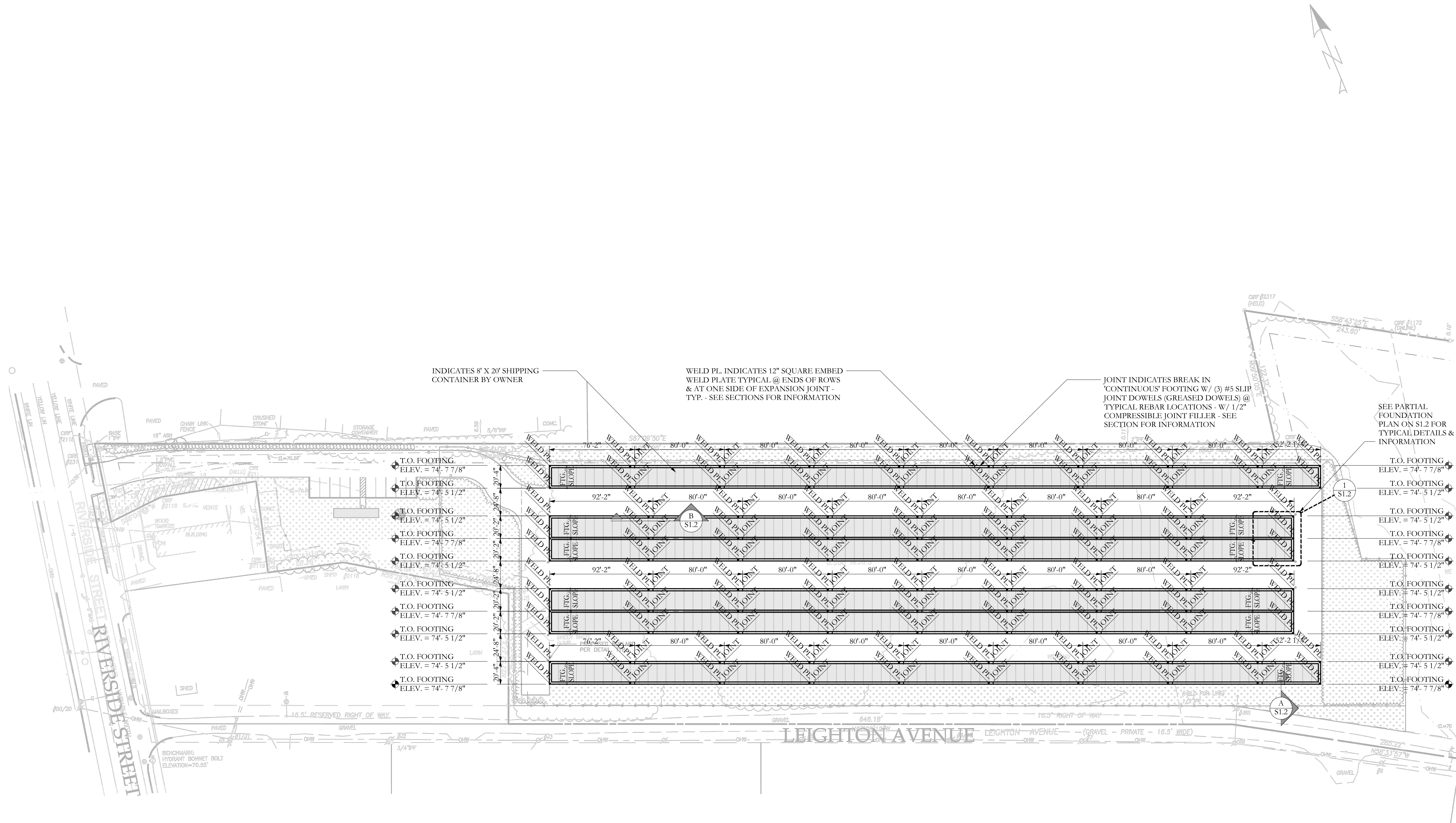
SCALE: NTS

DESIGNED BY: WHS

DRAWN BY: MCB

CHECKED BY: WHS

DRAWING NO. C-47



FOUNDATION PLAN

0' 10' 25' 50' 100'

SCALE 1"=50'-0"

NOTES:

1. ALL FOOTINGS ARE 12" DEEP 2'-0" WIDE x CONT. WITH (3) # 5 BARS CONT. - TYP. UNO

2. VERIFY DIMENSIONS WITH ACTUAL SHIPPING CONTAINERS TO BE USED - TYP.

PRELIMINARY
REVIEW DRAWINGS

Structural Integrity

Consulting Engineers, Inc.

77 Oak Street

Portland, ME, 04101

p. 207-774-4614

f. 866-793-7835

www.structuralintegrity.com

BUILD WITH CONFIDENCE

© 2012 Structural Integrity Consulting Engineers, Inc.

SI Job# 16-0264

RIVERSIDE SELF STORAGE CONTAINERS

Portland, Maine

Document Title:
Shipping Container
Storage Foundation
Drawings

Sheet Title:

PLAN - PIPE SET

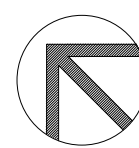
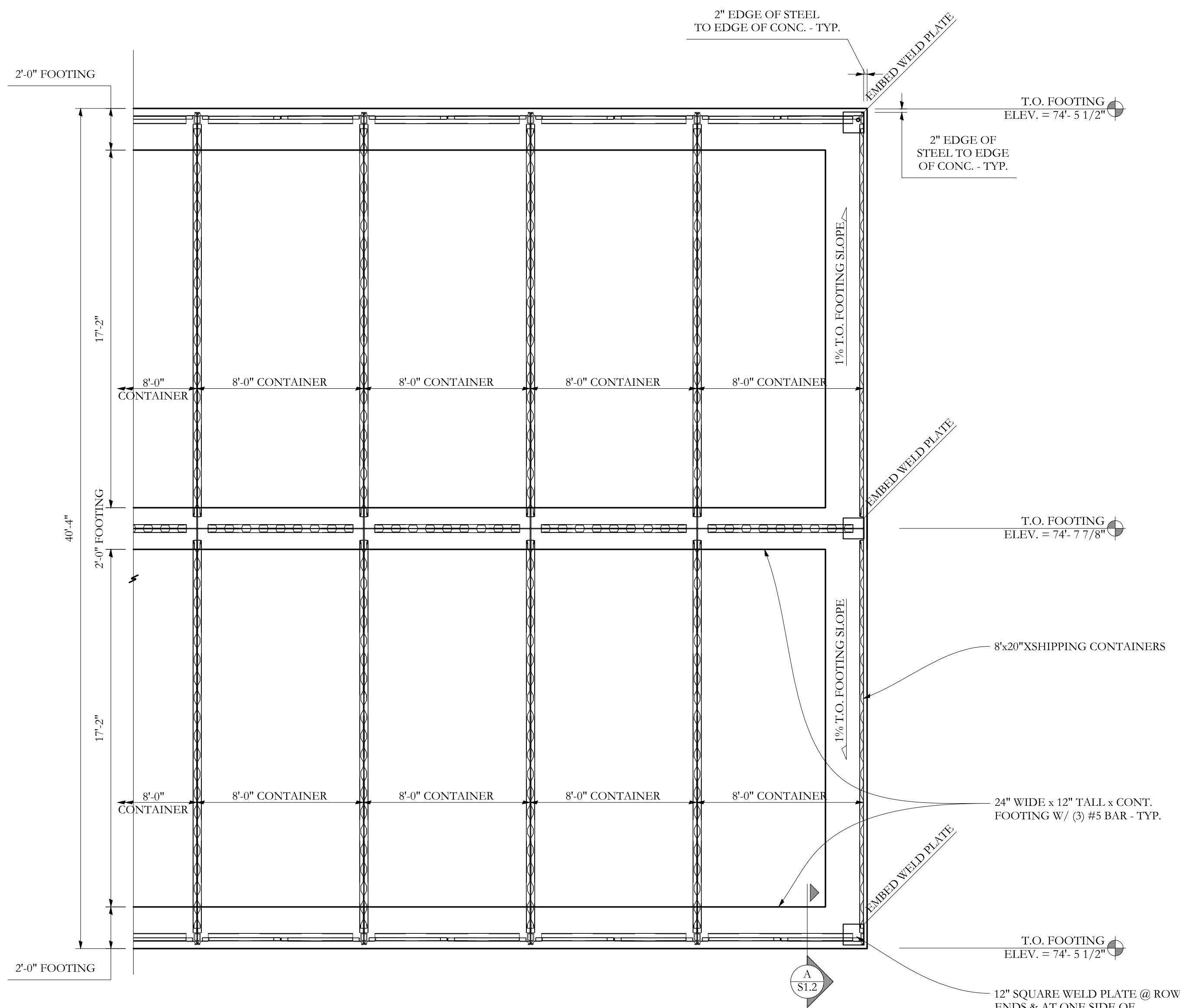
Scale: AS NOTED

Date: 02/10/2017

Revisions

Sheet

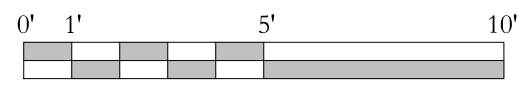
S1.1



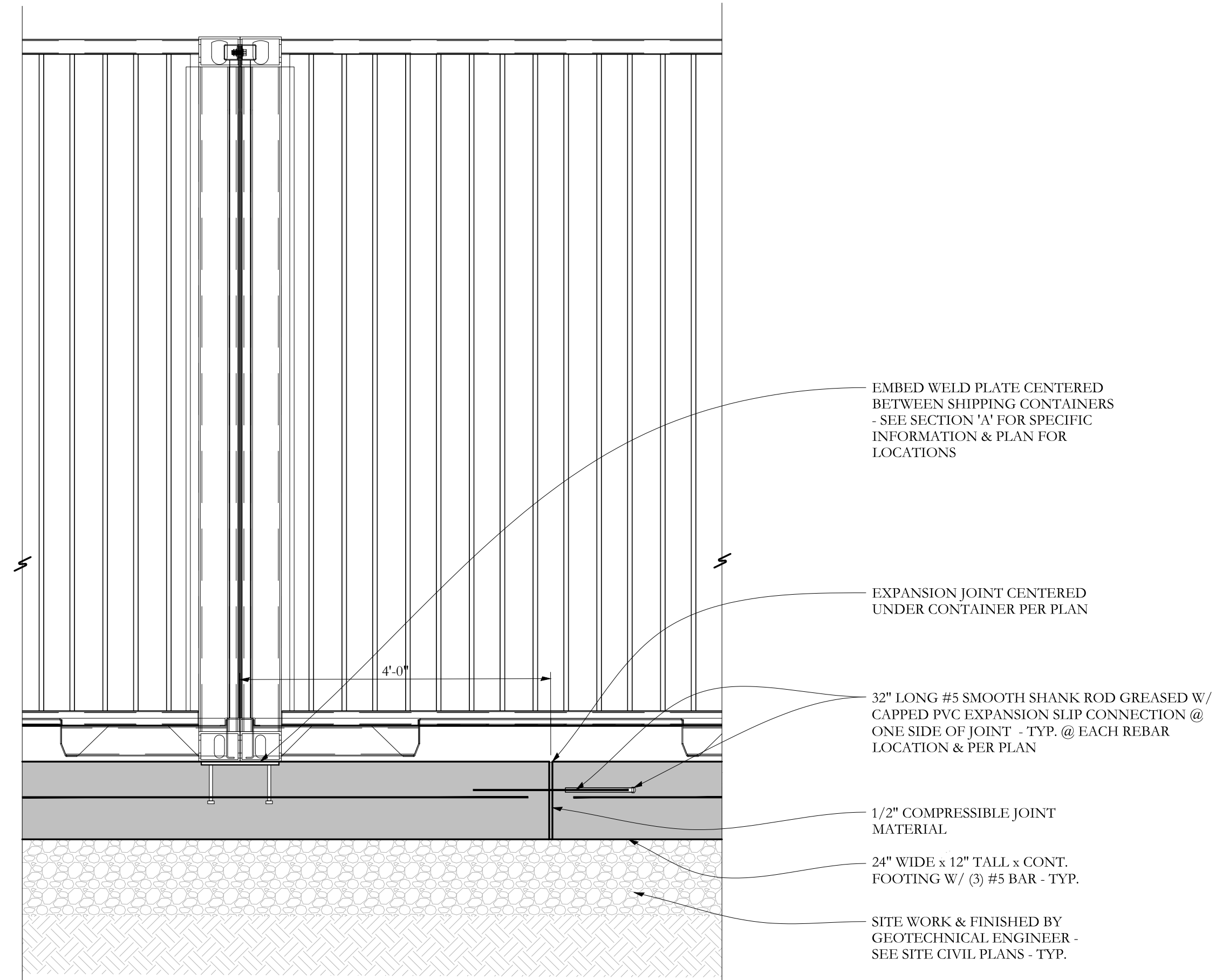
PARTIAL FOUNDATION PLAN

NOTES:

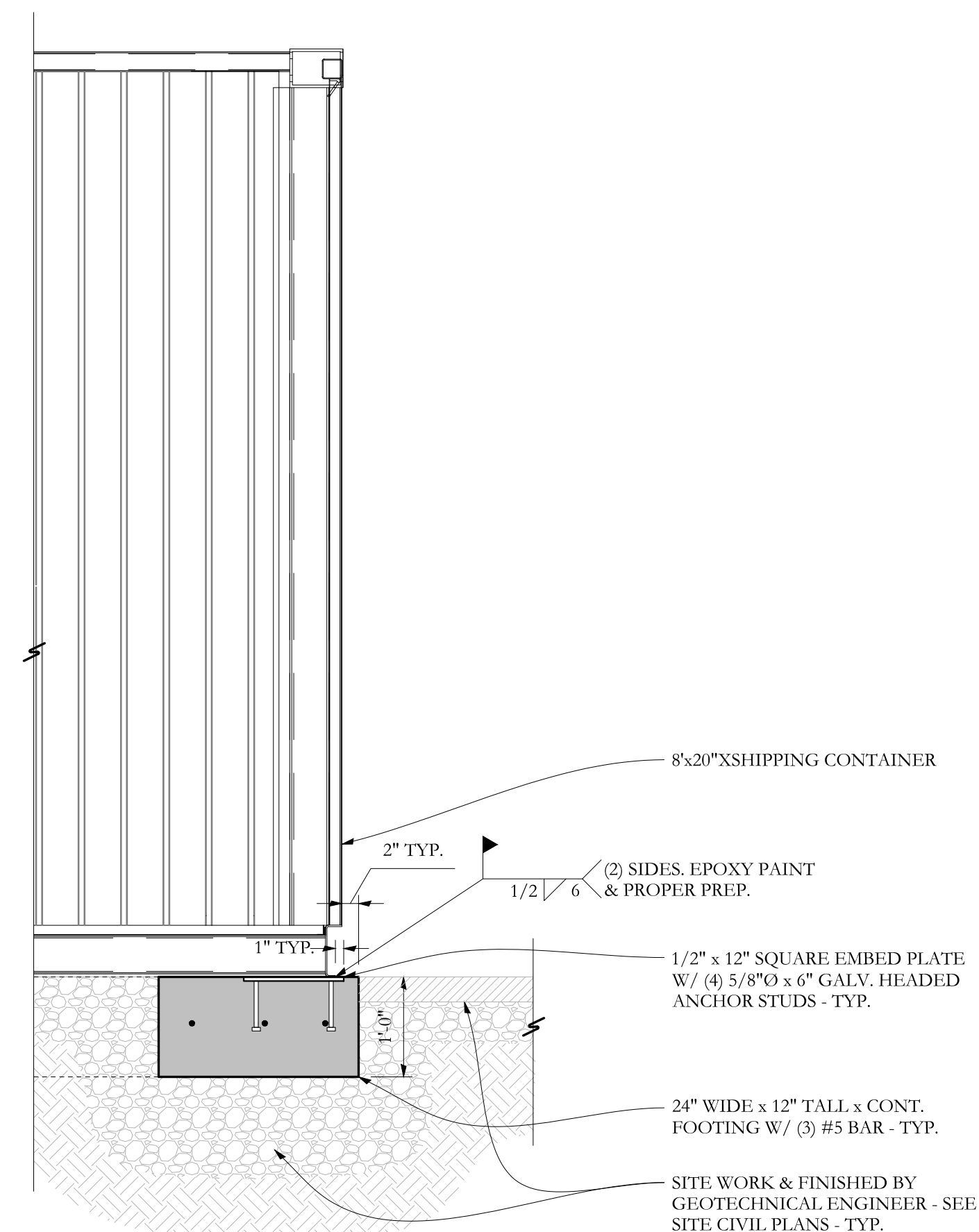
1. ALL FOOTINGS ARE 12" DEEP 2'-0" WIDE x CONT. WITH (3) # 5 BARS CONT. - TYP. UNO
2. VERIFY DIMENSIONS WITH ACTUAL SHIPPING CONTAINERS TO BE USED - TYP.



SCALE 1/4"=1'-0"

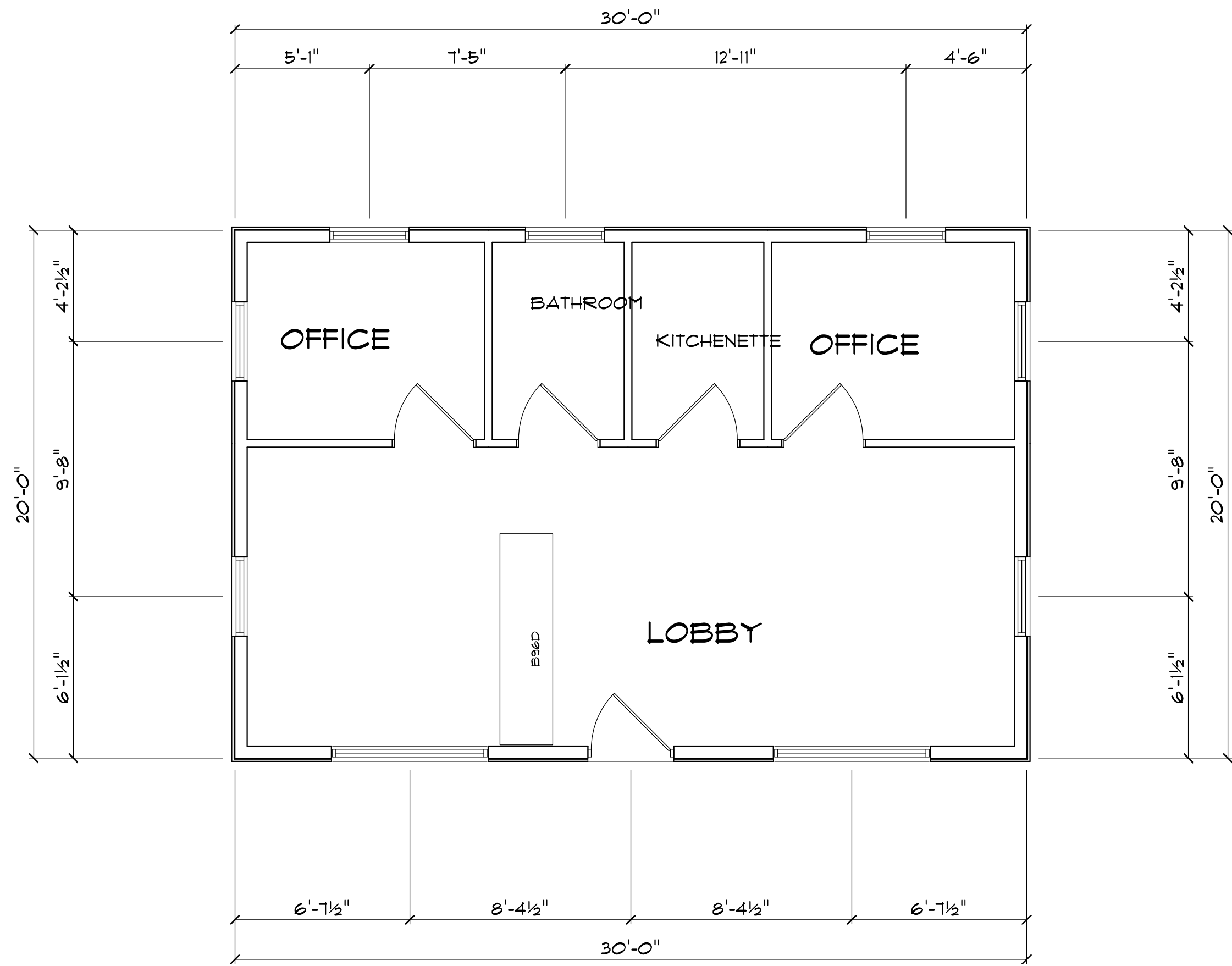


SECTION **B**
S1.2 3/4"=1'-0

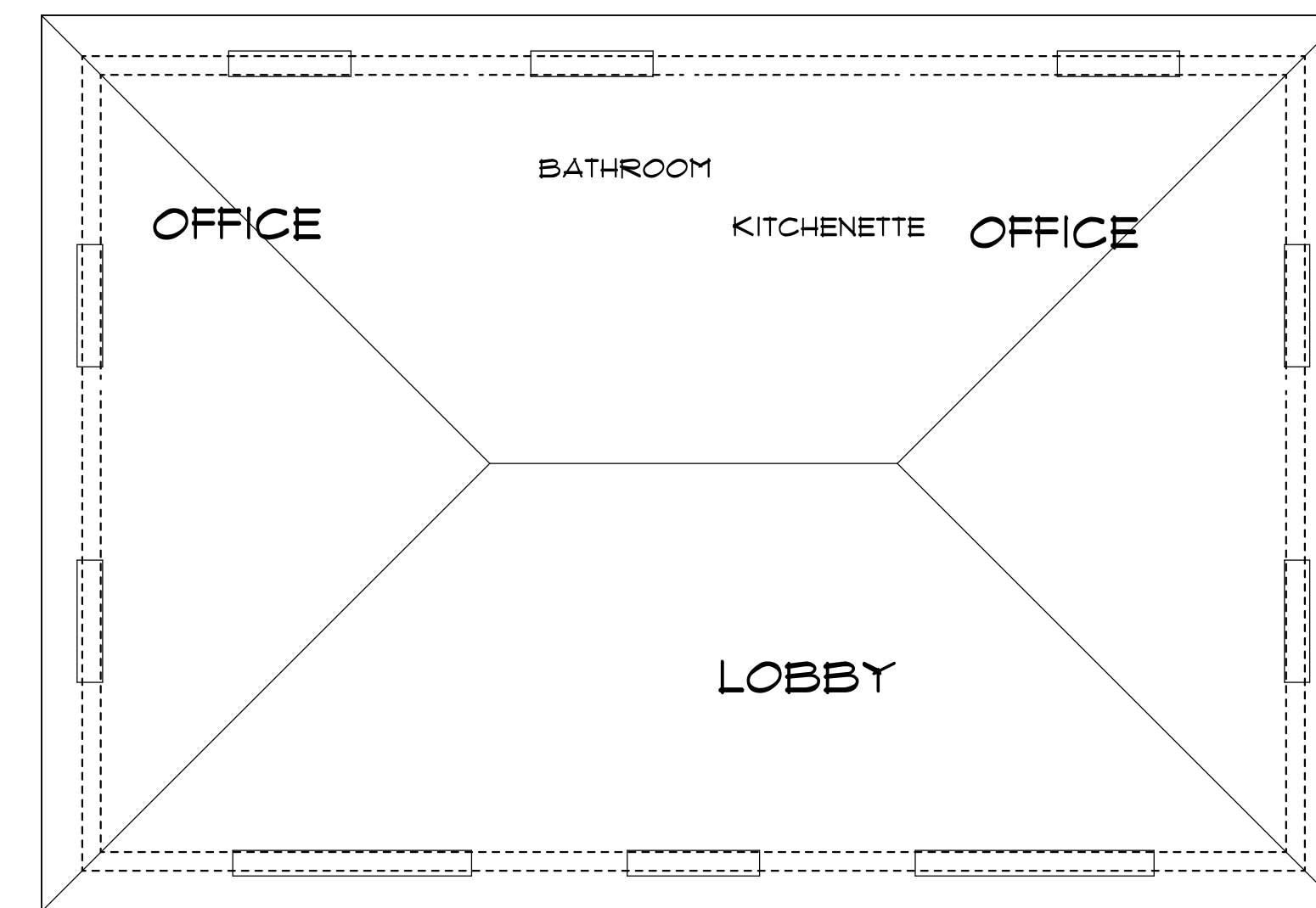


SECTION **A**
S1.2 3/4"=1'-0

PRELIMINARY
REVIEW DRAWINGS



1ST FLOOR PLAN



ROOF PLAN

LEBLANC

August 27, 2016

REVISED

DRAWING#2

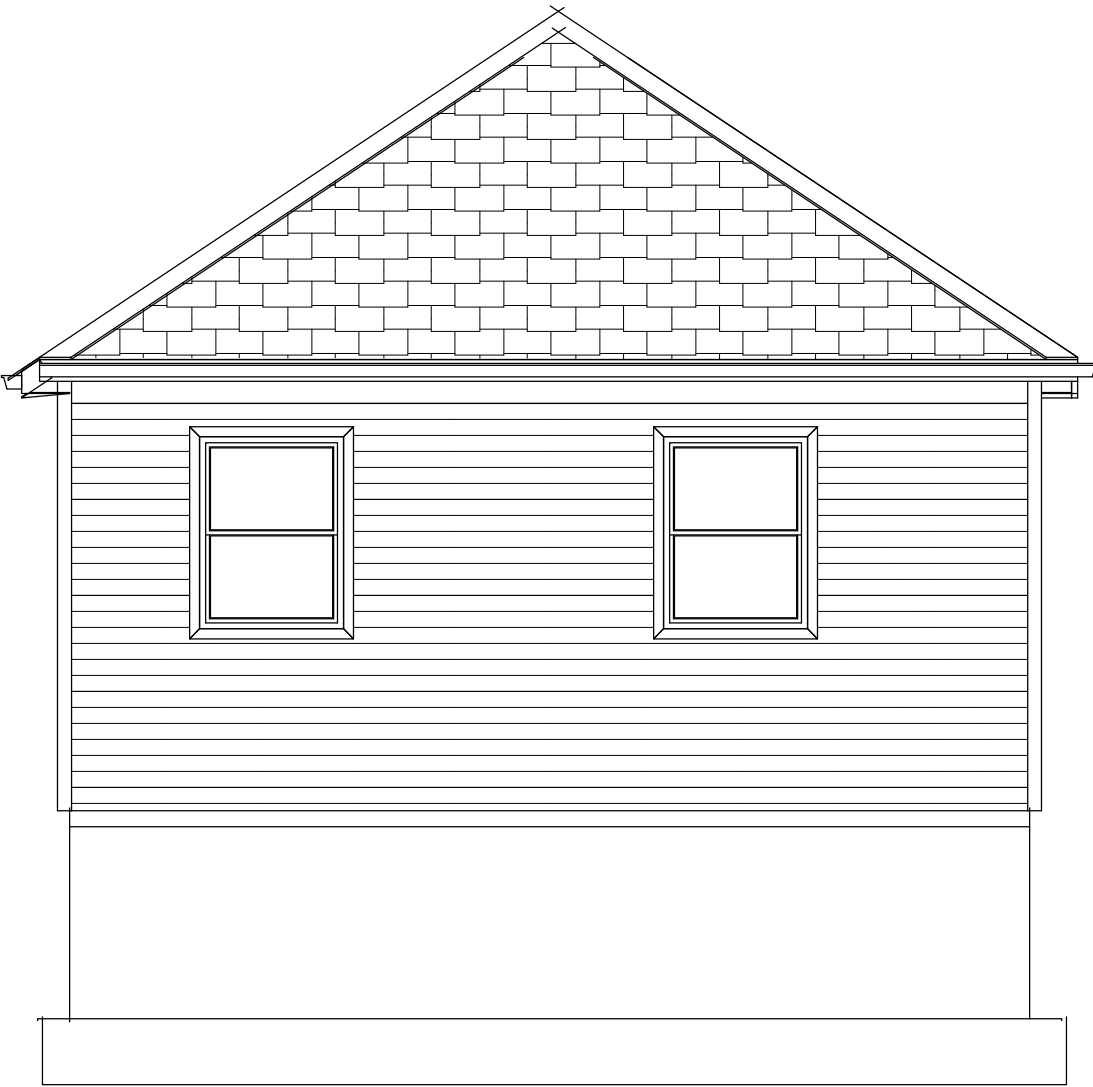
1/4"

JHO

APPROVED



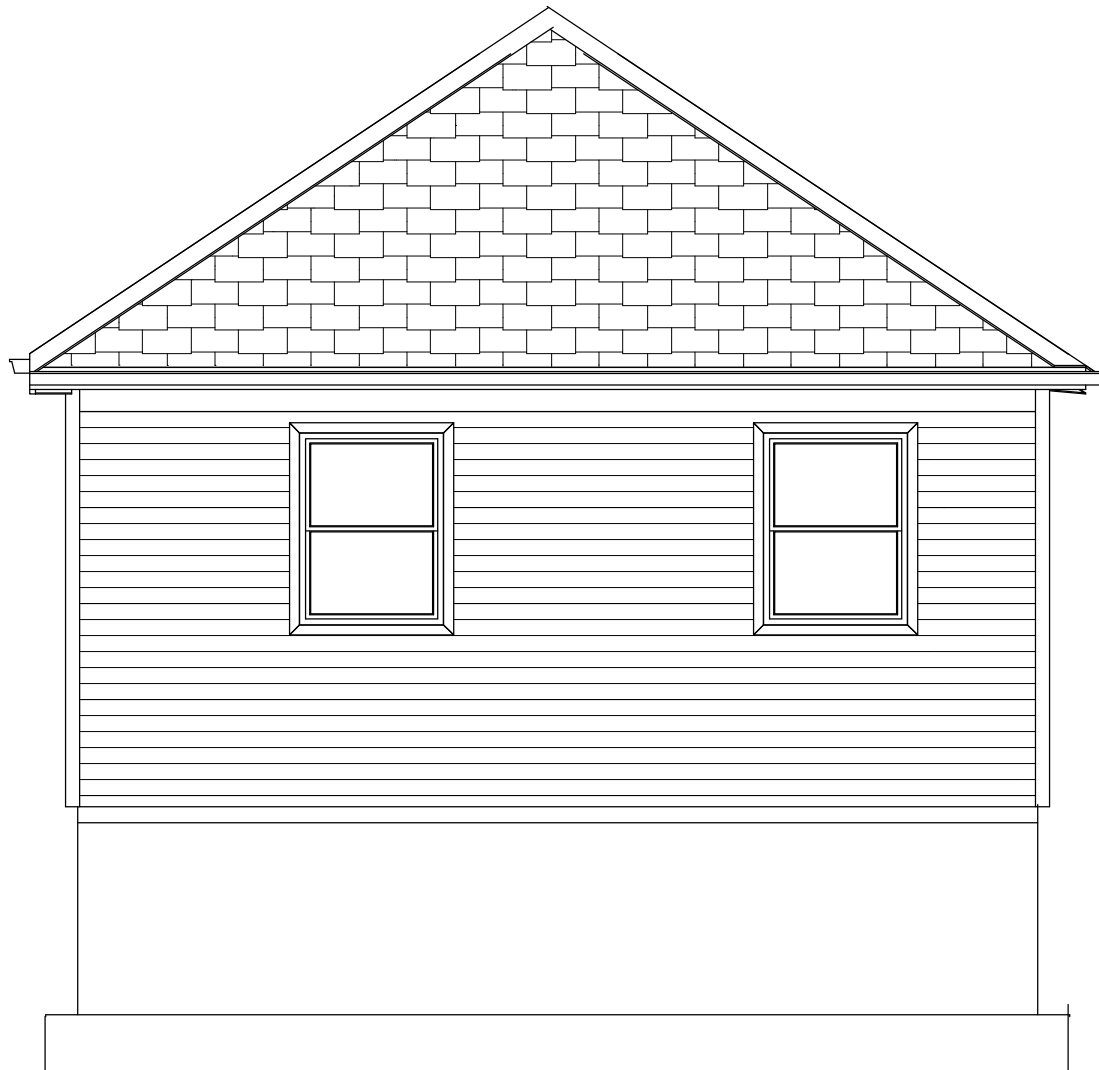
Front Elevation



Left Elevation

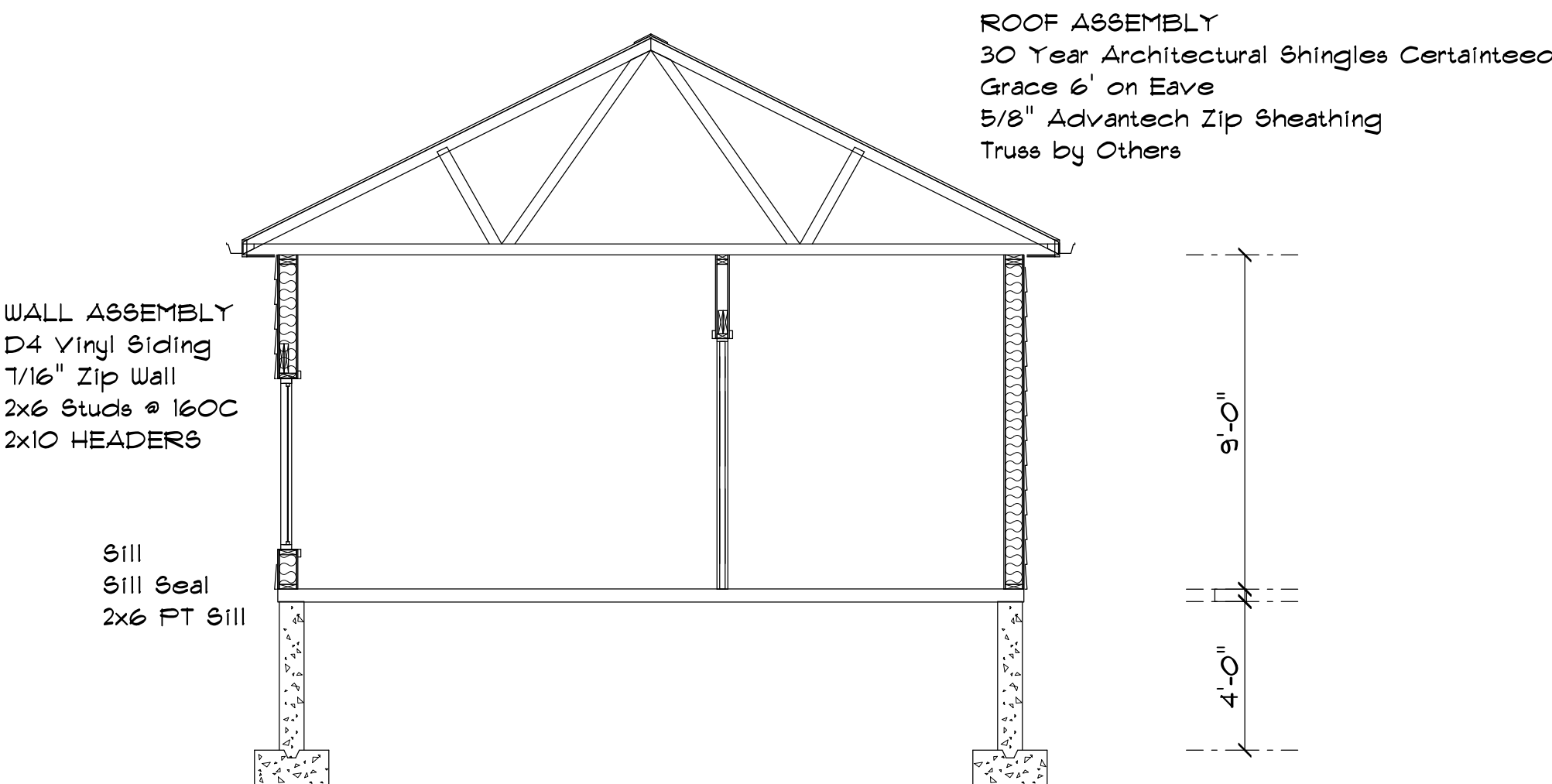
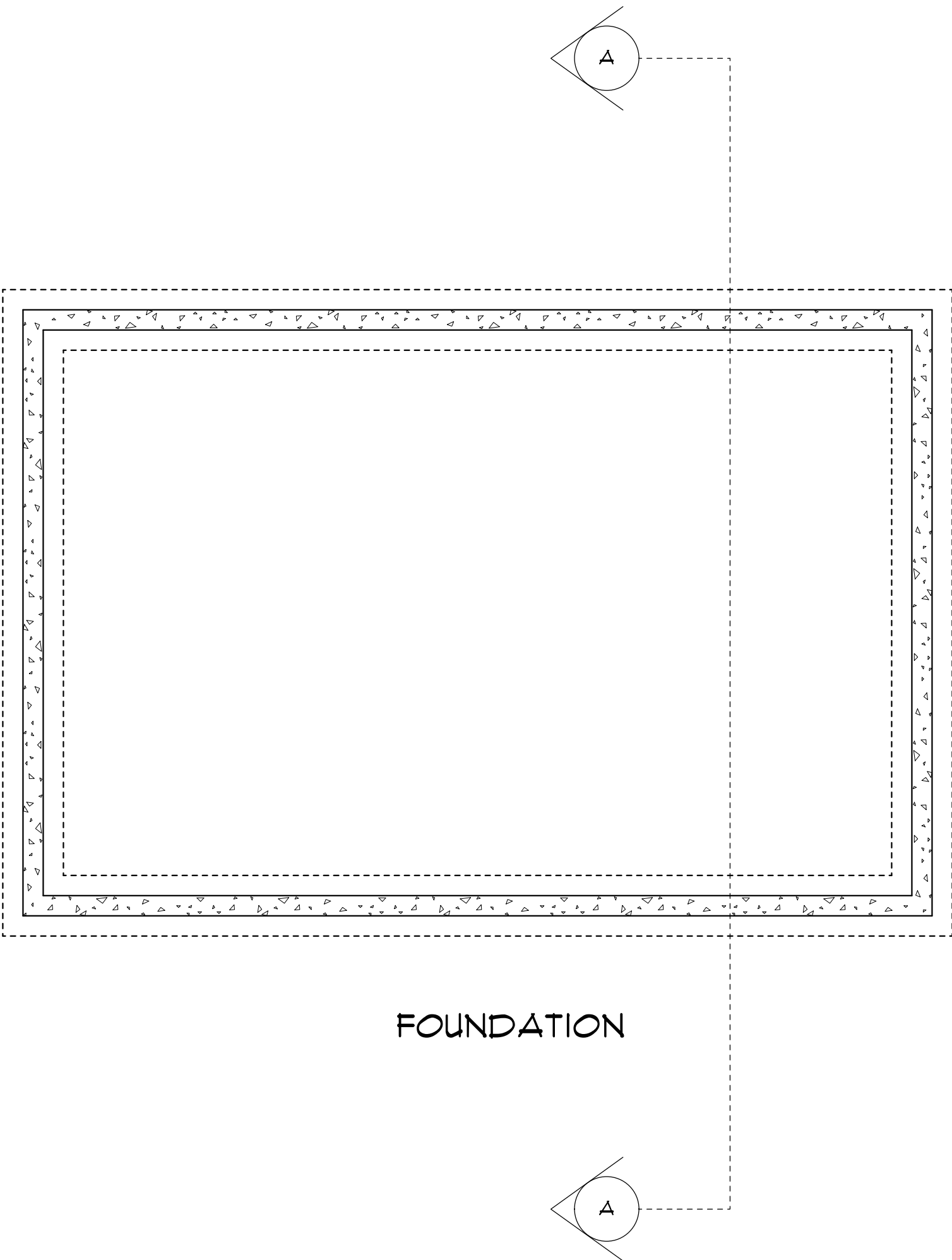


Rear Elevation



Right Elevation

LEBLANC			August 27, 2016	
			REVISED	
1/4"			JHO	
			APPROVED	DRAWING#2



LEBLANC

August 27, 2016

REVISED

DRAWING#2

1/4"

JHO

APPROVED



PLANNING BOARD REPORT PORTLAND, MAINE

Zoning Map Amendment to B-1b from R-5
510 Stevens Avenue
Zone Change
2017-039

Submitted to: Portland Planning Board Date: May 19, 2017 Public Hearing Date: May 23, 2017	Prepared by: Matthew Grooms, Planner CBL: 12 I 001001, 005 Project #: 2017-039
--	--

I. INTRODUCTION

Carroll Associates, on behalf of Stephen and Roberta Cope, is proposing a zoning map amendment for the property at 510 Stevens Avenue, located at the northwest corner of the Stevens Avenue and Hartley Street intersection in Deering Center. The property is currently zoned Residential R-5; the applicant proposes to rezone it to Neighborhood Business B-1b in line with properties located to the south along the west side of Stevens Avenue. The applicant argues that this property forms a logical extension of the Deering Center commercial district and yet appropriate development opportunities at this location are currently restricted by the Residential R-5 zone. The property owners intend to develop a new mixed-use project with commercial uses on the ground floor and residential units above. This site would be developed in conjunction with the previously approved project at 502 Stevens Avenue (2016-290) and would share circulation infrastructure and utility connections.



Figure 1: Existing Single-Family Structure

A legal ad for the Board workshop was posted on the city's web page and appeared in the *Portland Press Herald* on May 8th and 15th, 2017. Notices were also sent to 183 property owners within 500 feet of the site.

II. BACKGROUND

The proposed project site is located on Stevens Avenue in close proximity to Lincoln Middle School at the intersection of Stevens Avenue and Hartley Street. At present, the site is occupied by a single-family structure. This property is located within a transitional neighborhood, with a mixture of retail and service uses located to the south



Figure 2: Aerial View of Property



Figure 3: Existing Zoning

of the subject site along Stevens Avenue, Lincoln Middle School is located immediately to the west and north of this site, and the surrounding area away from Stevens Avenue is predominantly single family residential. The project site is located at the northern edge of the Deering Center commercial district.

II. PROPOSED MAP AMENDMENT

Current Zoning: R-5 (Residential)
Proposed Zoning: B-1b (Community Business)
Current Uses: Single-Family Residential
Proposed Uses: Mixed-use with first floor commercial and upper floor residential
Parcel Area: 6,400 SF
Area to be Rezoned: 6,400 SF

III. ZONING ANALYSIS

The applicant is proposing to develop a mixed-use project at this location consisting of a ground floor commercial space with residential units on the upper floors. The underlying zone precludes this plan, however, on at least two counts. The existing R-5 zoning permits the development of either single-family or duplex development and does not accommodate standard multi-family housing developments. Similarly, commercial uses are prohibited within the R-5 zone. For this reason, the applicant has requested a rezoning to B-1b, which would extend the current contiguous area zoned B-1b located immediately to the south of this parcel north. This zone permits multi-family dwelling units above the first floor where there is a commercial unit on the first floor.

City staff considers the Neighborhood Business B-1b zone to be an appropriate map amendment, as this parcel is located adjacent to the B-1b district and the stated proposal for development is congruous with the B-1b purpose statement. Per Section 14-161,

The purpose of the B-1b neighborhood business zone is to provide appropriate opportunities for the establishment of small-scale ground floor commercial uses to serve a local market, while preserving residential uses and character above the ground floor of structures.

Further, in regards to location, it states:

Suitable locations for this zone may include street intersections, arterial streets, and sites with existing or traditional neighborhood retail and service uses.

The applicant intends to develop a small-scale mixed-use project located at the northern edge of the Deering Center commercial district, an area which has historically served as the traditional retail and service center for the Deering Center neighborhood. At present, along the west side of Stevens Avenue, two single-family structures remain between the existing commercial district and Lincoln Middle School, which forms a natural terminus for the commercial district. The property located immediately to the south of this property, 502 Stevens Avenue, was recently approved for a Level III Site Plan and Subdivision plan under which that applicant is proposing to demolish the existing structure and develop a small-scale mixed-use project similar in scope to what is being considered by the property owners at 510 Stevens Avenue. Approval of this map amendment would further define the Deering Center commercial district and would allow for developments complimentary to the surrounding context.

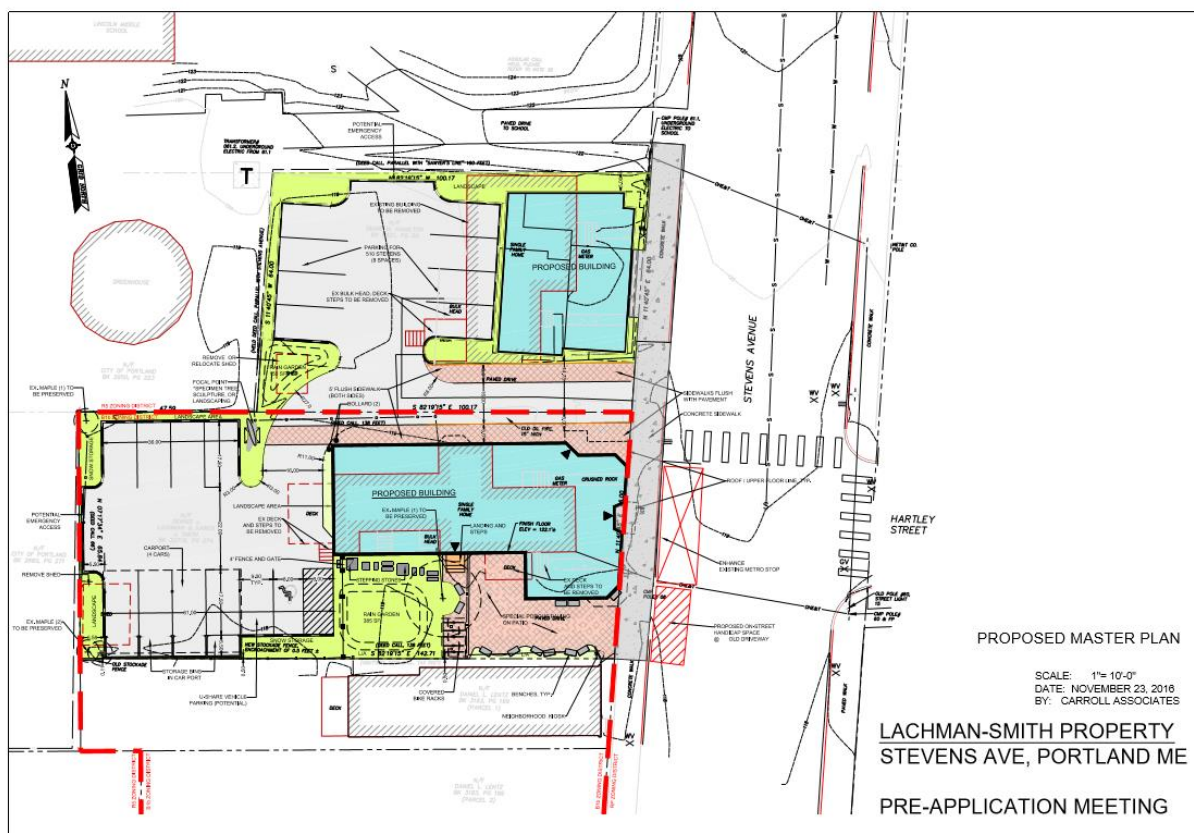


Figure 4: Draft Site Plan

	R-5 Residential	B-1b
Purpose	To provide appropriate areas of the city for medium-density residential development characterized by single-family and low-intensity multifamily dwellings on individual lots; to ensure the stability of established medium-density neighborhoods by controlling residential conversions; and to provide for planned residential unit development on substantially sized parcels. Such PRUD development shall respond to the physical qualities of a site and complement the scale, character and style of the surrounding neighborhood	The purpose of the B-1b neighborhood business zone is to provide appropriate opportunities for the establishment of small-scale ground floor commercial uses to serve a local market, while preserving residential uses and character above the ground floor of structures. The zone also provides the opportunity for mixed use and high residential density in on peninsula locations. Building additions are encouraged but not required to meet the maximum setbacks of 14-165(c)(3). Suitable locations for this zone may include street intersections, arterial streets, and sites with existing or traditional neighborhood retail and service uses.

Permitted Uses

The R-5 zone explicitly encourages medium-density housing, and permits either single-family or duplex housing types by right. The R-5 zone does not permit most non-residential uses, and commercial uses are excluded entirely. Some institutional uses are conditionally permitted.

The Neighborhood Business B-1b zone, is a limited-intensity business district intended to foster primarily small-scale traditional development patterns with ground floor commercial and upper-floor residential uses. A host of commercial, institutional, and other establishments are expressly permitted, although trip generation is considered as well, with the intent of prohibiting uses with high trip generation.

Table 2: Permitted and Conditional Uses

			R-5	B-1b
Permitted	Residential	Single-family and two family dwellings	x	x (Permitted if allowable in abutting residential zone)
		Multi-family dwellings	x	
		Planned residential unit development	x	
		Handicapped family unit	x	
		Single-family, multiple component manufactured housing	x	
		Single-family, single component manufactured housing	x	
		Multi-family over ground floor commercial		x
		Combined living/working spaces		x
	Business	Professional, business and general offices		x
		Business services		x
		Personal services		x
		Offices of building tradesman		x
		Retail establishments		x
		Beverage dealers		x
		Studios for artists, photographers and craftspeople		x
		Restaurants		x
	Institutional	Places of religious assembly		x
		Municipal offices	x	x
		Elementary, middle and secondary schools		x
		Nursery schools and kindergarten		x
		Clinics		x
	Other	Lodging houses		x
		Utility substations		x
		Day care facilities or babysitting services		x
		Bed and breakfast		x
		Hostels		x
		Neighborhood center		x
		Wind energy systems	x	x
		Parks and other active and passive noncommercial recreation spaces	x	
		Home occupation businesses	x	
		Municipal uses	x	
		Special needs independent living units	x	
Conditional	Residential	Sheltered care group homes	x	
		Alteration of structure for residential purposes existing and not in residential use as of January 1, 1984	x	
		Conversion of existing two-family or multi-family dwelling to lodging house	x	
		Use of space existing as of September 3, 2008 to accommodate additional dwelling units	x	
	Institutional	Elementary, middle and secondary schools	x	
		Long-term and extended care facilities	x	
		Intermediate care facility for thirteen (13) or more persons	x	
		Places of assembly	x	
		Hospital	x	
		College, university or trade school	x	
	Other	Off-street parking	x	
		Utility substation	x	
		Daycare facilities or home babysitting services	x	
		Temporary wind anemometer towers	x	x
		Wind energy systems	x	x

Dimensional Requirements and Form

The R-5 zoning district provides certain density controls – minimum area per dwelling unit, maximum lot coverages and minimum lot widths,— that limit the buildout of any given parcel and serve to facilitate the development of medium density housing districts. The R-5’s basic control for density, the minimum requirement of 3,000 SF of lot area per dwelling unit would limit the residential buildout of the parcel for a two family and a minimum land area of 9,000 SF per unit for a multiplex. The R-5 also poses setback requirements of between 8 and 20 feet, which guarantees that buildings will be separated both from each other and the street.

The city’s business zones generally encourage a more dense, urban form. The B-1b zone has no lot coverage limits and the setbacks are considerably smaller. Further, the B-1b allows one dwelling unit for each 435 SF of lot area, or nearly three times the number of units as allowed under the R-5 in this location.

Table 3: Dimensional Requirements

	R-5¹	B-1b
Min. Lot Size	6,000 SF+ (depending on use)	None; 20,000 SF for schools and 10,000 SF for places of assembly
Min. Lot Area per D.U.	3,000 SF for PRUD 4,800 SF for special needs independent living 3,600 SF for special needs independent living w/ 250 feet of frontage 9,000 SF for Multiplex	435 SF on peninsula or; Lot area of nearest residential zone, except 1,000 SF for multi-family dwellings above first floor
Min. Street Frontage	50 ft.	20 ft.
Min. Lot Width	90 ft. for Multiplex 60 ft. for other uses	None
Min. Front Yard	20 ft.	None
Max. Front yard		10 ft., or the maximum front yard setback shall not exceed the average depth of nearest developed lots if that average depth is less than 10 ft.
Min. Rear Yard	20 ft. (for structures >100SF)	None; 20 ft. if abutting residential zone or use
Min. Side Yard	8 – 14 ft. (based on # of stories)	None; 10 ft. if abutting residential zone or use
Max. Structure Height	35 ft.	35 ft., except where abutting R-6, where max. height shall be the max. height of R-6.
Max. Floor Area		Total maximum first floor area for non-residential uses per structure: 10,000 SF or; Total maximum floor area per retail establishment: 5,000 SF
Max. Lot Coverage	40%	None
Max. Impervious Surface		90%

¹ Additional dimensional requirements apply for small residential lot development, bed and breakfasts, places of assembly

IV. POLICY ANALYSIS

The applicant argues in their cover letter that this site represents that natural terminus of the Deering Center commercial district as to the south of this parcel, properties are zoned Neighborhood Business B-1b and to the north is Lincoln Middle School. According to the applicant's representatives, appropriate development of this site is currently restricted by the Residential R-5 zone. They consider their conceived mixed-use project to be an enhancement to the existing neighborhood and appropriately situated to bolster the existing commercial district.

Generally, the city's housing plan, *Housing: Sustaining Portland's Future*, includes numerous policies which support the development of mixed-used buildings with neighborhood commercial, including the following,

- *Create new housing to support Portland as an employment center and to achieve an improved balance between jobs and housing*
- *Encourage neighborhood business centers throughout the city to reduce dependence on the car and to make neighborhood life without a car more practical*
- *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*
 - *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;*
- *Maintain and enhance the livability of Portland's neighborhoods as the city grows and evolves through careful land use regulation, design, and public participation that respects neighborhood integrity*
 - *Support Portland's livable neighborhoods by encouraging a mix of uses that provide goods and services needed and are within walking distance of most residents*

However, it should also be noted that *Housing: Sustaining Portland's Future* also advises against commercial encroachment with policies such as the following,

- *While accommodating needed services and facilities, protect the stability of Portland residential neighborhoods from excessive encroachment by inappropriately scaled and obtrusive commercial, institutional, governmental, and other non-residential uses*

In addition, Portland's pending 2030 Comprehensive Plan includes a vision for complete neighborhoods in which the livability of neighborhoods is improved while retaining key characteristics.

As discussed by the applicant, the proposed development is small in scale and well-integrated with the recently approved mixed-use project at 502 Stevens Avenue, placing less pressure on existing infrastructure and complimenting Deering Center's neighborhood center character. The proposed ground-floor commercial component will likewise provide additional services and or goods to nearby residents. This project would increase local housing density and provide alternative housing opportunities within a predominantly single-family neighborhood.

V. PUBLIC COMMENT/NEIGHBORHOOD MEETING

As of the writing of this memo, the Planning Division has received two public comments that are included in the packet. The Neighborhood meeting was held on April 11, 2017. The neighborhood packet and additional material is included as an attachment. At the neighborhood meeting, attendees asked questions about and raised concerns regarding traffic and on-street parking, in line with the two public comments received by the Planning Division. Other attendees stated that they enjoyed the walkability of this neighborhood and appreciated the potential for another retail business within easy walking distance.

VI. STAFF RECOMMENDATION

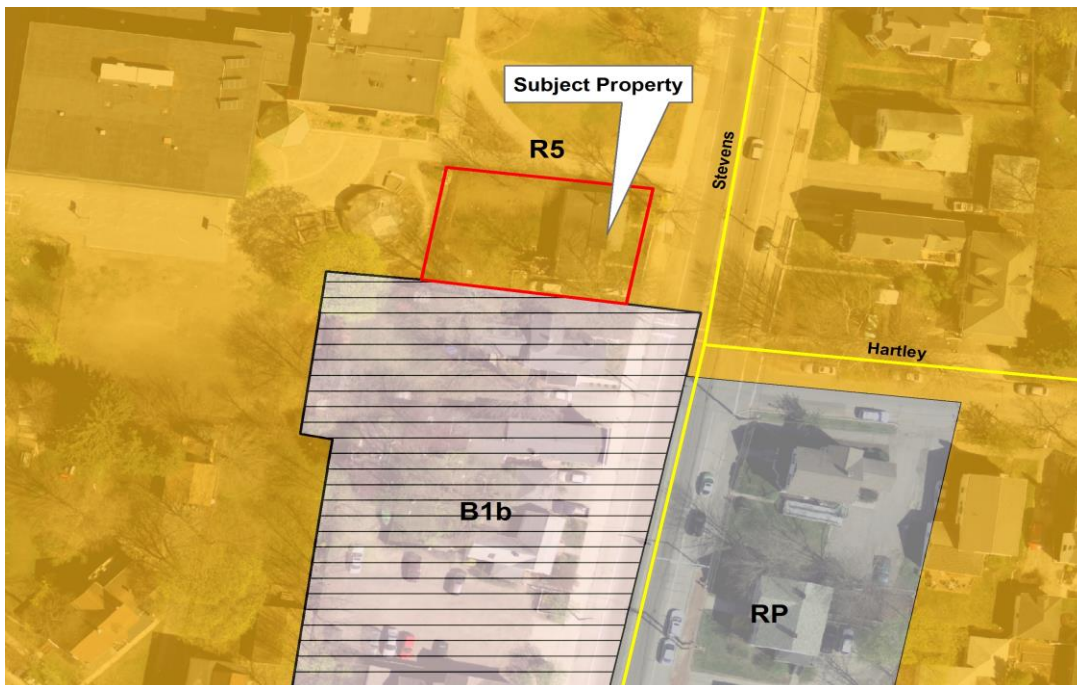
Staff recommends the zoning map amendment to B-1B Neighborhood Business for one parcel encompassing 510 Stevens Avenue (CBL 12 I 001001, 005) and adjoin Stevens Avenue Right-of-Way to the street centerline.

VII. MOTIONS FOR THE BOARD TO CONSIDER

On the basis of plans and materials submitted by the City of Portland, the policies of the R-5 Residential Zone, the policies of the B-1b Neighborhood Business Zone, Portland's Comprehensive Plan, public comment, the information provided in the public hearing on May 23, 2017 and other findings as follows:

A. Map Amendments from R-5 Residential to B-1B Neighborhood Business:

The Planning Board finds that the proposed rezoning of 510 Stevens Avenue and adjoining Stevens Avenue Right-of-Way to the street centerline to B-1B Neighborhood Business **[is or is not]** consistent with the Comprehensive Plan for the City of Portland;



VIII. ATTACHMENTS

1. Documents
 - a. Cover Letter
 - b. Zoning Map Amendment Application
 - c. Right, Title & Interest
 - d. Neighborhood Meeting Certification
 - e. Neighborhood Meeting Notice
 - f. Neighborhood Meeting Sign-In Sheet
 - g. Neighborhood Meeting Minutes
2. Applicant's Plans
 - a. Vicinity and Abutter Map
 - b. Existing Zoning Map
 - c. Proposed Zoning Map
 - d. Site Master Plan
3. Public Comment
 - a. Caroline and Mark Sprague – 4/4/2017
 - b. Nancy Polito – 4/18/2017



Att. A

February 24, 2017

Ms. Barbara Barhydt
City of Portland Planning Authority
4th Floor, City Hall
389 Congress Street
Portland, ME 04101

RE: 510 Stevens Avenue- Requested Zone Map Change

Dear Barbara,

On behalf of Stephen E and Roberta A. Bobbie Cope, we are pleased to submit this Application for Zone Map Change associated with their property at 510 Stevens Avenue. We are proposing that the B1b Zone Boundary be extended along Stevens Avenue to include this property.

This property represents the northern end of the Deering Center Neighborhood between Lincoln Middle School and Brentwood Street. The B1b Zone extends to the south of this parcel, so while it is within the Deering Center neighborhood physically, its current R5 zoning restricts the ability to develop the site in a way that might enhance the surrounding neighborhood. As you are aware, the property directly adjacent to this is currently undergoing Site Plan Review for its redevelopment into a mixed-use project, and a key factor in its design is the ability to share the driveway with this property. In fact, both properties have been designed to work seamlessly with each other with respect to use, shared circulation and utility connections. This is only possible with the requested Map Change, allowing the property at 510 Stevens to be redeveloped in a way that provides an anchor for the neighborhood to the north and provide a respectful neighbor to Lincoln Middle School.

Attached and made part of this Application are the signed Application form, Application Fee, and supporting documents and exhibits. We welcome the opportunity to begin a dialog with the Planning Staff and Planning Board on this project, and look forward to working closely with your office as this proposal moves forward. Please feel free to contact me to discuss any questions or concerns you may have regarding the attached application materials.

Sincerely,
CARROLL ASSOCIATES

A handwritten signature in black ink, appearing to read 'Patrick J. Carroll'. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Patrick J. Carroll
Principal

Enc.

Cc: Adam Cope



Zoning Map, Text Amendment, Contract or Conditional Rezoning Application Portland, Maine

Planning and Urban Development Department
Planning Division

Portland's Planning and Urban Development Department coordinates the review of requests for zoning map amendments, zoning text amendments and contract or conditional re-zoning. The Division also coordinates site plan, subdivision and other applications under the City's Land Use Code. Attached is the application form for a Zone Change.

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

planning@portlandmaine.gov

Office Hours

Monday thru Friday

8:00 a.m. – 4:30 p.m.

I. Project Information (Please enter n/a on those fields that are not applicable)

Project Name:	510 Stevens Avenue
Proposed Development Address:	510 Stevens Avenue
Project Description:	New mixed use building
Chart/Block/Lot:	Map 16NE, Lot 135-E008
Right, Title or Interest <i>(Please identify the status of the applicant's right, title, or interest in the subject property – for example a deed, option or contract to purchase or lease the subject property)</i> See attached property deed	
Existing Use <i>(Describe the existing use of the subject property)</i> Single family residential	
Current Zoning Designation: R5 Zoning District	
Proposed Use of the Property <i>(Please describe the proposed use of the subject property. If construction or development is proposed, please describe any changes to the physical condition of the property)</i> New mixed use (residential and retail) building with parking via shared driveway	
Vicinity Map <i>(Attach a map showing the subject parcel and abutting parcels, labeled as to ownership and/or current use)</i>	
Site Plan <i>(On a separate sheet, please provide a site plan of the property showing existing and proposed improvements, including such features as buildings, parking, driveways, walkways, landscape and property boundaries. This may be a professionally drawn plan, or a carefully drawn plan – to scale – by the applicant. (Scale to suit, range from 1' = 10' to 1' = 50'.) Contract and conditional rezoning applications may require additional site plans and written material that address physical development and operation of the property to ensure that the rezoning and subsequent development are consistent with the comprehensive plan, meet applicable land use regulations, and compatible with the surrounding neighborhood)</i>	

II. Contact Information (Please enter n/a on those fields that are not applicable)**APPLICANT**

Name:	Steven E. and Roberta S. Cope
Business Name:	---, LLC
Address:	P.O. Box 1398
City/State:	Portland, Maine
Zip Code:	04104
Work #:	n/a
Home #:	n/a
Cell #:	n/a
Fax #:	n/a
E-mail:	

OWNER

Name:	Steven E. and Roberta S. Cope
Address:	P.O. Box 1398
City/State:	Portland, Maine
Zip Code:	04104
Work #:	n/a
Home #:	n/a
Cell #:	n/a
Fax #:	n/a
E-mail:	

AGENT/REPRESENTATIVE

Name:	Patrick Carroll, Carroll Associates
Address:	217 Commercial Street, Suite 200
City/State:	Portland, Maine
Zip Code:	04101
Work #:	207.772.1552
Home #:	n/a
Cell #:	n/a
Fax #:	n/a
E-mail:	pcarroll@carroll-assoc.com

BILLING (to whom invoices will be forwarded to)

Name:	Steven E. and Roberta S. Cope
Address:	P.O. Box 1398
City/State:	Portland, Maine
Zip Code:	04104
Work #:	n/a
Home #:	n/a
Cell #:	n/a
Fax #:	n/a
E-mail:	

ENGINEER

Name:	Tom Greer, Pinkham & greer Civil Engineers
Address:	28 Vannah Avenue
City/State:	Portland, Maine
Zip Code:	04103
Work #:	207.781.5242
Home #:	n/a
Cell #:	n/a
Fax #:	n/a
E-mail:	tgreer@pinkhamandgreer.com

SURVEYOR

Name:	Donald Dostie, Four Points Associates, Inc.
Address:	9 Ralph Avenue
City/State:	Lewiston, Maine
Zip Code:	04240
Work #:	207.577.5840
Home #:	n/a
Cell #:	n/a
Fax #:	n/a
E-mail:	ddostie@fourpoints-survey.com

ARCHITECT

Name:	Kevin Moquin, Kevin Moquin Architect
Address:	1 Union Street, # 203
City/State:	Portland, Maine
Zip Code:	04101
Work #:	207.615.6421
Home #:	n/a
Cell #:	n/a
Fax #:	n/a
E-mail:	Kevin@km-a.me

ATTORNEY

Name:	Steven Cope
Address:	P.O. Box 1398
City/State:	Portland, Maine
Zip Code:	04104
Work #:	n/a
Home #:	n/a
Cell #:	n/a
Fax #:	n/a
E-mail:	

DESIGNATED PERSON(S) FOR UPLOADING INTO e-PLAN

Name:	Patrick Carroll, Carroll Associates
E-mail:	pcarroll@carroll-assoc.com
Name:	Matthew Phillips, Carroll Associates
E-mail:	mphillips@carroll-assoc.com
Name:	
E-mail:	

III. APPLICATION FEES (check applicable review)

X	Zoning Map Amendment from (R5) zone to (B1b) zone	\$3,000.00
	Zoning Text Amendment to Section 14- () (For a zoning text amendment, attach on a separate sheet the exact language being proposed, including existing relevant text, in which language to be deleted is depicted as crossed out (example).	\$3,000.00
	Combination Zoning Text Amendment and Zoning Map Amendment	\$4,000.00
	Conditional or Contract Zone <i>(A conditional or contract rezoning may be requested by an applicant in cases where limitations, conditions, or special assurance related to the physical development and operation of the property are needed to ensure that the rezoning and subsequent development are consistent with the comprehensive plan, meet applicable land use regulations, and compatible with the surrounding neighborhood. Please refer to Division 1.5, Section 14-60-62.)</i>	\$5,000.00

IV. FEES ASSESSED AND INVOICED SEPARATELY

- Notices to abutters (receipt of application, workshop and public hearing meetings) (\$.75 each)
- Legal Ad in the Newspaper (% of total ad)
- Planning Review (\$50.00 hour)
- Legal Review (\$75.00 hour)
- Third Party Review (all outside reviews or analysis, eg. Traffic/Peer Engineer, are the responsibility of the applicant and will be assessed and billed separately)

V. SUBMITTING YOUR APPLICATION IN ELECTRONIC FORMAT

Welcome to the Planning & Urban Development's new Electronic Plan Review Process. Below you will find the steps along with tips and guides to help you through uploading and viewing your project electronically during the review process.

All of the following applications shall be submitted electronically to planning@portlandmaine.gov by following the steps below:

Level 1 Site Alteration, Level 2 Site Plan, Level 3 Site Plan, Level 3 Subdivision, Administrative Authorization, Conditional Use, Inclusionary Zoning and Contract/Rezoning Applications.

1. Fill out the application completely and e-mail the **application only** to planning@portlandmaine.gov (Please be sure to designate a person who will be responsible for uploading documents and drawings.) This step will generate the project ID number for your project.
2. An invoice for the application fee will be e-mailed to you. Payments can be made on-line at [Pay Your Invoice](#), by mail (Planning Division, 389 Congress Street, Portland, ME 04102) or in person at City Hall, 4th Floor. Please reference the Application Number when submitting your payment which is located in the upper left hand corner of the invoice.
3. The designated person responsible for uploading documents and drawings will receive an email from epplan@portlandmaine.gov with an invitation into the project. At this time, you will upload all corresponding documents and plans into the project. For first time users you will receive a temporary password which you must change on entry. Make note of your username and password for any future projects.
4. Follow the link below (Applying Online) for step by step instructions on how to do the following:
 - Prepare drawings, documents and photos for uploading;
 - Getting started in e-Plan;
 - Prepare **revised** drawings and documents for uploading.

[Applying Online](#)

Reminder: Before the project can move forward, the application fee shall be paid in full and all required documents and drawings shall be uploaded into e-plan correctly.

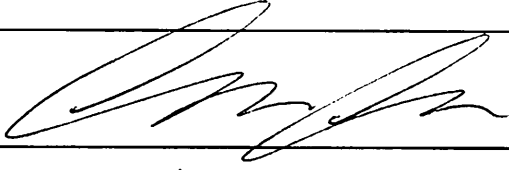
5. As the process evolves you will be able to log in and see markups, comments and upload revisions as requested into these folders.

VI. APPLICANT SIGNATURE

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.

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.

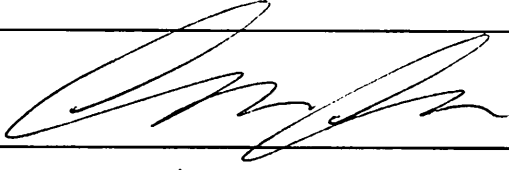
Signature of Applicant:	
Date:	2/19/17

VI. APPLICANT SIGNATURE

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.

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:	2/19/17

**DEED OF SALE BY PERSONAL REPRESENTATIVE
(INTESTATE)
Maine Statutory Short Form**

Heather Libby and Laura Dibiase, duly acting and appointed Personal Representatives of the Estate of Diane M. Caminiti, deceased (intestate), as shown by the probate records of Cumberland County, Maine, and having given notice to each person succeeding to an interest in the real property described below at least ten (10) days prior to the sale, by the power conferred by the Probate Code, and every other power, for consideration paid, grants to **Steven E. Cope and Roberta S. Cope**, of 172 Concord Street, Portland, ME 04102, as joint tenants the real property in Portland, County of Cumberland, Maine, described as follows: WITH

WARRANTY COVENANTS

A certain lot or parcel of land with the buildings thereon situated in Portland, County of Cumberland and State of Maine, on the westerly side of Stevens Avenue, at Deering Center, so-called, bounded and described as follows:

Beginning at the northerly corner of land now formerly of Charles D. Sawyer on the westerly side of Stevens Avenue; thence northerly on said Avenue sixty four (64) feet; thence westerly on a line parallel with said Sawyer's line, one hundred (100) feet to a point; thence southerly parallel with the westerly side of said Avenue and keeping distance of one hundred 100 feet therefrom, sixty four (64) feet to said Sawyer's land; thence easterly by said Sawyer's land, one hundred (100) feet to the point of beginning.

Reference is made to a warranty deed from Edward H. Candelfmo et al. to Diane M. Hamilton and Michael F. Caminiti dated 04/22/1982 and recorded at the Cumberland County Registry of Deeds in Book 4947, Page 108 and a deed from Michael F. Caminiti dated 07/10/1989 and recorded at the Cumberland County Registry of Deeds in Book 8821, Page 50. Diane M. Caminiti died on 10/31/2015 intestate, Cumberland Registry of Probate Docket No. 2016-0246.

WITNESS my hands and seal this 29 day of July, ~~19~~ 2016

Wendy Soren
Witness

to both
Witness

Estate of Diane M. Caminiti

Heather Libby (PR)
by: Heather Libby
Personal Representative

Laura Dibiase (PR)
by: Laura Dibiase
Personal Representative

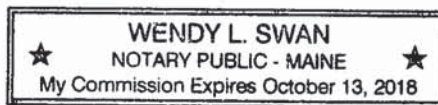
MAINE REAL ESTATE TAX PAID

State of Maine
County of Cumberland

Personally appeared before me the above named Heather Libby and Laura Dibiase, Personal Representatives as aforesaid and acknowledged the foregoing to be his/her/their free act and deed in their said capacity and the free act and deed of said Estate.

Before me,

Wendy Swan
Notary Public/~~Maine~~ Attorney



Received
Recorded Register of Deeds
Aug 04, 2016 02:01:22P
Cumberland County
Nancy A. Lane

**Neighborhood Meeting Certification
510 Stevens Avenue Map Amendment**

I, Patrick J. Carroll, hereby certify that a neighborhood meeting was held on April 11, 2017 at Siano's Pizzeria at 7:00 pm.

I also certify that on April 1, 2017 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,



April 20, 2017

(date)

Attached to this certification are:

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



April 1, 2017

Dear Neighbor:

Please join us for a neighborhood meeting to discuss our plans for a Zoning Map Amendment for property located at 510 Stevens Avenue in Portland. The purpose of this Map Amendment is to bring the property into conformance with the adjacent zoning district along this portion of Stevens Avenue and allow redevelopment of the property.

Meeting Location: **Siano's Pizzeria Function Room**
5 Brentwood Street
Portland, ME 04103

Meeting Date: **April 11, 2017**

Meeting Time: **7:00 PM**

(The City code requires that property owners within 500 feet 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 Adam Cope at 207-939-3326 or Patrick Carroll at 207-772-1552.

Sincerely,

Adam Cope
Patrick Carroll

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



510 Stevens Avenue Rezoning Neighborhood Meeting List of Attendees

Meeting Location: Sianos Pizzeria
Meeting Date: April 11, 2017
Meeting Time: 7:00 PM

[illegible]

Pat Carroll

From: Roberta Cope <bcope@maine.rr.com>
Sent: Thursday, April 13, 2017 11:18 AM
To: Pat Carroll
Cc: Adam ICE; Steven ICE
Subject: minutes of neighborhood meeting

Hi Pat,

Here's what I have for minutes of Tuesday's meeting. Please edit as you see fit.

Thank you.
Bobbi

Project: 510 Stevens Avenue Zoning Map Amendment (R5 to B1b)

Minutes of Neighborhood Meeting April 11, 2017, 7pm, Siano's Restaurant, 5 Brentwood Street, Portland, Maine

There were 20 people in attendance. Sign in sheet was provide and is attached. (per Pat Carroll)

Pat Carroll, Landscape Architect conducted the meeting.

Pat described the project and used visual renderings of the proposal and its synergy with the development with the adjoining property at 502.

A large focus of questions and concerns were about the potential impact of parking and traffic in particular by 3 people who live on Hartley and Clinton very near Stevens Avenue where they already struggle to find street parking. The impact of the UNE parking was described as a large culprit of the existing parking and traffic congestion. There was discussion about possible solutions for parking restrictions such as signage and resident stickers.

Safety concerns were expressed and the elimination of multiple back-out driveways replaced by one, shared, drive-out driveway was well received. The relocation of the crosswalk was well received.

The proposal was well received by neighbors who like the walking neighborhood and welcome another retail/business to be able to walk to.

VICINITY MAP

A. SUBJECT PROPERTY

510 Stevens Ave, 135-E-8, Steven + Roberta Cope, Single Family Residential

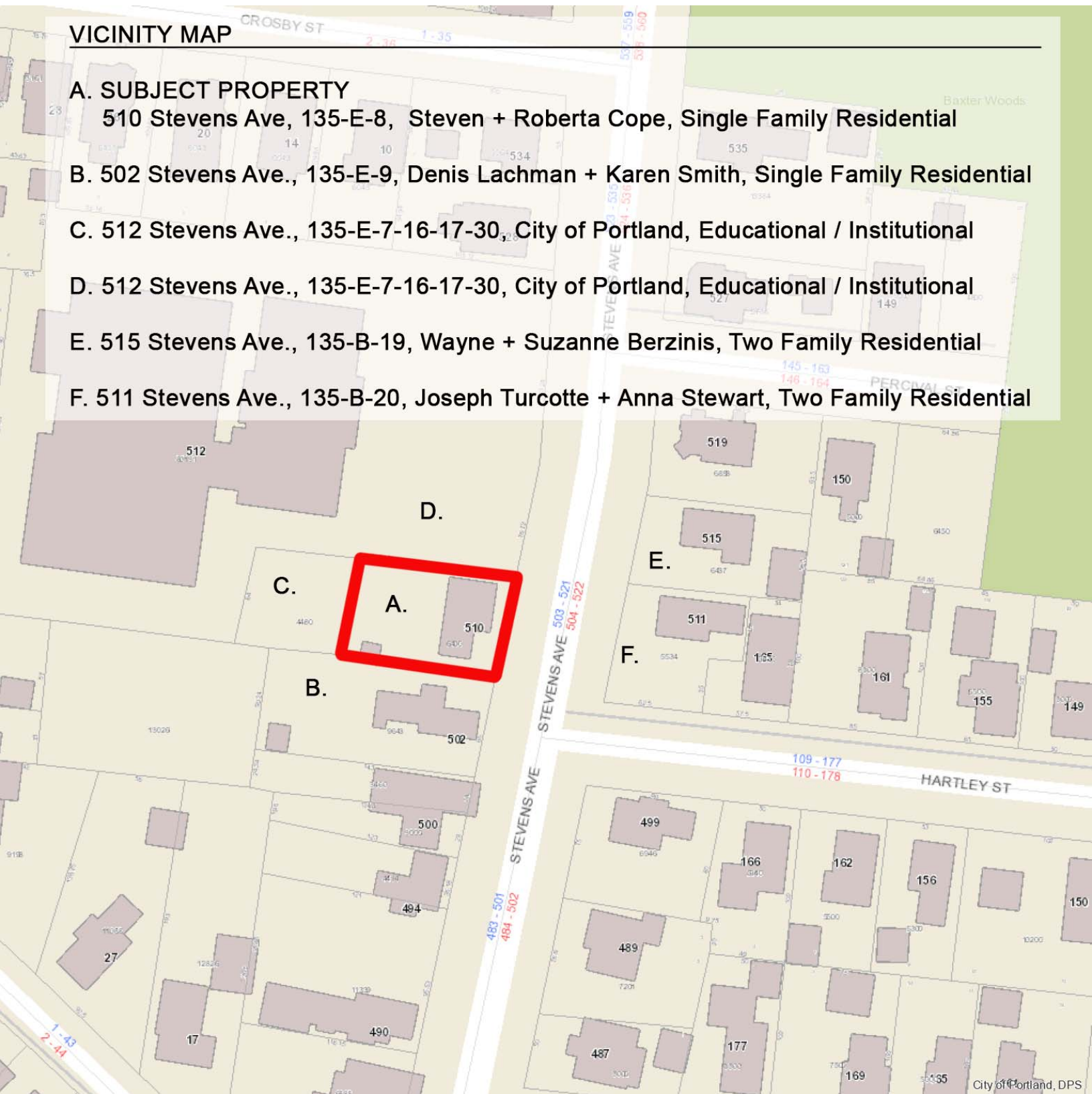
B. 502 Stevens Ave., 135-E-9, Denis Lachman + Karen Smith, Single Family Residential

C. 512 Stevens Ave., 135-E-7-16-17-30, City of Portland, Educational / Institutional

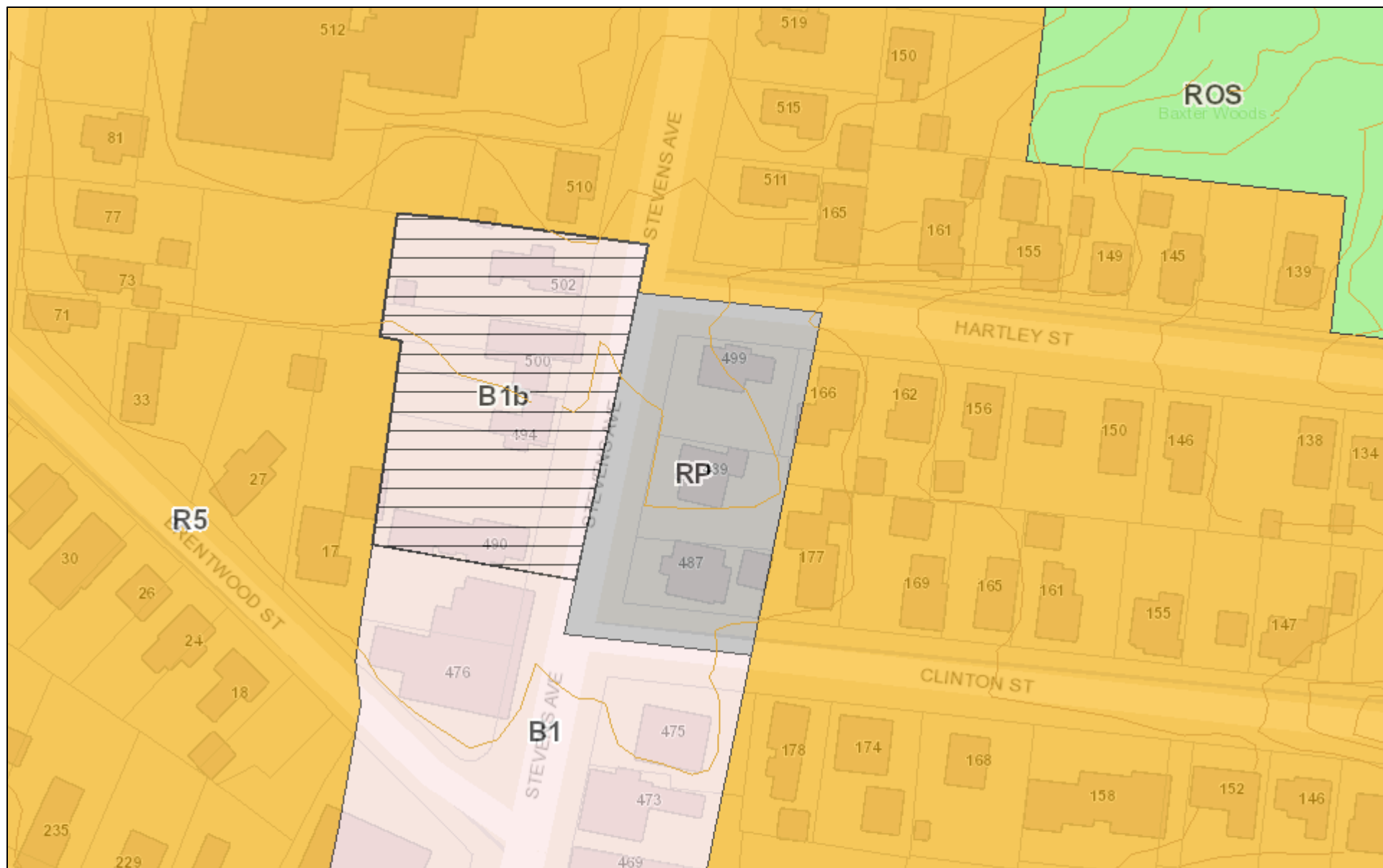
D. 512 Stevens Ave., 135-E-7-16-17-30, City of Portland, Educational / Institutional

E. 515 Stevens Ave., 135-B-19, Wayne + Suzanne Berzinis, Two Family Residential

F. 511 Stevens Ave., 135-B-20, Joseph Turcotte + Anna Stewart, Two Family Residential



ArcGIS Web Map



November 21, 2016

Contours

Coastal Buffer

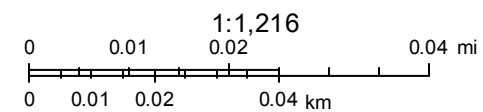
H - Highly Unstable

U - Unstable

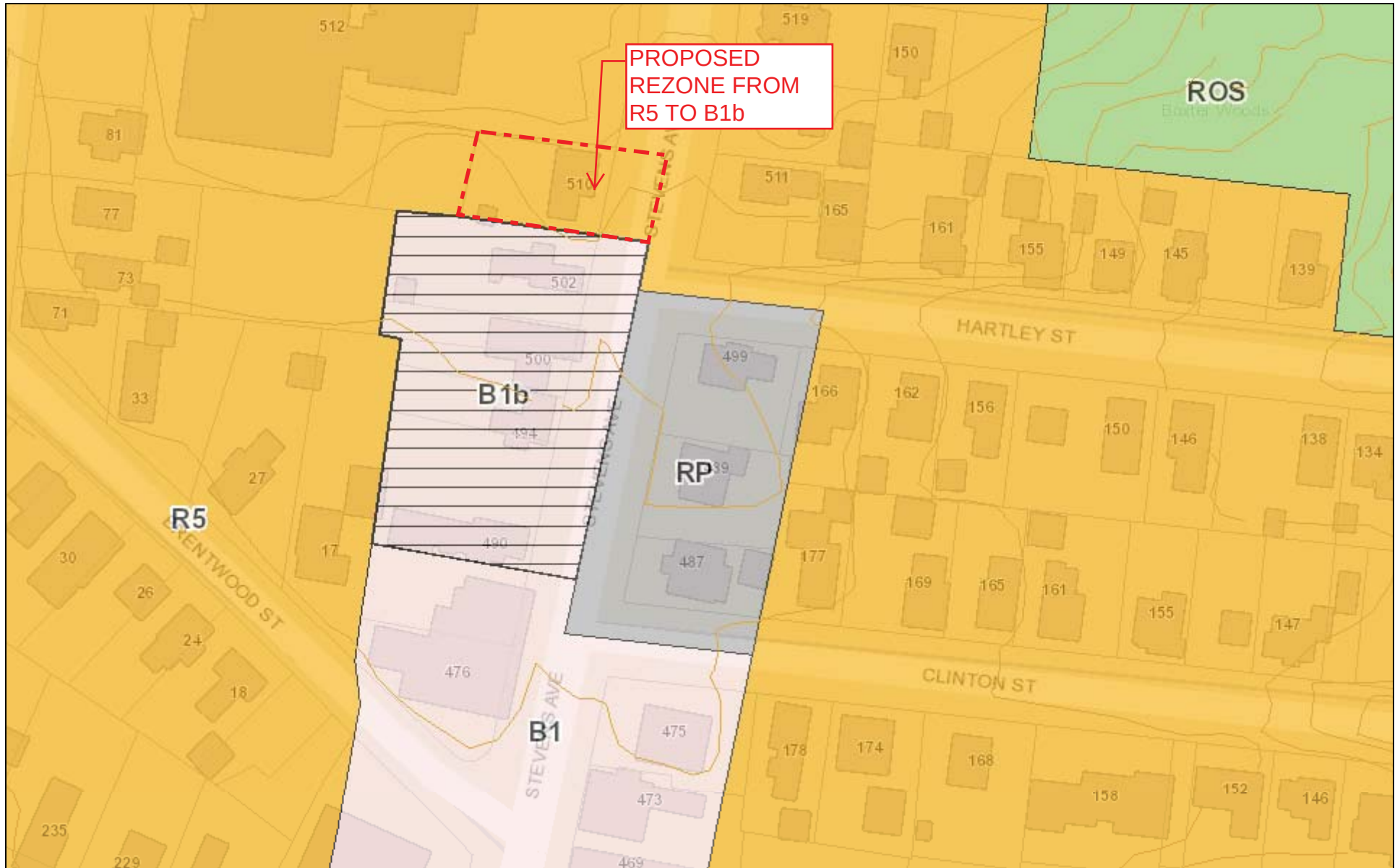
Shoreland Overlay Zone

Stream Overlay Zone

Stream_protection



City of Portland, DPS



November 21, 2016

Contours

Coastal Buffer

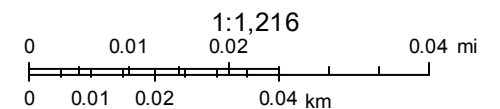
H - Highly Unstable

U - Unstable

Shoreland Overlay Zone

Stream Overlay Zone

Stream_protection

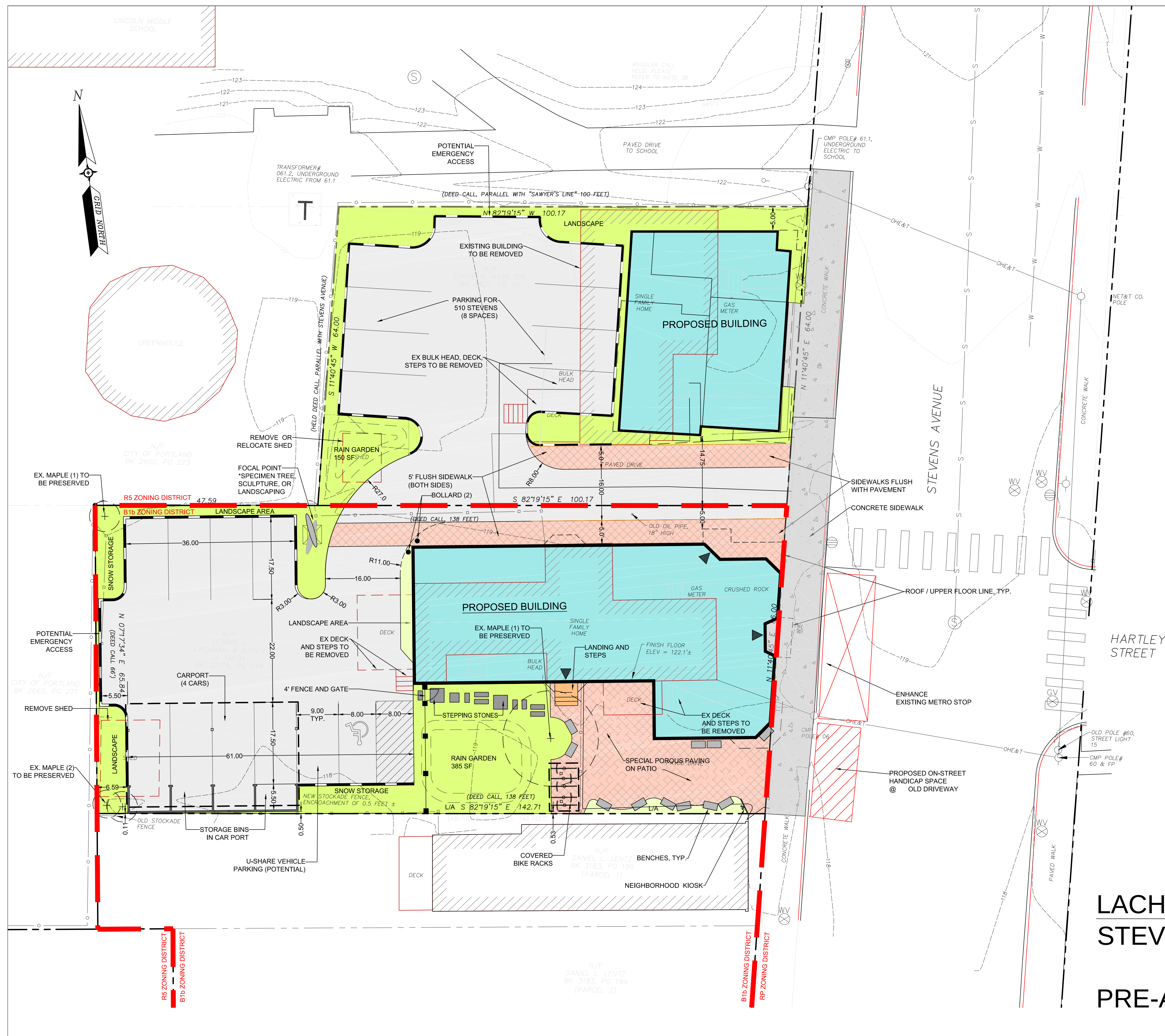


City of Portland, DPS

BY: CARROLL ASSOCIATES

DATE: FEBRUARY, 2017

Web AppBuilder for ArcGIS
City of Portland, DPS | City of Portland |



PROPOSED MASTER PLAN

SCALE: 1"= 10'-0"
DATE: NOVEMBER 23, 2016
BY: CARROLL ASSOCIATES

LACHMAN-SMITH PROPERTY
STEVENS AVE, PORTLAND ME

PRE-APPLICATION MEETING

Re: 510 Stevens Ave

1 message

Barbara Barhydt <bab@portlandmaine.gov>

Wed, Apr 5, 2017 at 8:51 AM

To: Caroline Sprague <spraguecaroline@yahoo.com>

Cc: "Munson, Jennifer" <jmy@portlandmaine.gov>, Matthew Grooms <mgrooms@portlandmaine.gov>

Hello Caroline:

Thank you for your comments and we will include them in the review for the Planning Board. I do want to clarify that the Planning Division sent a receipt of application notice. I believe you received the notice for a neighborhood meeting held by the applicant. There will be a workshop and public hearing scheduled sometime in the future with the Planning Board, but we have not scheduled this item on the Board's agenda as of yet. Notices will be posted and mailed for those meetings.

If you have questions about the review process with the Planning Board, please let me know.

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, Apr 4, 2017 at 7:28 PM, Caroline Sprague <spraguecaroline@yahoo.com> wrote:

We just received notification of a meeting occurring next Tuesday regarding the property located at 510 Stevens Ave. While we are unable to attend the meeting, my husband and I own two properties on Crosby Street and would like to be on the record as opposing a change of zoning to that location.

This change of zoning will have negative consequences on our property in various ways, including causing parking congestion on the surrounding streets.

We encourage you to NOT approve that change. The area has a very residential, undeveloped feel to it which is critically important to current owners of property. To allow someone to build a large multi unit in that location would completely change the look and feel of the area.

Thank you,
Caroline and Mark Sprague
20 and 26 Crosby Street

April 18, 2017

To: The Planning Board

I recently was able to attend the meeting at Siano's on April 14th, to hear about the rezoning request by the owners. The first thing that was stated was, "We are trying to revitalize Deering Center". Not sure what that means because we are vital all ready!

Since my last letter regarding 502 was mute, this letter will probably be also!!!

I can not make any of the meetings for I work Tuesday nights, but I hope this letter is read out loud for all to hear in attendance. My concerns and voice need to be heard!

You, as the Planning Board, obviously do not care about the people who reside near the Steven's Avenue side of the 510 zoning request. Nor do you care about the employees parking from the local businesses; the people coming to the area to the businesses; and the delivery trucks that will be delivering to these businesses.

If you did you would realize how you contradicted yourselves. Last September when school started everyone on the upper end of Clinton Street was given 3-4 tickets during the day because the 2 hour parking ban was enforced without warning. The neighborhood and businesses petitioned to have the parking ban stopped!

Your reason was that there was too many cars parked on Clinton Street and Steven's Avenue. Now, you put through 502, (more cars and traffic and an added business) and want to change the 510 lot to do the same.

Let it me known that I oppose this Site Plan and Subdivision because of multiple reasons:

Page 2

Traveling North from Woodfords Street up Stevens Avenue to Hartley Street:

Left Side of Street: Schools & Businesses ***Depicts Rental Unit(s) above

Deering High School
Longfellow Elementary School
Pleasant Avenue Church
Siano's Restaurant & Pizzeria
Pat's Meat Market - 2nd floor - Tree House Restaurant
House - Multiple Family *** (2-3 rents)
Honey Exchange
Roy's Shoe Shop - ***Living Quarters upstairs
Lincoln Middle School

Right Side of Street:

Burbank Branch Library
Photography Studio & One other business ***
Jet Video/ Postal Store/Ice Cream Shop ***
Hair Salon***
Tailor/Sewing Shop ***
Black Cat Coffee Shop***
Hair Salon
Scandinavian Shop
Quality Shop/Grocery/Sandwich Shop ***
Veterans Building - Offices above
Dr. Ron Cody, DDS ***
Grey Home - 4-5 Therapists Offices
White Building - Offices ?

That is a total of 22 active use buildings in the vicinity not counting any single homes in the area or apartment houses. We have plenty of traffic and businesses now.

My home is the second home on the left behind Dr. Cody's office and all of my neighbors, including myself, just complained in September about forcing the two hour parking limit. We, as a community, petitioned against enforcing the two hour limit because we do not have a problem with parking or safety at this time.

Knowing that the area is heavily traveled with the businesses and schools, the City of Portland keeps adding to the populated area. For example, building a Pharmacy School without enough parking for the students and if that wasn't bad enough, allowing for a Dental School. The students are forced to park in the street filling the whole length of Steven's Avenue from Morrill's Corner to Hartley Street. I feel really bad for these students for they have to walk a long way to their cars on a dimly lit street! Someone is going to get killed!

The area just can not handle any more traffic! I suggest a traffic study be done before any more buildings are renovated to add more apartments and businesses.

Thank you for your time and consideration.

Nancy Polito

177 Clinton Street

Portland, Maine 04103

207-807-2299



PLANNING BOARD REPORT PORTLAND, MAINE

6-Unit Condominium Development
5-7 Cumberland Avenue
Level III Site Plan and Subdivision Plan
2017-045

Submitted to: Portland Planning Board Date: May 19, 2017 Public Hearing Date: May 23, 2017	Prepared by: Matthew Grooms, Planner CBL: 14-C-17, 14-C-23 Project #: 2017-045
--	--

I. INTRODUCTION

Banner Properties, LLC appears before the Planning Board for a final site plan and subdivision review for a six-unit housing development at 5-7 Cumberland Avenue on Munjoy Hill. The proposed development includes a four-story building, five parking spaces, landscaping, stormwater treatment, and utility and sidewalk improvements. Vehicular access to this site is provided via an existing curb-cut shared with the recently approved project that is under construction by the same developer at 30 Merrill Street.



Figure 1: Existing Conditions

This development is being referred to the Planning Board for compliance with the site plan and subdivision standards. A total of 295 notices were sent to property owners within 500 feet of the site and a legal ad for the Planning Board hearing ran on April 17th and 18th, 2017 in the Portland Press Herald.

Applicant: Mike Boissonneau, Banner Properties, LLC

Consultants: Evan Carroll, Bild Architecture; Jon Whitten, Plymouth Engineering

II. REQUIRED REVIEWS

Waiver Requests	Applicable Standards
Aisle width – To allow a 19' aisle in the parking area <i>Supported by consulting traffic engineer and requested of the applicant.</i>	Technical Manual, Section 1.14, requiring that aisle width for right-angle parking be 24' per Figure I-27.
Parking dimensions – To allow all parking spaces at 8' x 15' <i>This waiver is supported by consulting traffic engineer and it has been requested that the applicant submit a formal waiver request.</i>	Technical Manual, Section 1.14, requiring that standard parking space be 9' x 18'.
Review	Applicable Standards
Site Plan	Article V
Subdivision	Article IV

Existing Zoning	R-6		
Existing Use	Residential (duplex)		
Proposed Use	Residential (6 condominium units, four efficiency and two 2-bedroom)		
Parcel Size	4,476 SF		
	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint	1,332 SF	1,791 SF	459 SF
Building Floor Area	2,424 SF	7,567 SF	5,143 SF
Impervious Surface Area	More Information Required	More Information Required	More Information Required
Parking Spaces	2	5	3
Bicycle Parking Spaces	0	5	5
Estimated Cost of Project	\$820,000		

[illegible]

Street. The site is currently occupied by a two-story duplex, which would be demolished under the plans proposed here. The site lies in an R-6 zone and is surrounded by residential uses, including both single and multi-family homes.

V. PROPOSED DEVELOPMENT

The applicant has proposed a contemporary four-story building to house four efficiency and two two-bedroom condominium units. Vehicular access would be provided via a modified curb cut on Merrill Street. The proposed driveway is shared with the previously approved 7-unit condominium project at 30 Merrill Street. Five parking spaces are proposed at the site's rear, including one handicap parking space. The applicant has proposed building entrances at the front of the building on Cumberland Avenue as well as at the rear, with the primary and accessible entrance to be located at the rear. The proposed building is 44.21' feet in height with a stepback proposed at 34.21' feet, with two rooftop terraces, one being located at stepback level and the second being located on rooftop level. Landscaping is proposed within the two side yards with a mixture of flowers and ornamental grasses to be located along the Cumberland Avenue frontage. Stormwater management is proposed with a pervious paver system. At the workshop on April 25, 2017, the Planning Board asked that the applicant consider augmenting the design slightly by use of different colors and or design elements to differentiate this building from the developer's other project at 30 Merrill Street.

VI. PUBLIC COMMENT/NEIGHBORHOOD MEETING

The Planning Division has received no public comments. The applicant has also provided neighborhood meeting minutes (*Attachments W, X and Y*). Four individuals from the public attended and raised questions regarding landscaping, building features and the project timeline.

VII. RIGHT, TITLE, & INTEREST

The applicant has provided a deed recorded on July 11, 2016 as evidence of right, title, and interest. A cross access easement is required for shared access between this property and the property at 30 Merrill Street, and this has been drafted as a condition for approval. (*Attachment E*).

VIII. FINANCIAL & TECHNICAL CAPACITY

The applicant has submitted a letter from Gorham Savings Bank attesting to their financial capacity (*Attachment G*).

IX. ZONING ANALYSIS

Staff conducted a zoning analysis which found that the project meets the use and dimensional requirements of the R-6 zone, including the maximum density of one unit/725 SF, minimum front yard setback of 5', minimum side yard setbacks of 5', required stepbacks of 10' above 35' in height, maximum height of 45', and minimum landscaped open space of 20%.

X. SITE PLAN SUBMISSION REQUIREMENTS (Section 14-527) and SUBDIVISION PLAT AND RECORDING PLAT REQUIREMENTS (Section 14-496)

XI. SUBDIVISION REVIEW (14-497(a). Review Criteria)

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's subdivision ordinance. Staff comments are below.

1. Water, Air Pollution

The stormwater management plan for the project is discussed in more detail under site plan review below. Based on the findings of the civil engineer's review (*Attachment 2*), no detrimental water or air quality impacts are anticipated.

2 & 3. Adequacy of Water Supply

The applicant has provided evidence of capacity from the Portland Water District (*Attachment Q*).

4. Soil Erosion

No unreasonable soil erosion or reduction in the capacity of the land to hold water is anticipated.

5. Impacts on Existing or Proposed Highways and Public Roads

Based on the findings of the traffic engineer's review (*Attachment 3*), no detrimental impacts to the existing street network are anticipated.

6. Sanitary Sewer/Stormwater Disposal

Sanitary sewer and stormwater impacts are discussed in more detail under site plan review below.

7. Solid Waste

Tenants will utilize municipal solid waste and recycling services that will be collected curbside by the city. No detrimental impacts are anticipated.

8. Scenic Beauty

This proposal is not deemed to have an adverse impact on the scenic beauty of the area.

9. Comprehensive Plan

The plans meet multiple goals from the city's housing plan, including ensuring "the construction of a diverse mix of housing types that offers a continuum of options across all income levels" and "encourag[ing] higher density housing for both rental and home ownership opportunities, particularly located near services, such as schools, businesses, institutions, employers, and public transportation."

10. Financial and Technical Capacity

As noted above, the applicant has submitted a letter from Gorham Savings Bank attesting to their financial capacity (*Attachment G*).

11. Wetland/Water Body Impacts

There are no anticipated impacts to wetlands or water bodies.

12. Groundwater Impacts

There are no anticipated impacts to groundwater supplies.

13. Flood-Prone Area

Per the city's existing flood maps, the site is not located in a flood zone

XI. DEVELOPMENT REVIEW

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's site plan ordinance. Staff comments are below.

1. Transportation Standards

a. Impact on Surrounding Street Systems

The development includes six residential units, which, per the applicant's trip generation analysis, are anticipated to generate three trips "within the peak hour" (*Attachment I*), this being in addition to the anticipated three trips generated by the project at 30 Merrill Street, for a total of six trips. Tom Errico, the city's consulting traffic engineer, has reviewed the applicant's submittals and has not identified any concerns regarding impacts to surrounding street systems (*Attachment 2*).

b. Access and Circulation

The final plans include utility, street tree, and driveway apron work within the existing 8' brick sidewalk along the frontage of the site. The applicant is proposing to replace the existing sidewalk along the property's frontage.

The building is proposed with two entrances, a front door with access from the Cumberland Avenue sidewalk and a rear door with access from the parking area. The front door, which is located atop a front stoop and is not ADA accessible, provides access to the first floor via an interior stairwell, from which the rest of the

building may be accessed. The rear door provides at-grade, direct access to two efficiency units located on the first floor. At present, pedestrian access to the rear of the site is limited to the Merrill Street driveway.

The plans show a driveway in pervious pavers which would provide access to five parking spaces, one of which would be handicap accessible. The drive aisle in the parking area proposed at less than 19', less than the city standard. As such, a waiver is required and has been requested from the applicant.

c. *Public Transit Access*

The proposed development is not located along a public transit route. As such, no provisions for transit access are required.

d. *Parking*

Division 20 of the land use ordinance provides an exception for the off-street parking requirement for the first three units in the R-6 zone and a 1:1 requirement thereafter. Per the ordinance then, only three off-street spaces are technically required. The applicant has elected to provide five off-street spaces. On the final plans, the applicant shows all five spaces at 8' x 15', dimensions which fail to meet the *Technical Manual* standard. Mr. Errico has expressed his support for a waiver, which has been requested of the applicant (*Attachment 2*).

The applicant is not proposing a handicap parking space for this project, so staff is recommending a condition of approval under which the applicant would need to supply information to the City which shows that this proposal is in compliance with applicable laws.

Two bicycle spaces per five dwelling units are required under the site plan ordinance. As such, three bicycle parking spaces are required. The final plans denote a bicycle rack on the sidewalk in front of the building to provide space for five bicycles. Additional bicycle parking would be provided in the building basement.

e. *Transportation Demand Management*

A transportation demand management plan is not required.

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 landscaping plan shows assorted shrubs and perennials, including dwarf balsam firs, rhododendrons, spirea, hostas, and day lilies which frame the front door on Cumberland Avenue. These plantings meet the city's landscaping standards, and Jeff Tarling, the city's arborist, has verbally indicated his satisfaction with the plans.

Per the city's site plan ordinance, six street trees are required for the six residential units proposed. The plans include the preservation of one existing street tree and the planting of one more. Site constraints prevent the planting of additional street trees. The applicant is proposing to make a financial contribution for the four remaining street trees, with a contribution. The financial contribution, as required by ordinance, is \$400 per tree or a total of \$1,600.

c. *Water Quality/Storm Water Management/Erosion Control*

In its current state, the site slopes from back to front and is largely pervious, save for the area occupied by the existing duplex. All runoff drains to Cumberland Avenue via overland flow and from there into existing catch basins which collect in the combined sewer in Cumberland Avenue. Under the proposed development, much of the site would remain pervious, as the entire parking area and driveway is designed with pervious pavers with a filter layer sub-base over native soils. The project will result in a de minimis increase in impervious area of approximately 315 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. Ms. Swett has reviewed the submitted plans and finds the proposed plans satisfactory (*Attachment 1*).

3. **Public Infrastructure and Community Safety Standards**

a. *Consistency with Related Master Plans*

As noted above, the project is generally deemed consistent with related master plans.

b. *Public Safety and Fire Prevention*

Keith Gautreau, of the Fire Prevention Bureau, has reviewed the plans and found them adequate in terms of emergency vehicle access and the city's public safety standards (*Attachment 1*).

c. *Availability and Capacity of Public Utilities*

The plans depict cross-street overhead electrical service from a pole on the southern edge of the Cumberland Avenue frontage. A sewer connection is proposed to an existing combined line in Cumberland Avenue. A wastewater capacity application is currently pending review (*Attachment C*).

Domestic and fire water service are also proposed from Cumberland Avenue. The applicant has provided evidence of water capacity (*Attachment V*).

Ms. Swett has reviewed the utility plan and details and found them adequate with respect to the city's technical standards.

4. **Site Design Standards**

a. *Massing, Ventilation, and Wind Impact*

The bulk, location, and height of the proposed building are not anticipated to result in health or safety problems from a reduction in ventilation or changes to the wind climate. Likewise, these elements of the plan are not anticipated to result in substantial diminution in the value or utility of neighboring structures.

Roof-mounted HVAC systems are depicted away from the cornice line on the east side of the building. Vents are also shown on the building sides near the building's rear.

b. *Shadows*

No shadow impacts to publicly accessible open spaces are anticipated.

c. *Snow and Ice Loading*

The applicant has been requested to provide information regarding ice and snow load controls along the building's perimeter.

d. *View Corridors*

Cumberland Avenue is not a protected view corridor.

e. *Historic Resources*

The site is not within or adjacent to a designated historic resource.

f. *Exterior Lighting*

The applicant has provided a photometric plan and two cut sheets depicting full cutoff fixtures (*Plan 21 and Attachment R*). These plan meets demonstrate a light trespass of 0.7 foot candles at the eastern property line, and that applicant has been asked to revise their plans in order to meet *Technical Manual* standards of 0.1 foot candles.



g. *Noise and Vibration*

As noted above, final plans and elevations show mechanical equipment on the roof at the interior of the site. The applicant has attested that all state and federal emissions requirements will be met (*Attachment P*).

h. *Signage and Wayfinding*

No signage or wayfinding is proposed.

i. *Zoning-Related Design Standards*

The applicant has provided a set of elevations, renderings, a context graphic, and a design narrative which reflect several rounds of review and speak to the architectural approach for the project (*Attachment M*). The narrative addresses the R-6 design standards, and argues that elements of the design relate closely to the surrounding context - the massing “much like the double-wide triple decker buildings that exist throughout the neighborhood,” the use of “areas of concentrated windows (like bay windows),” the recessed and covered front entry, the prominent cornice, and the use of clapboard siding. In response to both the drawings and the narrative, Caitlin Cameron, the city’s urban designer, has provided a memo highlighting the findings of the design review and establishing that the proposed design meets the majority of criteria for an alternative design review. Ms. Cameron has requested additional detail regarding façade materials as well as revisions to the proposed balconies. (*Attachment 5*). Under alternative design review, a project must be designed by a registered Maine architect, be compatible with the surrounding buildings in a two-block radius, be consistent with the principles of the R-6 standards, and meet the majority of design standards within each principle.

Figure 5: Rendering - Looking East



Figure 6: Rendering - Looking West

XV. XIII. STAFF RECOMMENDATION

Subject to the proposed motions and conditions of approval listed below, Planning Division staff recommends that the Planning Board approve the proposed six-unit condominium development at 5-7 Cumberland Avenue.

XIV. 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 May 23, 2017 for application 2017-045 relevant to Portland’s technical and design standards and other regulations; and the testimony presented at the Planning Board hearing:

1. The Planning Board **finds/does not find**, 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*) which requires that aisle width for right-angle parking be 24 feet per *Figure I-27*, that substantial justice and the public interest are secured with the proposed variation in this standard, and 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 the aisle as depicted in the proposed site plan;
2. The Planning Board **finds/does not find**, 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*) which requires that a standard parking space be 9’ x 18’, that substantial justice and the public interest are secured with the proposed variation in this standard, and 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 five 8' x 15' spaces;

3. 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)*) to allow for a contribution of \$1,600 to Portland's tree fund to be substituted for the provision of additional trees on site.

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 May 23, 2017 for application 2017-045 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 including the cross access easement, for review and approval by Corporation Counsel, the Department of Public Works, and the Planning Authority; and
2. Prior to Certificate of Occupancy, the applicant shall finalize condominium documents for review and approval by Corporation Counsel.
3. The applicant shall submit required easement documentation to allow for cross-site access between this property and the property at 30 Merrill Street for review and approval by Corporation Counsel, the Department of Public Works, and the Planning Authority.

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 May 23, 2017 for application 2017-045 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 submit a revised construction management plan for review and approval by the Department of Public Works and the Planning Authority; and
2. The applicant shall provide additional information in support of the removal of the handicap parking space demonstrating that Fair Housing and ADA requirements are being met.

XVI. ATTACHMENTS

PLANNING BOARD REPORT ATTACHMENTS

1. City Staff review comments (4/18/2017)
2. T.Y. Lin Comments (4/20/2017)
3. Woodard and Curran Memo (5/16/2017)
4. T.Y. Lin Comments (5/19/2017)

APPLICANT'S SUBMITTALS

- A. Cover Letter
- B. Level III Site Plan Application
- C. Wastewater Application
- D. Description of Project

- E. Evidence of Right, Title, & Interest
- F. Compliance With Zoning
- G. Evidence of Financial Capacity
- H. Construction Management Plan
- I. Traffic Analysis
- J. Stormwater Report
- K. Maintenance Plan
- L. Consistency with City Master Plans
- M. Solid Waste
- N. Building Code Review
- O. Design Standard Analysis
- P. CPTED Analysis
- Q. Accessibility Analysis
- R. Mechanical Systems
- S. Lighting Cut Sheet (1)
- T. Lighting Cut Sheet (2)
- U. Lighting Cut Sheet (3)
- V. Portland Water District Letter
- W. Neighborhood Meeting (1)
- X. Neighborhood Meeting (2)
- Y. Neighborhood Meeting (3)

PLANS

- Plan 1. Cover Sheet
- Plan 2. Boundary Survey
- Plan 3. Site Plan
- Plan 4. Grading and Utility Plan
- Plan 5. Landscape Plan
- Plan 6. Erosion Control Plan
- Plan 7. Civil Details
- Plan 8. Construction Management Plan
- Plan 9. Floor Plan - Basement and First Floor
- Plan 10. Floor Plan – Second and Third Floor
- Plan 11. Floor Plan – Fourth Floor and Roof
- Plan 12. Elevations – Front and Side (West)
- Plan 13. Elevations – Rear and Side (East)
- Plan 14. Rendering – Looking East
- Plan 15. Rendering Looking West
- Plan 16. Building Sections
- Plan 17. Architectural Details (1)
- Plan 18. Architectural Details (2)
- Plan 19. Architectural Material Schedule
- Plan 20. Context Plan
- Plan 21. Construction Assemblies (1)
- Plan 22. Construction Assemblies (2)
- Plan 23. Code Review
- Plan 24. Life Safety
- Plan 25. Turning Template
- Plan 26. Lighting Plan

Planning and Urban Development Department Planning Division



April 18, 2017

Mike Boissonneau
Banner Properties, LLC
126 Underwood Road
Falmouth, ME 04105

Evan Carroll
Bild Architecture
PO Box 8235
Portland, ME 04101

RE: Staff Review Comments for 5-7 Cumberland Ave (2017-045) – Planning Board Review

Project Name:	5-7 Cumberland Ave	Project ID:	(2017-045)
Project Address:	5-7 Cumberland Ave	CBL:	14-C-17, 14-C-23
Applicant:	Mike Boissonneau		
Planner:	Matthew Grooms		

Dear Mr. Lachman,

Thank you for submitting a Level III Final Plan application for a four-story residential development with condominiums at 5-7 Cumberland Avenue. This proposal is being reviewed as a preliminary plan for Planning Board review subject to the following applicable Land Use Code provisions:

- Site Plan Ordinance, Article V
- Division 7. R-6 and R-6A Residential Zones
- Division 20. Off-Street Parking
- Neighborhood Meeting Regulations, Section 14-32

Final Plan for Planning Board Review: Staff Review Comments

I. Environmental Quality Standards

A. Stormwater/Engineering Comments (Lauren Swett)

1. 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. We offer the following comments:
 - a. Basic Standard: The Applicant has provided Erosion & Sediment Control notes, details, inspection and maintenance requirements, and good housekeeping practices in accordance with Appendix A, B, & C of MaineDEP Chapter 500. No specific

locations of catch basin inlet protection installation are identified on the plans. It appears that there are catch basins in the vicinity of the project on Cumberland Avenue, and these should be identified on the plan or a general note provided indicated that catch basin inlet protection is required.

- b. General Standard: The project will result in a de minimis increase in impervious area of approximately 315 square feet. The Applicant has proposed pervious pavers on the site for the parking and driveway area, connecting to the adjacent 30 Merrill Street site. The project will provide adequate stormwater treatment. The Application also notes that a green roof is to be proposed. The Applicant's proposed stormwater management system may qualify them for credits from the City's Stormwater Service Charge. Permeable pavers are currently listed in the City of Portland Stormwater Credit manual. Green roofs are not, but may be allowed with additional information provided. We have not reviewed any green roof design at this time.
 - c. Flooding Standard: The project will result in a de minimis increase in impervious area of approximately 315 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.
2. Final plans must be stamped by a professional engineer (Section 14-527, sub-section (e) of the City of Portland Land Use Ordinance). The Site Layout Plan included as part of this submission was not stamped.
3. The plans should note a location for snow storage. The snow storage location should be sited outside of existing and proposed drainage courses.
4. We recommend that the locations of roof downspouts/outlets be shown on the site plan. Additional erosion control may be required at some downspout locations.
5. It appears based on the photometrics plan that lighting levels may exceed the allowed levels with the lighting from the northern corner of the building. Per the technical standards, lighting levels at property line cannot exceed 0.1 foot candles, and the lighting at this location is shown as .7 foot candles.

II. Public Infrastructure and Community Safety Standards

A. Fire Department Comments (Keith Gautreau)

1. Emergency access to front of building and possibly rear via Merrill Street are adequate.
2. Existing hydrant locations are good.
3. Premises Identification
 - a. The main entrance of the building must be the address for the property. This should be consistent with 911, tax assessor, Inspections Division and future mailing address.
 - b. Street addresses shall be marked on the structure and shall be as approved by the City E-911 Addressing Officer.
 - c. If the building entry faces a different street, both the street name and number should be large enough to read from the street.
 - d. Address numbers must be a minimum of 4 inches high.
 - e. The number should be in Arabic numerals rather than spelled out (for example, "130" instead of "One Hundred and Thirty").
 - f. Color: Addresses should be in a color that contrasts with the background.
 - g. Whenever possible, should be illuminated.
 - h. Provide additional address signs at entrances to the property when the building address is not legible from the public street.

III. Site Design Standards

A. Site Plan Review Comments (Matthew Grooms)

1. Would the applicant consider the construction of a connecting ADA compliant internal sidewalk between the sidewalk along Cumberland Avenue and the rear entrance? At present, the only ADA accessible point of site access is via the driveway located on Merrill Street.
2. From the submitted plans, it is difficult to determine whether or not the front bay windows extend into the required front setback. Can the applicant provide these dimensions on the site layout plan?
3. How will snow storage or removal be handled on site? Please indicate appropriate areas for snow storage on applicable sheets.
4. The applicant shall provide all necessary utility capacity letters.
5. How will rooftop snow/ice load be managed to ensure pedestrian safety along Cumberland Avenue and within the rear and side yards.
6. Given that the applicant is only required to provide a total of three (3) parking spaces, would the applicant consider the removal of the existing handicap parking space to facilitate improved site circulation.
7. The location of bicycle parking shall be clearly indicated on applicable plan sheets.
8. A formal waiver request shall be submitted for parking lot aisle width and the percentage of proposed compact parking spaces.
9. Note - The rear entrance and 4' x 4' concrete slab are in close proximity to proposed on-site parking with potential for pedestrian-vehicular conflict. If possible, please consider reconfiguring this entrance to provide improved separation.
10. Provide the location and dimensions of all proposed exterior and rooftop mechanical equipment as well as associated details.

B. Design Review (Caitlin Cameron)

A design review according to the *City of Portland Design Manual* Standards was performed for the proposed new construction of a multi-family dwelling at 7 Cumberland Avenue. The review was performed by Caitlin Cameron, Urban Designer, Nell Donaldson, Planner, and Matt Grooms, Planner, all within the Planning Division of the Department of Planning & Urban Development. The project was reviewed against the *R-6 Small Infill Development Design Principles & Standards* (Appendix 7 of the Design Manual).

Findings of the Design Review:

The Planning Authority under an Alternative Design Review may approve a design not meeting one or more of the individual standards provided that all of the conditions listed below are met:

- A. The proposed design is consistent with all of the Principle Statements.
- B. The majority of the Standards within each Principle are met.
- C. The guiding principle for new construction under the alternative design review is to be compatible with the surrounding buildings in a two block radius in terms of size, scale, materials, and siting, as well as the general character of the established neighborhood, thus Standards A-1 through A-3 shall be met.
- D. The design plan is prepared by an architect registered in the State of Maine.

The proposed design **passes** all of the criteria – please refer to comments below.

Design Review Comments (*red text denotes principles or standards that are not met*):

Principle A Overall Context – Met – see below.

- *A-1 Scale and Form:* The building type proposed is similar to a double-triple with an additional unit stepped back on the 4th floor. Double-triples can be found in the surrounding context, the scale and form of those buildings are mitigated with the use of mansard or other similar roof forms on the third floor, pronounced and overhang cornice lines, bay windows, recessed entries with canopies. Of these formal and scaling elements, the project employs a canopy at the entrance, a recessed entry, overhanging cornice at the third floor, and window bays. The fourth floor is made recessive to emphasize the contextual three-story massing of the main portion of the building relating more directly in scale and form with the triple-deckers across the street.
- *A-2 Composition of Principal Facades:* The composition of the street-facing facade is consistent with context in terms of using symmetrical bays (two or three bays) that are oriented to the street. The rhythm, size, and proportion of windows is a contemporary exaggeration of the traditional design – staff found that the bays and the balconies bring articulation, vertical proportion, and human scale to the large windows.
- *A-3 Relationship to the Street:* The building placement is consistent with the spacing of the residential fabric – slightly setback from sidewalk to allow for stoops and provide privacy. The building is not parallel to the street in order to meet the side yard setback requirements – this is a subtle angle and less critical due to the fact that there is only one neighboring property that establishes a street wall on this block.

Principle B Massing – Met – Buildings in the neighborhood with similar massing and proportion (double-triples) that are wider at the street use changes in massing, like the roof form and bays, to mitigate the scale and provide a pedestrian-friendly, visually interesting street presence. The building emphasizes the double-triple massing by creating a strong roof line at the third floor and varies the street façade with plane changes.

- *B-1 Massing:* The principal mass is reminiscent of a double triple-decker found in the context – revisions to the cornice line at the third floor, the stepback of the fourth floor unit help to emphasize that three-story contextual massing. A recess was added at the center of the mass to create recessed entry and provide a façade plane change creating a similar effect as a window bay.
- *B-2 Roof Forms:* The proposed 7th unit on the top floor has been centered and stepped back with a material change – these three actions make that fourth floor recessive and the flat roof form of the primary mass is dominant.
- *B-4 Roof Pitch:* The roofs are monopitch/ flat roofs.
- *B-5 Façade Articulation:* The project employs two of the required articulation elements – covered entry, recessed entry. Small balconies are also used.
- *B-6 Garages:* Not applicable.

Principle C Orientation to the Street – Met – The project is oriented to the street with a street-facing door.

- *C-1 Entrances:* The entry is street-facing and emphasized with a canopy and recess.
- *C-2 Visual Privacy:* Visual privacy is adequately addressed; ground floor windows are higher than 48” above adjoining sidewalk grade; the ground floor is adequately raised above sidewalk grade appropriate for private residential buildings with living space on the ground floor (at least 24” is required by the standard).
- *C-3 Transition Spaces:* The project uses a canopy at the entrance, the building is set back with planters.

Principle D Proportion and Scale – Met – The façade elements are proportionate and scaled to the overall building.

- *D-1 Windows:* The majority of windows are rectangular and have vertical proportion; window proportion is not a proportion found in the context, however.
- *D-2 Fenestration:* The project appears to meet the 12% fenestration requirement and appropriately scaled to the massing of the building.
- *D-3 Porches:* The balconies included in this project are less than 48 sf and not do not meet this standard.

Principle E Balance – Met – The building façade composition creates a sense of balance with good use of overall and local symmetry and articulation of façade materials.

- *E-1 Window and Door Height:* The majority of window and door head heights align along a common horizontal datum.
- *E-2 Window and Door Alignment:* The majority of windows shall stack so that centerlines of windows are in vertical alignment.
- *E-3 Symmetricality:* Primary window compositions are arranged symmetrically around discernable vertical axes.

Principle F Articulation – Met – Based on the information given, it appears the project employs visually interesting and well composed facades.

- *F-1 Articulation:* Trim and balcony details will create shadow lines on front façade.
- *F-2 Window Types:* Two window types at street façade.
- *F-3 Visual Cohesion:* The visual cohesion of the façade is good – one siding material proposed.
- *F-4 Delineation between Floors:* The floors are delineated by fenestration patterns, balconies, watertable.
- *F-5 Porches, etc.:* The canopy is well integrated into the overall design and highlights the entrance. Balcony railings are used to provide articulation and shadow lines to the front façade.
- *F-6 Main Entries:* The main entry is emphasized with prominent placement facing the street, recessed, and the use of a canopy.
- *F-7 Articulation Elements:* The cornice is pronounced and has an overhang similar to those found in context multi-family buildings; the trim details are not clear; the façade offset is at least 12”.

Principle G Materials – Met– The material choices are well-placed and the siding is a contemporary version of clapboard.

- *G-1 Materials:* The residential context is predominantly clapboards with occasional shingle or brick. The proposal uses fiber cement clapboard with horizontal orientation – the reveal is larger than the traditional scale. Please indicate on the elevations the material selection for the water table.
- *G-2 Material and Façade Design:* The materials are appropriately placed according to their nature – concrete base?, clapboard above.
- *G-3 Chimneys:* Not applicable.
- *G-4 Window Types:* Two window types on street façade.
- *G-5 Patios and Plazas:* Not applicable.

Additional Submittals Required:

Please upload the digital plans and documents to address staff comments. Upon receipt of the revised material, the City of Portland will review the additional plans and information for

conformance with applicable ordinances. Please be aware that an application expires within 120 days of the date upon which this written request for additional information was made and only one set of revised plans may be submitted for review. This item is scheduled to go before the Planning Board as a workshop item on April 25, 2017 at 7:00 pm. Following the workshop process, this item will be scheduled for a public hearing at the Planning Board's next available meeting and the staff will provide the Planning Board with a recommendation to approve, approve with conditions, or deny the final site plan.

If you have any questions, feel free to contact me at (207) 874-8725 or by email at mgrooms@portlandmaine.gov.

Sincerely,

Matthew Grooms
Planner

Electronic Distribution:

Tuck O'Brien, Planning Division Director
Barbara Barhydt, Development Review Services
Manager
Victoria Morales, Associate Corporation
Counsel

Anne Machado, Zoning Administrator
Captain Keith Gautreau, Fire
Jeff Tarling, City Arborist
Tom Errico, P.E., TY Lin Associates
Lauren Swett, P.E., Woodard & Curran



Matthew Grooms <mgrooms@portlandmaine.gov>

5-7 Cumberland Avenue - Preliminary Traffic Comments

Tom Errico <thomas.errico@tylin.com>

Thu, Apr 20, 2017 at 8:49 AM

To: Matthew Grooms <mgrooms@portlandmaine.gov>

Cc: Katherine Earley <kas@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>, Lauren Swett <lswett@woodardcurran.com>, Jeff Tarling <jst@portlandmaine.gov>

Hi Matt – I have reviewed the plans and offer the following preliminary traffic comments.

- I find the shared access/egress driveway condition to be acceptable and in fact believe this will also result in enhancements in on-site circulation for 30 Merrill Street.
- I do not find the layout of the handicapped parking space to be acceptable. In my professional opinion, the end parking space will not be accessible. The applicant has provided a vehicle turning template graphic, but I continue to be concerned about the subject parking space being blocked. I would suggest alternative parking layout configurations be considered.
- All parking spaces (other than the handicap parking space) are proposed to be compact size spaces. I support a waiver from the City's Technical standards as it relates to the percent of compact parking spaces allowed on a site.
- The applicant has provided a conceptual construction management plan and my interpretation is that no impacts to the sidewalk or Cumberland Avenue will occur. The applicant should specifically note whether any closures/impacts to traffic and pedestrians are anticipated, and if so the plan should provide details on how transportation elements will be managed.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE

Senior Associate

Traffic Engineering Director

TYLIN INTERNATIONAL

12 Northbrook Drive

Falmouth, ME 04105

+1.207.781.4721 main

+1.207.347.4354 direct

+1.207.400.0719 mobile

+1.207.781.4753 fax

thomas.errico@tylin.com

Visit us online at www.tylin.com

Twitter | Facebook | LinkedIn | Google+

"One Vision, One Company"

MEMORANDUM



TO: Matt Grooms, Planner
FROM: Lauren Swett, PE
DATE: May 16, 2017
RE: 5-7 Cumberland Avenue, Level III Site Plan Response to Comments

Woodard & Curran has reviewed the Site Plan Response to comments for the proposed development located at 5 Cumberland Avenue in Portland, Maine. The project involves the construction of a four story residential building with a shared driveway and parking in the rear of the lot.

Documents Reviewed by Woodard & Curran

- Response to Comments and attachments, dated May 12, 2017, prepared by bild ARCHITECTURE, on behalf of Banner Properties, LLC.
- Engineering Plans, dated May 12, 2017, prepared by Plymouth Engineering Inc., on behalf of Banner Properties, LLC.

Comments

- 1) 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.
 - a) Basic Standard: The Applicant has provided Erosion & Sediment Control notes, details, inspection and maintenance requirements, and good housekeeping practices in accordance with Appendix A, B, & C of MaineDEP Chapter 500.
 - b) General Standard: The project will result in a de minimis increase in impervious area of approximately 315 square feet. The Applicant has proposed pervious pavers on the site for the parking and driveway area, connecting to the adjacent 30 Merrill Street site. The project will provide adequate stormwater treatment.
 - c) Flooding Standard: The project will result in a de minimis increase in impervious area of approximately 315 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.
- 2) All comments have been addressed at this time.



Matthew Grooms <mgrooms@portlandmaine.gov>

5-7 Cumberland Avenue - Final Traffic Comments

Tom Errico <thomas.errico@tylin.com>

Fri, May 19, 2017 at 10:32 AM

To: Matthew Grooms <mgrooms@portlandmaine.gov>

Cc: Katherine Earley <kas@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>, Jeff Tarling <jst@portlandmaine.gov>, Lauren Swett <lszett@woodardcurran.com>

Hi Matt – I have reviewed the revised plans and offer the following final traffic comments as a status update of my April 20, 2017 comments.

- I find the shared access/egress driveway condition to be acceptable and in fact believe this will also result in enhancements in on-site circulation for 30 Merrill Street.

Status: I have no further comment.

- I do not find the layout of the handicapped parking space to be acceptable. In my professional opinion, the end parking space will not be accessible. The applicant has provided a vehicle turning template graphic, but I continue to be concerned about the subject parking space being blocked. I would suggest alternative parking layout configurations be considered.

Status: The plans have been revised and I find conditions to be acceptable. I support a waiver for parking lot aisle width. I would note that it is my understanding that City staff is requesting the applicant provide supporting information noting the handicap parking space location meets ADA requirements.

- All parking spaces (other than the handicap parking space) are proposed to be compact size spaces. I support a waiver from the City's Technical standards as it relates to the percent of compact parking spaces allowed on a site.

Status: I have no further comment.

- The applicant has provided a conceptual construction management plan and my interpretation is that no impacts to the sidewalk or Cumberland Avenue will occur. The applicant should specifically note whether any closures/impacts to traffic and pedestrians are anticipated, and if so the plan should provide details on how transportation elements will be managed.

Status: The applicant has not provided a response to this comment. I would suggest a condition of approval note the requirement for a construction management plan for review and approval prior to the issuance of any City permit.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE
Senior Associate

Traffic Engineering Director

TYLININTERNATIONAL

12 Northbrook Drive

Falmouth, ME 04105

+1.207.781.4721 main

+1.207.347.4354 direct

+1.207.400.0719 mobile

+1.207.781.4753 fax

thomas.errico@tylin.com

Visit us online at www.tylin.com

Twitter | Facebook | LinkedIn | Google+

"One Vision, One Company"



ingenuity thoughtfulness empathy

February 24, 2017

Barbara Barhydt, Development Review Manager
City of Portland, Planning Division
389 Congress Street, 4th Floor
Portland, Maine 04103

**RE: Level III Site Plan Application
6 Unit Residential Condominium Development
7 Cumberland Street
Portland, Maine**

Dear Barbara,

On behalf of our client, Banner Properties LLC, we are pleased to submit this Level III Site Plan Application for the development of 6 residential condominium units at 7 Cumberland Street. We look forward to collaborating with you to help create much needed mid-level market-rate dwelling units on Munjoy Hill.

The building will be four (4) stories with a full basement and surface parking in the rear. The parking will be accessed by a shared driveway with the 30 Merrill Loft Condo Project off of Merrill Street. Pervious paving will be utilized along the drive and in the parking areas. The building will be accessed from a street entrance and a rear entrance to two accessible units.

In compiling this application, we have attempted to place the materials supporting our application in the same order as the City's checklist. Please feel free to contact me with any questions or concerns you may have regarding the attached application materials.

Sincerely,

A handwritten signature in blue ink that reads "Evan A. Carroll". The signature is fluid and cursive, with the first name "Evan" and last name "Carroll" being clearly legible.

Evan Carroll, AIA, LEED AP BC+D



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
p.m. (207) 874-8719

planning@portlandmaine.gov

Office Hours

Monday thru Friday
8:00 a.m. – 4:30

PROJECT NAME:

Condos at 7 Cumberland

PROPOSED DEVELOPMENT ADDRESS:

7 Cumberland Ave, Portland, ME 04101

PROJECT DESCRIPTION:

A new four story building with footprint of 1,791sf which will house (6) condominium units totaling of 7,567sf

CHART/BLOCK/LOT: 14-C-17 14-C-23

PRELIMINARY PLAN _____(date)
FINAL PLAN 2-22-17 (date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Mike Boissonneau Business Name, if applicable: Banner Properties LLC Address: 126 Underwood Rd City/State : Falmouth, ME Zip Code: 04105	Applicant Contact Information Work #: 207-332-3038 Home #: Cell #: Fax#: e-mail: mboisso1@maine.rr.com
Owner – (if different from Applicant) Name: Address: City/State : Zip Code:	Owner Contact Information Work #: Home #: Cell #: Fax#: e-mail:
Agent/ Representative Name: See Architect Address: City/State : Zip Code:	Agent/Representative Contact information Work #: Home #: Cell #: Fax#: e-mail:
Billing Information Name: Banner Properties LLC Address: 126 Underwood Rd City/State : Falmouth, ME Zip Code: 04105	Billing Contact Information Work #: 207-332-3038 Home #: Cell #: Fax#: e-mail: mboisso1@maine.rr.com

Engineer Jon Whitten Name: Plymouth Enginerring Address: 30 Lower Detroiy Road City/State : Plymouth, ME Zip Code: 04969	Engineer Contact Information Work #: (207)257-2071 Home #: Cell #: Fax#: e-mail: jon.whitten@plymouthenginerring.com
Surveyor Name: Richard Eaton Address: 58 Pleasant Street City/State : Westbrook, ME Zip Code: 04092	Surveyor Contact Information Home #: Work #: 207-854-2402 Cell #: Fax#: e-mail:
Architect Evan Carroll Name: Bild Architecture Address: PO Box 8235 City/State : Portland, ME Zip Code: 04104	Architect Contact Information Work #: (207)408-0168 Home #: Cell #: Fax#: e-mail:
Attorney Name: Address: City/State : Zip Code:	Attorney Contact Information Work #: Home #: Cell #: Fax#: e-mail:
Designated person/person(s) for uploading to e-Plan: Name: Evan Carroll e-mail: evan@bildarchitecture.com Name: e-mail: Name: e-mail:	

APPLICATION FEES:

Level III Development (check applicable reviews) ☒ Less than 50,000 sq. ft. (\$750.00) ☐ 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 (\$50.00 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 (\$1,500) ☐ Stormwater Quality (\$250) ☐ Subdivisions (\$500 + \$25/lot) # of Lots _____ x \$25/lot = _____ ☐ Site Location (\$3,500, 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
---	---

INSTRUCTIONS FOR ELECTRONIC SUBMISSION:

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

1. Fill out the application completely and e-mail the **application only** to planning@portlandmaine.gov
(Please be sure to designate a person who will be responsible for uploading documents and drawings.)
This step will generate the project ID number for your project.
2. An invoice for the application fee will be e-mail to you. Payments can be made on-line at [Pay Your Invoice](#) , by mail or in person at City Hall, 4th Floor. Please reference the Application Number when submitting your payment which is located in the upper left hand corner of the invoice.
3. The designated person responsible for uploading documents and drawings will receive an email from eplan@portlandmaine.gov with an invitation into the project. At this time, you will upload all corresponding documents and plans into the project. For first time users you will receive a temporary password which you must change on entry. Make note of your username and password for any future projects.

Reminder: Before the project can move forward, the application fee shall be paid in full and all required documents and drawings shall be uploaded into e-plan correctly.

4. Follow the link below (Applying Online Instructions) for step by step instructions on how to do the following:
Tab 1 - Setting up the appropriate compatibility settings for your PC and getting started in e-plan.
Tab 2 - Preparing your drawings, documents and photos for uploading using the correct naming conventions
Tab 3 - Preparing and uploading revised drawings and documents

[Applying Online Instructions](#)

5. When ready, upload your files and documents into the following folders:
"Application Submittal – Drawings"
"Application Submittal – Documents"

6. Once a preliminary check has been made of the submittal documents and drawings, staff will move them to permanent folders labeled Drawings and Documents. As the process evolves you will be able to log in and see markups, comments and upload revisions as requested into these folders.

APPLICANT SIGNATURE:

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.

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: Evan Carroll	Date: 2.24.2017
--	-------------------------------

PROJECT DATA

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

Total Area of Site	4476	sq. ft.
Proposed Total Disturbed Area of the Site		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)		sq. ft.
Impervious Area (Total Proposed)		sq. ft.
Building Ground Floor Area and Total Floor Area		
Building Footprint (Total Existing)	1,332	sq. ft.
Building Footprint (Total Proposed)	1,791	sq. ft.
Building Floor Area (Total Existing)	2,424	sq. ft.
Building Floor Area (Total Proposed)	7,567	sq. ft.
Zoning	R6	
Existing		
Proposed, if applicable		
Land Use		
Existing	DUPLEX	
Proposed	MULTI-FAMILY CONDOMINIUM	
Residential, If applicable		
# of Residential Units (Total Existing)	2	
# of Residential Units (Total Proposed)	6	
# of Lots (Total Proposed)	1	
# of Affordable Housing Units (Total Proposed)	NA	
Proposed Bedroom Mix		
# of Efficiency Units (Total Proposed)	4	
# of One-Bedroom Units (Total Proposed)	NA	
# of Two-Bedroom Units (Total Proposed)	2	
# of Three-Bedroom Units (Total Proposed)	NA	
Parking Spaces		
# of Parking Spaces (Total Existing)	2	
# of Parking Spaces (Total Proposed)	5	
# of Handicapped Spaces (Total Proposed)	1	
Bicycle Parking Spaces		
# of Bicycle Spaces (Total Existing)	0	
# of Bicycle Spaces (Total Proposed)	5	
Estimated Cost of Project	\$820,000	

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

FINAL PLAN - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	GENERAL WRITTEN SUBMISSIONS CHECKLIST (* If applicant chooses to submit a Preliminary Plan, then the * items were submitted for that phase and only updates are required)
X		1	* Completed Application form
X		1	* Application fees
X		1	* Written description of project
X		1	* Evidence of right, title and interest
NA		1	* Evidence of state and/or federal permits
X		1	* Written assessment of proposed project's specific compliance with applicable Zoning requirements
NA		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.
NA		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
		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;
NA			Location and dimensions of all proposed loading areas including turning templates for applicable design delivery vehicles;
NA			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;
NA			A traffic control plan as detailed in Section 1 of the Technical Manual;
X			Proposed buffers and preservation measures for significant natural features, where applicable, as defined in Section 14-526(b)(1);
NA			Location and proposed alteration to any watercourse;
NA			A delineation of wetlands boundaries prepared by a qualified professional as detailed in Section 8 of the Technical Manual;
NA			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;
X			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;
NA		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;
NA		A shadow analysis as described in Section 11 of the Technical Manual, if applicable;
NA		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;
NA		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
- 2.
3. Name address, telephone number of architect
4. Proposed uses of any structures [NFPA and IBC classification]
- 5.
6. Square footage of all structures [total and per story]
7. Elevation of all structures
8. 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.)**
9. Hydrant locations
10. Water main[s] size and location
11. Access to all structures [min. 2 sides]
12. 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



Bradley Roland, P.E.
Water Resources Division

Date: 2/24/17

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

Site Address: 7 Cumberland Avenue

Chart Block Lot Number: 14 - C - 17

Proposed Use: Residential (6-unit)

Previous Use: Residential (2-unit)

Existing Sanitary Flows: _____ GPD

Existing Process Flows: _____ GPD

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

Existing latera; in Cumberland Ave.

Site Category	Commercial (<i>see part 4 below</i>)	☐
	Industrial (<i>complete part 5 below</i>)	☐
	Governmental	☐
	Residential	☒
	Other (<i>specify</i>)	☐

Clearly, indicate the proposed connections, on the submitted plans.

2. Please, Submit Contact Information.

City Planner's Name: _____ Phone: _____

Owner/Developer Name: Banner Properties

Owner/Developer Address: 126 Underwood Road, Falmouth, ME 04105

Phone: 332-3038 Fax: _____ E-mail: mboisso1@maine.rr.com

Engineering Consultant Name: Plymouth Engineering Inc. - Jon Whitten, Jr. PE

Engineering Consultant Address: PO Box 46, Plymouth, ME

Phone: 257-2071 Fax: 257-2130 E-mail: jon.whitten@plymouthengineering.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: 120 X 6 = 720 GPD

Peaking Factor/ Peak Times: 21.6 gallons per minute peak domestic flow

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.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.



ingenuity thoughtfulness empathy

Description of Project

The proposed project at 7 Cumberland Street consists of six condominium loft units to be sold at market rate.

The project design is presented under the alternative design review process and is compatible with the surrounding neighborhood in size, scale and siting. The building will be designed to high standards of energy efficiency and sustainable design, with features including a code-exceeding low-air infiltration and high-insulation building envelope, high efficiency mechanical systems, and low-VOC finishes.

The site and landscape design utilizes the on-site treatment of water run-off, indigenous plants that will not need irrigation once established, permeable paving, and lighting that meets both safety and light pollution standards. The project will provide five parking spaces and these spaces will be accessed via a shared driveway that uses an existing curb-cut on Merrill Street.

This private, market-rate development targets a market niche significantly lower than many of the luxury condo units recently constructed on Munjoy Hill. This is achieved by limiting partitions within units and utilizing conventional structure and materials. Banner Properties LLC is proud to be providing such a needed product in an urban location that places minimal burden on municipal infrastructure.

QUITCLAIM DEED WITH COVENANT

KNOW ALL PERSONS BY THESE PRESENTS, that, FIVE SEVEN LLC, a Maine limited liability company, with a mailing address of 100 Congress Street, Portland, ME 04101, grants to BANNER PROPERTIES LLC, a Maine limited liability company, with a mailing address of 100 Congress Street, Portland, ME 04101, with Quitclaim Covenant, a certain lot or parcel of land, with any improvements thereon, situated in the City of Portland, County of Cumberland and State of Maine, as more fully described in Exhibit A attached hereto.

See Exhibit A

Being a portion of the premises conveyed from Scott Somero to Five Seven LLC by Warranty Deed dated July 1, 2016 and recorded in the Cumberland County Registry of Deeds Book 33264, Page 225.

This conveyance is a transfer to an abutter. Grantee shall merge the premises conveyed herein with Grantee's adjacent land described in a deed from Edward B. Boissonneau dated December 18, 2014 and recorded in the Cumberland County Registry of Deeds in Book 31989, Page 345.

Witness my hand and seal this 11th day of July, 2016.

FIVE SEVEN LLC



Witness



By Thomas Landry
Its Manager

STATE OF MAINE
COUNTY OF CUMBERLAND

July 11, 2016

Then personally appeared the abovenamed Thomas Landry as Manager of Five Seven LLC and acknowledged the foregoing to be his free act and deed in his stated capacity.

Before me,



Notary Public/Attorney at Law

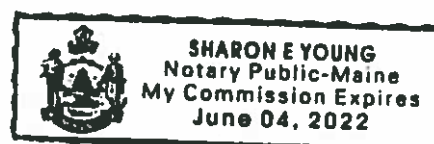


EXHIBIT A

A certain lot or parcel of land located off Cumberland Ave and Merrill Street but not adjacent to the streets located southeast of Banner Properties described in Book 31989 Page 345 and southwest of Munjoy Properties LLC described in Book 31588 Page 282 in the City of Portland, Cumberland County, and State of Maine and being more particularly described as follows.

Beginning at a 5/8" rebar set with cap at the northwest corner of Munjoy Properties LLC described in Book 31588 Page 282 and being N46°-18'-50"W ninety four and thirty nine hundredths 94.39' feet along the southwest bounds of Munjoy Properties LLC from a 5/8" rebar set with cap on the northwest bounds of Cumberland Ave at the southwest corner of Munjoy Properties LLC.

- 1) Thence S46°-18'-50"E three and zero hundredths 3.00' feet along the southwest bounds of Munjoy Properties LLC to a 5/8" rebar set with cap at the northeast corner of remaining land of grantor.
- 2) Thence S41°33'-31"W forty seven and eighty eight hundredths 47.88' feet along the northwest bounds of remaining land of grantor to a 5/8" rebar set with cap on the northeast bounds of land of Todd Grove described in Book 32062 Page 8.
- 3) Thence N43°-34'-54"W twelve and thirty four hundredths 12.34' feet along the northeast bounds of land of Grove to a 5/8" rebar set with cap on the southeast bounds of land of Erica Thompson described in Book 20400 Page 154.
- 4) Thence N41°-28'-00"E fourteen and fifty five hundredths 14.55' feet along the southeast bounds of land of Thompson to a 5/8" rebar set with cap on the southwest bounds of Banner Properties LLC described in Book 31989 Page 345.
- 5) Thence S42°-42'-48"E nine and thirty six hundredths 9.36' feet along the southwest bounds of Banner Properties LLC to a point being the southwest corner of Banner Properties LLC.
- 6) Thence N41°-33'-31"E thirty three and thirty three hundredths 33.33' feet along the southeast bounds of Banner Properties LLC to the point of beginning.

Containing 278 Square Feet, more or less.

Reference is made to a plan entitled "Boundary Survey & Topographical Map With Existing Conditions" dated 06-07-2016 and prepared by Richard W. Eaton P.L.S. of R.W. Eaton Associates of Westbrook, Maine.



ingenuity thoughtfulness empathy

Compliance with Zoning

Purpose:

The purpose of the R-6 is to “set aside areas on the peninsula for housing characterized primarily by multifamily dwellings at a high density providing a wide range of housing for differing types of households;” and the 7 Cumberland Ave project propose to provide loft style dwellings at a density of (6) units per 0.1027 acres or 58 units per acre.

Permitted Uses:

A multifamily dwelling is permitted in the R-6 zone, no open stairways are proposed, and no below-grade dwelling units are proposed. The project proposes (6) parking spaces, (4) are required.

Dimensional Requirements:

The proposed 7 Cumberland Ave. project conforms to all dimensional standards as outlined below:

	Requirement	Proposed
Min. lot size	2,000sf	4,476sf
Min. lot area/dwelling unit	725sf (6 units allowed on 4,476sf)	725sf 6 units proposed
Min. street frontage	20ft	43'-10" ft
Min. front yard setback	5ft (or average of adjacent yards) (adjacent yards are both 0ft)	5ft
Min. rear yard setback	10ft	10ft
Min. side yard setback	5ft	5ft
Structural setbacks	Apply over 35ft	Roofline will step back at 33'-6" tall
Max. lot coverage	60%	37% (1,676sf)
Min. lot width	20ft	43' – 10"ft
Max. structure height	45ft	45'ft
Min. landscaped open space	20%	22%
Max. garage opening	2	0ft (0%)

The housing preservation and replacement ordinance does not apply as the existing structure on the property only has two units.



February 16, 2017

City of Portland
Planning Division 4th Floor
389 Congress Street
Portland, Maine 04101

RE: Five Seven LLC

To Whom it May Concern:

Five Seven LLC is a customer of Gorham Savings Bank. To the best of our knowledge Five Seven LLC and the members of the LLC have the adequate experience and financial ability to develop the proposed project located at 7 Cumberland Avenue, Portland, Maine.

Should you need further information or clarification, please contact me at (207) 221-8428.

Thank you.

Sincerely,

A handwritten signature in blue ink that reads "David N. Moravick" with a long, sweeping underline.

David N. Moravick
Vice President – Commercial Services

**HOUSEKEEPING PERFORMANCE STANDARDS
FOR:
5-7 CUMBERLAND AVENUE
PORTLAND, MAINE**

Land Owner: **Banner Properties, LLC**
126 Underwood Road
Falmouth, ME 04105

Project Developer: **Banner Properties, LLC**

Responsible Party: **Banner Properties, LLC**

Prepared By: **Plymouth Engineering, Inc.**
PO Box 46
Plymouth, ME 04969
Tel: 207-257-2071 email: info@plymouthengineering.com

Introduction:

The owner/developer's contractor shall be responsible for maintaining proper housekeeping standards throughout the construction phase of the project. After the construction phase has been completed, the owner and/or operator of the project will be responsible.

Standards:

In accordance with the housekeeping performance standards required by MDEP chapter 500 stormwater regulations, the following standards shall be met:

- 1. Spill prevention.** Controls must be used to prevent pollutants from construction and waste materials stored on site to enter stormwater, which includes storage practices to minimize exposure of the materials to stormwater. The site contractor or operator must develop, and implement as necessary, appropriate spill prevention, containment, and response planning measures.
- 2. Groundwater protection.** During construction, liquid petroleum products and other hazardous materials with the potential to contaminate groundwater may not be stored or handled in areas of the site draining to an infiltration area. An "infiltration area" is any area of the site that by design or as a result of soils, topography and other relevant factors accumulates runoff that infiltrates into the soil. Dikes, berms, sumps, and other forms of secondary containment that prevent discharge to groundwater may be used to isolate portions of the site for the purposes of storage and handling of these materials. Any project proposing infiltration of stormwater must provide adequate pre-treatment of stormwater prior to discharge of stormwater to the infiltration area, or provide for treatment within the infiltration area, in order to prevent the accumulation of fines, reduction in infiltration rate, and consequent flooding and destabilization.
- 3. Fugitive sediment and dust.** Actions must be taken to ensure that activities do not result in noticeable erosion of soils or fugitive dust emissions during or after construction. Oil may not be used for dust control, but other water additives may be considered as needed. A stabilized construction entrance (SCE) should be included to minimize tracking of mud and sediment. If off-site tracking occurs, public roads should be swept immediately and no less than once a week and prior to significant storm events. Operations during dry months, that experience fugitive dust problems,

should wet down unpaved access roads once a week or more frequently as needed with a water additive to suppress fugitive sediment and dust.

- 4. Debris and other materials.** Minimize the exposure of construction debris, building and landscaping materials, trash, fertilizers, pesticides, herbicides, detergents, sanitary waste and other materials to precipitation and stormwater runoff. These materials must be prevented from becoming a pollutant source.

To prevent these materials from becoming a source of pollutants, construction and post-construction activities related to a project may be required to comply with applicable provision of rules related to solid, universal, and hazardous waste, including, but not limited to, the Maine solid waste and hazardous waste management rules; Maine hazardous waste management rules; Maine oil conveyance and storage rules; and Maine pesticide requirements.

- 5. Excavation de-watering.** Excavation de-watering is the removal of water from trenches, foundations, coffer dams, ponds, and other areas within the construction area that retain water after excavation. In most cases the collected water is heavily silted and hinders correct and safe construction practices. The collected water removed from the ponded area, either through gravity or pumping, must be spread through natural wooded buffers or removed to areas that are specifically designed to collect the maximum amount of sediment possible, like a cofferdam sedimentation basin. Avoid allowing the water to flow over disturbed areas of the site. Equivalent measures may be taken if approved by the Department.

- 6. Authorized Non-stormwater discharges.** Identify and prevent contamination by non-stormwater discharges. Where allowed non-stormwater discharges exist, they must be identified and steps should be taken to ensure the implementation of appropriate pollution prevention measures for the non-stormwater component(s) of the discharge. Authorized non-stormwater discharges are:

- (a) Discharges from firefighting activity;
- (b) Fire hydrant flushings;
- (c) Vehicle washwater if detergents are not used and washing is limited to the exterior of vehicles (engine, undercarriage and transmission washing is prohibited);
- (d) Dust control runoff in accordance with permit conditions and Appendix (C)(3);
- (e) Routine external building washdown, not including surface paint removal, that does not involve detergents;
- (f) Pavement washwater (where spills/leaks of toxic or hazardous materials have not occurred, unless all spilled material had been removed) if detergents are not used;
- (g) Uncontaminated air conditioning or compressor condensate;
- (h) Uncontaminated groundwater or spring water;
- (i) Foundation or footer drain-water where flows are not contaminated;
- (j) Uncontaminated excavation dewatering (see requirements in Appendix C(5));

(k) Potable water sources including waterline flushings; and

(l) Landscape irrigation.

7. Unauthorized non-stormwater discharges . The Department's approval under this Chapter does not authorize a discharge that is mixed with a source of non-stormwater, other than those discharges in compliance with Appendix C (6). Specifically, the Department's approval does not authorize discharges of the following:

(a) Wastewater from the washout or cleanout of concrete, stucco, paint, form release oils, curing compounds or other construction materials;

(b) Fuels, oils or other pollutants used in vehicle and equipment operation and maintenance;

(c) Soaps, solvents, or detergents used in vehicle and equipment washing; and

(d) Toxic or hazardous substances from a spill or other release.

8. Additional requirements. Additional requirements may be applied on a site-specific basis.

9. Non-stormwater discharges. Identify and prevent contamination by non-stormwater discharges.



Plymouth Engineering, Inc.

P.O. Box 46 – 30 Lower Detroit Road
Plymouth, Maine 04969
info@plymouthengineering.com
Tel: (207) 257-2071 fax: (207) 257-2130

Att. I

May 12, 2017

Traffic Generation and Maneuvering: 5-7 Cumberland Avenue, Portland, Maine

The proposed project at 5-7 Cumberland Avenue in Portland, Maine includes a six (6) unit building and associated parking area. The applicants are proposing five (5) compact parking spaces within a pervious paver parking area. Access to the parking area will be via an access easement over the 10' wide driveway at 30 Merrill Street. The access and maintenance agreement between the two properties is being prepared as part of the Site Plan application.

The applicant is proposing 5 parking spaces to maximize the salability of the units and provide convenient, off-street parking for the majority of the units. As with many parking areas within the City of Portland, the parking area has been designed to maximize the available area, while minimizing impervious area and allowing for safe access for the vehicles. This is the reason for proposing compact car spaces exclusively.

The average number of vehicle trips per day, per unit is expected to be 5.81 with an average rate of 0.44 trips per unit within the peak hour. Given these average rates from the Institute of Transportation Engineers, the estimated trip generation volume of the recently approved driveway at 30 Merrill Street is 44 trips per day and 3 trips in the peak hour. The expected trip generation for this project will add 35 trips per day and 3 trips within the peak hour. The proposed single aisle entrance to the site (utilizing an existing curb cut) is expected to be adequate for these expected traffic volumes. Additionally, the parking areas are designed so each vehicle can turn around and exit the property without backing into Merrill Street.

Prepared by:
PLYMOUTH ENGINEERING, INC.

Jon H. Whitten, Jr., P.E.
Senior Project Manager



Plymouth Engineering, Inc.

P.O. Box 46 – 30 Lower Detroit Road

Plymouth, Maine 04969

info@plymouthengineering.com

Tel: (207) 257-2071 fax: (207) 257-2130

STORMWATER MANAGEMENT PLAN

**5-7 Cumberland Avenue
Portland, Maine**

The following Stormwater Management Plan has been prepared for Banner Properties, LLC to evaluate stormwater runoff and erosion control for the proposed 6-unit residential building to be located at 5-7 Cumberland Avenue, Portland, Maine.

Site Calculations

Total Property Area	4,456 S.F.
Existing Impervious Area	2,326 S.F.
New Impervious Roof	1,869 S.F.
New Pervious Pavers	1,547 S.F.
Total Landscaped Area	1,040 S.F.
Total Developed Area	4,456 S.F.
Total New Impervious Area	-457 S.F.

Existing Conditions

The development parcel is located on the northerly side of Cumberland Ave., near the intersection with Merrill Street in Portland, Maine. The property is 4,456 square feet in area and currently includes a two-unit residential building with driveways. There is a brick sidewalk along the frontage of the lot and a street tree.

The lot gently slopes from north to south (back to front). Runoff is conveyed to Cumberland Ave. via overland flow, in the lot's current state. A combined sewer overflow system within the street collects stormwater runoff in a limited number of catchbasins.

Proposed Development

The applicant is proposing to remove the existing building and replace it with a three-story building that will house (6) six residential units. A new, (5) five space parking lot will be constructed at the rear of the property. The parking lot will be accessed via an access easement over a recently approved driveway and parking area at 30 Merrill Street. An access and maintenance agreement between the two properties is part of the development proposal. The parking area will be constructed with pervious, interlocking pavers, matching the construction of the driveway and parking area at 30 Merrill Street. Project fencing will be installed along the rear and side property lines.

Drainage Pattern

Runoff leaves the development area via overland flow to Cumberland Ave. Runoff will continue to flow off the site via overland flow in the developed state. The entire parking area will be pervious pavers that will allow treatment of the first flush. First flush runoff will be collected within the filter layers of the

sub-base and treated prior to being released into native soils and overflowing to the existing sidewalk at the front of the property. Once the sub-soil collection system is full, runoff will flow overland to Cumberland Ave., as it does today.

Flooding

The development area is not located within an area of flood hazard according to the Federal Insurance Rate Map 2300510014 B. See attached map.

Onsite & Offsite Soils

The on-site soils are shown on the attached Medium Intensity Soil Survey and are categorized as follows:

Soil Type Summary Table		
Soil Symbol	Soil Name	HSG
HIB	Hinckley Loamy Sand	A

Water Quality (BMP Standard)

The use of LID features, such as the pervious pavers, reduces the overall impervious footprint of the site while offering water quality treatment for runoff from the highest areas for potential contaminants. For this particular project, the water quality requirements will be met by use of pervious pavers within the parking area.

Pervious Paver Filter Bed Sizing

We propose to provide treatment for the parking area by constructing a Pervious Paver Filter Bed within the sub-base of the parking area and connecting the new system to the newly constructed system at 30 Merrill Street:

This bed will receive the runoff from approximately 1,547 s.f. of pervious pavers. The reservoir course of the Filter Bed is required to provide storage volume for 1" of runoff from the contributing area. The bed sizing is as follows:

Area of Watershed: 1,547 SF

Treatment Volume Required: Area x runoff depth: 1,547 SF x 1/12 FT = **128.92 CF**

Treatment Volume Provided:

Porosity = 40%, Bed Area = 1,547 s.f., Bed Depth = 1.25', Total Volume Treated = **773.5 CF**

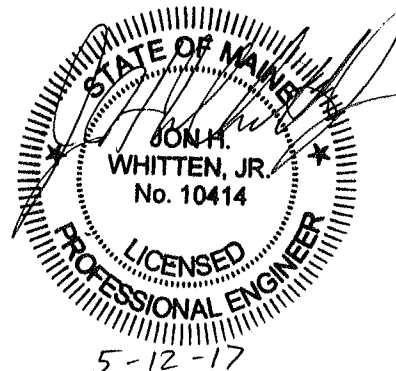
Summary

Given the reduction of overall impervious area on this site, the use of the LID features and the proposed landscaping this project meets the Basic, General and Flooding Standards of Chapter 500. Furthermore, the proposed stormwater design is not expected to cause flooding, erosion or other significant adverse effects downstream of the site.

Prepared by:
PLYMOUTH ENGINEERING, INC.



Jon H. Whitten, Jr., P.E.
Senior Project Manager



**MAINTENANCE & OPERATIONS PLAN OF STORMWATER MANAGEMENT FACILITIES
FOR:
5-7 CUMBERLAND AVE., 6-UNIT BUILDING
PORTLAND, MAINE**

Responsible Party: **Banner Properties, LLC**
126 Underwood Road
Falmouth, ME 04969

Plan Prepared by: **Plymouth Engineering, Inc.**
PO Box 46
Plymouth, ME 04969

List of Stormwater Measures:

Vegetated Areas
Pervious Pavers

Introduction:

The owner or operator of the proposed project will be responsible for the maintenance of all stormwater management structures, the establishment of any contract services required to implement the program, and the keeping of records and maintenance log book. At a minimum, the appropriate and relevant activities for each of the stormwater management systems will be performed on the prescribed schedule.

Inspection & Maintenance Tasks:

NOTE: The following instructions are excerpts from the Maine Department of Environmental Protection's *Stormwater Management for Maine, Volume III BMPs Technical Design Manual*, dated January 2006.

Vegetated Areas:

- 1. Routine Maintenance and Inspection:** The area should be inspected for failures following heavy rainfall and repaired as necessary for newly formed channels or gullies, reseeding/sodding of bare spots, removal of trash, leaves and/or accumulated sediments, the control of woody or other undesirable vegetation and to check the condition and integrity of the check dams.
- 2. Aeration:** Vegetated areas may require periodic mechanical aeration to restore infiltration capacity. This aeration must be done during a time when the area can be reseeded and mulched prior to any significant rainfall.
- 3. Erosion:** It is important to install erosion and sediment control measures to stabilize this area as soon as possible and to retain any organic matter on the surface.
- 4. Fertilization:** Routine fertilization and/or use of pesticides is strongly discouraged. If complete re-seeding is necessary, half the original recommended rate of fertilizer should be applied with a full rate of seed.

Pervious Pavers:

- 1. Winter Sand:** Use of winter sand is prohibited on pervious paver surfaces.
- 2. Fertilization:** Use of Fertilization of the area over the pavers shall be prohibited.
- 3. Monitoring and Inspections:** Inspecting the pervious paver system each month is recommended. Conduct the inspections after large storms to check for surface ponding at

the inlet that may indicate clogging. Water levels in the system should be observed to ensure that the system drains within 72 hours after filling.

4. **Sediment Removal and Maintenance of System Performance:** Accumulated sediment and debris shall be removed monthly from joint spaces. The system must be rehabilitated or replaced if its performance is degraded to the point that applicable stormwater standards are not met.

Task Frequency:

Table 11-1 Long-Term Inspection & Maintenance Plan				
	Spring	Fall or Yearly	After a Major Storm	Every 2-5 Years
Vegetated Areas				
Inspect all slopes and embankments	X		X	
Replant bare areas or areas with sparse growth	X		X	
Armor areas with rill erosion with an appropriate lining or divert the ero-sive flows to on-site areas able to withstand concentrated flows. See Appendix A(5) of Rule.	X		X	
Stormwater Channels				
Inspect ditches, swales and other open stormwater channels	X	X	X	
Remove any obstructions and accumulated sediments or debris	X	X		
Control vegetated growth and woody vegetation		X		
Repair any erosion of the ditch lining		X		
Mow vegetated ditches		X		
Remove woody vegetation growing through riprap		X		
Repair any slumping side slopes		X		
Replace riprap where underlying filter fabric or underdrain gravel is showing or where stones have dislodge		X		
Culverts				
Remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit	X	X	X	
Repair any erosion damage at the culvert's inlet and outlet	X	X	X	
Roadways and Parking Surfaces				
Clear accumulated winter sand in parking lots and along roadways	X			
Sweep pavement to remove sediment	X			
Grade road shoulders and remove excess sand either manually or by a front-end loader	X			
Grade gravel roads and gravel shoulders	X			
Clean-out the sediment within water bars or open-top culverts	X			
Ensure that stormwater is not impeded by accumulations of material or false ditches in the shoulder	X			

Table 11-1 Long-Term Inspection & Maintenance Plan				
	Spring	Fall or Yearly	After a Major Storm	Every 2-5 Years
Pervious Pavers				
Inspect and clean-out any pre-treatment measures that collect sediment and hydrocarbons entering an infiltration measure	X	X		
Provide for the removal and disposal of accumulated sediments within the infiltration area				X
Renew the infiltration measure if it fails to drain within 72 hours after a rainfall of one-half inch or more				X

Maintenance Log Sheet:

[illegible]



Project Consistency with City Master Plans

The proposed subdivision is precisely the type of development that is encouraged by Portland's Comprehensive Plan. It meets multiple comprehensive plan goals, including at least the following, each of which is discussed in more detail below:

FUTURE LAND USE PLAN

- Encourage orderly growth and development in appropriate areas, making efficient use of public services and preventing development sprawl. (State Goal A, Comprehensive Plan, Vol. I, Portland's Goals and Policies for the Future, p. 21);
- In the R-6 zone, encourage the existing compact lot development pattern typically found on the peninsula. (Comprehensive Plan, Vol. II, Future Land Use Plan, p. 65)

HOUSING POLICIES

- Advance the overall goal of maintaining a 25% share of Cumberland County's population, taking advantage of the City's capacity to accommodate more people (Comprehensive Plan, Vol. I, Portland's Goals and Policies for the Future, p. 21-22);
- Create new housing to support Portland as an employment center and to achieve an improved balance between jobs and housing, (Comprehensive Plan, Vol I, Portland's Goals and Policies for the Future, pp. 21-22);
- Ensure that an adequate supply of housing is available to meet the needs and preferences of all Portland households, including a continuum of options across all income levels. (Comprehensive Plan, Vol I, Portland's Goals and Policies for the Future, p. 44);
- Promote residential densities that are consistent with past development patterns. (Housing: Sustaining Portland's Future, p. 27);

SUSTAINABILITY

- Increase efficient use of transportation resources by avoiding decentralizing land use trends and supporting land use patterns that favor density and concentration. Comprehensive Plan. Vol I, Transportation Resources, T-7-8);

- Design housing to use new technologies and materials that reduce costs and increase energy efficiency. (Comprehensive Plan, Vol 1, Portland's Goals and Policies for the Future, p. 22)

A. Future Land Use Plan

In accordance with the mandate of the State Growth Management policies, the City designated all properties zoned R-6 as part of the growth area, however, the Future Land Use Plan went beyond that simple designation to assert that Portland needs growth to sustain it as a healthy city and to maintain its role as the economic, cultural and residential center for the region. (p. 55). Ideally, that growth will "provide housing near employment centers, support public transportation, attract families with children, expand the tax base, and stabilize neighborhoods." (p. 55)

In looking at where that growth can be accommodated within Portland, it found that only 9.75% of land in all residential zones is vacant, and in the highest density residential zone, the R-6 zone, only 2.77% of the land is vacant. As a way to foster the growth necessary to a healthy future, the Future Land Use Plan specifically endorses the recommendation, first made in Housing: Sustaining Portland's Future, to "rewrite[e] the zoning ordinance to encourage new housing and eliminate[e] barriers to development by allowing greater housing density and more efficient use of vacant land, infill lots, and redevelopment opportunities."

B. Housing Policies

Increased residential housing is viewed as a key to maintaining the health of the City. It is not sufficient for it merely to be an employment center for people to commute to by day, while living in and paying real estate taxes to suburban towns. The housing component of the comprehensive plan, Housing: Sustaining Portland's Future, calls for Portland to accommodate housing for more people so that the City increases to and then maintains a 25% share of the county's population. (p. 53)

One fundamental housing goal is to increase the supply of housing. To further that goal, the housing plan states the City should strive to ensure the construction of a diverse mix "that offers a continuum of options across all income levels." (p. 29) The City should also encourage higher density housing, "particularly located near services, such as schools, businesses, institutions, employers, and public transportation." (p. 30) Particular emphasis is placed on encouraging infill development, and housing within and adjacent to the downtown. In furtherance of the goal of developing a broad range of housing, it states the City should "[e]ncourage opportunities for the development of homes that are attractive to those households moving up in the real estate market . . . so Portland can remain competitive with surrounding suburban communities. (p. 32) Additional supply-based



objectives include "identify[ing] vacant land and redevelopment opportunities throughout the city to facilitate the construction of new housing" and "[p]romot[ing] Portland as a Pro-Housing Community." (p. 33) While some parts of the housing plan emphasize affordable assisted housing, it states "the need for market rate housing for mid and higher income households is also critically important to Portland's future. Eliminating barriers to housing development and supporting market rate projects through the approval process can assist in this." (p. 62b)

Another basic housing plan goal is to maintain neighborhood stability and integrity. The plan calls for the City to "[e]ncourage innovative new housing development which is designed to be compatible with the scale, character, and traditional development patterns of each individual residential neighborhood." (p. 44) The plan advocates "work[ing] with owners and developers to find productive uses for vacant and underutilized lots." (p. 45) The plan makes it clear that it is not trying to encourage suburban, single-story ranch house infill development that was typical of prior periods. Instead the 2002 plan values traditional patterns of development and residential density, and criticizes the fact that (particularly in the R-6 zone) the traditional development pattern cannot be replicated under the zoning then in effect. (p. 27) Since that date, the City has implemented the R-6 small lot provisions so that infill development can replicate the traditional character and pattern of development.

C. Sustainability

The land use policy promoting infill development and increased housing stock in close proximity to downtown, discussed above, has been identified by the City as an important part of creating environmental and economic sustainability. ("Sustainable Portland", Final Report of the Mayor's Sustainable Portland Taskforce, November, 2007). The proposed development is consistent with these goals.

Similarly, the Sustainability Report identified green building as an important means for reducing pollution and our collective carbon footprint. (Id., p. 6) This building is designed to have numerous green features including: all landscaping requires no irrigation; roof water treated on site; building envelope sealed to prevent air leaks with insulation well above present construction standards; energy efficient windows located for cross natural ventilation, without air-conditioning systems; energy efficient systems and appliances, and air exchangers; low VOC paints, glues and sealants; light roof color to prevent heat buildup; and green building materials, flooring, siding, and recycled products.



ingenuity thoughtfulness empathy

Solid Waste Management Plan: 7 Cumberland Street

Solid waste and recycling will be collected curbside by the city using pay per use purple bags and approved recycling bins. Appropriate trash containers will be placed in the storage basement for weekly storage.



ingenuity thoughtfulness empathy

NFPA Code Summary

Building Area Information

Building Footprint:	1,676 SF
R-2 Net:	6,021 SF
Parking Net:	816 SF
Building Gross:	7,698 SF

NFPA Code Overview

Use:	New Residential Apartment Building, Storage
Construction:	No minimum requirement
Sprinkler:	NFPA 13R (Supervised to meet standards set forth in Chapter 10 Article VIII of the City of Portland)
Occupancy:	32 Occupants

NFPA 10

NFPA 10	6.2.1.1	Each floor shall have a single (2) unit Class A Fire Extinguisher
---------	---------	---

NFPA 101

3.3.32.5	New Building
6.1.8.1.5	Residential Occupancy – Apartment Building (Chapter 30)
6.1.13	Storage (Chapter 42)
6.1.14.4.1	Required Separation - 2hr between Apt Bldg & Storage
6.1.14.4.3	1 hour separation required in sprinkled building
6.2.2.3	Ordinary Hazard Contents
7.1.3.2.1	Stairs connecting four or more stories shall have a minimum of 2 hour rating
7.1.5.1	Min headroom: 7'-6"
7.1.6.3	Cross Slope limited to 1:48
7.2.1.2.3.2	Egress door min clear width: 32"
7.2.1.4	Door swing and force to open shall comply with this section
7.2.1.5	Door locks, latches and alarms shall comply with this section
7.2.2.2.1.1	Max riser height: 7"
	Min Tread depth: 11"
	Min headroom: 6'-8"
7.2.2.2.1.2	Min stair width: 36" (for occupancy under 50)
7.2.2.3.2.3	Min landing depth: stair width
7.2.2.4.4.1	Handrail height: 36"
7.2.2.4.4.6	Handrail shape: 1 ½" circular cross section
7.2.2.4.4.9	Handrails shall return to wall or newel post
7.2.2.4.4.10	Handrails shall extend 12" at top of stair and one tread length at bottom
7.2.2.4.5.2	Min guard height: 42"
7.2.2.4.5.3	Open guards shall not allow the passage of a 4" sphere
7.2.2.5.4	Stairway identification shall comply with this section.
7.2.6.3	Stair discharge shall have a 2-hr fire resistance rating.



ingenuity thoughtfulness empathy

- 7.2.12.1.1 Sprinkler precludes need for area of refuge in stair.
- 7.3.1.2 **Occupancy Load**
- | | | |
|-------------------------------|--------------------------------|----------------------------|
| Residential Apartment: | 200 gross at 7,164sf is | <u>32 occupants</u> |
| Storage | NA | NA |
| Total Occupant Load: | | 32 occupants |
- 7.3.4 Min Egress width: 36"
- 7.4.1.1 See 30.2.4.4
- 7.8 Egress Illumination shall be in accordance with this section.
- 7.9 Emergency Lighting shall be in accordance with this section.
- 7.10 Marking for means of egress shall comply with this section.
- 30.1.6 No minimum construction requirements
- 30.2.1.1 Means of Egress shall comply with Chapter 7 and Chapter 30
- 30.2.4.4 Single stair permitted from building given
- 4 stories
 - Less than 3 units/floor
 - Two exits from basement
 - No distance from unit door to stair
 - 2-hr rated stair
 - Self-closing doors
 - No corridors
 - 1 hr rating between units
- 30.2.5 Common Path Limit: 50'
- 30.2.5.4.2 Dead-End Limit: 50'
- 30.2.6.2 Max Travel Distance within unit (sprinkled): 125'
- 30.2.6.3.2 Max Travel Distance from unit door to exit (sprinkled): 200'
- 30.3.4 Fire detection and alarm system shall comply with this section.
- 30.3.4.5 Smoke alarms shall be installed:
- In every sleeping area
- Outside every sleeping area
- At least one on each level
- 30.3.5.2 Sprinkler system NFPA 13R permitted for four or fewer stories.
- 30.3.6.1.2 Corridor walls (sprinkled): ½ hour
- 30.3.7.2 Dwelling unit separation (sprinkled): ½ hour
- 42.1.6 No minimum construction requirements
- 42.2.4.1 Single means of egress allowed within common path of travel limit.
- 42.2.5 Dead End Corridor: 100'
- Common Path of Travel: 100'
- 42.2.6 Maximum Travel Distance: 400'
- 42.2.3.2 Storage area walls and ceilings shall be Class A, Class V or Class C



ingenuity thoughtfulness empathy

Design Standards Assessment

Overall Context

The building size and scale is comparable to the neighboring multifamily buildings on Cumberland and Merrill. The building offers loft units in the traditional double-wide style found throughout Portland and Munjoy Hill. Like other buildings in the area this building faces the street with a front door located adjacent to the sidewalk. The door is highlighted with an awning and a porch to further enhance the feeling of an entry. Although the current rhythm of the block is slightly broken; the scale, form and relationship to the street of the proposed building helps strengthen the rhythm of the block to be more comparable to the area.

Massing

The proposed building has a massing much like the double-wide triple decker buildings that exist throughout the neighborhood. At the top of the third story a prominent cornice to emphasize the 3-story mass. The flat roof of the building is common and contextual for this building type. As is traditional for this building type, there is no garage door facing the street, and the parking is found behind the building. The massing of the front façade is articulated by balconies and a covered porch. Three story bay windows are found on either side of the porch.

Orientation to the Street

The front of the building opens to the street via a single door sheltered by an awning. The front of the building is further enhanced by the use of intentional landscaping and a porch area. Not only does this help create the feeling of the front entry but it also helps create a transition space between the street and front door. The windows on the street façade are arranged in a symmetrical and rhythmic pattern. The first floor occupants will have visual privacy since the windows are greater than 48" from the adjoining sidewalk. Off-street parking is concealed behind the building.

Proportion and Scale

Windows and doors are sized, scaled and arranged to have a strong and intentional relationship to the overall building massing. Fenestration on the front façade is over 35%, providing the appropriate welcome to the public street. The canopy over the front door is of a width that has a solid presence on the front façade.



ingenuity thoughtfulness empathy

Balance

The building employs several techniques to achieve balance. The windows and doors head heights all align along a common horizontal datum line. All windows on every façade stack in vertical alignment. The window and doors are symmetrically arranged from one side of the building to the other.

Articulation

The articulation of details seeks to utilize contemporary design within the contextual massing and proportion framework. A visual cohesion of materials is achieved by using concrete at the foundation of the building with the siding material on top. Bay windows found in the Munjoy Hill area, are used in a contemporary style that also feature "Juliet Balconies."

Materials

Like other buildings in the area our pallet of materials is limited to only a few. Concrete is being used where appropriate such as foundations and planters. This not only helps articulate the building but gives a sense of permanence. The siding of the building will be wide reveal clapboard siding.



ingenuity thoughtfulness empathy

Crime Prevention Through Environmental Design Narrative

Natural surveillance will be used to the maximum extent possible with two loft apartments on the first floor. These units will have view of the entrance approach, side, and back of the building.

The front entrance and the shared parking entrance will be well lit, the back entry is not recessed, preventing the possibility of entrapment. The open parking area will be lit during night hours to discourage unwanted use.

The landscape plan clearly delineates public and private space, utilizing plantings and fencing. The use of such features will clearly delineate private space without the need for signage.



ingenuity thoughtfulness empathy

Accessibility Narrative

The proposed project at 7 Cumberland Street will meet Fair Housing Accessibility Standards as is required for a new building. Due to the goal of providing housing at sub-market rates, no elevator will be installed and only the first floor units will need to meet the Fair Housing requirements. As no public spaces exist within the building, ADA will not apply.

The design includes two entrances: a contextual entrance and a practical entrance. The contextual entrance faces the street and can be used to access the central stairs. These elements give the building the same connection to the street that is found in the surrounding buildings and has documented historic precedent.

The practical entrance is located in the back of the building adjacent to the parking and represents the shortest path by which to leave the building. This back entrance and the way it is used is also consistent with the surrounding buildings. The back entrance is the accessible entrance, and is immediately adjacent to the accessible parking spot.



ingenuity thoughtfulness empathy

Mechanical Systems Statement:

The HVAC design effort for the multi-family residential project at 7 Cumberland Street has not begun yet, but it will be specified that all HVAC equipment will meet any applicable State and Federal emissions requirements.

7171 LED

STANDARD SPECIFICATIONS

HOUSING

Die cast, 0.090" thick housing designed for rugged applications. The housing features a 70 durometer o-ring seal that seats on the edge of the opening against the diffuser.

REFLECTOR

Formed aluminum, secured in position with hardware.

DIFFUSER

Injection molded clear prismatic polycarbonate, UV stabilized material with a base thickness of 0.090" that is resistant to damage.

LED PERFORMANCE - 3500K STANDARD

120-277V - 3500K, 82 CRI - L80 rating - 60,000 hrs - L70 rating (projected) - 100,000 hrs

Source lumens noted. Amperage rated @ 110V input

Operating ambient temperature: -20°C / -4°F - 40°C / 104°F

B6LED - 6W nominal, .05 A input - 711 lm - 119 lm/W

B12LED - 12W nominal, .10 A input - 1422 lm - 120 lm/W

C9LED - 9W nominal, .10 A input - 1009 lm - 121 lm/W

C17LED - 17W nominal, .15 A input - 1829 lm - 111 lm/W

C24LED - 24W nominal, .20 A input - 2438 lm - 100 lm/W

C37LED - 37W nominal, .30 A input - 3641 lm - 99 lm/W

MOUNTING

The 7171 is designed to be installed on either the wall or ceiling and mounted with proper anchors (by others). The housing has removable plugs for conduit entry in the side or rear wire entry from a j-box or conduit.

FINISH

This series is available in a standard bronze polyester powder coat.

WARRANTY

5 year limited warranty on this LED product. Consult factory for details.

ORDERING INFORMATION

7171	-	-	-	-
Model	2.	3.	4. (if required)	

2. SIZE

8	8.5" sq.
12	12.5" sq.

3. WATTAGE

8 SIZE

B6LED	1-B Series board
B12LED	2-B Series boards

C9LED	1-C Series board
C17LED	2-C Series boards
C24LED	2-C Series boards

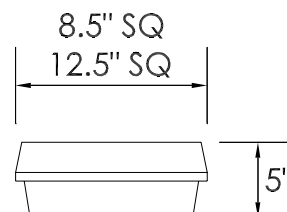
12 SIZE

B12LED	2-B Series boards
---------------	-------------------

C9LED	1-C Series board
C17LED	2-C Series boards
C24LED	2-C Series boards
C37LED	3-C Series boards

4. AVAILABLE OPTIONS

27K	2700K color temperature B6LED - 634 lm - 106 lm/W B12LED - 1266 lm - 107 lm/W C9LED - 900 lm - 108 lm/W C17LED - 1547 lm - 94 lm/W C24LED - 2062 lm - 84 lm/W C37LED - 3080 lm - 83 lm/W
30K	3000K color temperature B6LED - 689 lm - 115 lm/W B12LED - 1376 lm - 116 lm/W C9LED - 977 lm - 117 lm/W C17LED - 1763 lm - 107 lm/W C24LED - 2351 lm - 96 lm/W C37LED - 3512 lm - 95 lm/W
40K	4000K color temperature B6LED - 710 lm - 119 lm/W B12LED - 1421 lm - 120 lm/W C9LED - 1010 lm - 121 lm/W C17LED - 1862 lm - 113 lm/W C24LED - 2482 lm - 101 lm/W C37LED - 3707 lm - 100 lm/W
BAC	Buy American Compliant
DIM	Dimming driver (120-277V) (All except B6LED) (0-10V dimming control required)
ECW	Extreme Cold Weather (-40°C / -40°F min.)
ES	ENERGY STAR® (All except B6LED)
OCC^{1,2}	Occupancy Sensor (B12LED, C17LED & C24LED only)
P01	Photo Control (120V)
P02	Photo Control (208, 240, 277V)



WET



1) Minimum operating temperature is -20°C / -4°F. Cannot be used with ECW
2) Occupancy sensor operates with microwaves and is not recommended for use in waiting areas with elevators
Specifications and dimensions subject to change without notice.
Consult your Brownlee Lighting representative for availability and ordering information.



QUBE 200 SX

sconce

PROJECT

Job	Notes
Type	
Part #	

SPECIFICATIONS

Source Xicato XTM LED module - up to 2000 lumens
 C.C.T. 2700K, 3000K, 3500K or 4000K
 Color Consistency 1x2 SDCM (MacAdam) along BBL, CCT +/- 40K to 70K, Duv +/- .001
 CRI (Ra) 83 or 98
 Driver / Location Included / Remote mount or deep canopy options
 Dimming 0-10V or phase dimming to 10% standard; DALI, DMX and 1% dimming available
 Input Voltage 100 to 277VAC, phase dimmable versions are 120VAC only
 Power Up to 24 watts max, depending on LED module / driver
 Reflecto 20°, 40° or 60° - field replaceable without tool
 Material CNC machined aluminum with stainless steel hardware
 Finish Powder coat - TGIC polyester for exterior and interior use
 Weight 2.1 lb. [0.95 kg], ADA Compliant Version 1.8 lb. [0.8 kg]
 Location Listed for Wet & Damp locations
 Approvals ETL Listed to UL 1598, 2108, 8750 and CSA C22.2# 9 & #250.0
 L80 Life > 50,000 hours at 80% lumen maintenance based on IESNA LM-80-08
 Warranty Lifetime Limited Warranty - see warranty for details
 IES Files LM-79-08 IES files available at www.v2LightingGroup.com/download
 Modification Any modification or customization is possible - consult factory



ORDERING LOGIC

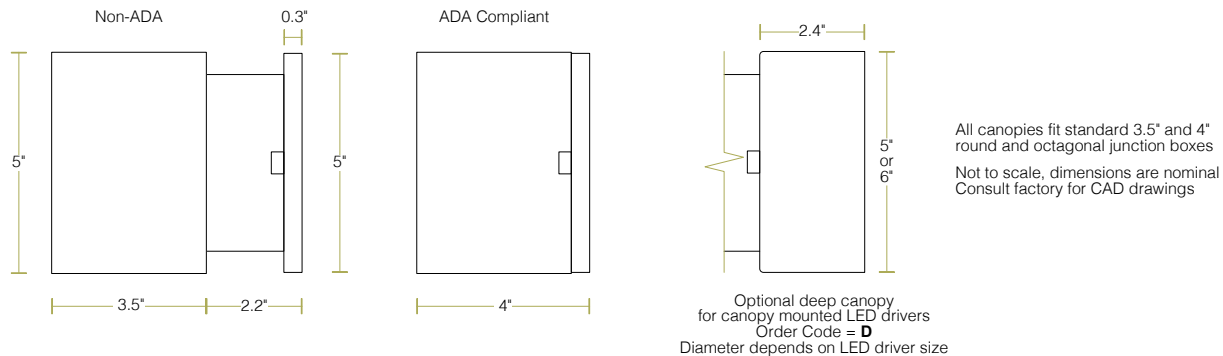
Model	Driver Location	Dimming	Mounting Location	Output	CRI *	C.C.T.	Reflector	Shell Color	Options
Q2SS									
	R =Remote	N =None	D =Damp	07 =700lm	83 =83	27 =2700K	20 =20°	XX	ADA =ADA Compliant
	D =Deep	P =Phase	W =Wet	10 =950lm	98 =98*	30 =3000K	40 =40°	(see chart on page 4)	
	Canopy	V =0-10V		13 =1300lm		35 =3500K	60 =60°		
		Z =Other		20 =2000lm		40 =4000K		ZZ =Custom	

* 98 CRI not available in 2000 lm

Example Part Number: **Q2SS-RND-13832740-S3**

QUBE 200 SX Sconce - Remote Driver, No Dimming, Damp Location - 1300 lm, 83 CRI, 2700K, 40° Reflector - **S3** Red Shell

DIMENSIONS



LED OPTIONS

Reflector Option	LES ¹	CRI	LED Specifications		
			Lumens ^{2, 3, 4}	Wattage ⁵ (W)	Efficacy ⁶ (lm/W)
20°, 40° & 60°	19mm	Ra = 83 ± 3	700	5.6	129
			950	8.2	118
			1300	11.7	111
			2000	19.5	102
		Ra = 98 R9 ≥ 90 R15 ≥ 95	700	7.4	97
			950	10.9	89
			1300	15.6	83

¹ LES: Light Emitting Surface diameter

² ±10%

³ Source lumens - see photometrics on page 3 for LOR to calculate delivered lumens

⁴ Higher lumen outputs are available in CORE / QUBE 300 and 400 series

⁵ Maximum luminaire wattage including LED driver = LED wattage x 1.2

⁶ Higher efficacies are available via lower drive currents - consult factory

CONTROL OPTIONS

Standard LED Drivers* (included in base price)	Order Code V = 0-10V dimming to 10%
	Order Code P = Phase dimming to 10% Compatible with both forward and reverse phase dimmers
Optional LED Drivers*	eldoLED 0-10V, DALI, or DMX dimming to 0%
	Lutron Hi-lume™ A-series, EcoSystem or forward phase dimming to 1% Lutron Hi-lume™ 5-series, EcoSystem dimming to 5%

* All LED drivers must be mounted in a deep canopy or remote

* Standard LED drivers are suitable for Wet Location

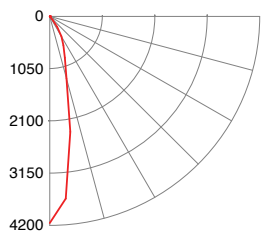
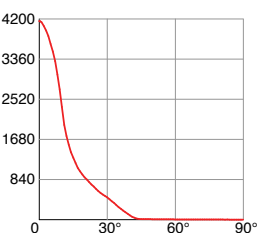
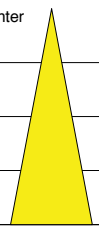
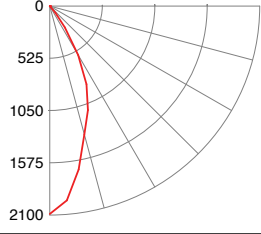
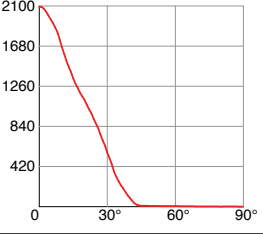
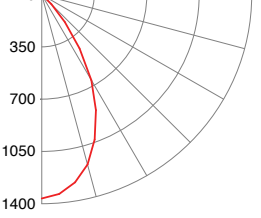
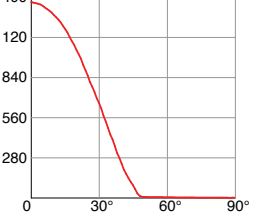
* Optional LED drivers are suitable for Damp Location

* For EM applications:

All LED drivers may be used with 3rd party inverter style systems

PHOTOMETRICS

LM-79-08 IES files available at www.v2LightingGroup.com/downloads

Beam Angle	Order Code	Intensity Plot (cd) (1300lm)	Polar Plot (cd) (1300lm)	Cone Diagram (1300lm)	Description												
20°	20			Illuminance at Center Beam Diameter <table><tr><td>5'</td><td>166 fc</td><td>1.9'</td></tr><tr><td>10'</td><td>42 fc</td><td>3.8'</td></tr><tr><td>15'</td><td>18 fc</td><td>5.7'</td></tr><tr><td>20'</td><td>10 fc</td><td>7.6'</td></tr></table> 	5'	166 fc	1.9'	10'	42 fc	3.8'	15'	18 fc	5.7'	20'	10 fc	7.6'	CBCP = 3195 cd/klm Beam Angle = 21° Field Angle = 63° LOR = 89.4% Beam = full width @ 50% Field = full width @ 90%
5'	166 fc	1.9'															
10'	42 fc	3.8'															
15'	18 fc	5.7'															
20'	10 fc	7.6'															
40°	40			Illuminance at Center Beam Diameter <table><tr><td>5'</td><td>84 fc</td><td>3.9'</td></tr><tr><td>10'</td><td>21 fc</td><td>7.9'</td></tr><tr><td>15'</td><td>9 fc</td><td>11.8'</td></tr><tr><td>20'</td><td>5 fc</td><td>15.7'</td></tr></table> 	5'	84 fc	3.9'	10'	21 fc	7.9'	15'	9 fc	11.8'	20'	5 fc	15.7'	CBCP = 1607 cd/klm Beam Angle = 43° Field Angle = 73° LOR = 88.7% Beam = full width @ 50% Field = full width @ 90%
5'	84 fc	3.9'															
10'	21 fc	7.9'															
15'	9 fc	11.8'															
20'	5 fc	15.7'															
60°	60			Illuminance at Center Beam Diameter <table><tr><td>5'</td><td>55 fc</td><td>5.6'</td></tr><tr><td>10'</td><td>14 fc</td><td>11.3'</td></tr><tr><td>15'</td><td>6 fc</td><td>16.9'</td></tr><tr><td>20'</td><td>3 fc</td><td>22.6'</td></tr></table> 	5'	55 fc	5.6'	10'	14 fc	11.3'	15'	6 fc	16.9'	20'	3 fc	22.6'	CBCP = 1050 cd/klm Beam Angle = 59° Field Angle = 86° LOR = 85.2% Beam = full width @ 50% Field = full width @ 90%
5'	55 fc	5.6'															
10'	14 fc	11.3'															
15'	6 fc	16.9'															
20'	3 fc	22.6'															

Beam Shaping Options

Add the order code shown below to the options box at the end of the part number:

Order Code	Description
-HL	Honeycomb Louver
-DF	Diffusion Lens
-SF	Satin finish on any standard reflector
-LS	Linear Spread Lens (60° x 1°)
-WW	Wall Wash Lens (shifts beam 20° from vertical)

COLOR OPTIONS

Anodized Effect



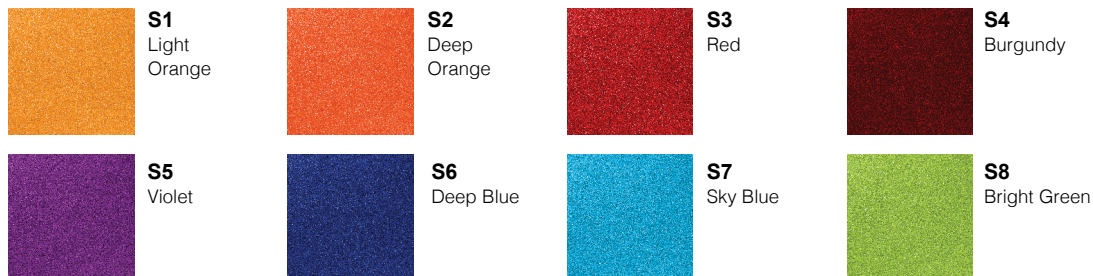
Metallic



Basic



Sparkle



The complete range of powder coat colors from Tiger Drylac is available - consult factory
Custom match powder coat colors are available - consult factory
Printed or on-screen colors are only approximations - consult v2 Color Chip Set Rev.4 before specifying



Project: _____

Fixture Type: _____

Location: _____

Contact/Phone: _____

MSL SERIES

LED MINI SECURITY LIGHT

650 LUMENS

Cat. No.: _____

PRODUCT DESCRIPTION

The MSL Series LED Security Light is a small and unobtrusive luminaire designed to replace small incandescent and CFL fixtures. With a shallow profile, the MSL blends in seamlessly with both architecture and nature. The wide light pattern makes this fixture a great choice for commercial applications where an economical LED security light is needed. The MSL Security Light is recommended for mounting heights of up to 10 feet, for installations above doors, balconies, garage and warehouse entrances, and other applications traditionally lighted with incandescent and CFL fixtures. The MSL Series is rated for outdoor or indoor use.

PRODUCT SPECIFICATIONS

Optics The MSL Series has a white reflector and micro-prism lens that significantly reduces glare, increases visual comfort and acts as an environmental seal, protecting the LED from rain, snow and dust.

Dark Sky Compliance The MSL Series is compliant with most Dark Sky ordinances.

Construction A die cast aluminum housing is sturdy and attractive. Powder coating seals and protects the fixture from the elements • The micro-prism lens is made of acrylic that has a strong resistance to UV rays – ideal for outdoor environments.

Thermal Management The LED light source is secured to the aluminum housing that acts as a heat sink • The driver is also mounted directly to the housing to help keep the electronics cool and ensure 100,000 hour L70 performance.

Electrical The LED driver is suitable for 120-277VAC 50/60 Hz • An optional daylight sensor is available.

Daylight Sensors The MSL Series can be ordered with an optional daylight sensor for automatic dusk to dawn operation • Option "PC" is a factory installed, button style photo sensor mounted on the front of the fixture. Fixtures with motion sensor option are automatically supplied with a photo sensor to prevent operation of the fixtures during daylight hours. Fixtures with emergency battery are not available in combination with a daylight sensor.

Motion Sensor: An optional motion sensor is also available to control operation of the fixture based on occupancy • All fixtures with the motion sensor option include a daylight sensor to prevent the fixture from operating during daytime hours • The sensor turns the fixture ON when it detects motion, and off after a user-established time • The time the fixture stays ON can be set from a few seconds to a total of 20 minutes.

Emergency Battery: When emergency lighting is required, the MSL fixtures can be ordered with an optional, integral emergency battery • The battery will operate the fixture for 90 minutes during a power outage • Fixtures with this option need an un-switched power source to make sure the battery stays charged • A second switched source can be used for the main power to the fixture • The battery option will operate in ambient temperatures of between -4°F and 122°F (-20°C and 50°C) • Not available in combination with photo sensor option.



Shown with daylight sensor



Standard

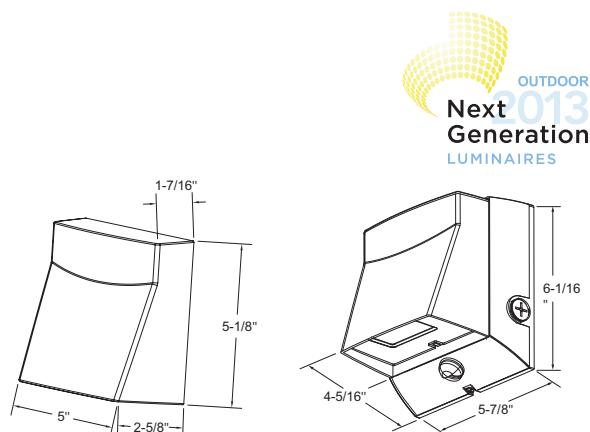


Shown with motion sensor



Shown with emergency battery

DIMENSIONS



Mounting Mounts directly to a junction box • The back plate includes knockouts to fit most junction boxes • The installation process takes less than 5 minutes, with a single screw securing the housing to the back plate • Alternatively, the MSL Series has a provision for rear entry of 1/2" conduit • Fixtures with optional motion sensor or battery backup also include two threaded and plugged holes for side entry with 1/2" conduit.

Finish Polyester powder coating protects the housing • Available in bronze or white finishes.

Specifications subject to change without notice.



MSL SERIES

LED MINI SECURITY LIGHT 650 LUMENS

Project: _____

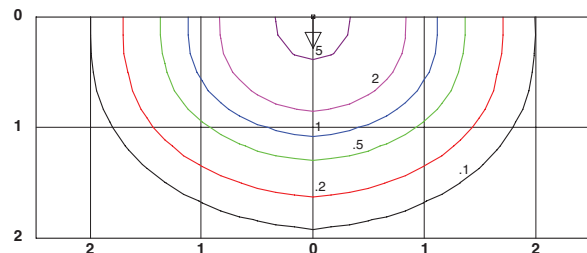
Fixture Type: _____

Location: _____

Contact/Phone: _____

Cat. No.: _____

PHOTOMETRY



Mounting Height	Multiplier
10'	0.5
8'	0.8
7'	1.0
6'	1.3
5'	2.0

Total Delivered Lumens = 663

Distance shown as multiples of mounting height. Illumination values shown in footcandles at 7' mounting height. Illumination values shown are for fixtures running on normal power. For fixtures running on emergency battery apply a 0.5 multiplier.

Certifications Meets UL1598 and CSA C22.2-250 standards • Suitable for wet locations • Compliant with most Dark Sky ordinances • ADA compliant (except when ordered with motion sensor or battery backup)

PRODUCT CODES

Catalog Number	Description	Input Volts	CCT	Delivered Lumens	Input Watts
MSL235KUNBZ	Mini Security Light, bronze	50/60 Hz	3500K	663	11W
MSL235KUNBZPC	Mini Security Light, bronze, with photo sensor	60 Hz	3500K	663	11W
MSL235KUNWH	Mini Security Light, white	50/60 Hz	3500K	663	11W
MSL235KUNWHPC	Mini Security Light, white, with photo sensor	60 Hz	3500K	663	11W
MSL235KUNBZMS	Mini Security Light, bronze with motion sensor	50/60 Hz	3500K	663	12W
MSL235KUNWHMS	Mini Security Light, white with motion sensor	50/60 Hz	3500K	663	12W
MSL235KUNBZEM	Mini Security Light, bronze with emergency battery	50/60 Hz	3500K	663	13W
MSL235KUNWHEM	Mini Security Light, white with emergency battery	50/60 Hz	3500K	663	13W

Delivered lumens shown are for fixtures running on normal power. Fixtures running on emergency battery deliver approximately 325 lumens.



Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

March 13, 2017

Jon Whitten
Plymouth Engineering
30 Lower Detroit Road
Plymouth, ME 04969

Re: 5-7 Cumberland Avenue, PO
Ability to Serve with PWD Water

Dear Mr. Whitten:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on March 2, 2017. Based on the information provided per revised plans dated 3/9/17, we can confirm that the District will be able to serve the proposed project as further described in this letter. **Please note that this letter does not constitute approval of this project from the District. Review and approval of final plans is required.**

Conditions of Service

The following conditions of service apply:

- A new 4-inch fire service with 2-inch domestic service tapped off from it may be installed from the water main in Cumberland Avenue. The service should enter through the properties frontage on Cumberland Avenue at least 10-feet from any side property lines.
- The existing building is currently served with a ¾-inch domestic water service; the size of this service is undersized for the proposed use. This service must be terminated by shutting the corporation valve and cutting the pipe from the water main.
- 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.
- Once the project is ready for construction, the owner or contractor will need to make an appointment to come in and complete a service application form and pay the necessary fees.



Existing Site Service

According to District records, the project site does currently have existing water service. A 3/4-inch diameter copper water service line provides water service to this site. Please refer to the “Conditions of Service” section of this letter for requirements related to the use of this service.

Water System Characteristics

According to District records, there is an 6-inch diameter cast iron water main in Cumberland Avenue and a public fire hydrant located 175 feet from the site. The most recent static pressure reading was 47 psi on July 21, 2016.

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.

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.

Should you disagree with this determination, you may request a review by the District’s Internal Review Team. Your request for review must be in writing and state the reason for your disagreement with the determination. The request must be sent to MEANS@PWD.org or mailed to 225 Douglass Street, Portland Maine, 04104 c/o MEANS. The Internal Review Team will undertake review as requested within 2 weeks of receipt of a request for review.

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, sweeping horizontal line extending from the end of the signature.

Gordon S. Johnson, P.E.
Engineering Services Manager



Plymouth Engineering, Inc.

P.O. Box 46 – 30 Lower Detroit Road
Plymouth, Maine 04969
info@plymouthengineering.com
Tel: (207) 257-2071 fax: (207) 257-2130

Att. W-Y

May 12, 2017

Waiver Request: 5-7 Cumberland Avenue, Portland, Maine

The proposed project at 5-7 Cumberland Avenue in Portland, Maine includes a six (6) unit building and associated parking area. The applicants are proposing five (5) compact parking spaces within a pervious paver parking area. Access to the parking area will be via an access easement over the 10' wide driveway at 30 Merrill Street. The access and maintenance agreement between the two properties is being prepared as part of the Site Plan application.

The applicant is proposing 5 parking spaces to maximize the salability of the units and provide convenient, off-street parking for the majority of the units. As with many parking areas within the City of Portland, the parking area has been designed to maximize the available area, while minimizing impervious area and allowing for safe access for the vehicles. This is the reason for proposing compact car spaces exclusively.

Due to these circumstances, the applicant respectfully requests a waiver of the parking standards to allow 100 percent of the proposed parking spaces to be compact car spaces.

Prepared by:
PLYMOUTH ENGINEERING, INC.

A handwritten signature in black ink, which appears to read "Jon H. Whitten, Jr.".

Jon H. Whitten, Jr., P.E.
Senior Project Manager



ingenuity thoughtfulness empathy

7 Cumberland Avenue Neighborhood Meeting Minutes

6:00pm Tuesday, April 4, 2017

Presenting:

- Evan Carroll, bild Architecture (EC)
- Mike Boissoneau, Banner Properties (MB)
- Tom Landry, Benchmark (TL)

Attendees:

- See attached sign-in sheet (ATT below, unless named)

Meeting Notes:

- EC Welcome and agenda
- Intros
 - Presentation
 - Q and A
 - Done by 7:00pm

Introductions:

- All Presenters and attendees introduced themselves before the meeting

Presentation:

EC

Site Presentation:

- Illustrated orientation of project to street, park and neighboring buildings.
- Parking (5) spaces will be in the back
- Access to parking will be from shared driveway on Merrill Street
- Landscaping around building

Building Design

- Front entrance is connected to stairway
- The placement of the building matches the context of the neighborhood.
- Facade will be fiber cement, wide style, clapboard siding.
- The building's roofline is offset to work with the zoning requirements.
- A custom railing system will be in front of the Juliet balconies.
- Entries all have canopies
- Deck along backside for 3rd floor unit

ATT /Public Comment (ATT used when source of comment was not noted)

- Todd: How does new footprint compare to the existing footprint?
 - EC: Referenced the survey drawing on the PowerPoint



ingenuity thoughtfulness empathy

- Katie: How many parking spaces will there be?
 - EC: 5 with the possibility of 6
- Todd: Will there be a fence in the back of the property?
 - EC: Will check
- Katie: Is there an elevator in this property?
 - EC: No Elevator
- Todd: Curious to the open space next to 30 Merrill
 - MB: Open space is owned by a different property owner, but is currently being used as a staging area for 30 Merrill construction.
- Katie: Will the upper floors have water views? Will the large tree on site be saved?
 - TL: Upper floor will have water view.
 - EC: The large tree will have to be removed.
- Katie: When will the project start?
 - MB: Hopefully this year.
- Todd: What's the sticking point to getting the project started?
 - MB: With required workshops and public hearings, it's just a long process.
- Todd: It is an improvement to what is there currently.
- Katie: Is there a way to make it different from 30 Merrill by use of colors or siding at a minimum? This neighborhood can handle color.
 - EC: We will definitely look into that.



ingenuity thoughtfulness empathy

Neighborhood Meeting Invitation

March 23, 2017

Dear Neighbor:

Please join us for a neighborhood meeting as we share plans for the construction of a 6-unit condominium at 7 Cumberland Avenue in Portland.

Meeting Location: East End Community Center, 195 North St, Portland, ME
Meeting Date: April 4th 2017
Meeting Time: 6:00pm

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 Evan Carroll at 207-408-0168. Or email at evan@bildarchitecture.com

Sincerely,

A handwritten signature in blue ink that reads "Evan A. Carroll". The signature is fluid and cursive, with the first name "Evan" and last name "Carroll" clearly legible.

Evan Carroll
Maine Licensed Architect

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@portland.gov

Name**Address**

Katy Harkleroad
Ryan Harkleroad
Todd Grove
Wayne Valzania

47 Howard St.
47 Howard St.
27 Lafayette
27 Merrill St

Email

katyharkleroad@yahoo.com

rthark@hotmail.com

todd@teamgrove.com

wayne@redhookdesignalliance.com



5-7 – Cumberland

5.12.2017

Response to City Comments:

I. Environmental Quality Standards

1. Addressed in the civil response
2. Addressed in the civil response
3. Addressed in the civil response
4. Addressed in the civil response
5. There will be a 6' fence at the location mentioned, so the lighting level, at the property line, will not exceed 0.1 foot candles

II. Public Infrastructure and Community Safety Standards

1. OK
2. OK
3. The drawing elevations now call out a location for the building address as well as for that address to follow city guidelines

III. Site Design Standards

1. The path from the ADA parking stall to the entrance and into the two units on the first floor is the accessible path. For the size of these two properties, the one driveway providing access to both back doors from the sidewalk is sufficient.
2. Bays do not extend over the average depth of the adjacent front yards. The structure adjacent to the property to the North is 2'-0" from the property line and the structure adjacent to the property to the South is 11" from the property line. Making the average depth 1'-5-1/2". The Bays on our project are 1'-11-3/4" from the property line.
3. Addressed in the civil response
4. Addressed in the civil response
5. Snow and ice will be removed from roofs only during extreme weather events because roofs are designed for snow-load. Pedestrians will be restricted from areas where snow is being ejected from the roof.
6. The accessible parking space is required by Fair Housing.
7. Addressed in the civil response
8. Addressed in the civil response
9. Without being able to reconfigure the entrance in this location, we propose placing a bollard on the slab to protect pedestrians from vehicles.
10. Location and dimensions of rooftop mechanical equipment have been added to the drawings.

7 CUMBERLAND STREET

PORTLAND, MAINE 04101

PERMIT SET

2/24/2017

GENERAL NOTES

1.
- ALL MATERIALS, COMPONENTS, AND WORK ARE NEW AND SHALL BE PROVIDED IN THIS CONTRACT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.
2.
- ALL WORK INCLUDED IN THIS CONTRACT SHALL CONFORM TO ALL STATE, NATIONAL AND OTHER CODES AND ORDINANCES WHICH APPLY TO THIS PROJECT.
3.
- IT IS THE INTENT AND MEANING OF THESE DRAWINGS THAT THE CONTRACTOR AND EACH SUBCONTRACTOR PROVIDE ALL LABOR, MATERIALS, TRANSPORTATION, SUPPLIES, EQUIPMENT, ETC. TO OBTAIN A COMPLETE JOB TO INDUSTRY STANDARD IN A PROFESSIONAL WORKMANLIKE MANNER.

•

CONTRACTORS AND SUBCONTRACTORS SHALL REVIEW THE DRAWINGS AND SPECIFICATIONS PRIOR TO PERFORMANCE OF ANY WORK.

•

CONTRACTORS AND SUBCONTRACTORS SHALL INSTALL ALL MATERIALS AS PER THE CONSTRUCTION DOCUMENTS AND THE MANUFACTURER'S INSTALLATION RECOMMENDATIONS.

•

INSTALLERS MUST BE TRAINED AND EXPERIENCED IN THE APPLICATION/INSTALLATION OF THE PRODUCTS/MATERIALS THAT THEY ARE INSTALLING.

•

PRODUCTS/MATERIALS MUST BE APPLIED/INSTALLED/USED IN CONDITIONS AS ALLOWED BY THE MANUFACTURER.

•

PRODUCTS/MATERIALS MUST BE APPLIED/INSTALLED/USED IN COORDINATION WITH ALL OTHER WORK CONDUCTED ON SITE.
4.
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND REPORT ANY DISCREPANCY(IES) IMMEDIATELY TO THE ARCHITECT.
5.
- ANY DEVIATIONS WHATSOEVER FROM THE DRAWINGS AND/OR SPECIFICATIONS ARE NOT ALLOWED WITHOUT THE OWNER'S WRITTEN PERMISSION. FAILURE TO PROCURE SUCH WRITTEN AUTHORIZATION PLACES ALL RESPONSIBILITY FOR THE VARIATION ON THE CONTRACTOR.
6.
- AT THE END OF EACH WORKING DAY, THE CONSTRUCTION SITE SHALL BE LEFT IN A NEAT AND CLEAN MANNER.
7.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS WHICH ARE REQUIRED FOR THE SATISFACTORY COMPLETION OF THE WORK AND THE OWNER SHALL BE RESPONSIBLE FOR PAYING ALL FEES, HOOK UP CHARGES, ETC. EXCEPTION: THE CONTRACTOR SHALL NOT BE RESPONSIBLE FOR THE SITE AND BUILDING PERMITS.
8.
- THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE OWNER FOR THE SEQUENCE AND TIMING OF OPERATIONS PRIOR TO COMMENCING WORK. AREAS FOR STAGING ETC. MUST BE APPROVED BY THE OWNER.
9.
- THE CONTRACTOR SHALL DISPOSE OF AND / OR RECYCLE ANY CONSTRUCTION DEBRIS FROM THE PROJECT SITE AS REQUIRED BY REGULATING AGENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING DISPOSAL PERMITS WHICH ARE REQUIRED. CONSTRUCTION DEBRIS FROM THE PROJECT SITE SHALL BE DISPOSED OF IN AN APPROVED AND LEGAL MANNER.
10.
- DUTY OF COOPERATION: RELEASE OF THESE PLANS CONTEMPLATES FURTHER COOPERATION AMONG THE OWNER, THE CONTRACTOR, THE ARCHITECT AND THE ARCHITECT'S CONSULTANTS. DESIGN AND CONSTRUCTION ARE COMPLEX. ALTHOUGH THE ARCHITECT AND HIS CONSULTANTS HAVE PERFORMED THEIR SERVICES WITH DUE CARE AND DILIGENCE, THEY CANNOT GUARANTEE PERFECTION. COMMUNICATION IS IMPERFECT, AND EVERY CONTINGENCY CANNOT BE ANTICIPATED. ANY AMBIGUITY OR DISCREPANCY DISCOVERED BY THE USE OF THESE PLANS SHALL BE REPORTED IMMEDIATELY TO THE OWNER. FAILURE TO NOTIFY THE OWNER COMPOUNDS MISUNDERSTANDING AND MAY INCREASE CONSTRUCTION COSTS. A FAILURE TO COOPERATE BY A SIMPLE NOTICE TO THE OWNER SHALL RELIEVE THE OWNER AND THE ARCHITECT FROM RESPONSIBILITY FROM ALL COSTS.
11.
- THESE DRAWINGS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THE GENERAL CONTRACTOR SHALL PROVIDE FOR THE SAFETY, CARE OF UTILITIES AND ADJACENT PROPERTIES DURING CONSTRUCTION, AND SHALL COMPLY WITH STATE AND FEDERAL SAFETY REGULATIONS.
12.
- ALL MATERIALS AND WORK SHALL BE GUARANTEED FOR A MINIMUM OF ONE YEAR FROM THE DATE OF FINAL PAYMENT.
13.
- COORDINATE ALL MECHANICAL & ELECTRICAL DEVICES SO THEY DO NOT CONFLICT W/ ARCHITECTURAL FEATURES.
14.
- DIMENSIONS SHOWN ON DRAWINGS ARE TAKEN FROM FACE OF GYPSUM WALLBOARD UNLESS OTHERWISE NOTED
15.
- COORDINATE ALL MECHANICAL & ELECTRICAL DEVICES SO THEY DO NOT CONFLICT W/ ARCHITECTURAL FEATURES.
16.
- ELECTRICAL WORK TO BE DESIGNED, PERMITTED AND INSTALLED BY CONTRACTOR.
17.
- EXISTING ELECTRICAL SYSTEM TO BE PRESERVED TO THE MAXIMUM EXTENT ALLOWABLE BY CODE.
18.
- PLUMBING WORK TO BE DESIGNED, PERMITTED AND INSTALLED BY CONTRACTOR.
19.
- HVAC WORK TO BE DESIGNED, PERMITTED AND INSTALLED BY CONTRACTOR.



ABBREVIATIONS

A/V	AIR/VAPOR
AFF	ABOVE FINISH FLOOR
B.O.	BOTTOM OF
CONC.	CONCRETE
E	EXISTING
ELEVS.	ELEVATIONS
FFE	FINISH FLOOR ELEVATION
FRP	FIBERGLASS REINFORCED PANELS
GRB	GYPSUM WALL BOARD
GYP BD	GYPSUM WALL BOARD
INSUL	INSULATION
O.C.	ON CENTER
P&S	BRACKET W/ CLOTHES POLE & SHELF
PT	PRESSURE TREATED/PAINTED
RCP	REFLECTED CEILING PLAN
SAT	SUSPENDED ACOUSTICAL TILE
SIM	SIMILAR
STRUCT	STRUCTURAL DRAWINGS OR STRUCTURAL ENGINEER
T.B.D.	TO BE DETERMINED
T.O.	TOP OF
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VCT	VINYL COMPOSITE TILE

PROJECT CONTACTS

OWNER
MICHAEL BOISSONEAU
BANNER PROPERTIES LLC
207-332-3038

ARCHITECT
EVAN CARROLL, ARCHITECT
BILD ARCHITECTURE
PO BOX 8235
PORTLAND, ME 04104
P: (207) 408-0168
EVAN@BILDARCHITECTURE.COM

CIVIL ENGINEER
JON WHITTEN
PLYMOUTH ENGINEERING
30 LOWER DETROIT ROAD
PO BOX 46
PLYMOUTH, ME 04969
P:207-257-2071

LANDSCAPE ARCHITECT
NA

STRUCTURAL ENGINEER
AARON JONES
STRUCTURAL INTEGRITY
77 OAK STREET
PORTLAND, ME 04101
P:207-774-4614

DRAWING LIST

G100	COVER SHEET	
000	SURVEY	
C1	SITE LAYOUT	
C2	GRADING AND UTILITY PLAN	
C3	LANDSCAPE PLAN	
C4	EROSION & SEDIMENTATION CONTROL DETAILS	
C5	DETAILS	
G101	CONSTRUCTION ASSEMBLIES	
G102	CONSTRUCTION ASSEMBLIES	
G103	CODE SUMMARY	
G104	LIFE SAFETY	
A1.1	BSMNT / FIRST	
A1.2	2ND 3RD FLOOR PLANS	
A1.3	ROOF PLANS	
A2.1	ELEVATIONS	
A2.2	ELEVATIONS	
A3.1	SECTIONS	
A3.2	DETAILS	
A3.3	DETAILS	
A4.1	SCHEDULES	
S1.0	GENERAL NOTES	
S1.1	FOUNDATION PLAN	
S1.2	FIRST FLOOR FRAMING PLAN	
S1.3	SECOND FLOOR FRAMING PLAN	
S1.4	THIRD FLOOR FRAMING PLAN	
S1.5	ROOF FRAMING PLAN	
S2.1	SECTIONS	
S2.2	SECTIONS	

PERMIT SET
02/24/2017

Bild Architecture
PO Box 8235
Portland, ME
04104
207.408.0168
evan@bildarchitecture.com



PROJECT NO.
16035
PROJECT NAME
**7 CUMBERLAND
PORTLAND, ME**

REVISIONS	11 03-15-2017
	2 -
	3 -
	4 -
	5 -

PERMIT SET
NOT FOR CONSTRUCTION
TITLE SHEET

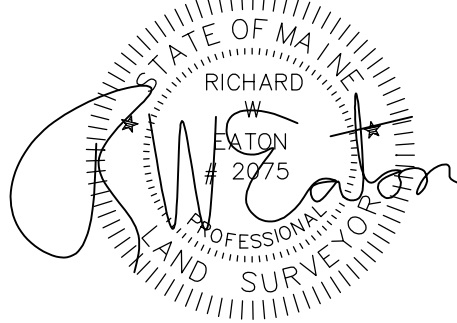
DRAWN BY
EAC
SHEET TITLE
TITLE SHEET
SHEET SCALE
NTS

ISSUE DATE
2/24/17
SHEET SCALE
NTS

G

100

CERTIFICATION



RICHARD W. EATON P.L.S. # 2075

LEGEND

- 5/8" Rebar Set With Cap
- Rebar/Iron Pipe Found
- Utility Pole
- N.F. Now or Formerly
- 1324/98 Book & Page
- Water Valve
- Gas Meter

Space & Bulk Standards:

Zone. R-6	Required
Mimum Lot Size	2,000 S.F.
Minimum Frontage	20'
Minimum Yard Dimensions	
Front Yard	5'
	Or Avarage Depths of Adjacent Yards
Rear Yard	10'
Side Yard	5'
Dwelling Unit	725 Square Feet
Maximum Lot Coverage	60%
Minimum Lot Width	20'
Maximum Building Height	45'

General Notes:

- Area of Subject Parcel 4,465 Square feet or 0.10 Acres
- Basis of Bearing, Maine State Plane NAD 1983 1802 West Zone Base Point, Granite Monument
With Bolt at Congress Street and Merrill Street T111-30-132, N303787.1960 E2931509.0560
Azimuth Point, Monument With DH on Washinton Ave. T111-21-123, N304140.2327, E2930845.2163
Azimuth N61-59'-44"W 751.88' Feet
- Vertical Datum is NGVD 1929 Benchmark is PK Nail on CMP Pole #9 West Side Congress Elevation = 139.79'
Provided By City of Portland Public Works Engineering
- Subject Tax Map 014 Block C Lot 014
- Subject not in Special Flood Hazard Area per FEMA Flood Rate Map Panel # 230051 0014B
Dated July 17, 1986 Parcel in C Zone
- Zone R-6

PLAN REFERENCE

- Condominium Plat Marquis Lofts Condominium 33-35 LaFayette Street, Portland
Made For Random Orbit Inc, By Owen Haskell, Dated March 3, 2014 Recorded in Plan Book 214 Page 145
- Portland Valuation Plan By William Goodwin Dated 1882 Number #14
- Street Line Sheets From Portland Engineering Office Dated Feb 1926 Number 181
- City of Portland Dept. of Public Works, Merrill St. Rehab Sewer,
Approved July 14, 1938 Sheet 5 & 6 On File at City Engineer Vault

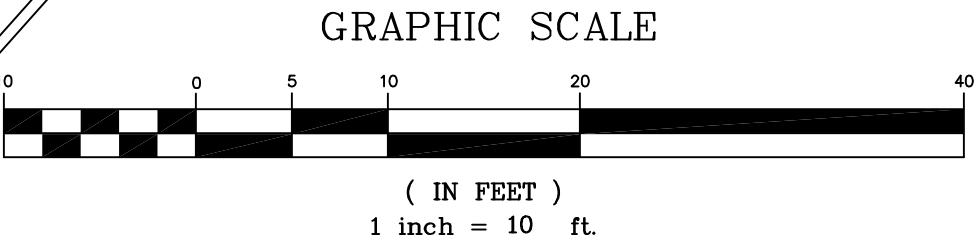
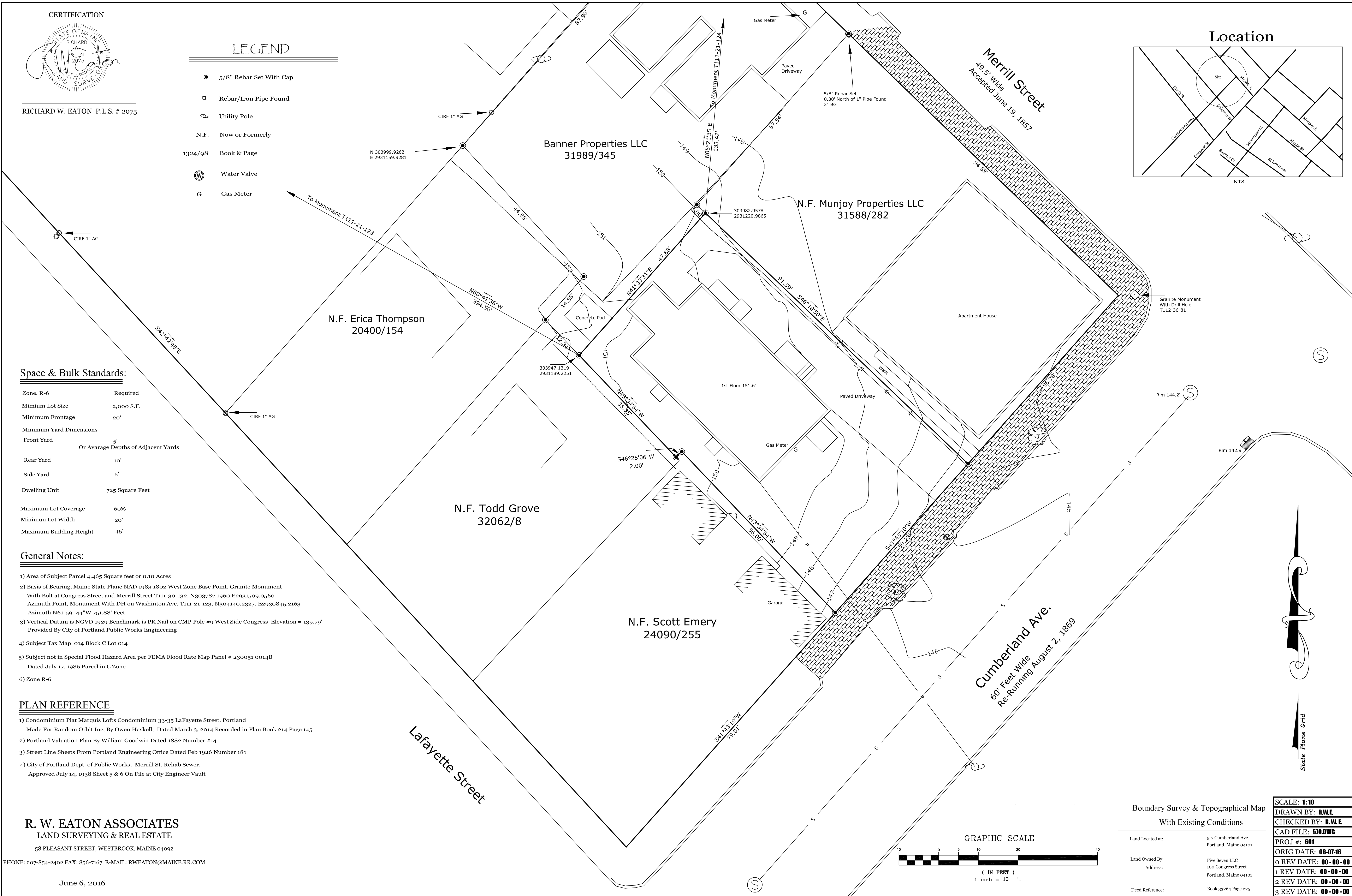
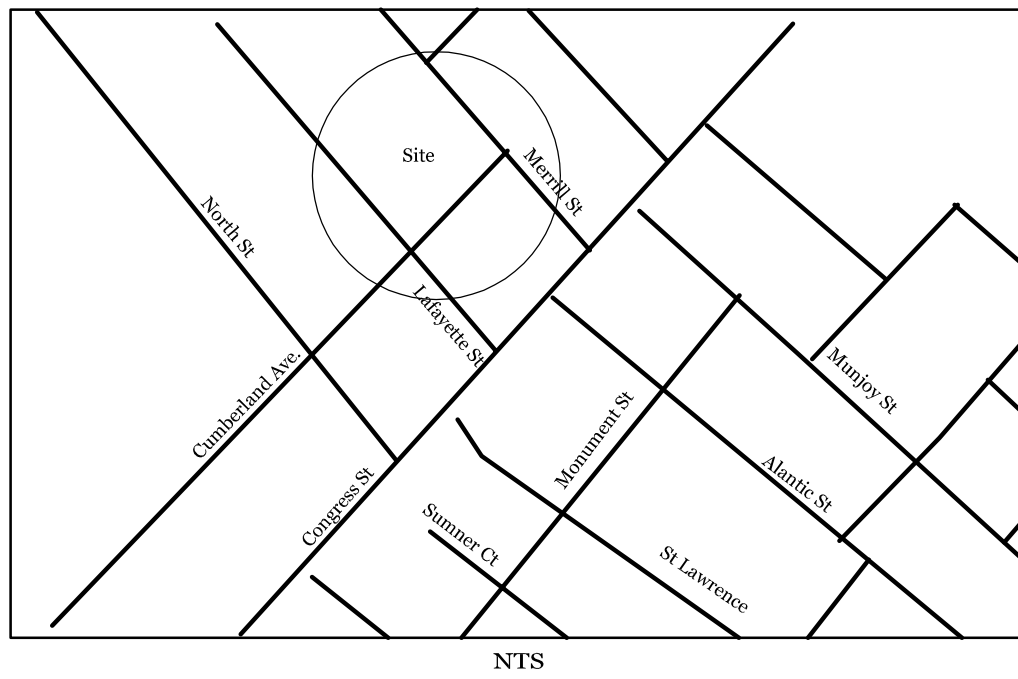
R. W. EATON ASSOCIATES
LAND SURVEYING & REAL ESTATE

58 PLEASANT STREET, WESTBROOK, MAINE 04092

PHONE: 207-854-2402 FAX: 856-7167 E-MAIL: RWEATON@MAINE.RR.COM

June 6, 2016

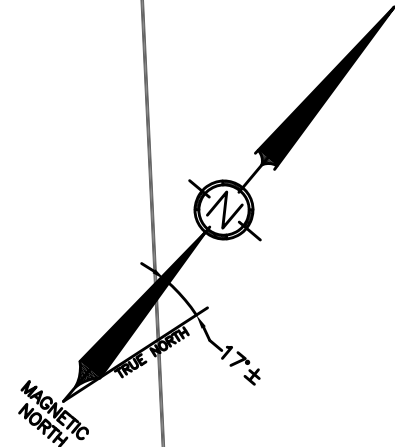
Location



Boundary Survey & Topographical Map
With Existing Conditions

Land Located at:	5-7 Cumberland Ave. Portland, Maine 04101
Land Owned By:	Five Seven LLC
Address:	100 Congress Street Portland, Maine 04101
Deed Reference:	Book 33264 Page 225

SCALE: 1:10
DRAWN BY: R.W.E.
CHECKED BY: R.W.E.
CAD FILE: 570.DWG
PROJ #: 601
ORIG DATE: 06-07-16
0 REV DATE: 00-00-00
1 REV DATE: 00-00-00
2 REV DATE: 00-00-00
3 REV DATE: 00-00-00



AREA SUMMARY:
LOT AREA = 4,456 S.F.
IMPERVIOUS AREA = 1,869 S.F. (42%)
PERVIOUS PAVER AREA = 1,547 S.F. (35%)
OPEN SPACE = 1,040 S.F. (23%)

PERVIOUS, INTERLOCKING
BLOCK PAVERS, TYP.
PROPOSED 6' FENCING, TYP.

STEEL BOLLARD, TYP.

LAWN/LANDSCAPED AREA,
TYP., SEE SHEET C3.

LIMIT OF SIDEWALK RECONSTRUCTION TO
ELIMINATE EXISTING DRIVEWAY APRONS
WITHIN THE PROPERTY LIMITS.

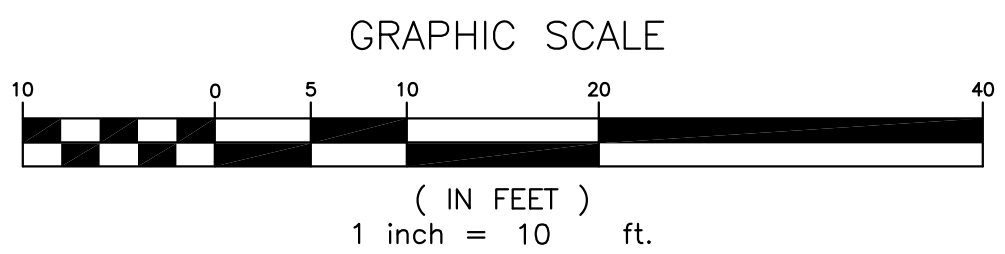
NEW, THREE-FLOWERED MAPLE (ACER
TRIFORUM, 1.5"-2" CALIPER) STREET TREE.
INSTALLATION SHALL MEET CITY OF
PORTLAND STANDARDS, SEE DETAILS.

TREE GRATE, SEE DETAIL

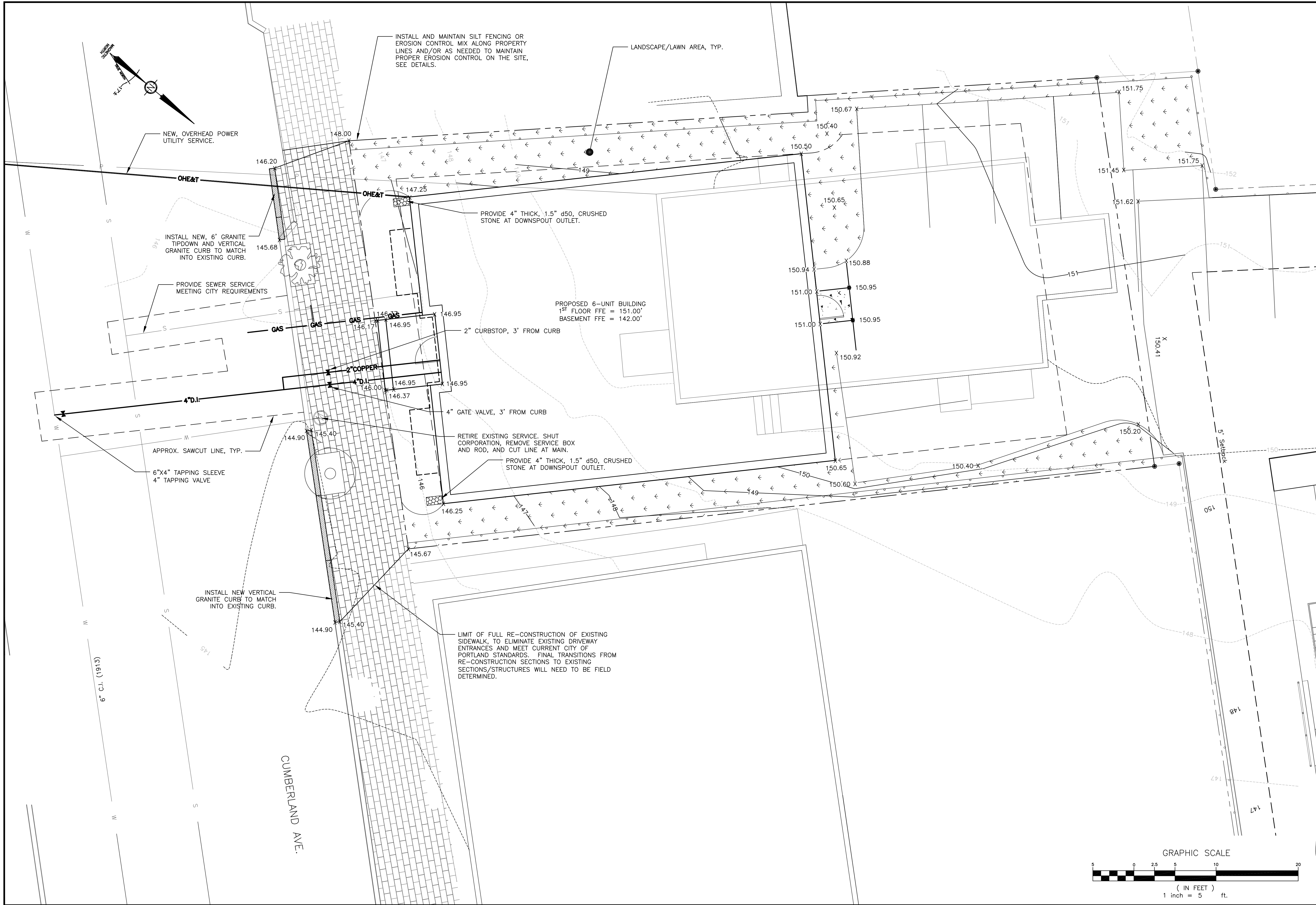
MERRILL STREET

CUMBERLAND AVE.

Turner St.



REVISIONS				PROJECT NAME	
NO.	DATE	DESCRIPTION	PER CITY REVIEW COMMENTS	PORTLAND	MAINE
2	5/12/17	REVISED			
				SHEET NAME	
				7 CUMBERLAND AVE.	
				SITE LAYOUT	
				PROJECT NO. 17004	
				DRAWING NO. 17004 B	
				FIELDBOOK	
				SCALE AS SHOWN	
				DATE ISSUED	
				CLIENT & OWNER: CUMBERLAND PROPERTIES, LLC 126 UNDERWOOD DRIVE FALMOUTH, ME 04105	
				DESIGNED: ARCHITECT	
				DRAWN: JHW	
				CHECKED: JHW	
				APPROVED: JHW	
				PLAN DATE FEB. 22, 2017	
				CLIENT & OWNER: CUMBERLAND PROPERTIES, LLC 126 UNDERWOOD DRIVE FALMOUTH, ME 04105	
				Plymouth Engineering, Inc. P.O. Box 46 - 30 Lower Detroit Road Plymouth, Maine 04969 Tel: (207) 257-2071 Fax: (207) 257-2130 info@plymouthengineering.com www.plymouthengineering.com	
				STATE OF MAINE REGISTERED PROFESSIONAL ENGINEER JAMES H. WHITE, JR. LICENSE NO. 10001 DRAWINGS NOT SEALED ARE FOR PLANNING PURPOSES ONLY AND ARE NOT INTENDED FOR PERMITTING, BIDDING OR CONSTRUCTION	
				SHEET 1 OF 5	
				C1	



REVISIONS			
NO.	DATE	DESCRIPTION	BY
1	3-9-17	REVISED PER PWD REVIEW COMMENTS	JHW
2	5/12/17	REVISED PER CITY REVIEW COMMENTS	JHW

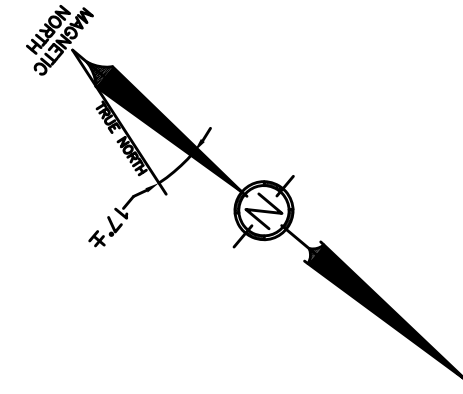
DESIGNED: ARCHITECT	PROJECT NO. 17004	PROJECT NAME: 7 CUMBERLAND AVE.
DRAWN: JHW	DRAWING NO. 17004-B	PORTLAND, MAINE
CHECKED: JHW	FIELDBOOK:	
APPROVED: JHW	SCALE: AS SHOWN	
DATE ISSUED: FEB. 22, 2017		
CLIENT: GUNNBER PROPERTIES, LLC 126 UNDERWOOD DRIVE FALMOUTH, ME 04105		

Plymouth Engineering, Inc.
P.O. Box 46 30 Lower Detroit Road
Plymouth, Maine 04989
Tel: (207) 287-2071 Fax: (207) 287-2130
info@plymouthengineering.com
www.plymouthengineering.com

PLANNINGS NOT SEALED ARE FOR PLANNING PURPOSES ONLY AND ARE NOT INTENDED FOR PERMITTING, BIDDING OR CONSTRUCTION

SHEET 2 OF 5

C2



RETAIN EXISTING TREE,
INSTALL NEW TREE GRATE

NEW, THREE-FLOWERED MAPLE (ACER
TRIFORUM, 1.5"-2" CALIPER) STREET TREE.
INSTALLATION SHALL MEET CITY OF
PORTLAND STANDARDS, SEE DETAILS.

TREE GRATE, SEE DETAIL

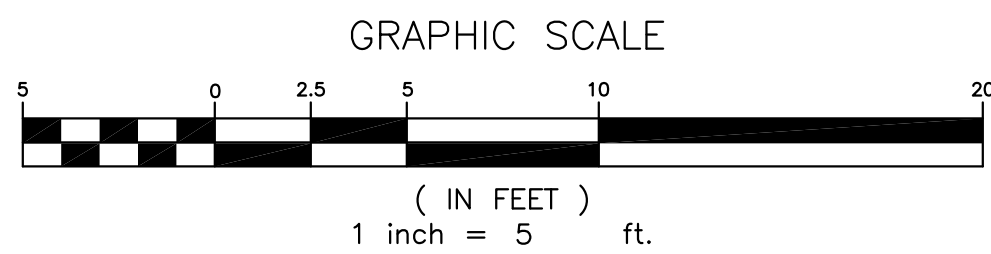
PROPOSED 6-UNIT BUILDING
1ST FLOOR FFE = 151.00'
BASEMENT FFE = 142.00'

LIMIT OF SIDEWALK RECONSTRUCTION TO
ELIMINATE EXISTING DRIVEWAY APRONS
WITHIN THE PROPERTY LIMITS.

LOAM AND SEED AREA, TYP.

CUMBERLAND AVE.

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS
AB	6	<i>Abies balsamea</i> 'Nana'	Dwarf Balsam Fir	#3 Container	2' o.c.
AS	4	<i>Astilbe chinensis</i> 'Superba'	False Spirea	#2 Container	
HH	8	<i>Hemerocallis</i> 'Happy Returns'	Happy Returns Daylily	#2 Container	2' o.c.
HS	4	<i>Hemerocallis</i> 'Stella Supreme'	Stella Supreme Daylily	#2 Container	2' o.c.
HR	2	<i>Hosta</i> 'Regal Splendor'	Regal Splendor Hosta	#2 Container	
HW	2	<i>Hosta</i> 'Widebrim'	Widebrim Hosta	#2 Container	
RR	3	<i>Rosa rugosa</i> 'Rubrum'	Rosa Rugosa	2'-3' ht.	4' o.c.
RT	8	<i>Rhododendron</i> 'Towhead'	Towhead Rhododendron	#2 Container	3' o.c.
SS	6	<i>Schizachyrium scoparium</i>	Little Bluestem	#2 Container	2.5' o.c.

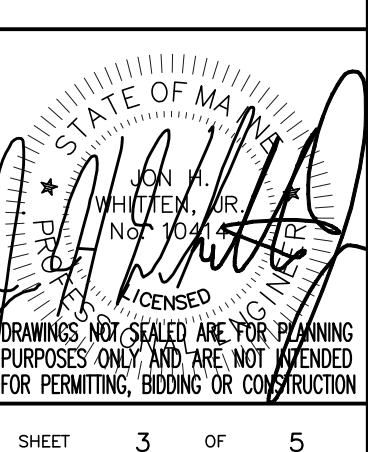


REVISIONS				
NO.	DATE	DESCRIPTION	REVISED PER	CITY REVIEW COMMENTS
1	5/12/17			

PROJECT NAME:	7 CUMBERLAND AVE.
PROJECT NO.:	17004
DRAWING NO.:	17004 B
FIELDBOOK:	
SCALE:	AS SHOWN
DATE ISSUED:	
CLIENT:	PORTLAND, MAINE
CLIENT ADDRESS:	126 UNDERWOOD DRIVE FALMOUTH, ME 04105

DESIGNED:	ARCHITECT	JHW
DRAWN:	JHW	
CHECKED:	JHW	
APPROVED:	JHW	
PLAN DATE:	FEB. 22, 2017	
CLIENT:	PORTLAND, MAINE	
CLIENT ADDRESS:	126 UNDERWOOD DRIVE FALMOUTH, ME 04105	

Plymouth Engineering, Inc.
P.O. Box 46 · 30 Lower Detroit Road
Plymouth, Maine 04989
Tel: (207) 257-2071 Fax: (207) 257-2130
info@plymouthengineering.com
www.plymouthengineering.com



DRAWINGS NOT SEALED ARE FOR PLANNING
PURPOSES ONLY AND ARE NOT INTENDED
FOR PERMITTING, BIDDING OR CONSTRUCTION

SHEET 3 OF 5

C3

EROSION AND SEDIMENT CONTROL PLAN

Pre-Construction Phase
A person who conducts, or causes to be conducted, an activity that involves filling, displacing or exposing soil or other earthen materials shall take measures to prevent unreasonable erosion of soil or sediment beyond the project site or into a protected natural resource as defined in 38 MRSA § 480-B. Erosion control measures must be in place before the activity begins. Measures must remain in place and functional until the site is permanently stabilized. Adequate and timely temporary and permanent stabilization measures must be taken. The site must be maintained to prevent unreasonable erosion and sedimentation. Minimize disturbed areas and protect natural downgradient buffer areas to the extent practicable.

BMP Construction Phase
A. Sediment barriers. Prior to the beginning of any construction, properly install sediment barriers at the edge of any downgradient disturbed area and adjacent to any drainage channels within the proposed disturbed area. Maintain the sediment barriers until the disturbed area is permanently stabilized.

B. Construction entrance: Prior to any clearing or grubbing, a construction entrance shall be constructed at the intersection with the proposed access drive and the existing roadway to avoid tracking of mud, dust and debris from the site.

C. Riprap: Since riprap is used where erosion potential is high, construction must be sequenced so that the riprap is put in place with the minimum delay. Disturbance of areas where riprap is to be placed should be undertaken only when final preparation and placement of the riprap can follow immediately behind the initial disturbance. Where riprap is used for outlet protection, the riprap should be placed before or in conjunction with the construction of the pipe or channel so that it is in place when the pipe or channel begins to operate. Maintain temporary riprap, such as temporary check dams until the disturbed area is permanently stabilized.

D. Temporary stabilization. Stabilize with temporary seeding, mulch, or other non-erodible cover any exposed soils that will remain unworked for more than 14 days except, stabilize areas within 100 feet of a wetland or waterbody within 7 days or prior to a predicted storm event, whichever comes first. If hay or straw mulch is used, the application rate must be 2 bales (70-90 pounds) per 1000 sf or 1.5 to 2 tons (90-100 bales) per acre to cover 75 to 90% of the ground surface. Hay mulch must be kept moist or anchored to prevent wind blowing. An erosion control blanket or mat shall be used at the base of grassed waterways, steep slopes (15% or greater) and on any disturbed soil within 100 feet of lakes, streams and wetlands. Grading shall be planned so as to minimize the length of time between initial soil exposure and final grading. On large projects this should be accomplished by phasing the operation and completing the first phase up to final grading and seeding before starting the second phase, and so on.

E. Vegetated waterway. Upon final grading, the disturbed areas shall be immediately seeded to permanent vegetation and mulched and will not be used as outlets until a dense, vigorous vegetative cover has been obtained. Once soil is exposed for waterway construction, it should be immediately shaped, graded and stabilized. Vegetated waterways need to be stabilized early during the growing season (prior to September 15). If final seeding of waterways is delayed past September 15, emergency provisions such as sod or riprap may be required to stabilize the channel. Waterways should be fully stabilized prior to directing runoff to them.

Permanent Stabilization Defined
A. Seeded areas. For seeded areas, permanent stabilization means an 90% cover of the disturbed area with mature, healthy plants with no evidence of washing or rilling of the topsoil.

B. Sodded areas. For sodded areas, permanent stabilization means the complete binding of the sod roots into the underlying soil with no slumping of the sod or die-off.

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 may be 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 mature vegetation at least three inches in height, with well-graded riprap, or with another non-erosive lining capable of withstanding the anticipated flow velocities and flow depths without reliance on check dams to slow flow. There must be no evidence of slumping of the lining, undercutting of the banks, or down-cutting of the channel.

General Construction Phase
The following erosion control measures shall be followed by the contractor throughout construction of this project:

A. All topsoil shall be collected, stockpiled, seeded with rye at 3 pounds/1,000 sf and mulched, and reused as required. Silt fencing shall be placed down gradient from the stockpiled loam. Stockpile to be located by designation of the owner and inspecting engineer.

B. The inspecting engineer at his/her discretion, may require additional erosion control measures and/or supplemental vegetative provisions to maintain stability of earthworks and finish graded areas. The contractor shall be responsible for providing and installing any supplemental measures as directed by the inspecting engineer. Failure to comply with the engineer's directions will result in discontinuation of construction activities.

C. Erosion control mesh shall be applied in accordance with the plans over all finish seeded areas as specified on the design plans.

D. All graded or disturbed areas including slopes shall be protected during clearing and construction in accordance with the approved erosion and sediment control plan until they are adequately stabilized.

E. All erosion, and sediment control practices and measures shall be constructed, applied and maintained in accordance with the approved erosion and sediment control plan.

F. Areas to be filled shall be cleared, grubbed and stripped of topsoil to remove trees, vegetation, roots or other objectionable materials.

G. Areas shall be scarified to a minimum depth of 3 inches prior to placement of topsoil.

H. All fills shall be compacted as required to reduce erosion, slippage, settlement, subsidence or other related problems. Fill intended to support buildings, structures and conduits, etc., shall be compacted in accordance with local requirements or codes.

I. All fills shall be placed and compacted in layers not to exceed 8 inches in thickness.

J. Except for approved landfills or non-structural fills, fill material shall be free of brush, rubbish, rocks, logs, stumps, building debris and other objectionable materials that would interfere with or prevent construction of satisfactory lifts.

K. Frozen material or soft, mucky or highly compressible materials shall not be incorporated into fill slopes or structural fills.

L. Fill shall not be placed on a frozen foundation.

M. Seeps or springs encountered during construction shall be handled appropriately.

N. All graded areas shall be permanently stabilized immediately following finished grading.

O. Remove any temporary control measures, such as silt fence, within 30 days after permanent stabilization is attained. Remove any accumulated sediments and stabilize.

Permanent Vegetation
Permanent vegetative cover should be established on disturbed areas where permanent, long lived vegetative cover is needed to stabilize the soil, to reduce damages from sediment and runoff, and to enhance the environment.

Seedbed Preparation
A. Grade as feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application and anchoring, and maintenance.

B. Apply limestone and fertilizer according to soil tests such as those offered by the University of Maine soil testing laboratory. Soil sample mailers are available from the local cooperative extension service office. If soil testing is not feasible on small or variable sites, or where timing is critical, fertilizer may be applied at the rate of 800 pounds per acre or 18.4 pounds per 1,000 square feet using 10-20-20 (N-P2O5-K2O) or equivalent. Apply ground limestone (equivalent to 50% calcium plus magnesium oxide) at a rate of 3 tons per acre (138 lb. Per 1,000 sq. Ft).

C. Work time and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, spring tooth harrow or other suitable equipment. The final harrowing operation should be on the general contour. Continue tillage until a reasonably uniform, fine seedbed is prepared. All but clay or silty soils and coarse sands should be rolled to firm the seedbed wherever feasible.D. Remove from the surface all stones 2 inches or larger in any dimension. Remove all other debris, such as wire, cable, tree roots, concrete, clods, lumps or other unsuitable material.

E. Inspect seedbed just before seeding. If traffic has left the soil compacted; the area must be tilled and firmed as above.

F. Permanent seeding should be made 45 days prior to the first killing frost or as a dormant seeding with mulch after the first killing frost and before snowfall. When crown vetch is seeded in later summer, at least 35% of the seed should be hard seed (unscarified). If seeding cannot be done within the seeding dates, mulch according to the temporary mulching BMP and overwinter stabilization and construction to protect the site and delay seeding until the next recommended seeding period.

G. Following seed bed preparation, swale areas, fill areas and back slopes shall be seeded at a rate of 3 lbs./1,000 s.f. With a mixture of 35% creeping red h. Fescue, 6% red top, 24% Kentucky bluegrass, 10% perennial ryegrass, 20% annual ryegrass and 5% white Dutch clover.

I. Areas which have been temporarily or permanently seeded shall be mulched immediately following seeding.

J. Areas which cannot be seeded within the growing season shall be mulched for over-winter protection and the area should be seeded at the beginning of the growing season.

Winter Construction Phase

If an area is not stabilized with temporary or permanent measures by November 15, then the site must be protected with additional stabilization measures.

A. Permanent stabilization consists of at least 90% vegetation, pavement/gravel base or riprap.

B. Do not expose slopes or leave slopes exposed over the winter or for any other extended time of work suspension unless fully protected with mulch.

C. Apply hay mulch at twice the standard rate (150 lbs. per 1,000 sf). The mulch must be thick enough such that the ground surface will not be visible and must be anchored.

D. Use mulch and mulch netting or an erosion control mulch blanket or all slopes greater than 8 % or other areas exposed to direct wind.

E. Install an erosion control blanket in all drainageways (bottom and sides) with a slope greater than 3 %.

F. See the vegetation measures for more information on seeding dates and types.

G. Winter excavation and earthwork shall be completed so that no more than 1 acre of the site is without stabilization at any one time.

H. An area within 100 feet of a protected natural resource must be protected with a double row of sediment barrier.

I. Temporary mulch must be applied within 7 days of soil exposure or prior to any storm event, but after every workday in areas within 100 feet from a protected natural resource.

J. Areas that have been brought to final grade must be permanently mulched that same day.

K. If snowfall is greater than 1 inch (fresh or cumulative), the snow shall be removed from the areas due to be seeded and mulched.

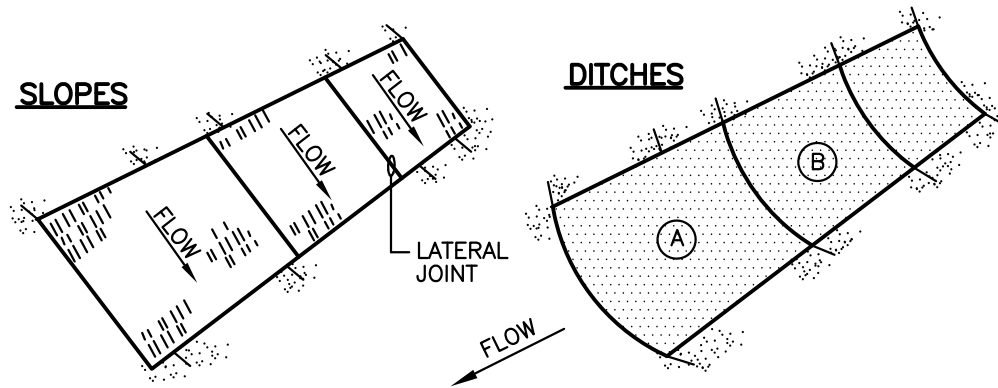
L. Loam shall be free of frozen clumps before it is applied.

M. All vegetated ditch lines that have not been stabilized by November 1, or will be worked during the winter construction period, must be stabilized with an appropriate stone lining backed by an appropriate gravel bed or geotextile unless specifically released from this standard by the department.

Maintenance and Inspection Phase

A. Contractor shall inspect disturbed and impervious areas, and erosion and stormwater control measures, areas used for storage that are exposed to precipitation, and locations where vehicles enter or exit the parcel at least once a week and before and after a storm event, prior to completion of permanent stabilization. A person with knowledge of erosion and stormwater must conduct the inspection. This person must be identified in the inspection log. If best management practices (BMPs) need to be modified or if additional BMPs are necessary, implementation must be completed within 7 calendar days and prior to any storm event (rainfall). All measures must be maintained in effective operating condition until areas are permanently stabilized.

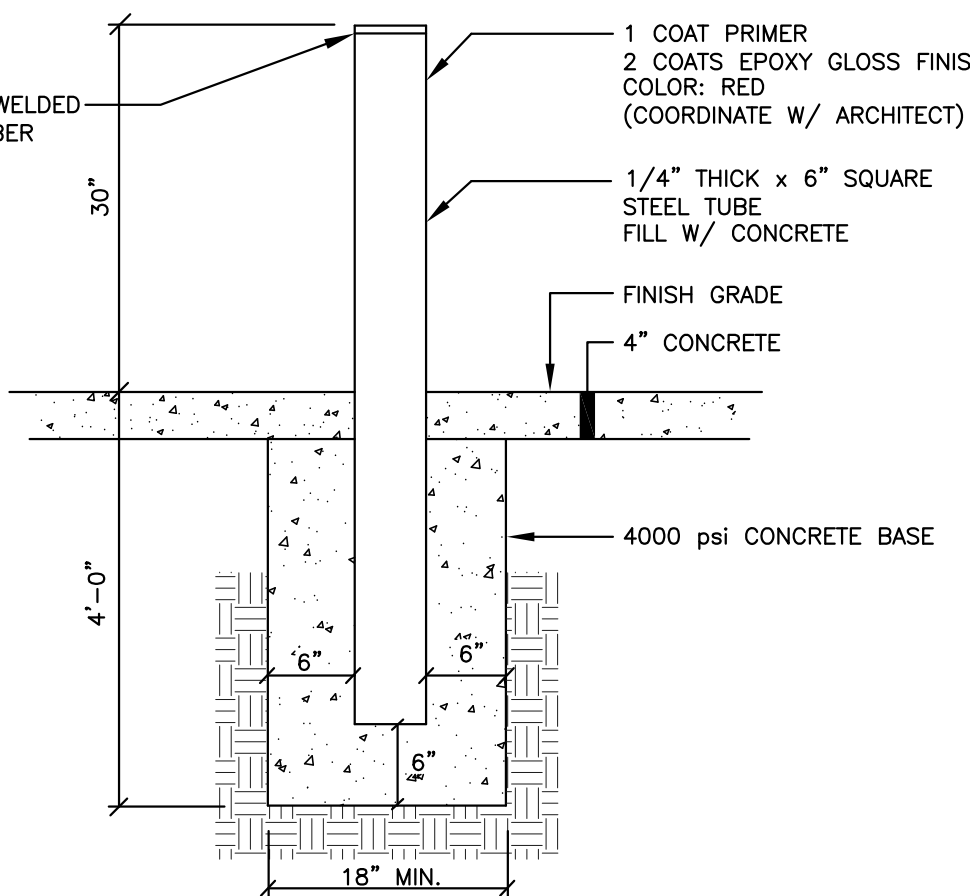
B. A log (report) must be kept summarizing the scope of the inspection, name(s) and qualifications of the personnel making the inspection, the date(s) of the inspection, and major observations relating to operation of erosion and sedimentation controls and pollution prevention measures. Major observations must include: BMPs that need to be maintained; location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location; and location(s) where additional BMPs are needed that did not exist at the time of inspection. Follow-up to correct deficiencies or enhance controls must also be indicated in the log and dated, including what action was taken and when.



- NOTES:**
1. BURY THE TOP END OF THE MESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP TRENCHING SECURE END WITH STAPLES AT 6" SPACING, 4" DOWN FROM EXPOSED END.
 2. FLOW DIRECTION JOINTS TO HAVE UPPER END OF LOWER STRIP BURIED WITH UPPER LAYERS OVERLAPPED 4" AND STAPLED. OVERLAP B OVER A.
 3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS. STAPLE 18" ON CENTER.
 4. STAPLE OUTSIDE LATERAL EDGE 2' ON CENTER.
 5. WIRE STAPLES TO BE MIN. OF #11 WIRE, 6" LONG & 1-1/2" WIDE.
 6. USE NORTH AMERICAN GREEN DS 150 (OR APPROVED EQUAL) ON SLOPES BETWEEN 4:1-2:1. USE NORTH AMERICAN GREEN VMAX SC250 PERMANENT TURF REINFORCEMENT MAT (OR APPROVED EQUAL) ON SLOPES 2:1 AND STEEPER..

EROSION CONTROL BLANKET

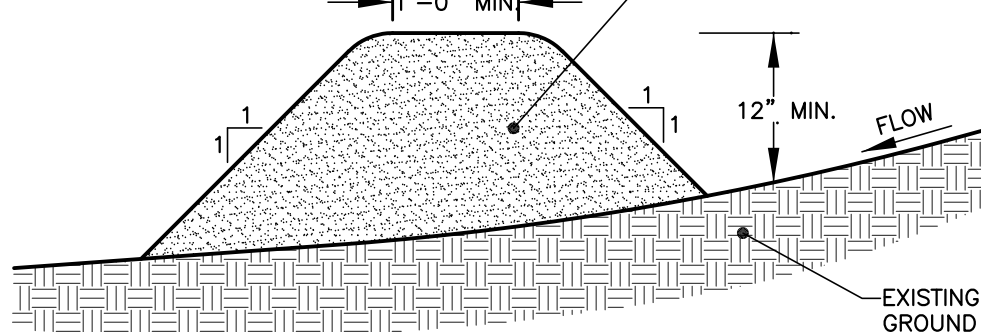
NOT TO SCALE



METAL BOLLARD

NOT TO SCALE

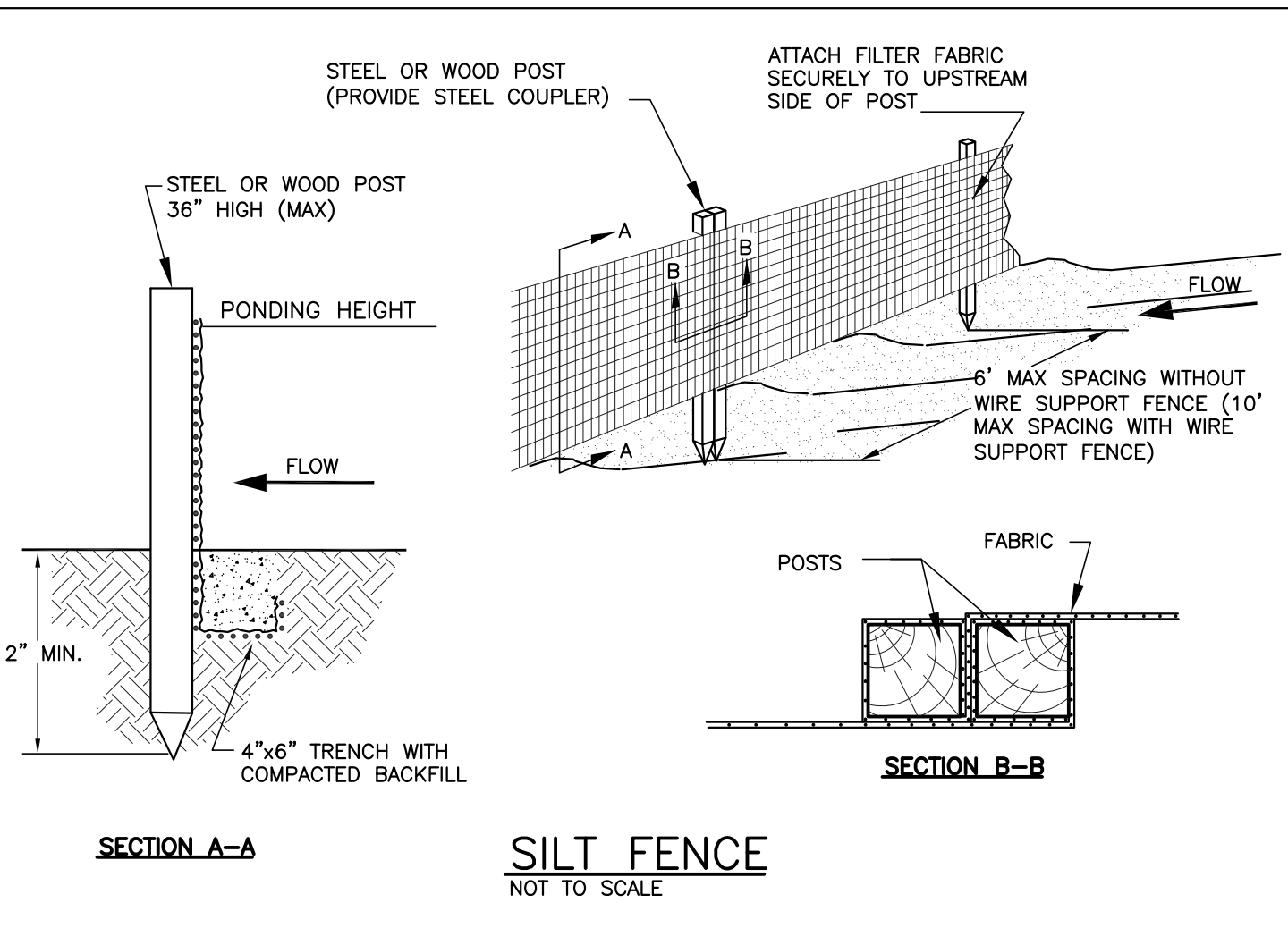
NOTE:
DURING PERIODS OF WINTER CONSTRUCTION (NOV. 15 THROUGH APRIL 15) THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE.



EROSION CONTROL MIX:
EROSION CONTROL MIX SHALL CONTAIN A WELL-GRADED MIXTURE OF PARTICLE SIZES & MAY CONTAIN ROCKS LESS THAN 4" IN DIAMETER. EROSION CONTROL MIX MUST BE FREE OF REFUSE, PHYSICAL CONTAMINANTS, AND MATERIAL TOXIC TO PLANT GROWTH. THE MIX COMPOSITION SHALL MEET THE FOLLOWING STANDARDS:
- THE ORGANIC MATTER CONTENT SHALL BE BETWEEN 80% - 100% DRY WEIGHT BASIS
- PARTICLE SIZE BY WEIGHT SHALL BE 100% PASSING A 6" SCREEN AND A MINIMUM OF 70%, MAXIMUM OF 85% PASSING A 0.75" SCREEN
- THE ORGANIC PORTION NEEDS TO BE FIBROUS AND ELONGATED
- LARGE PORTIONS OF SILTS, CLAYS OR FINE SANDS ARE NOT ACCEPTABLE IN THE MIX.
- SOLUBLE SALTS CONTENT SHALL BE < 4.0 mmhos/cm.
- pH SHALL FALL BETWEEN 5.0 - 8.0.

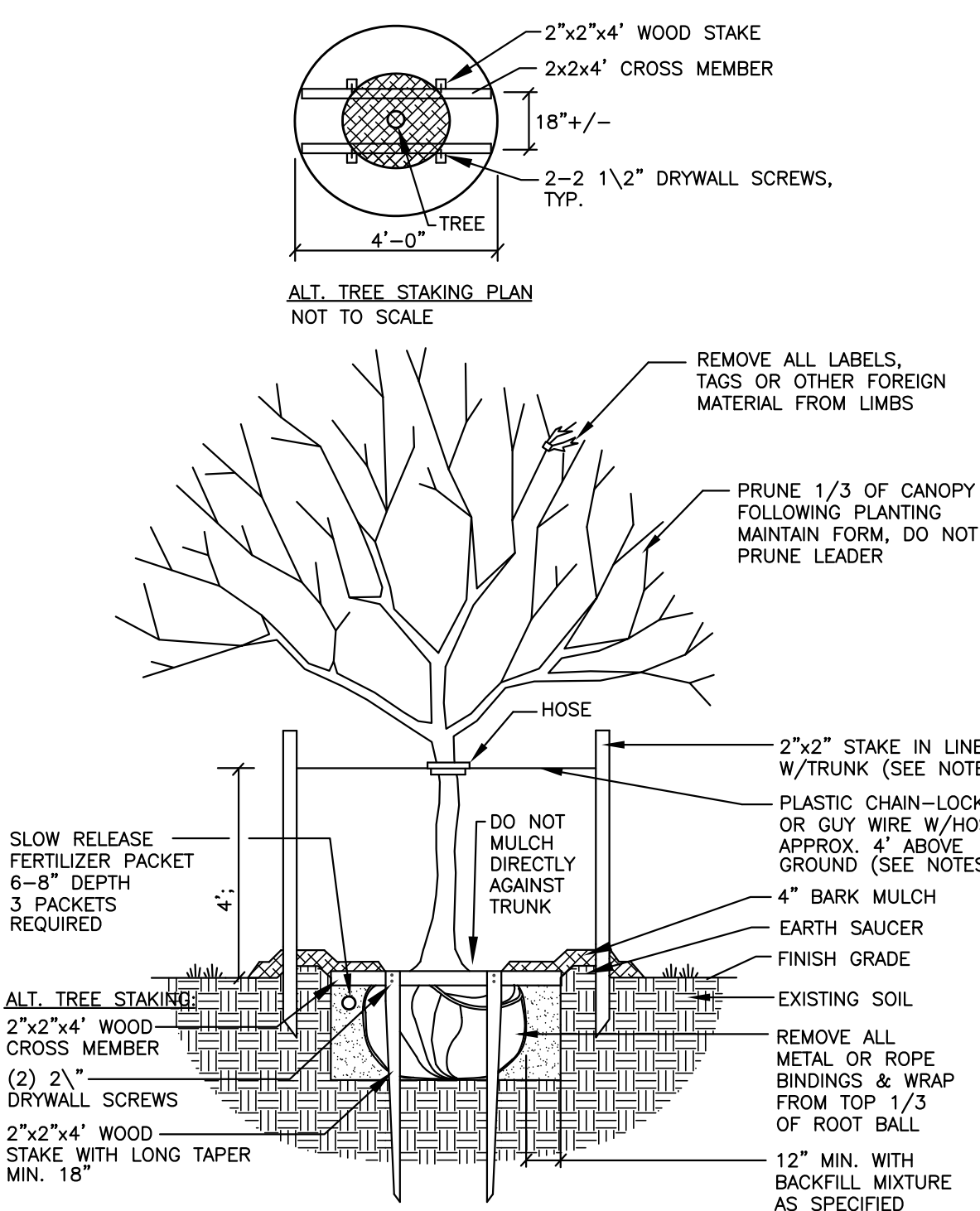
EROSION CONTROL MIX BERM

NOT TO SCALE



SILT FENCE

NOT TO SCALE



- NOTES:**
1. THE TREE IS OF SUBSTANTIAL SIZE.
 2. THE PLANTING LOCATION IS EXTREMELY WINDY, AS ON OPEN UNDEVELOPED SITES.
 3. THE PLANTING LOCATION IS COMPRISED OF SAND OR OTHER LOOSE TEXTURED SOILS.
 4. IF STAKES AND GUYS ARE REQUIRED, REMOVE AFTER ONE YEAR TIME.

DECIDUOUS TREES 2" TO 4" CALIPER

NOT TO SCALE

CONSTRUCTION NOTES:

1. All work shall conform to the applicable codes and ordinances.

2. Contractor shall visit the site and familiarize him or herself with all conditions affecting the proposed work and shall make provisions as to the cost thereof. Contractor shall be responsible for familiarizing him or herself with all contract documents, field conditions and dimensions and confirming that the work may be accomplished as shown prior to proceeding with construction. Any discrepancies shall be brought to the attention of the engineer prior to the commencement of work.

3. Contractor shall notify engineer of all products or items noted as "existing" which are not found in the field.

4. Install all equipment and materials in accordance with manufacturer's recommendations and owner's requirements unless specifically otherwise indicated or where local codes or regulations take precedence.

5. Contractor shall verify all dimensions and conditions in the field prior to fabrication and erection of any material. Any unusual conditions shall be reported to the attention of the engineer.

6. Contractor shall clean and remove debris and sediment deposited on public streets, sidewalks, adjacent areas, or other public ways due to construction.

7. Contractor shall incorporate provisions as necessary in construction to protect existing structures, physical features, and maintain site stability during construction. Contractor shall restore all areas to original condition and as directed by design drawings.

8. Site contractor shall obtain all required permits prior to construction.

9. All erosion and sediment control measures shall be installed in accordance with "Maine Erosion and Sedimentation Control Handbook for Construction: Best Management Practices" published by the Cumberland County Soil and Water Conservation District and Maine Department of Environmental Protection, March 2004 or latest edition. It shall be the responsibility of the contractor to possess a copy of the erosion control plan at all times.

10. The contractor is hereby cautioned that all site features shown hereon are based on field observations by the surveyor and by information provided by utility companies. The information is not to be relied on as being exact or complete. The contractor shall contact Dig Safe (1-888-digsafe) at least three (3) but not more than thirty (30) days prior to commencement of excavation or demolition to verify horizontal and vertical location of all utilities.

11. Contractor shall be aware that Dig Safe only notifies its "member" utilities about the dig. When notified, Dig Safe will advise contractor of member utilities in the area. Contractor is responsible for identifying and contacting non-member utilities directly. Non-member utilities may include town or city water and sewer districts and small local utilities, as well as USG public works systems.

12. Contractors shall be responsible for compliance with the requirements of 23 MRSA 3360-A. It shall be the responsibility of the contractor to coordinate with the appropriate utilities to obtain authorization prior to relocation of any existing utilities which conflict with the proposed improvements shown on these plans. If a utility conflict arises, the contractor shall immediately notify the owner, the municipality and appropriate utility company prior to proceeding with any relocation.

13. All pavement markings and directional signage shown on the plan shall conform to the Manual of Uniform Traffic Control Devices (MUTCD) standards.

14. All pavement joints shall be sawcut prior to paving to provide a durable and uniform joint.

15. No holes, trenches or structures shall be left open overnight in any excavation accessible to the public or in public rights-of-way.

16. All work within the public right-of-way shall require a M.D.O.T. Permit as well as permits from the town as applicable.

17. The proposed limits of clearing shown hereon are approximate based upon the proposed limits of site grading. The applicant reserves the right to perform normal forest management activities outside of the clearing limit as shown. Tree removal outside of the limits of clearing may be necessary to remove dead or dying trees or tree limbs. This removal is due to potential safety hazards and to promote proper forest growth.

18. Immediately upon completion of cuts/fills, the contractor shall stabilize disturbed areas in accordance with erosion control notes and as specified on plans.

19. The contractor shall be fully and solely responsible for the removal, replacement and rectification of all damaged and defective material and workmanship in connection with the contract work. The contractor shall replace or repair as directed by the owner all such damaged or defective materials which appear within a period of one year from the date of substantial completion.

20. All work performed by the general contractor and/or trade subcontractor shall conform to the requirements of local, state or federal laws, as well as any other governing requirements, whether or not specified on the drawings.

21. Where the terms "approved equal", "other approved", "equal to", "acceptable" or other general qualifying terms are used in these notes, it shall be understood that reference is made to the ruling and judgment of Plymouth Engineering, inc.

22. The general contractor shall provide all necessary protection for the work until turned over to the owner.

23. The general contractor shall maintain a current and complete set of construction drawings on site during all phases of construction for use of all trades.

24. The contractor shall take full responsibility for any changes and deviation of approved plans not authorized by the architect/engineer and/or client/owner.

25. Details are intended to show end result of design. Any modification to suit field dimension and condition shall be submitted to the engineer for review and approval prior to any work.

26. Before the final acceptance of the project, the contractor shall remove all equipment and materials, repair or replace private or public property which may have been damaged or destroyed during construction, clean the areas within and adjacent to the project which have been obstructed by his/her operations, and leave the project area neat and presentable.

REVISIONS	DATE	NO.	DESCRIPTION	APPROVED
1	5/12/17	1	REVISED PER CITY REVIEW COMMENTS	JHW

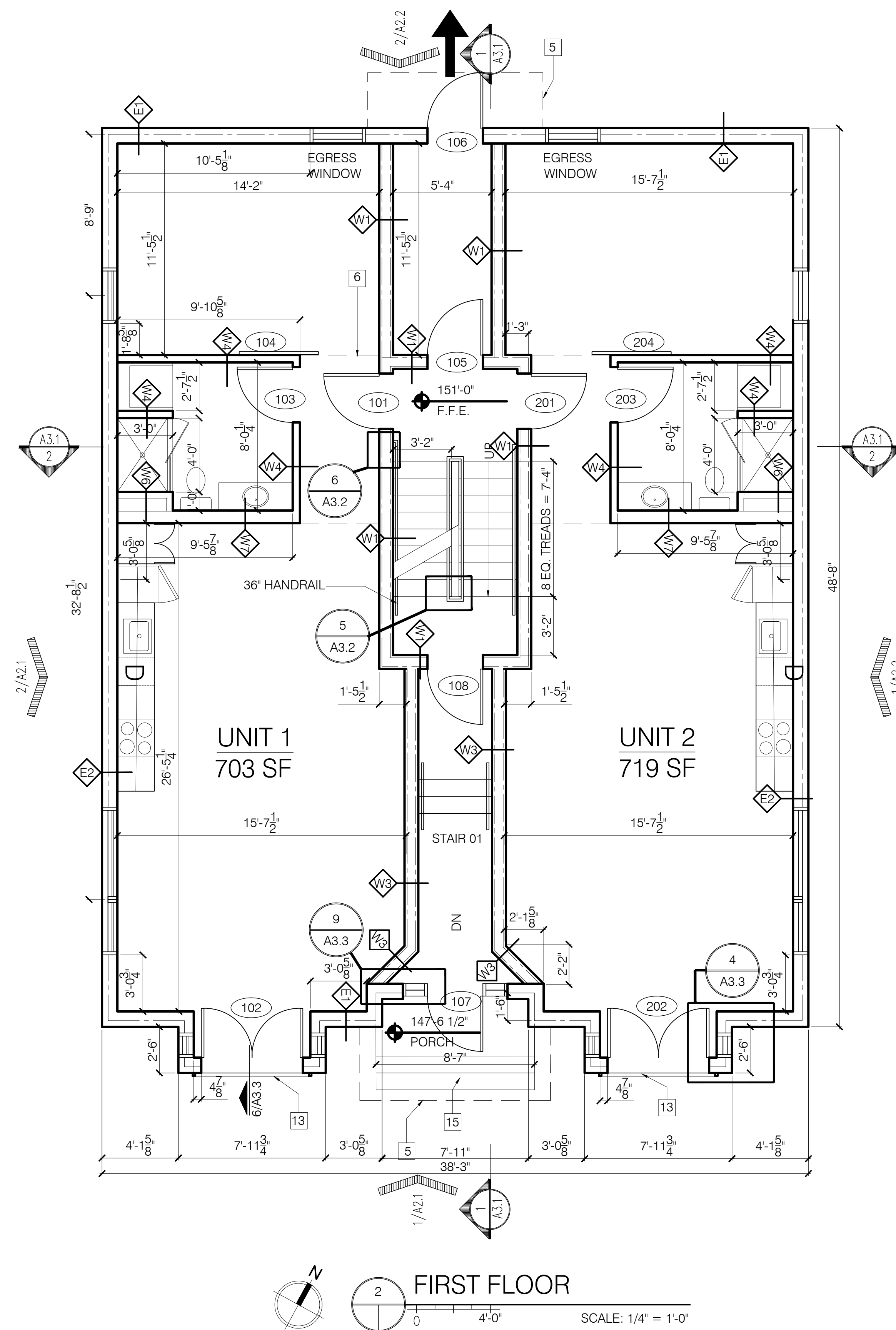
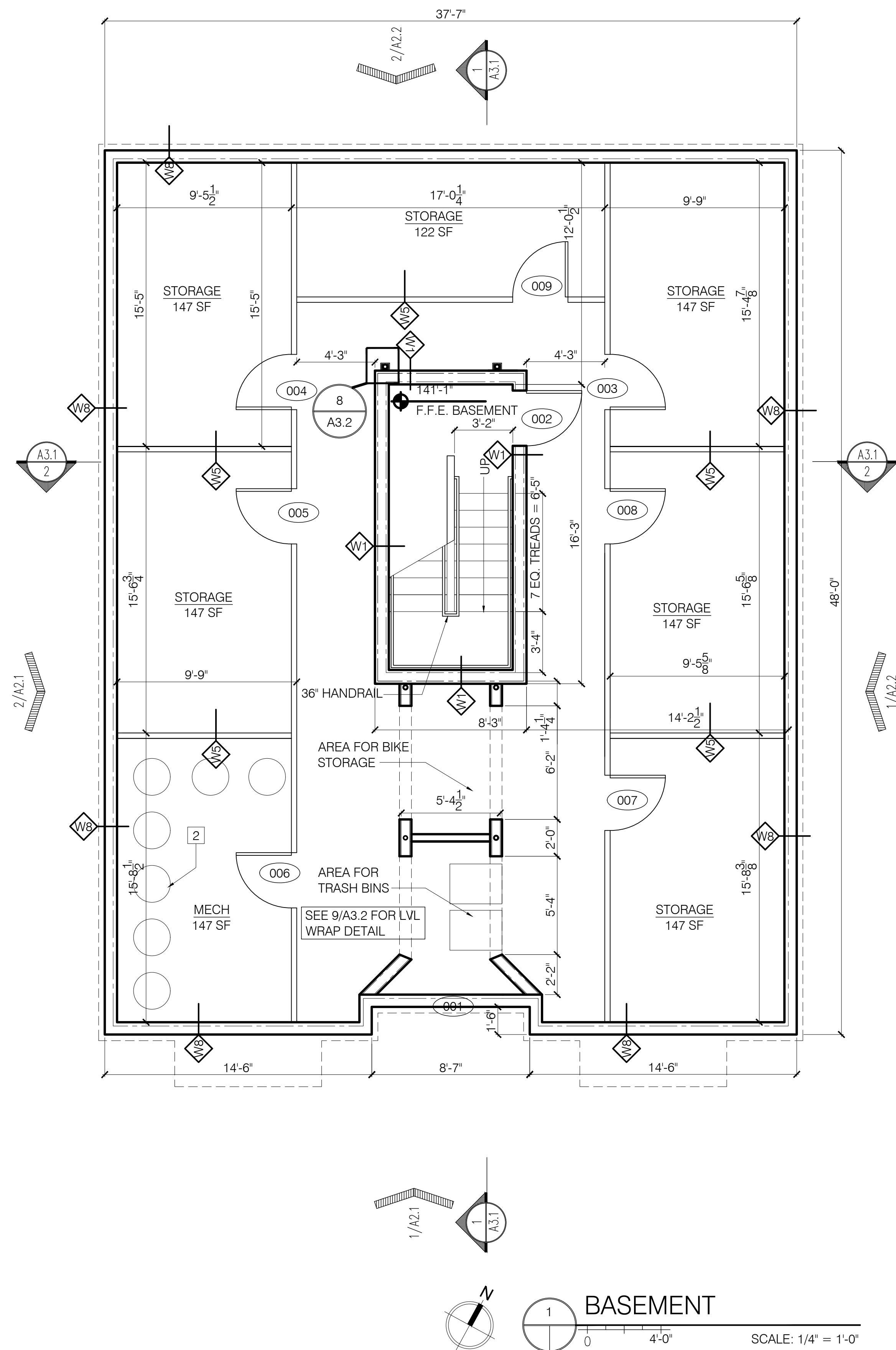
PROJECT NAME	PROJECT NO.	DRAWING NO.	FIELDBOOK	SCALE	DATE ISSUED	CLIENT & OWNER
7 CUMBERLAND AVE.	17004	17004 B			FEB. 22, 2017	PLYMOUTH ENGINEERING, INC. 126 UNDERWOOD DRIVE FALMOUTH, ME 04105

DESIGNED	ARCHITECT	DRAWN	CHECKED	APPROVED	DATE	PROJECT
JHW	JHW	JHW	JHW	JHW	FEB. 22, 2017	PLYMOUTH ENGINEERING, INC.

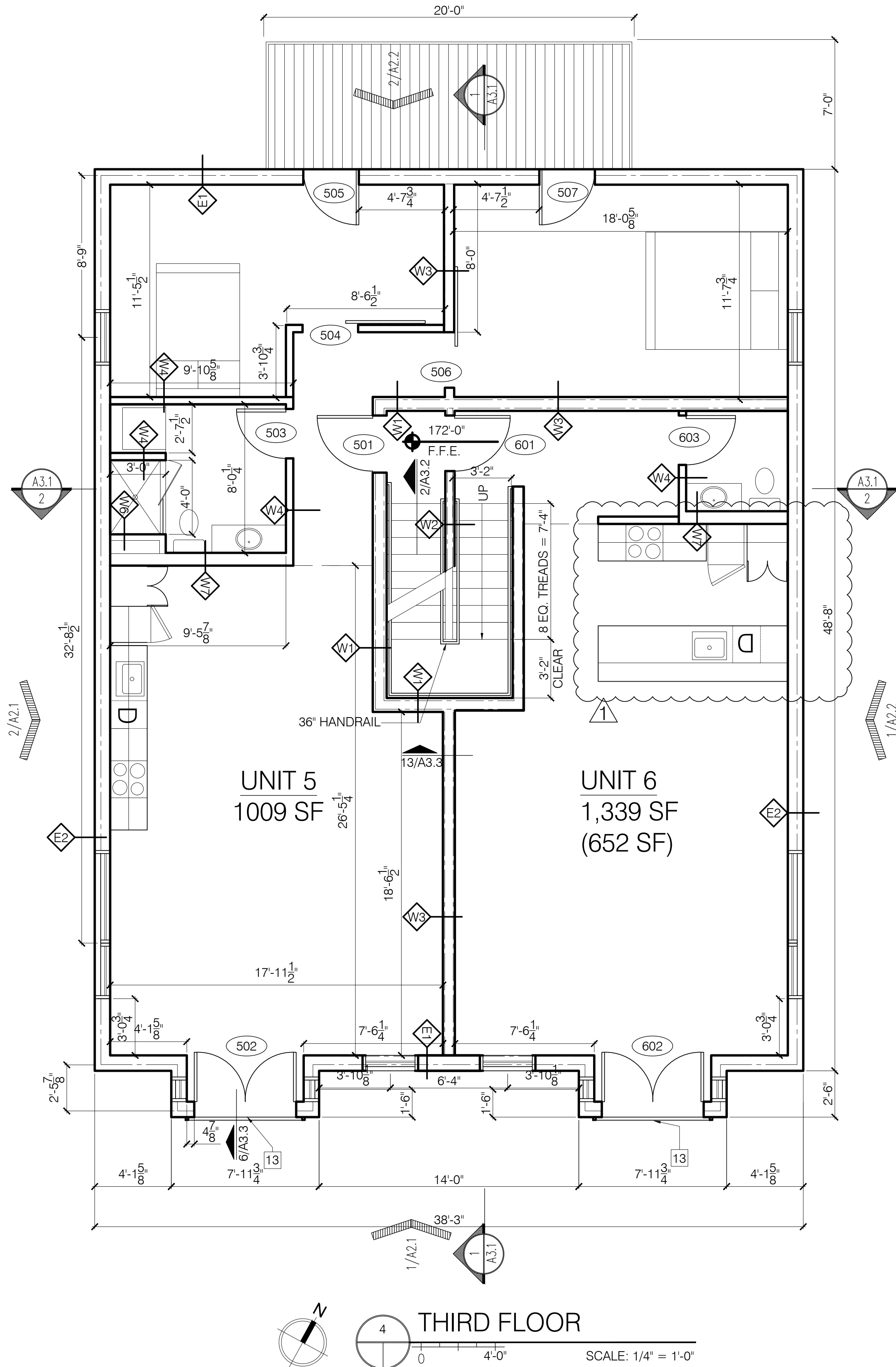
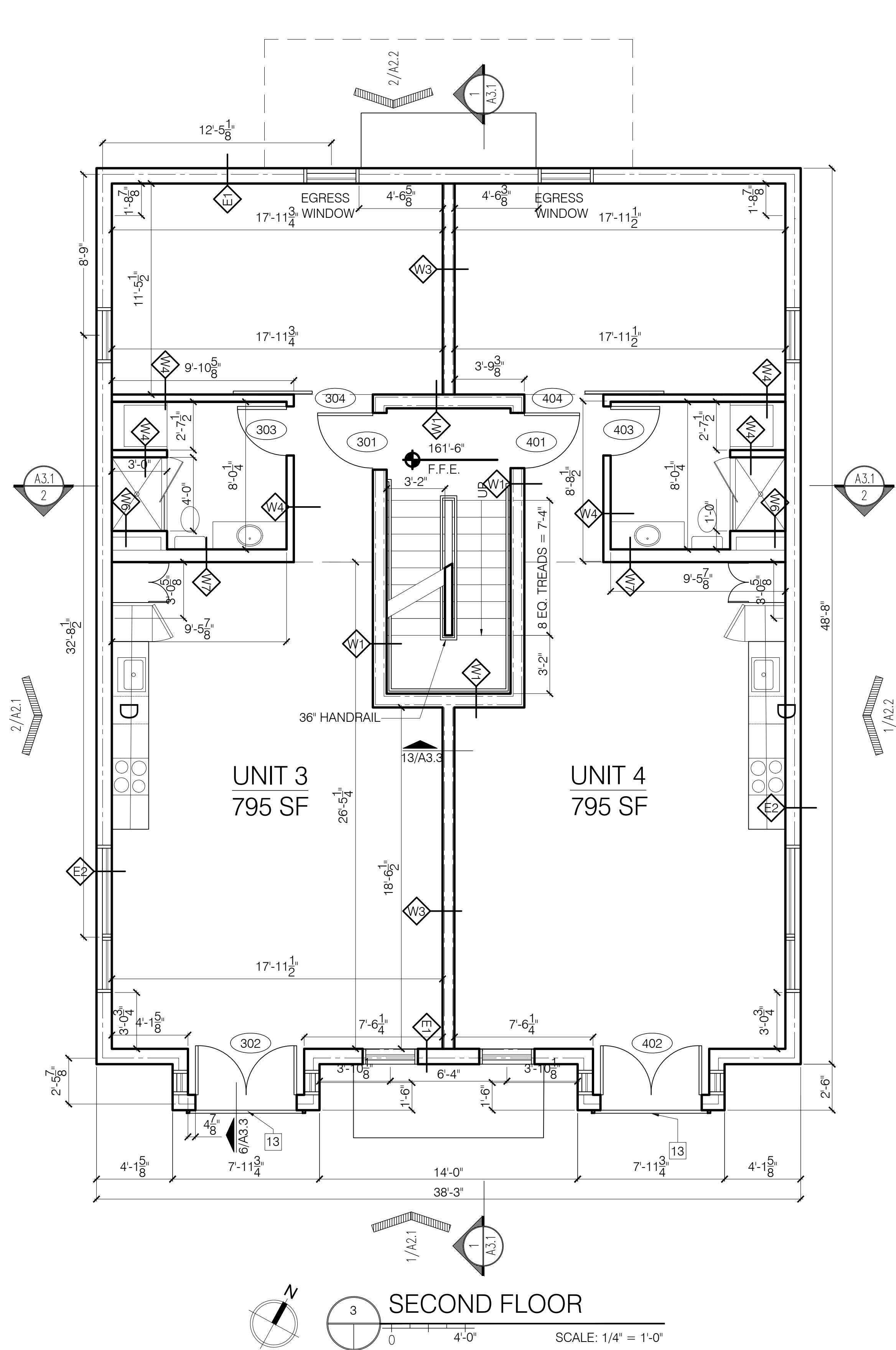
STATE OF MAINE	PLANNING	DESIGN	CONSTRUCTION	PERMITTING	BOOKING	CONSTRUCTION
DRAWINGS NOT SEALED ARE FOR PLANNING PURPOSES ONLY AND ARE NOT INTENDED FOR PERMITTING, BOOKING OR CONSTRUCTION						
SHEET 4 OF 5						

C4





- | | |
|-----|--|
| X | KEYNOTES: |
| 1. | - |
| 2. | WATER HEATERS |
| 3. | ELECTRICAL PANELS |
| 4. | FRAMED STAIR OPENING ABOVE |
| 5. | LINE OF AWNING ABOVE |
| 6. | LINE OF LOWER CEILING |
| 7. | LOCATION FOR INSTALLATION OF
HEAT PUMP UNITS |
| 8. | ROOF SCUPPER - SEE 10/A3.2 FOR
DETAIL |
| 9. | - NOT USED - |
| 10. | MEMBRANE ROOF |
| 11. | 1/8" TAPERED INSULATION
CRICKET TO PROVIDE POSITIVE
SLOPE TO TOP OF ROOF DRAIN
/SCUPPER |
| 12. | - NOT USED - |
| 13. | FABRICATED METAL RAILING |
| 14. | ROOF DECK SYSTEM |
| 15. | CONCRETE STEPS AND PORCH |



- ☒ KEYNOTES:
- - WATER HEATERS
 - ELECTRICAL PANELS
 - FRAMED STAIR OPENING ABOVE
 - LINE OF AWNING ABOVE
 - LINE OF LOWER CEILING
 - LOCATION FOR INSTALLATION OF HEAT PUMP UNITS
 - ROOF SCUPPER - SEE 10/A3.2 FOR DETAIL
 - NOT USED -
 - MEMBRANE ROOF
 - 1/8" TAPERED INSULATION CRICKET TO PROVIDE POSITIVE SLOPE TO TOP OF ROOF DRAIN /SCUPPER
 - NOT USED -
 - FABRICATED METAL RAILING
 - ROOF DECK SYSTEM
 - CONCRETE STEPS AND PORCH

Bild Architecture
PO Box 8235
Portland, ME
04104
207.408.0168
evan@bildarchitecture.com



PROJECT NO.
16035
PROJECT NAME
**7 CUMBERLAND
PORTLAND, ME**

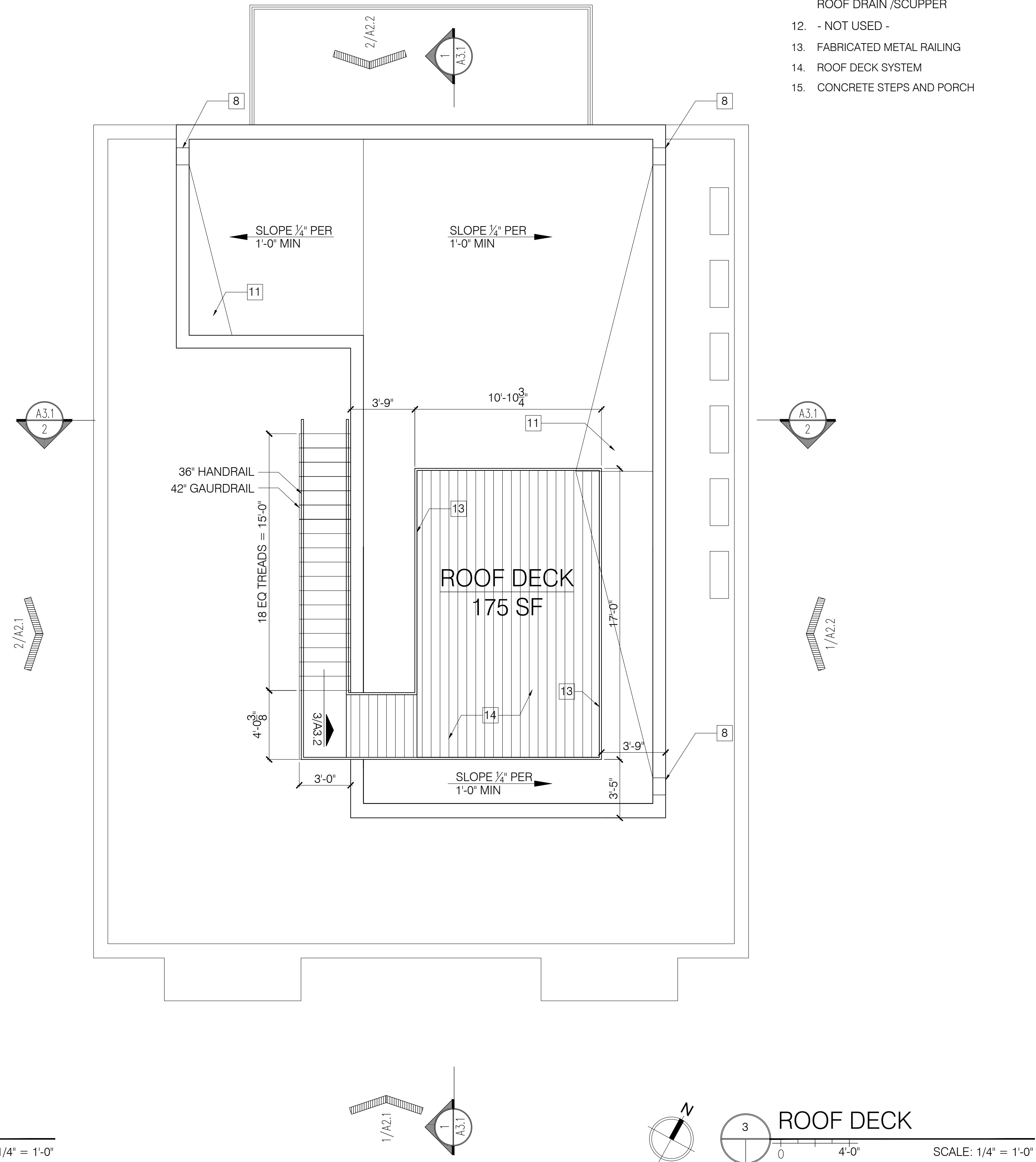
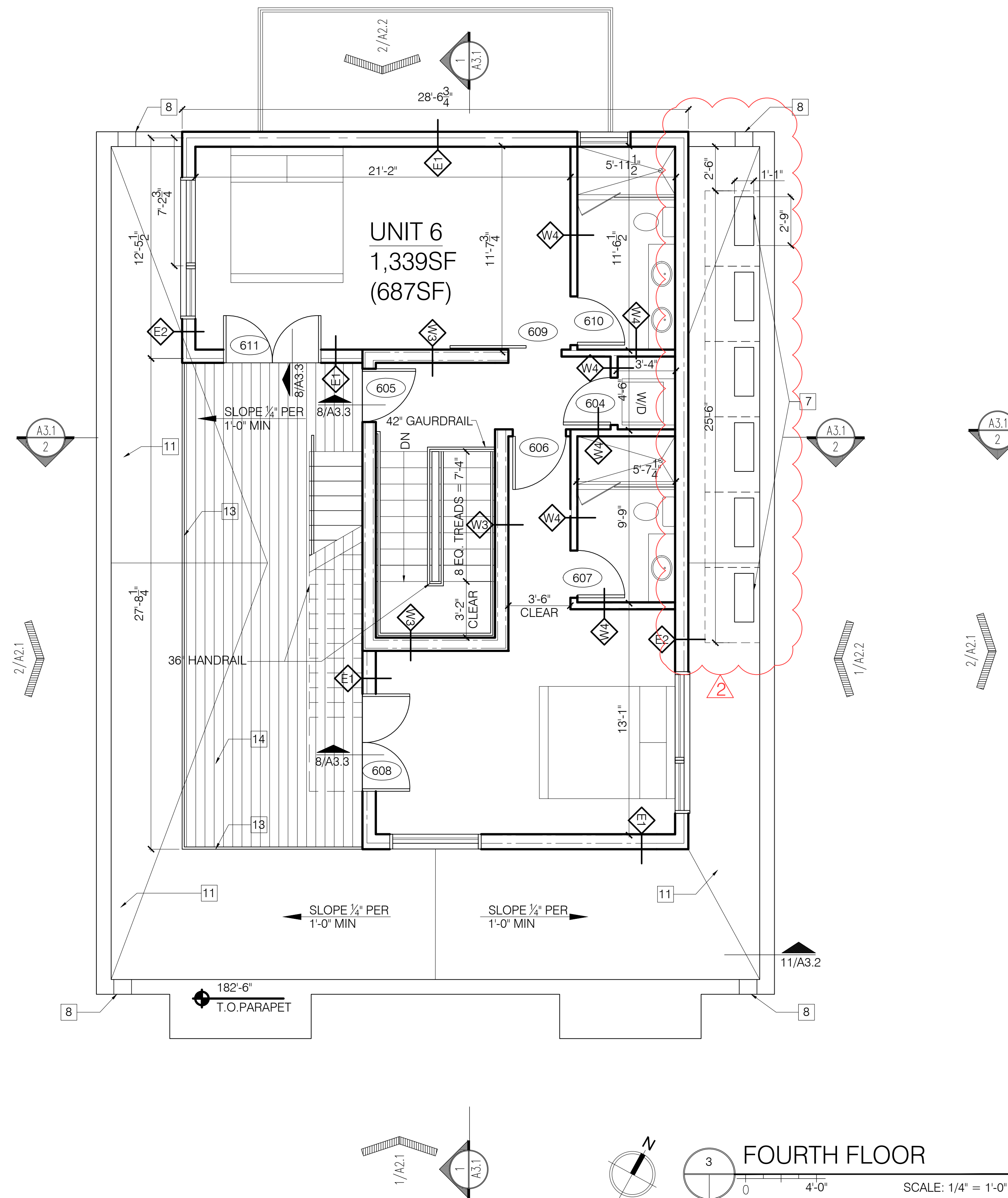
REVISIONS	1	2	3	4	5
11 03-15-2017					
2 -					
3 -					
4 -					
5 -					

PERMIT SET
NOT FOR CONSTRUCTION

DRAWN BY
EAC
SHEET TITLE
2ND 3RD FLOOR

ISSUE DATE
2/24/17
SHEET SCALE
1/4" = 1'-0"

A
1.2



- | | |
|-----|---|
| X | KEYNOTES: |
| 1. | - |
| 2. | WATER HEATERS |
| 3. | ELECTRICAL PANELS |
| 4. | FRAMED STAIR OPENING ABOVE |
| 5. | LINE OF AWNING ABOVE |
| 6. | LINE OF LOWER CEILING |
| 7. | PROPOSED LOCATION FOR
INSTALLATION OF 6 HEAT PUMP UNITS -
VERIFY WITH CONTACTOR |
| 8. | ROOF SCUPPER - SEE 10/A3.2 FOR
DETAIL |
| 9. | - NOT USED - |
| 10. | MEMBRANE ROOF |
| 11. | 1/8" TAPERED INSULATION CRICKET TO
PROVIDE POSITIVE SLOPE TO TOP OF
ROOF DRAIN /SCUPPER |
| 12. | - NOT USED - |
| 13. | FABRICATED METAL RAILING |
| 14. | ROOF DECK SYSTEM |
| 15. | CONCRETE STEPS AND PORCH |

WINDOW SCHEDULE				
TYPE	SIZE (ROUGH OPENING)	MATERIAL	OPERATION	NOTES
A	-	-	-	1,2,4
B	2'-6" X 3'-0"	-	AWNING	1,2,4
C	2'-6" X 5'-0"	-	FIXED	1,2,4
D	5'-0" X 3'-0"	-	CASEMENT	1,3,2,4
E	5'-0" X 5'-0"	-	FIXED	1,2,4
F	7'-0" X 1'-4"	-	FIXED	1,2,4
G	7'-0" X 5'-6"	-	SWING	1,2,4,5

WINDOW SCHEDULE NOTES:

- SAFETY GLAZING MAY BE REQUIRED FOR WINDOWS NEAR A SLIDING DOOR
- ALL WINDOWS TO HAVE A MAXIMUM U-FACTOR OF 0.35
- WINDOWS LABELED "EGRESS WINDOW" IN PLAN MUST COMPLY WITH:
MIN AREA: 5.7SF
MIN HEIGHT: 24"
MIN WIDTH: 20"
- WINDOWS TP BE THERMALLY BROKEN
- SEE DOOR SCHEDULE

WINDOW SPECIFICATIONS:

- Size and window configuration. See Window Schedule
- Color options. To be selected
- Factory Mulling Capability. Preferred
- Design Pressure Rating 25
- U Factor 0.35 or lower
- Material To be selected
- Glazing Type To be selected
- Hardware type. To be selected
- Exterior Washing Capability Washing from interior preferred
- Warranty (Window & glazing units) 10 years
- Insect Screens Standard Insect Screens

GENERAL NOTES:

- GLAZING IN ALL DOORS IS REQUIRED TO BE SAFETY GLAZING
- FINAL FINISHES TO BE SELECTED BY OWNER.
-
-

KEYNOTES:

- LP SMART SIDING - SMOOTH FINISH - CLAPBOARD - 11.84 WIDTH - COLOR 1
- LP SMART SIDING - SMOOTH FINISH - CLAPBOARD - 11.84 WIDTH - COLOR 2
- FABRICATED METAL GUARD SYSTEM - WEDGE LOCK 3000 BY DECK-RAIL OR SIMILAR
-
- HANDRAIL W/ 42" HISS HSS GUARDRAIL W/ HORIZONTAL STEEL RODS @ 3 1/2" O.C.
-
-
- GALVANIZED FINISHED BREAK METAL COPING
- FABRICATED METAL AWNING WITH METAL ROD SUPPORTS
- EXTERIOR STAIR
- BREAK METAL WINDOW TRIM DETAIL
- LINE OF ROOF BEYOND
- LINE REPRESENTS BASEMENT BELOW GRADE
- SCUPPER AND DOWNSPOUT -SEE DETAIL 10/A3.2
- DRYER VENT
- HVAC EXHAUST
- HVAC INTAKE
- LOCATION FOR INSTALLATION OF HEAT PUMP UNITS
- CONCRETE STEPS
- LOCATION OF BUILDING ADDRESS - TO FOLLOW CITY STANDARDS

NOT USED

F.F.E.

WINDOW A

81 SF

WINDOW B

5.8 SF

WINDOW C

10.1 SF

WINDOW D

12.4 SF

WINDOW E

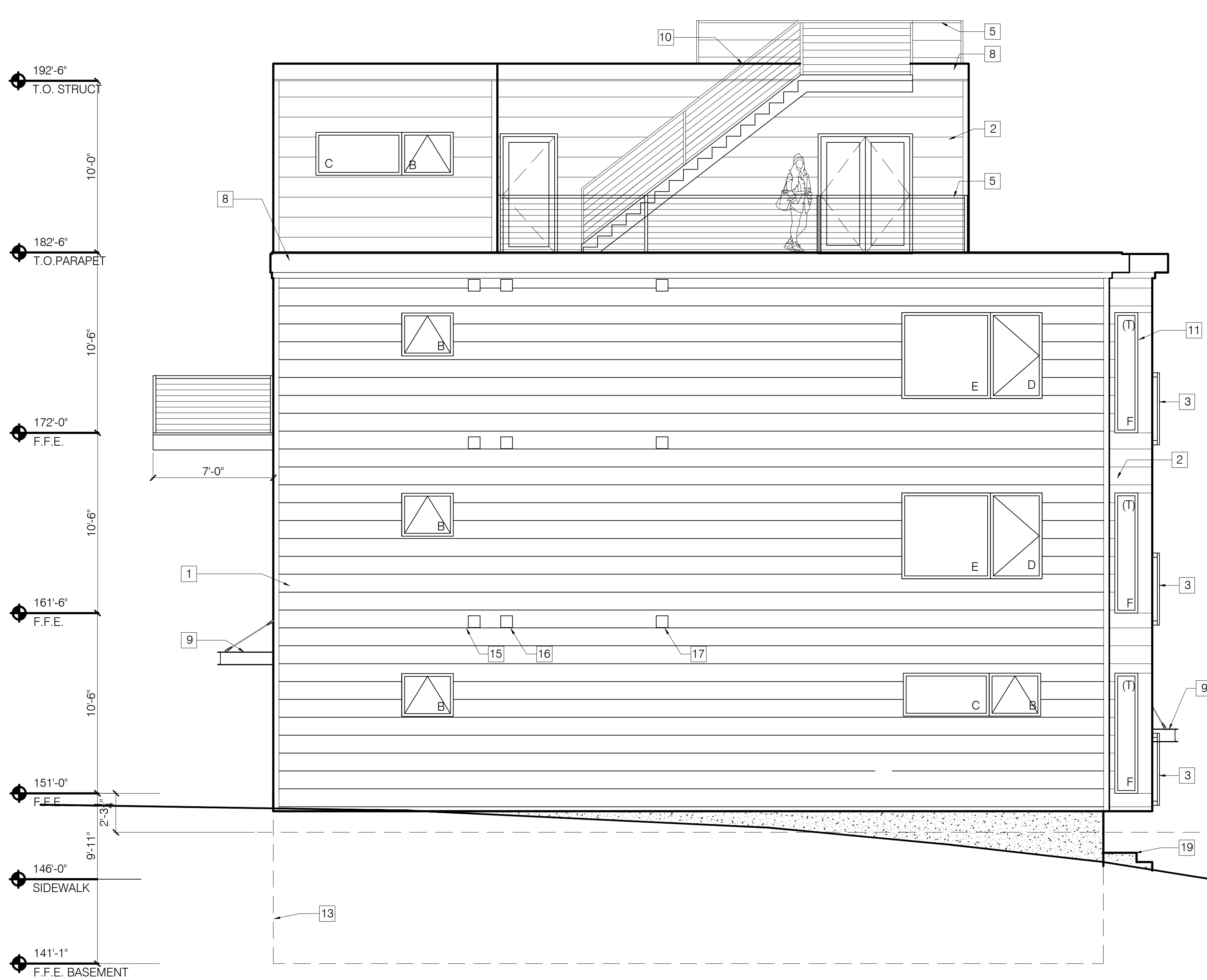
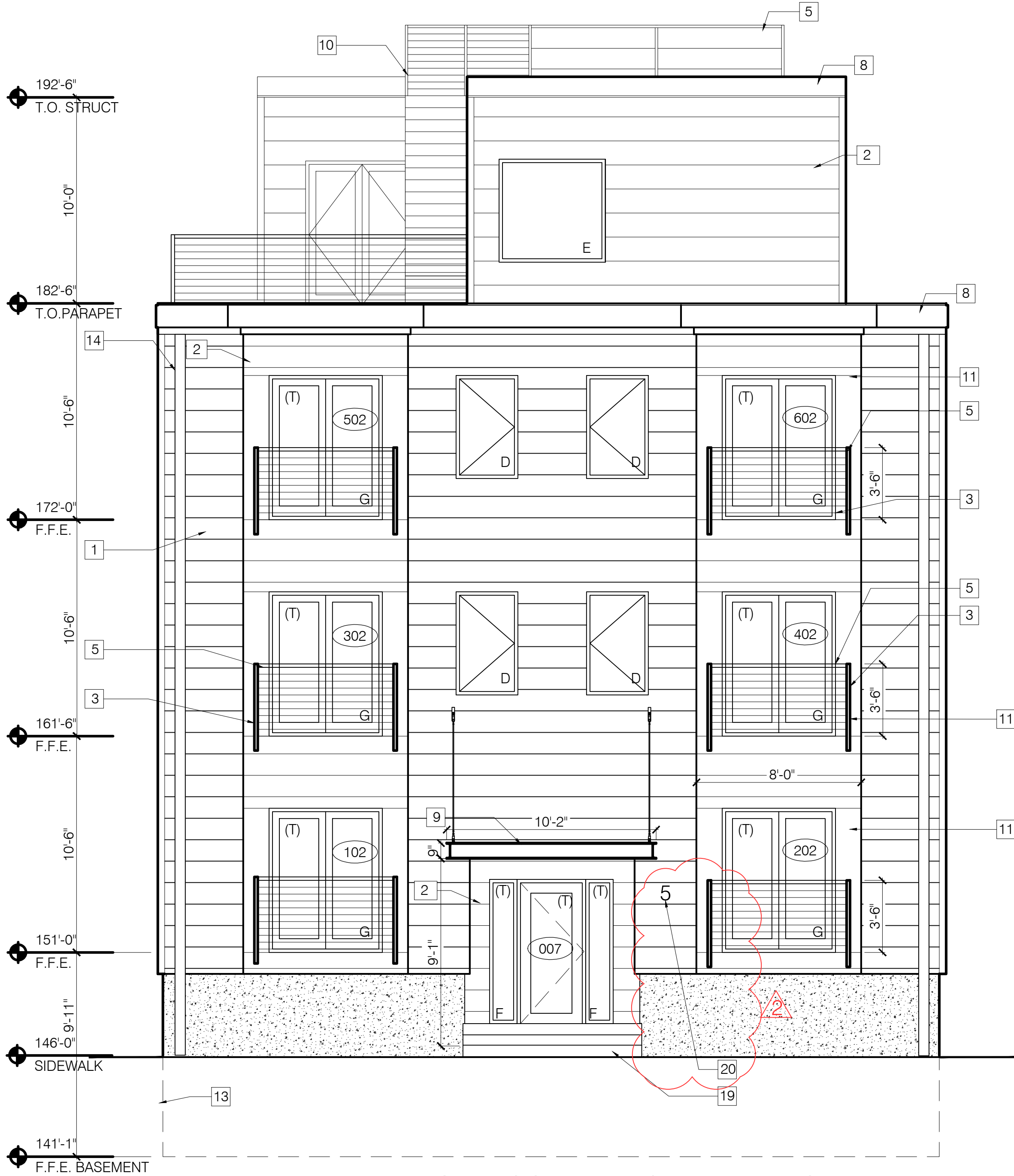
21.8 SF

WINDOW F

6.6 SF

WINDOW G

22.3 SF



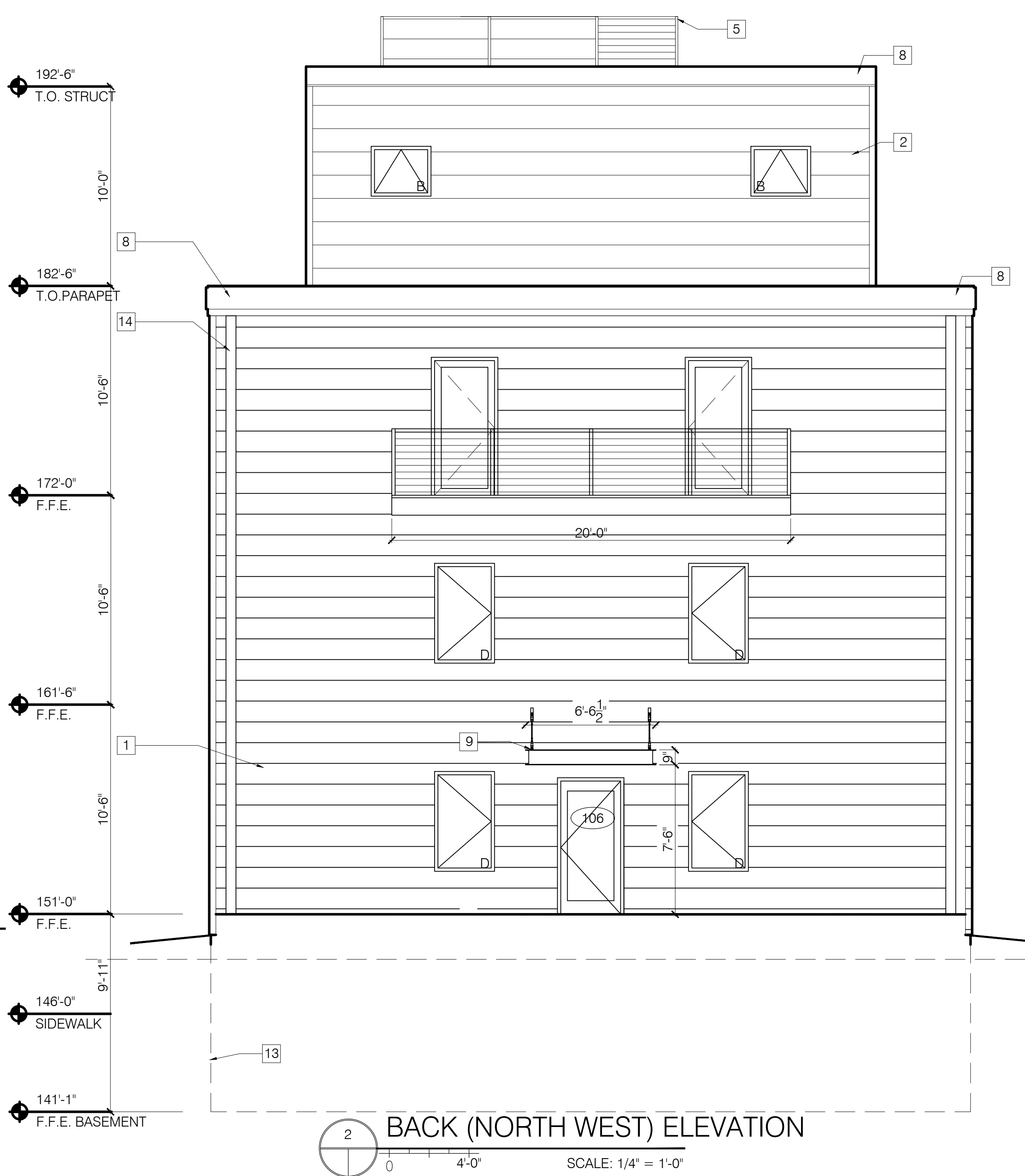
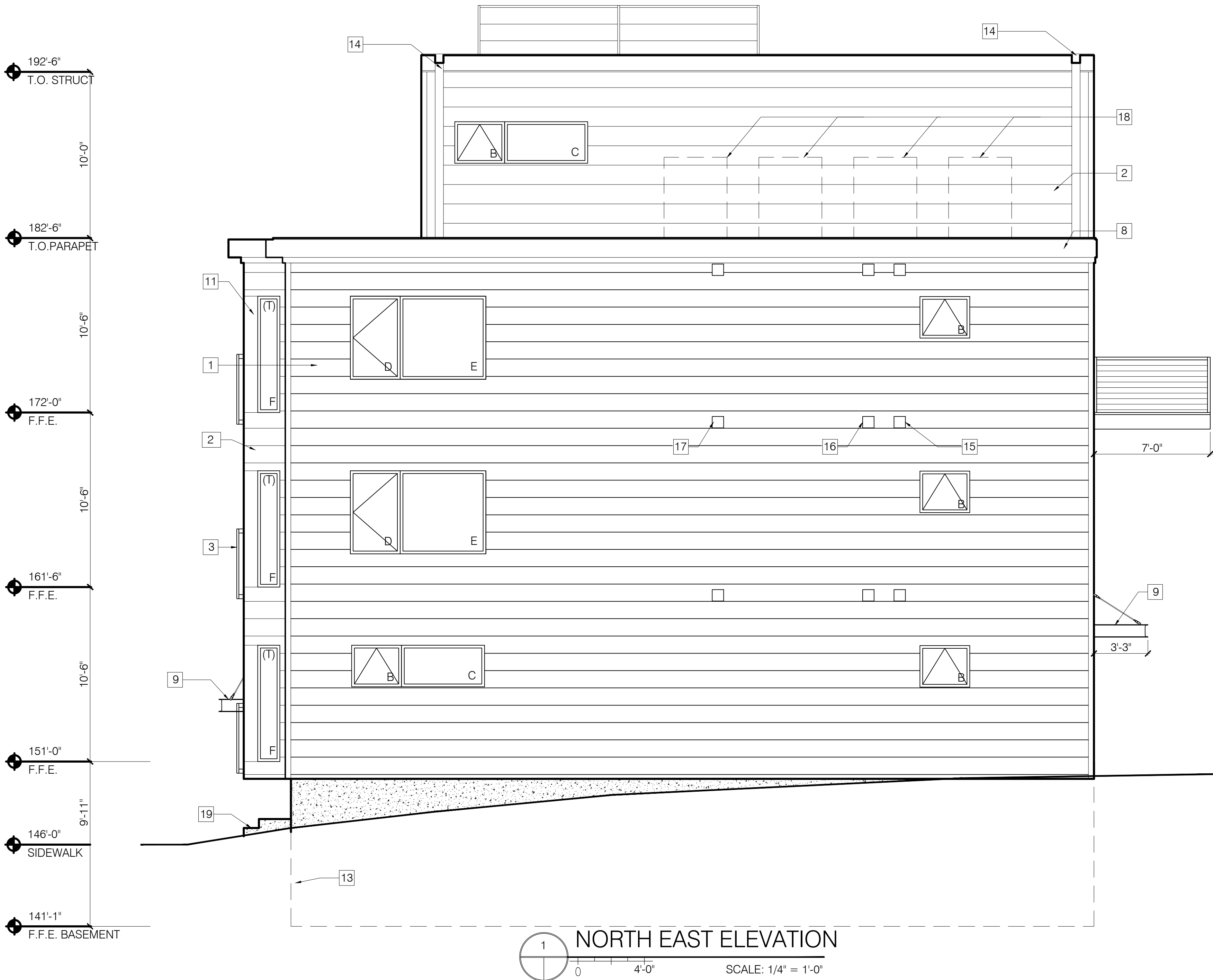
MAX WALL OPENING					
ELEVATION	SEPARATION DISTANCE	NFPA SPRINKLERED	PROTECTED OPENINGS	ALLOWABLE AREA	% OF WALL OPENING
SOUTH WEST -1ST	5' TO 10'	NO	NO	10%	5.38%
SOUTH WEST -2ND	5' TO 10'	NO	NO	10%	9.45%
SOUTH WEST -3RD	5' TO 10'	NO	NO	10%	9.45%
SOUTH WEST - 4TH	15' TO 20'	NO	NO	25%	17%
NORTH EAST - 1ST	5' TO 10'	NO	NO	10%	5.38%
NORTH EAST - 2ND	5' TO 10'	NO	NO	10%	9.45%
NORTH EAST - 3RD	5' TO 10'	NO	NO	10%	9.45%
NORTH EAST - 4TH	5' TO 10'	NO	NO	10%	4%
SOUTH EAST	30' OR GREATER	NO	NO	N/A	-
NORTH WEST	30' OR GREATER	NO	NO	N/A	-

GENERAL NOTES:

- A. GLAZING IN ALL DOORS IS REQUIRED TO BE SAFETY GLAZING
- B. FINAL FINISHES TO BE SELECTED BY OWNER.
- C. ----
- D. ----

KEYNOTES:

1. LP SMART SIDING - SMOOTH FINISH - CLAPBOARD - 11.84 WIDTH - COLOR 1
2. LP SMART SIDING - SMOOTH FINISH - CLAPBOARD - 11.84 WIDTH - COLOR 2
3. FABRICATED METAL GUARD SYSTEM - WEDGE LOCK 3000 BY DECK-RAIL OR SIMILAR
4. -
5. HANDRAIL W/ 42" HISS HSS GUARDRAIL W/ HORIZONTAL STEEL RODS @ 3 1/2" O.C.
6. -
7. -
8. GALVANIZED FINISHED BREAK METAL COPING
9. FABRICATED METAL AWNING WITH METAL ROD SUPPORTS
10. EXTERIOR STAIR
11. BREAK METAL WINDOW TRIM DETAIL
12. LINE OF ROOF BEYOND
13. LINE REPRESENTS BASEMENT BELOW GRADE
14. SCUPPER AND DOWNSPOUT -SEE DETAIL 10/A3.2
15. DRYER VENT
16. HVAC EXHAUST
17. HVAC INTAKE
18. LOCATION FOR INSTALLATION OF HEAT PUMP UNITS
19. CONCRETE STEPS







1
0 1' 0" NTS
SCALE: NTS
RENDERING

ISSUE DATE
2/24/17
SHEET SCALE
1/4" = 1'-0"

DRAWN BY
EMW
SHEET TITLE

PERMIT SET
NOT FOR CONSTRUCTION

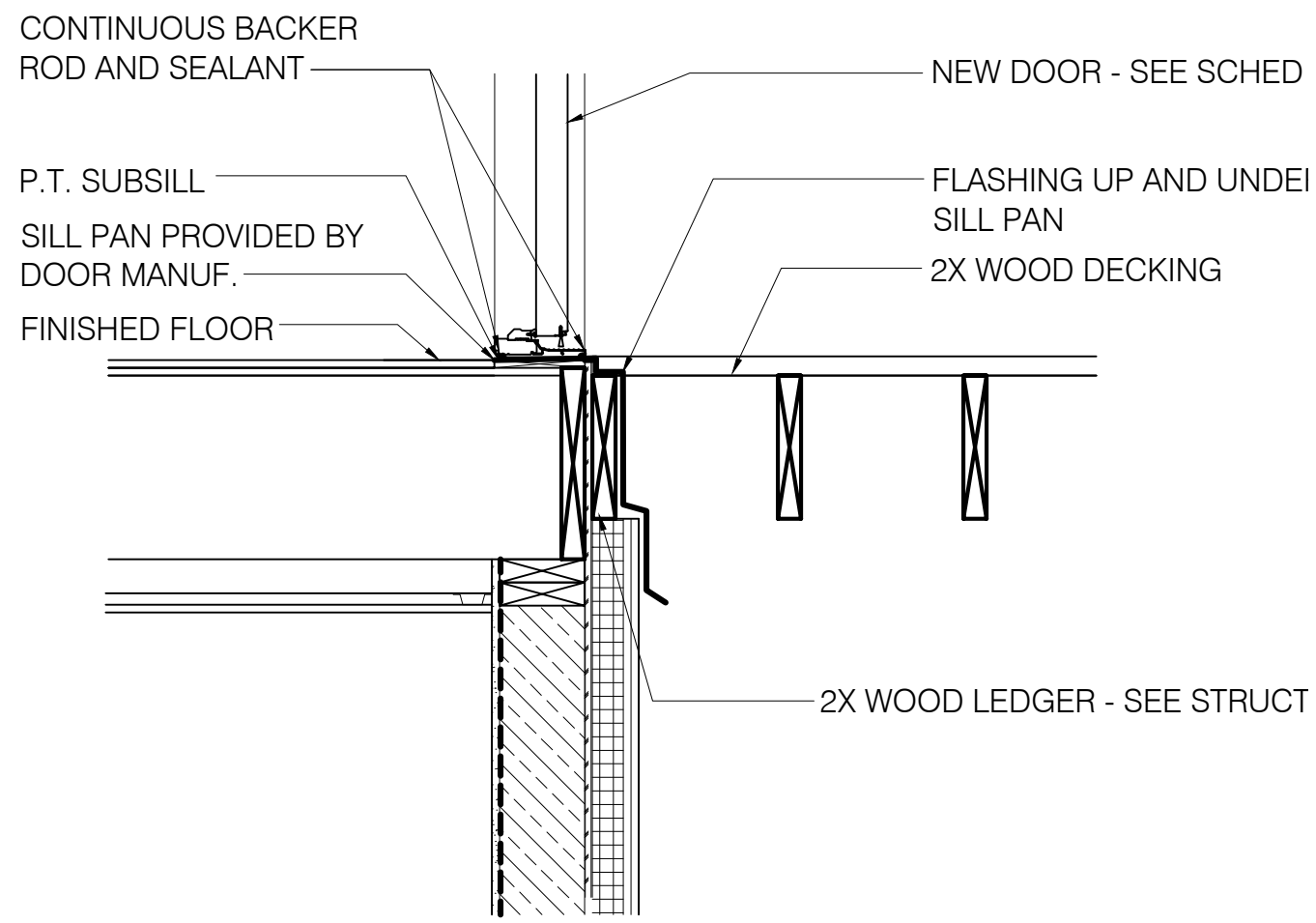
REVISIONS
1 | 03-15-2017
2 | -
3 | -
4 | -
5 | -

PROJECT NO.
16035
PROJECT NAME
**7 CUMBERLAND
PORTLAND, ME**



Bild Architecture
PO Box 8235
Portland, ME
04104
207.408.0168
evan@bildarchitecture.com

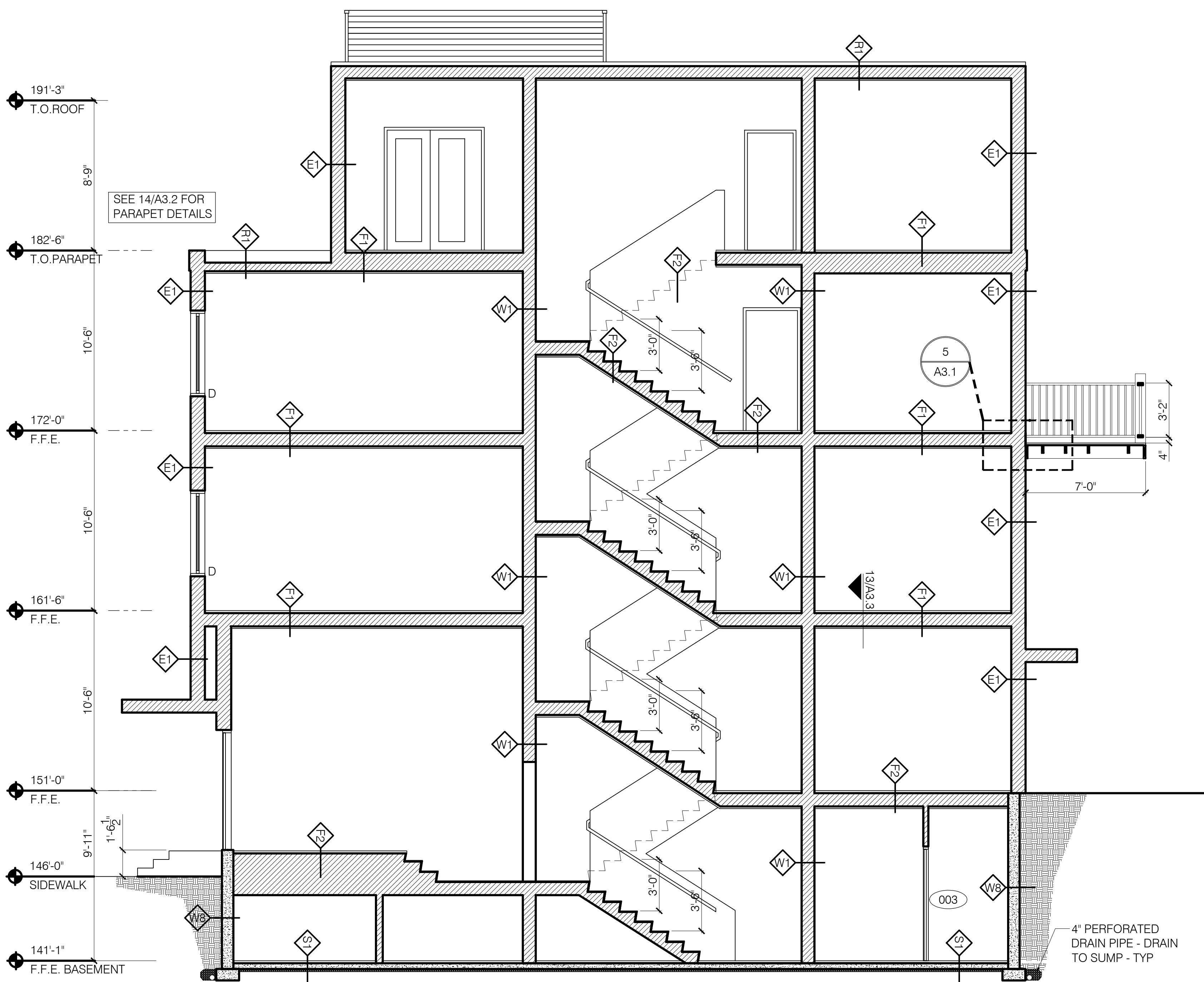
COPYRIGHT: Reuse or reproduction of the contents of this document is not permitted without written permission of Bild Architecture LLC



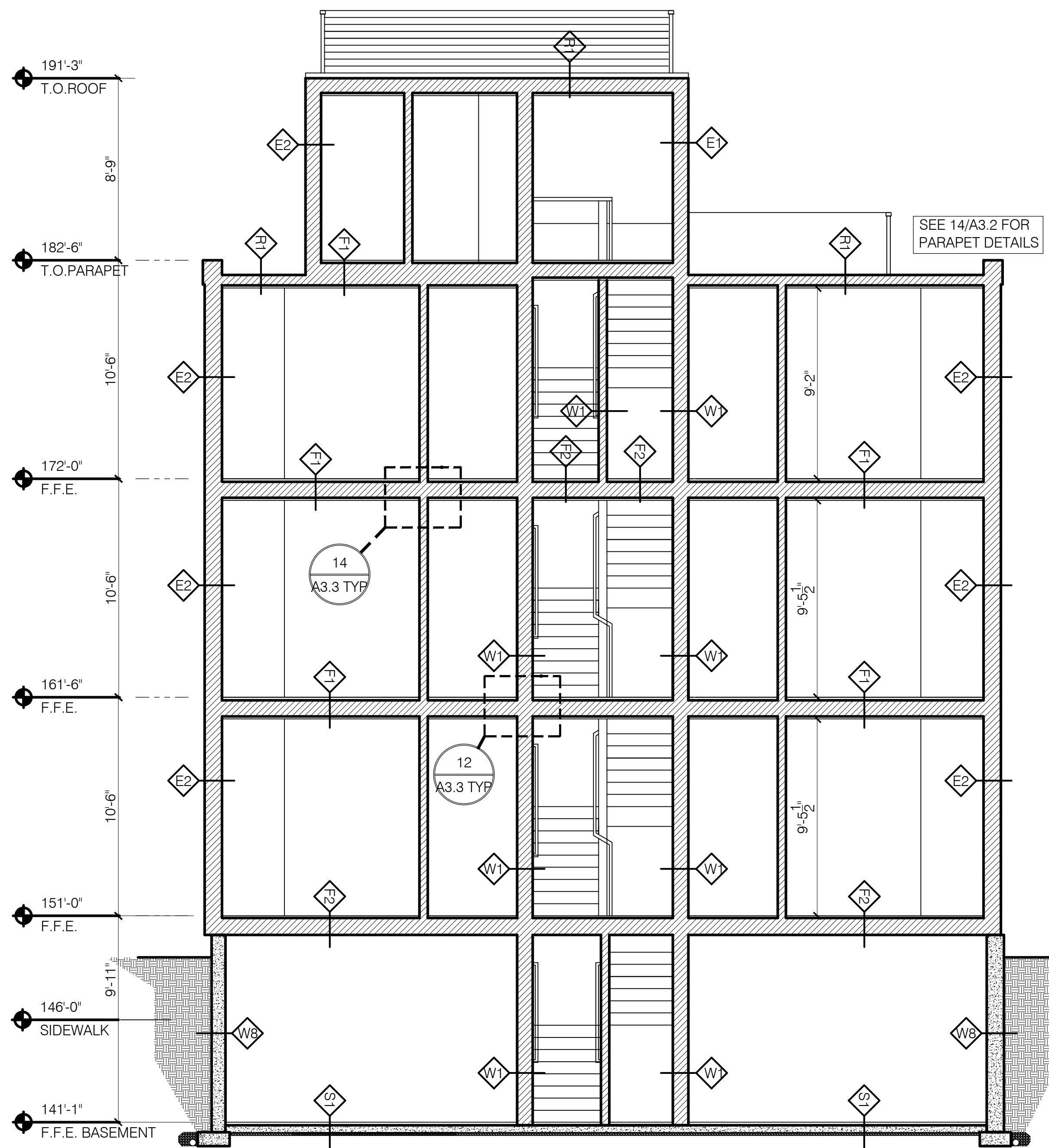
5 DECK DETAIL
SCALE: 1" = 1'-0"

3 NOT USED
SCALE: 1" = 1'-0"

4 NOT USED
SCALE: 1" = 1'-0"



1 BUILDING SECTION
SCALE: 1/4" = 1'-0"



2 BUILDING SECTION
SCALE: 1/4" = 1'-0"

Bild Architecture
PO Box 8235
Portland, ME
04104
207.408.0168
evan@bildarchitecture.com



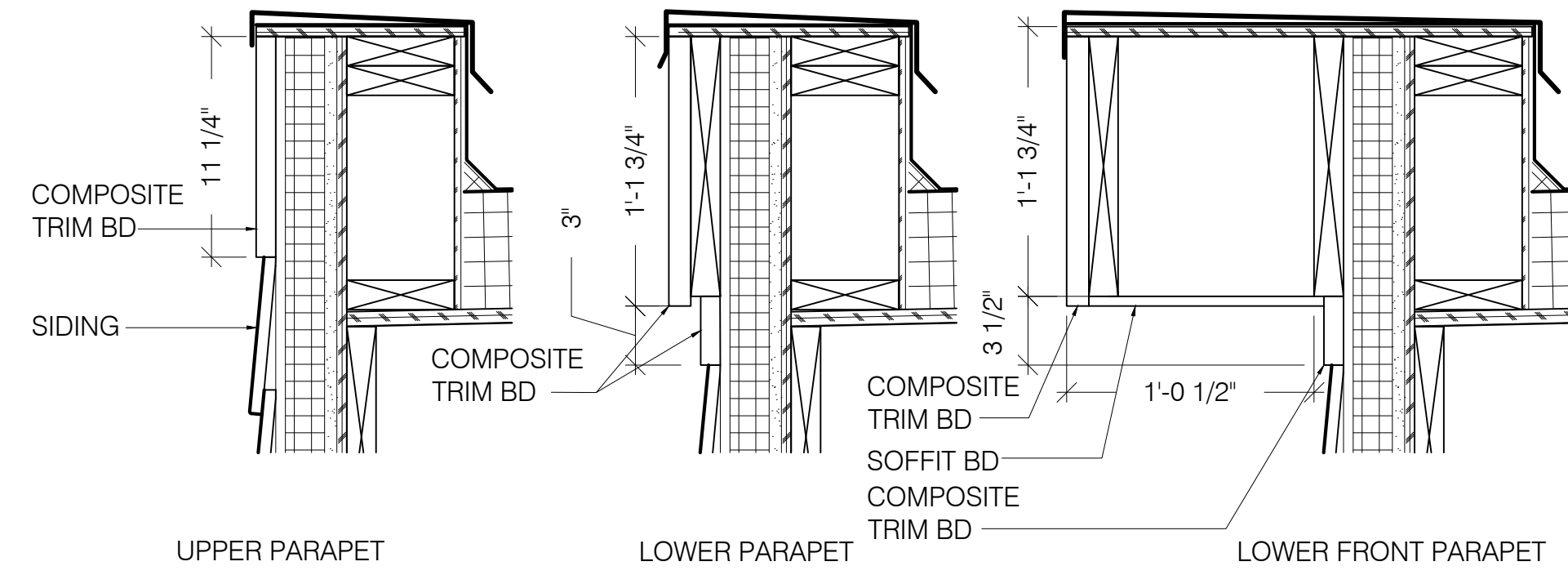
PROJECT NO. **16035**
PROJECT NAME **7 CUMBERLAND PORTLAND, ME**

REVISIONS	DATE	BY	DESCRIPTION
1	03-15-2017	EMW	ISSUE DATE
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-

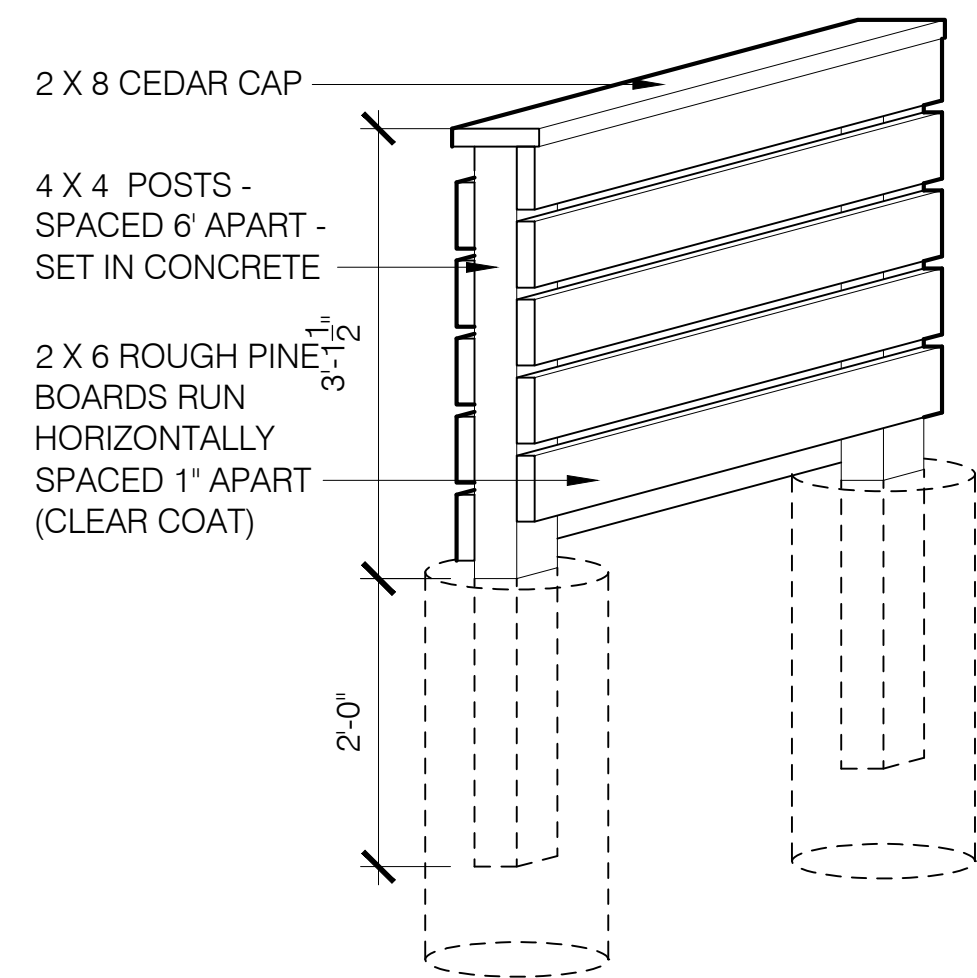
PERMIT SET
NOT FOR CONSTRUCTION

DRAWN BY **EMW**
SHEET TITLE **BUILDING SECT**

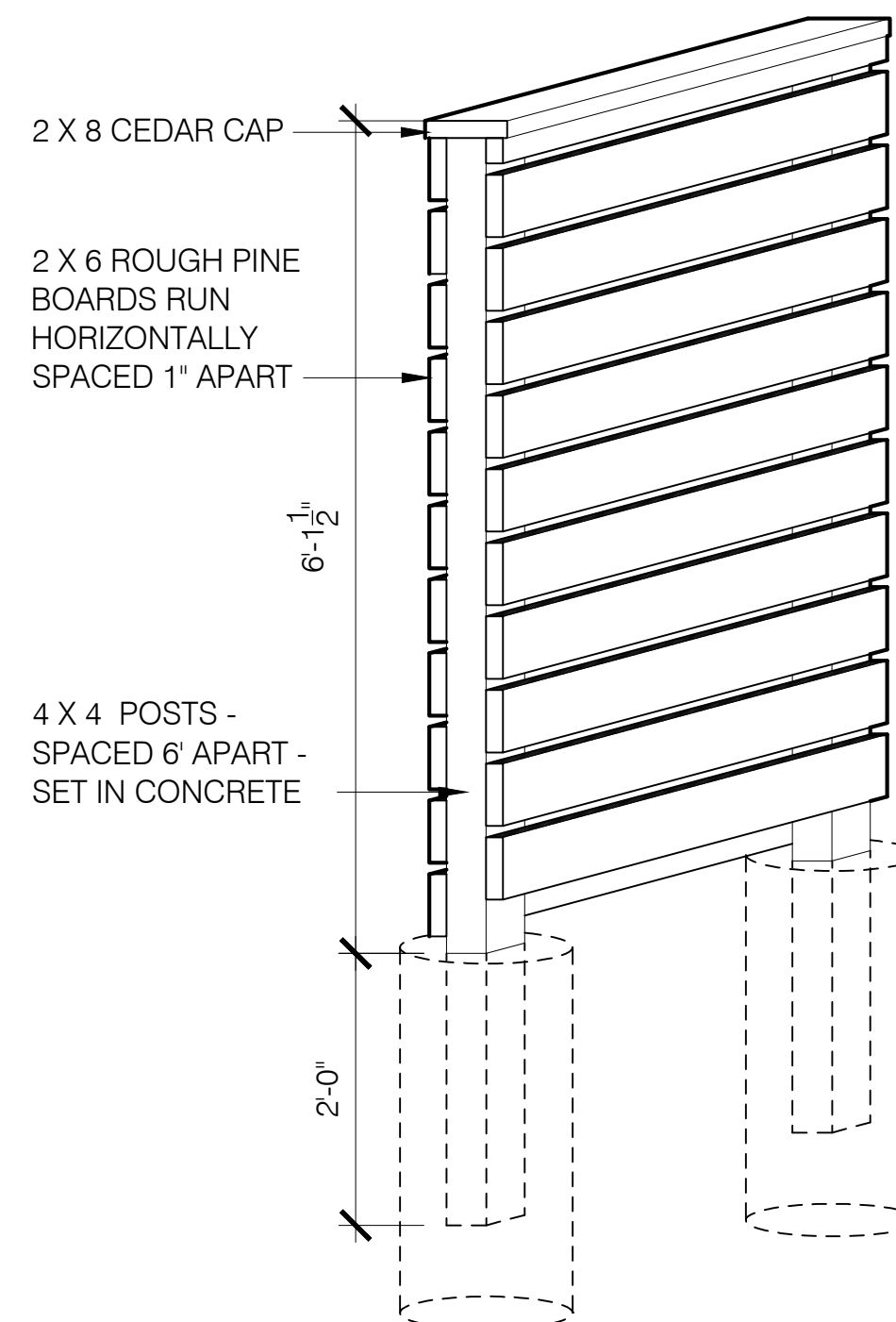
ISSUE DATE **2/24/17**
SHEET SCALE **1/4" = 1'-0"**
A
3.1



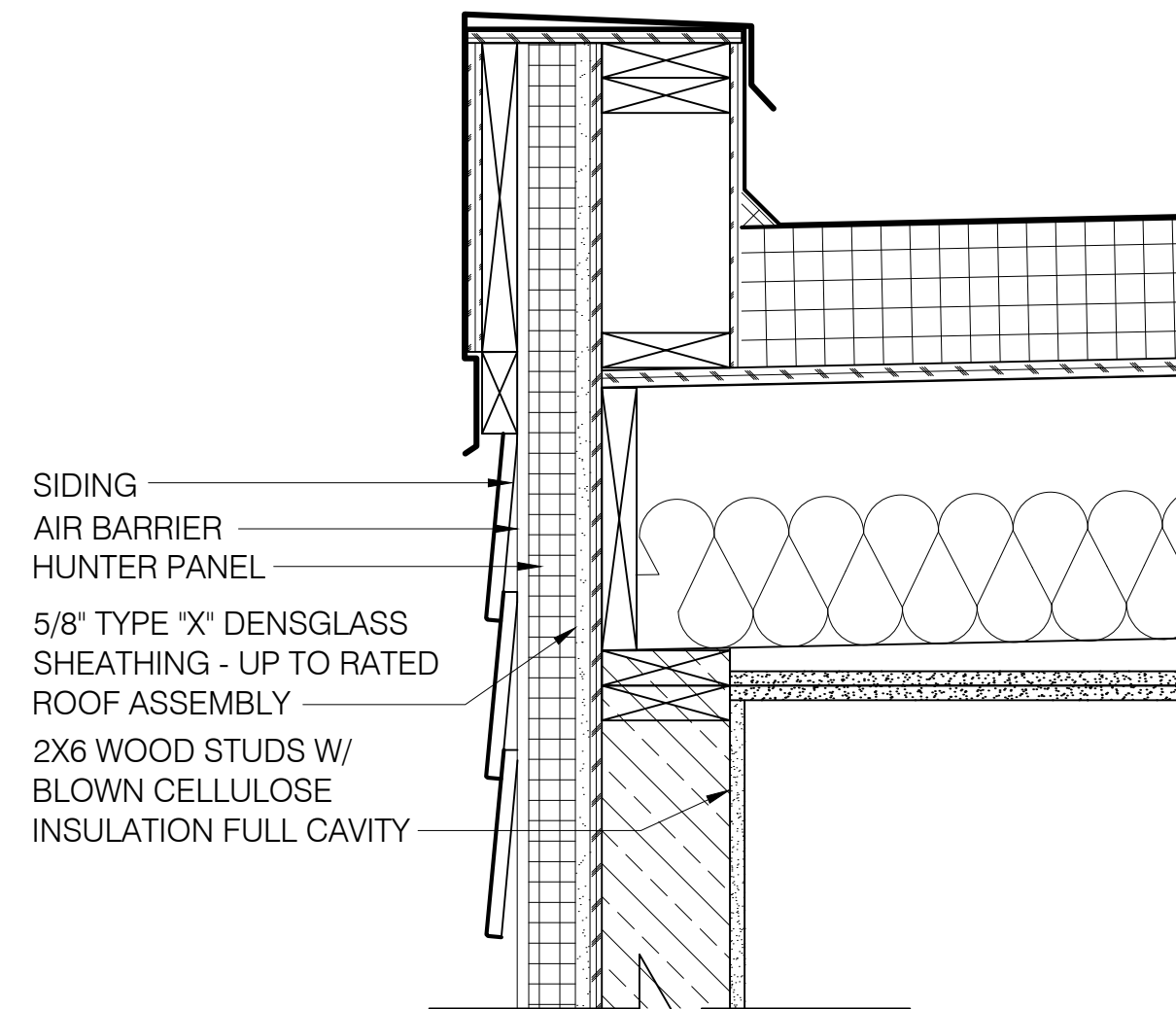
PARAPET DETAILS



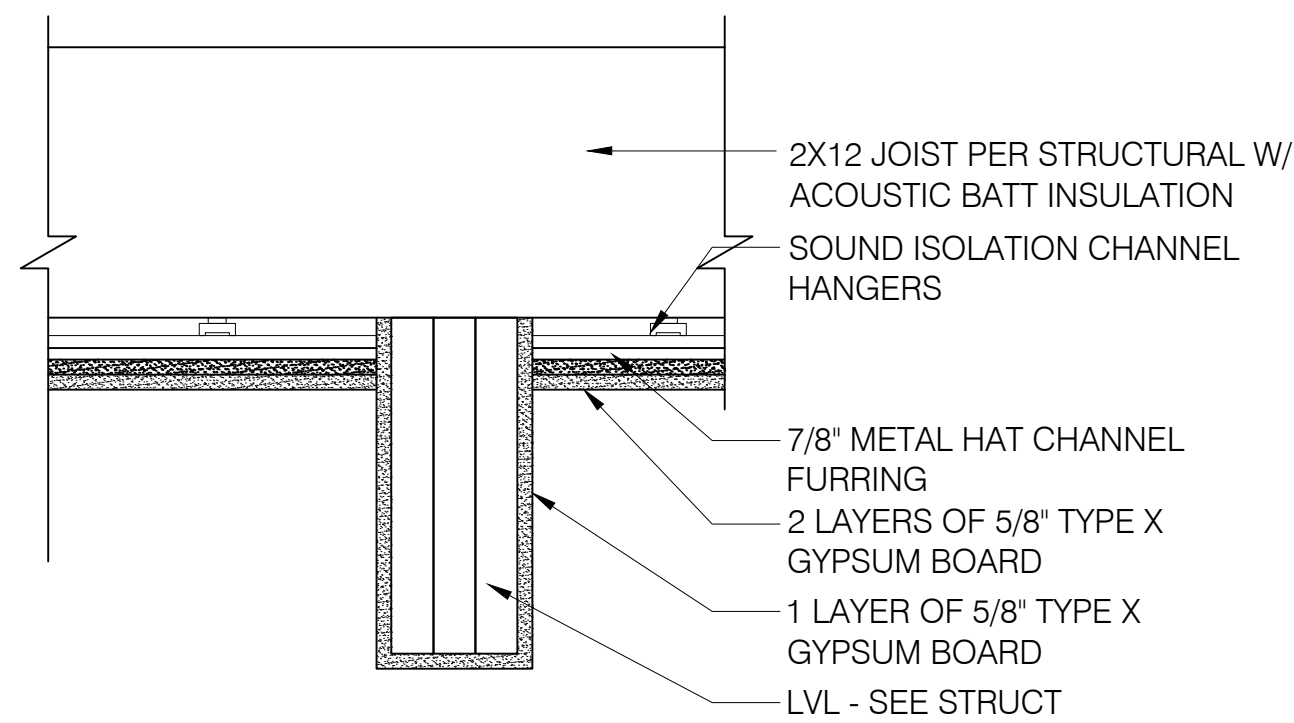
FENCE DETAIL NEAR CURB



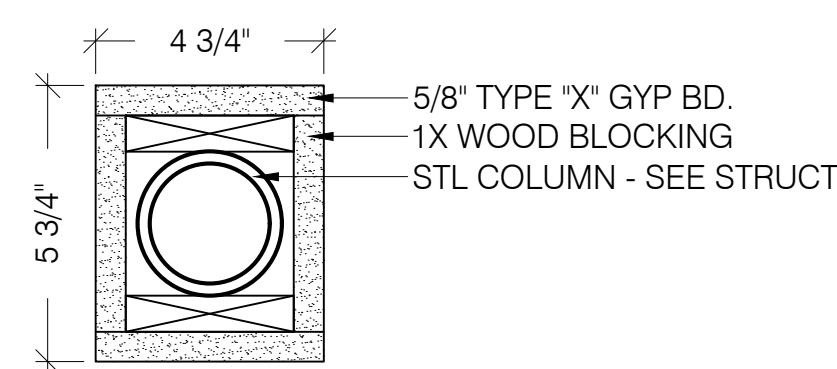
FENCE DETAIL



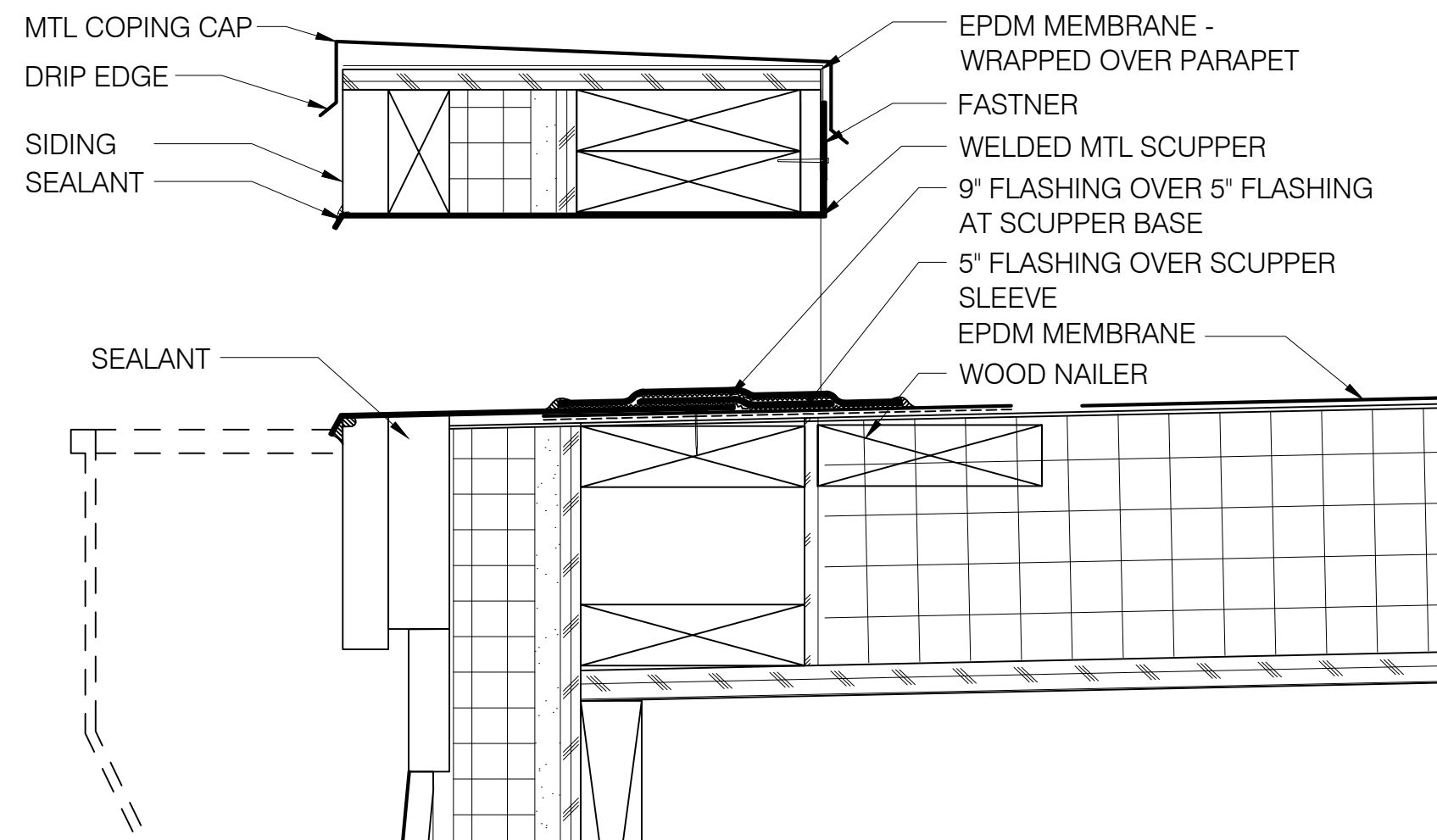
T.O. RATED EXT WALL DETAIL



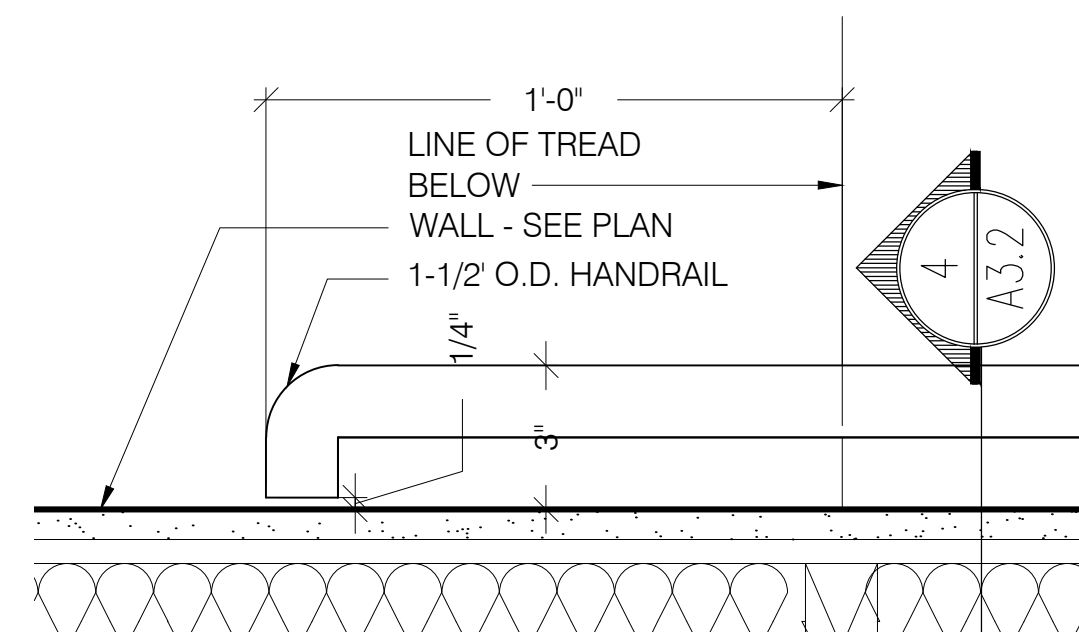
LVL WRAP DETAIL



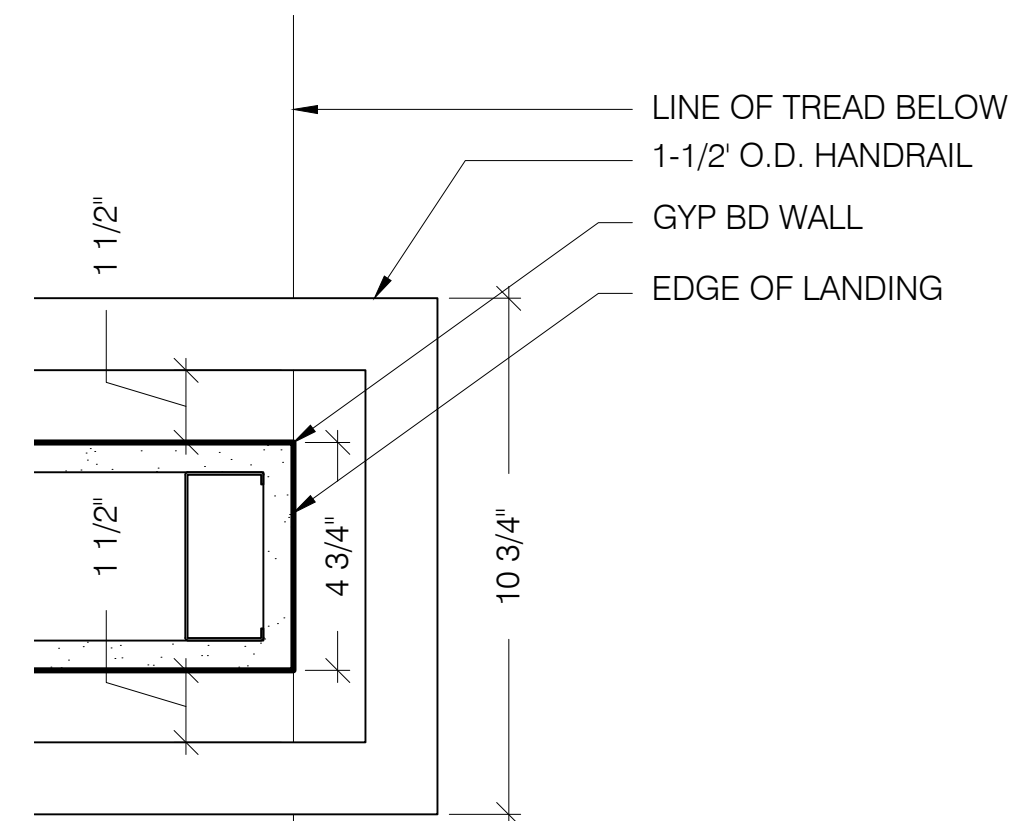
COLUMN WRAP DETAIL



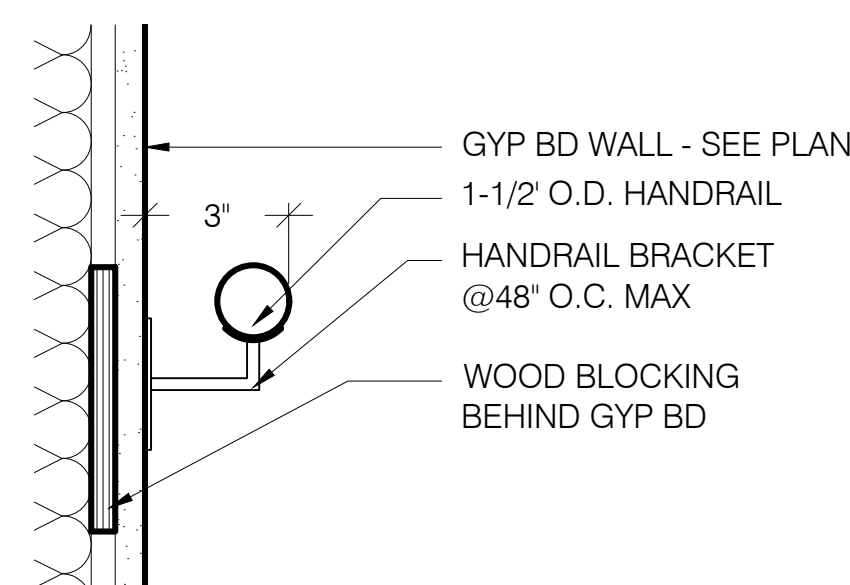
SCUPPER DETAIL



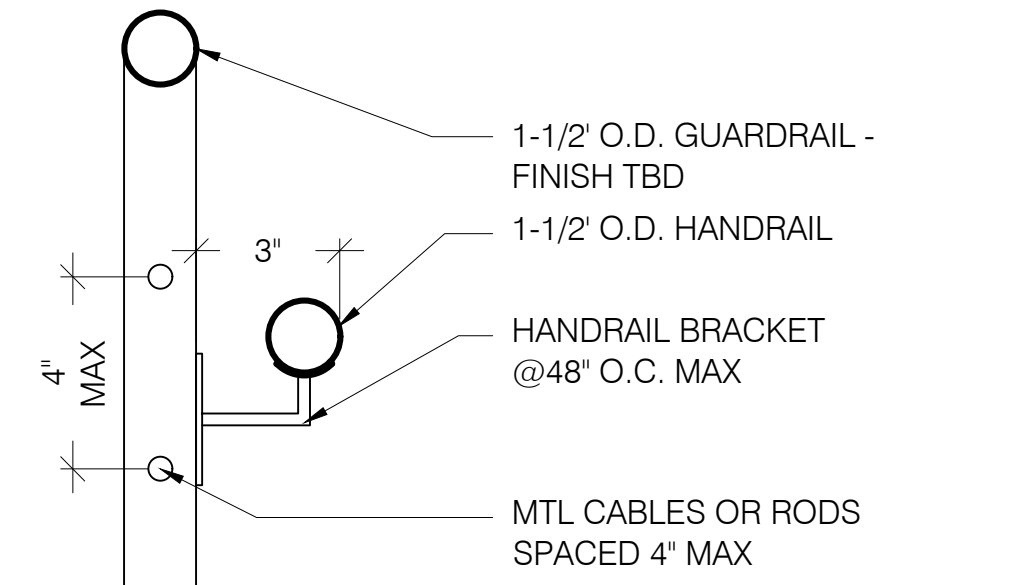
HANDRAIL DETAIL



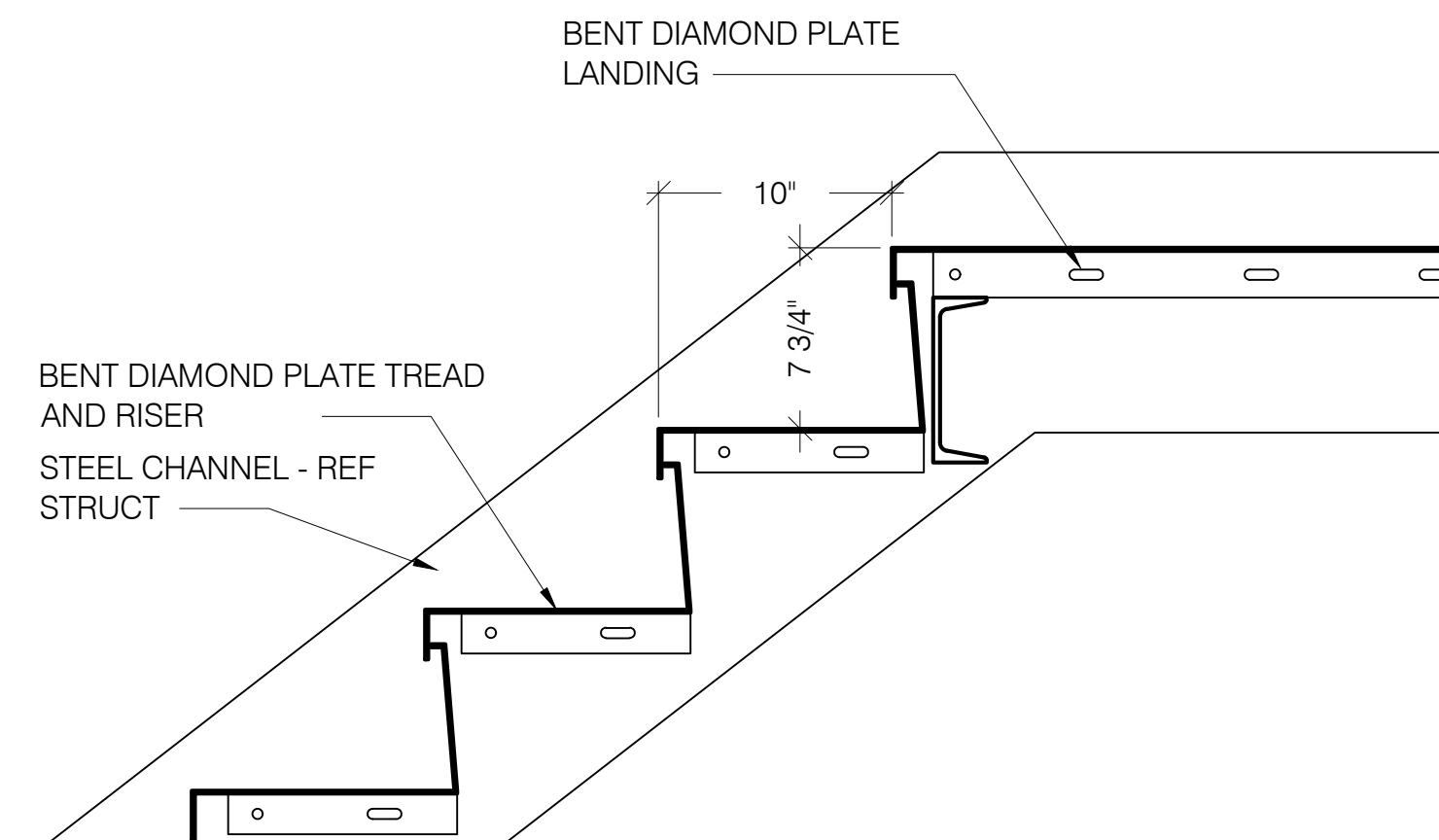
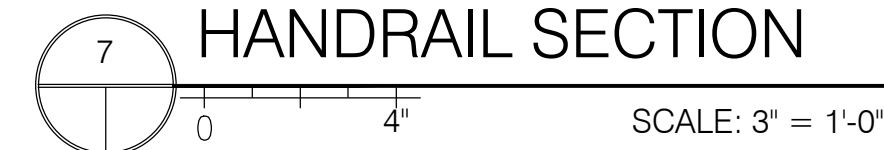
HANDRAIL DETAIL



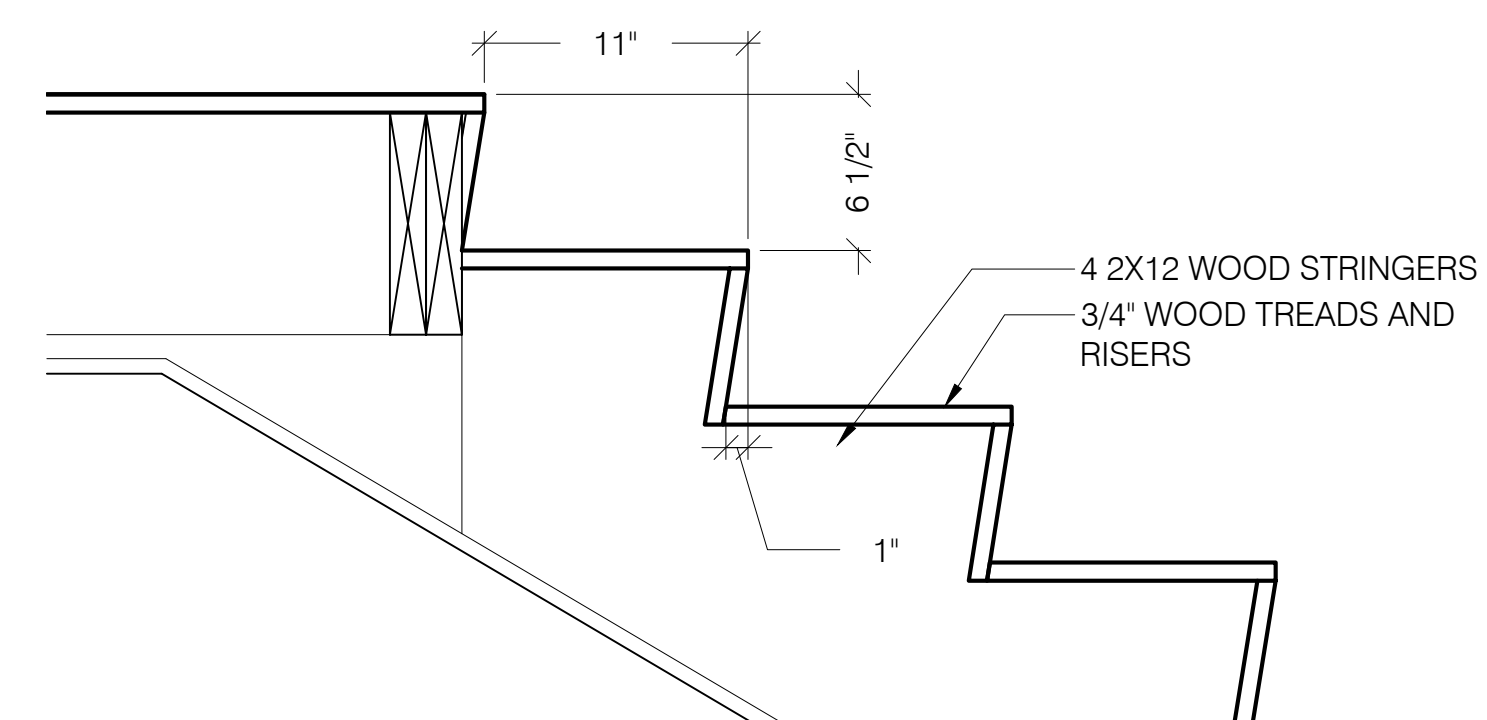
HANDRAIL SECTION



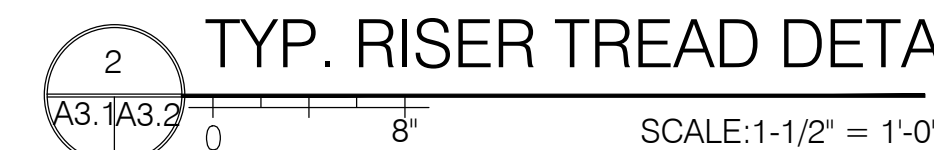
HANDRAIL SECTION

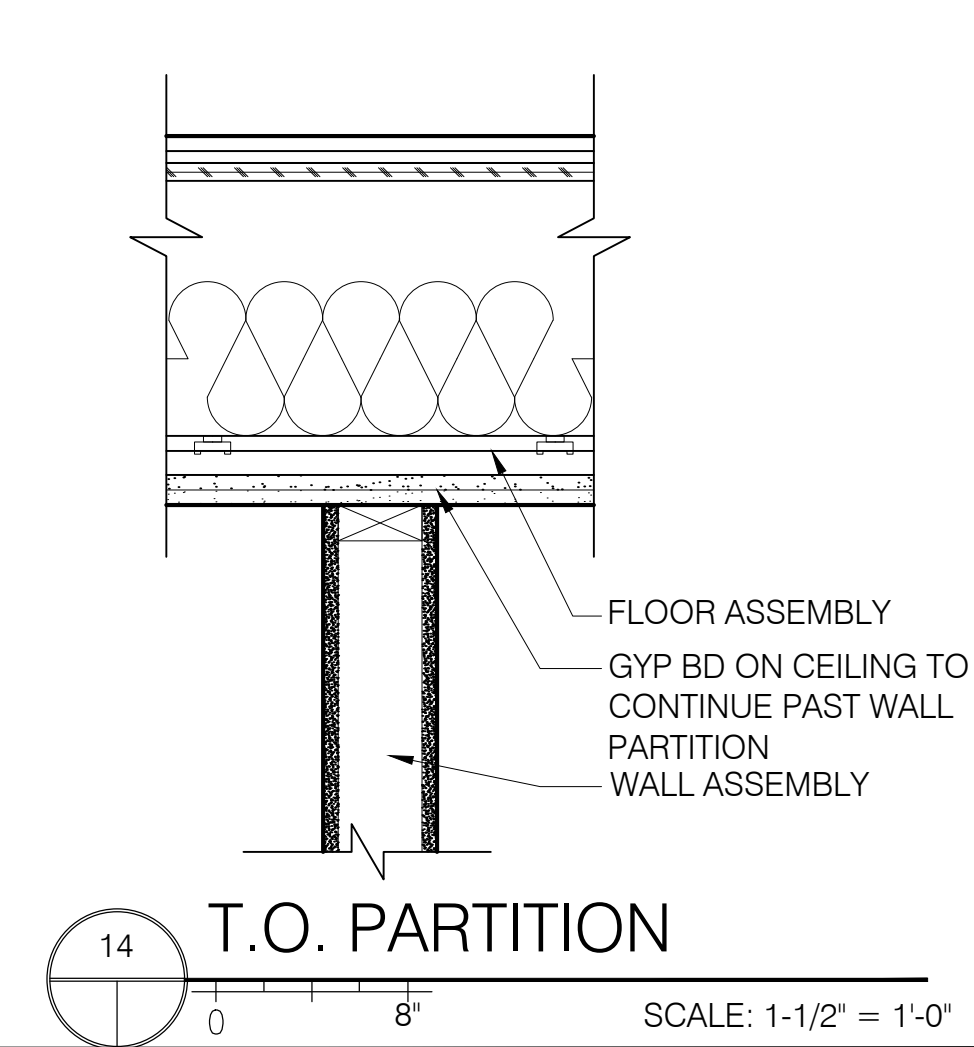
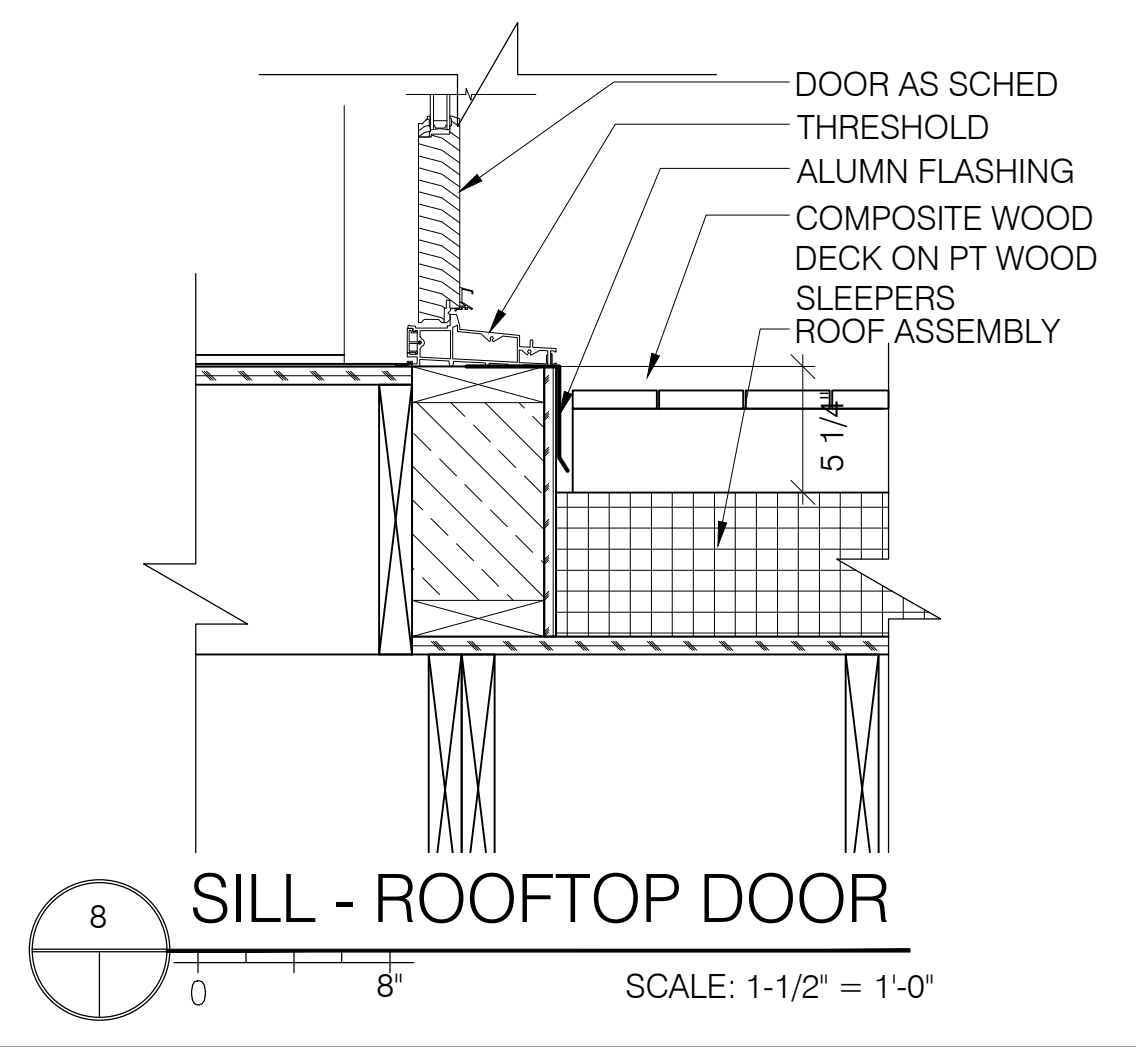
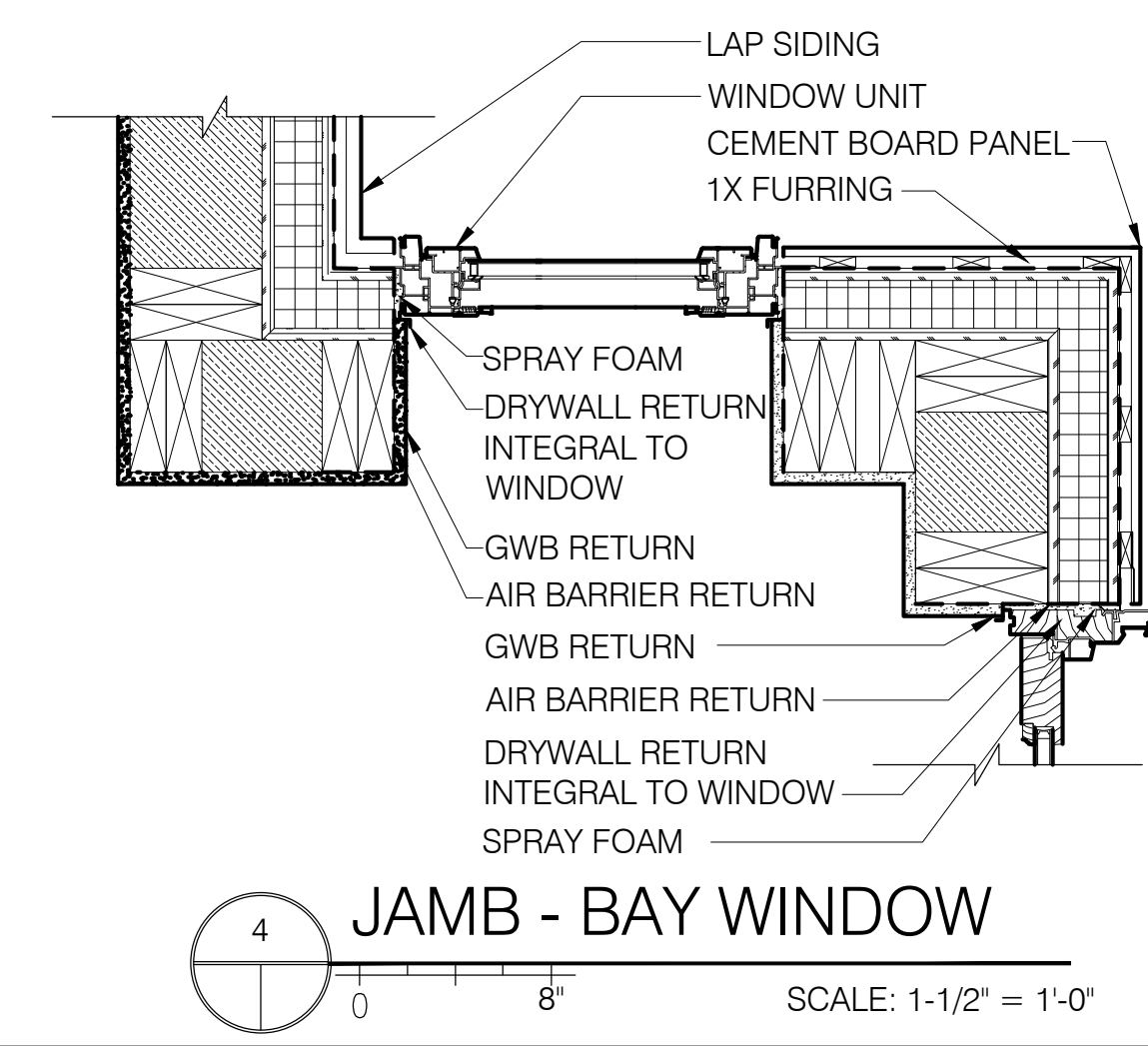
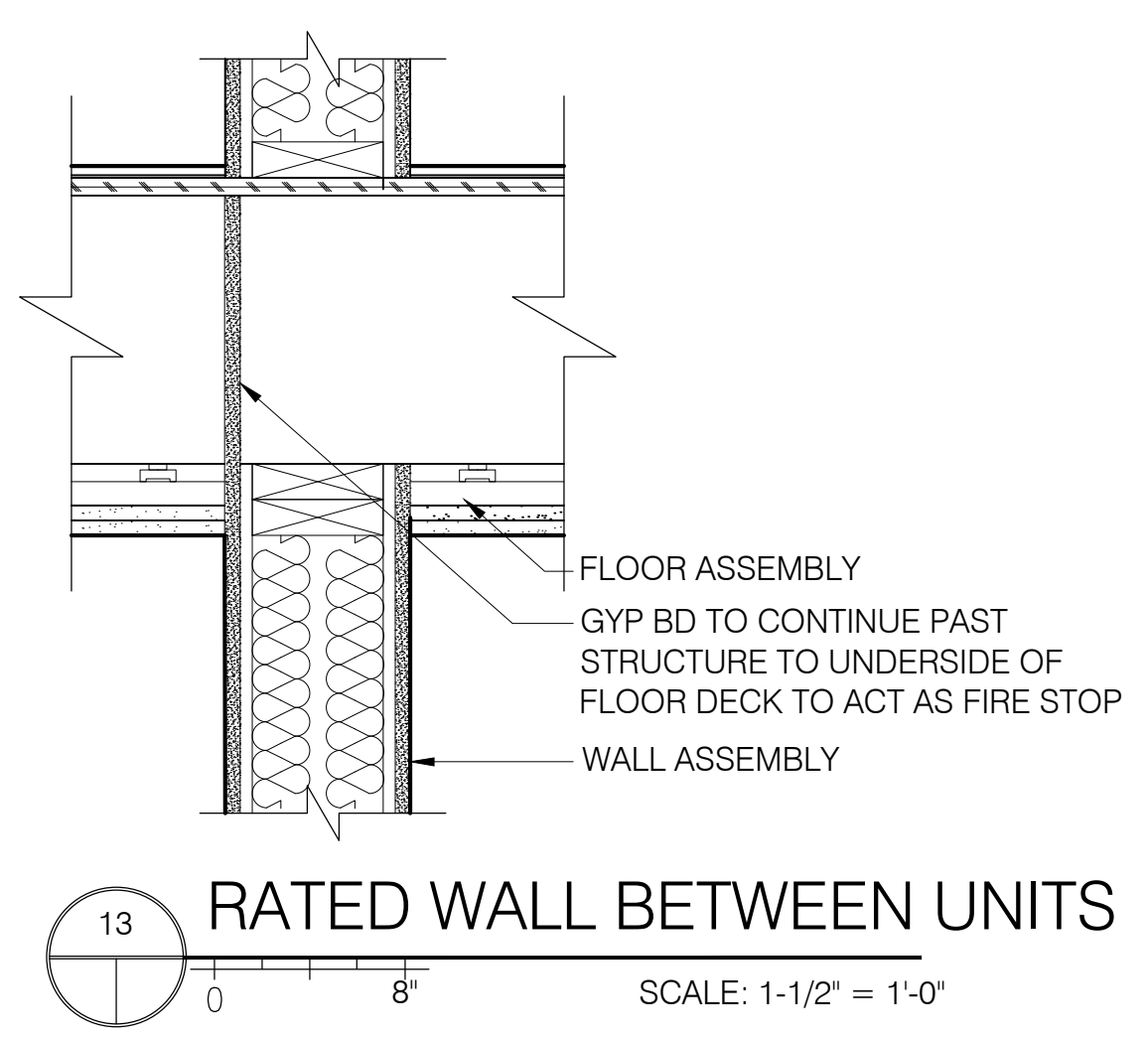
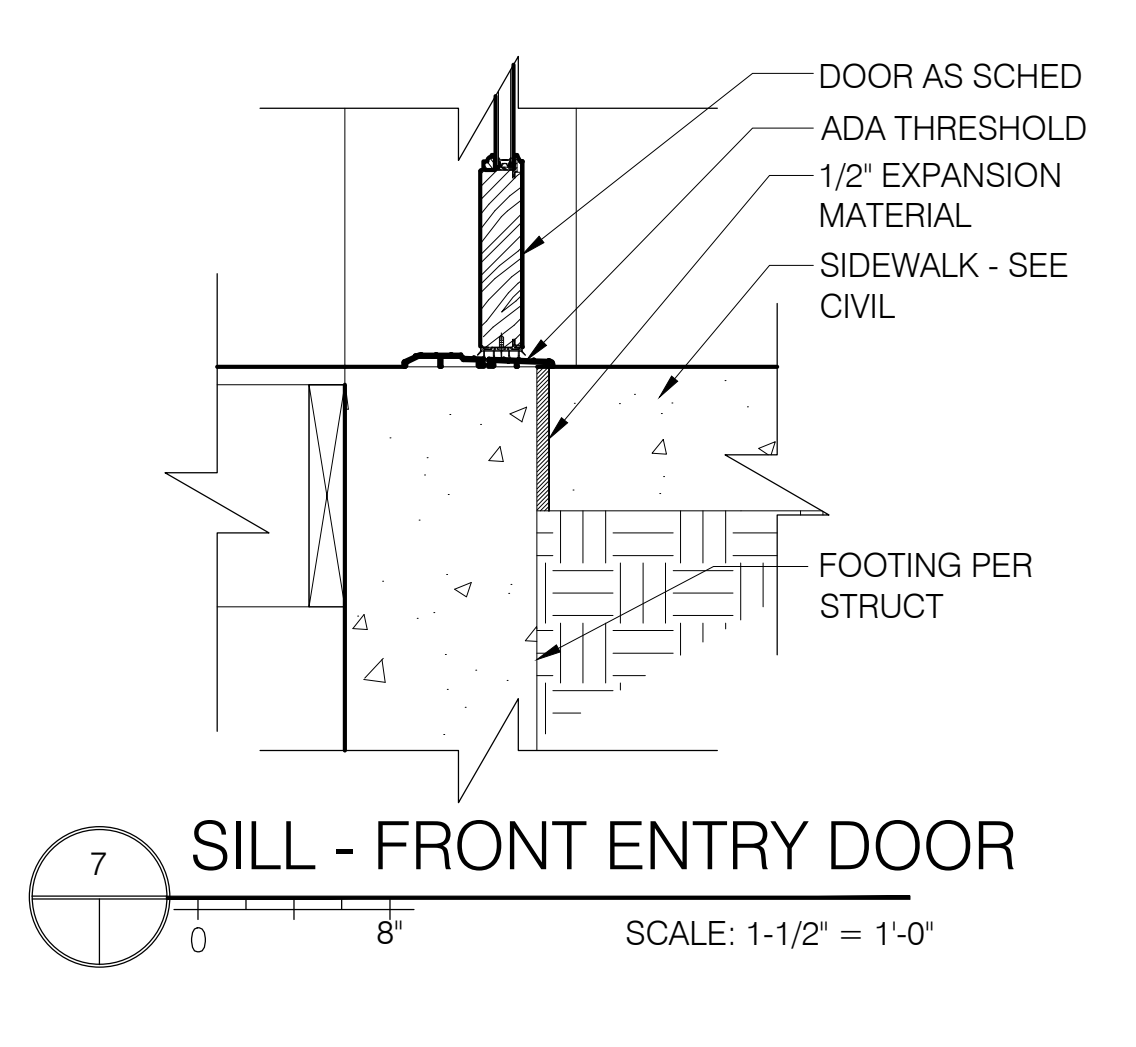
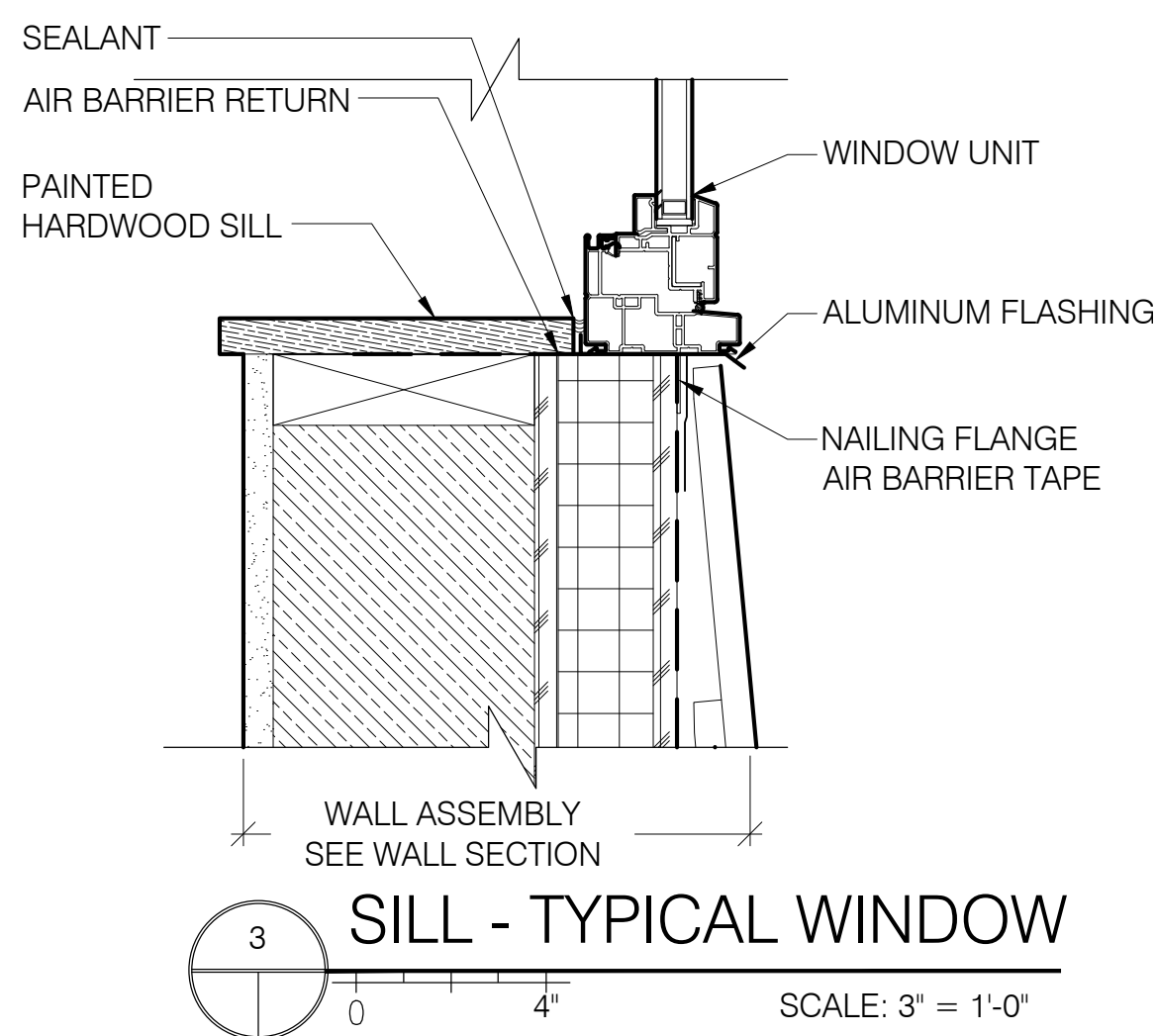
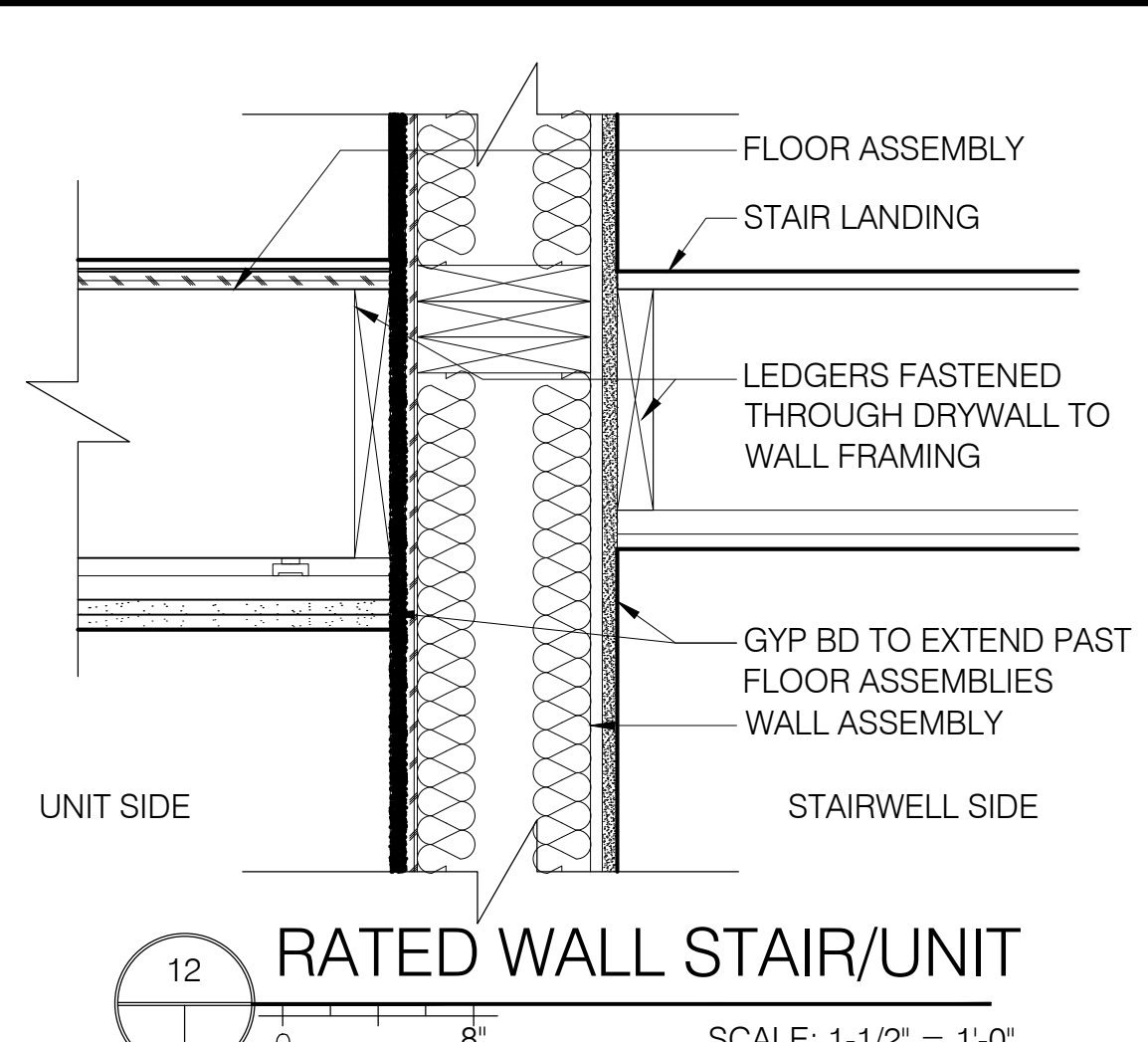
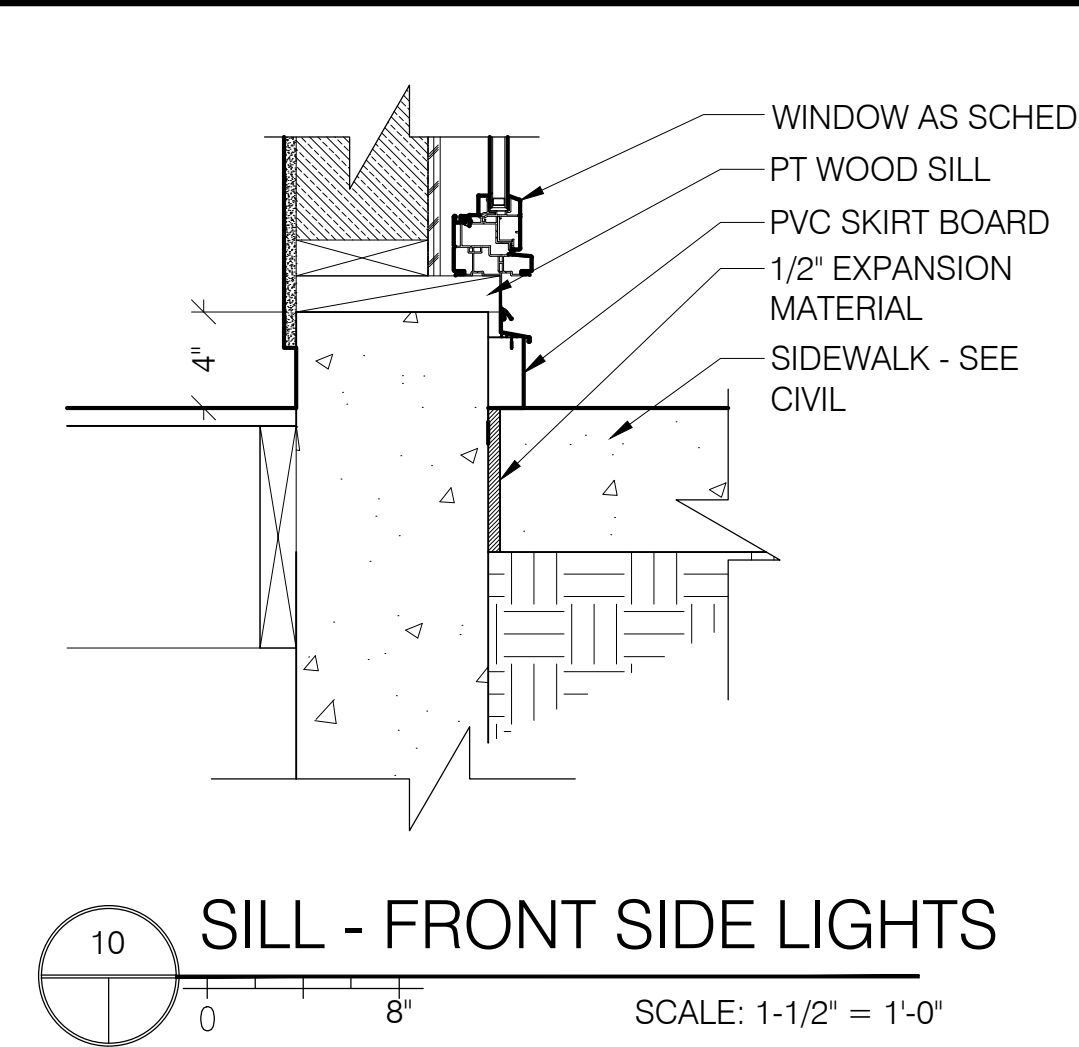
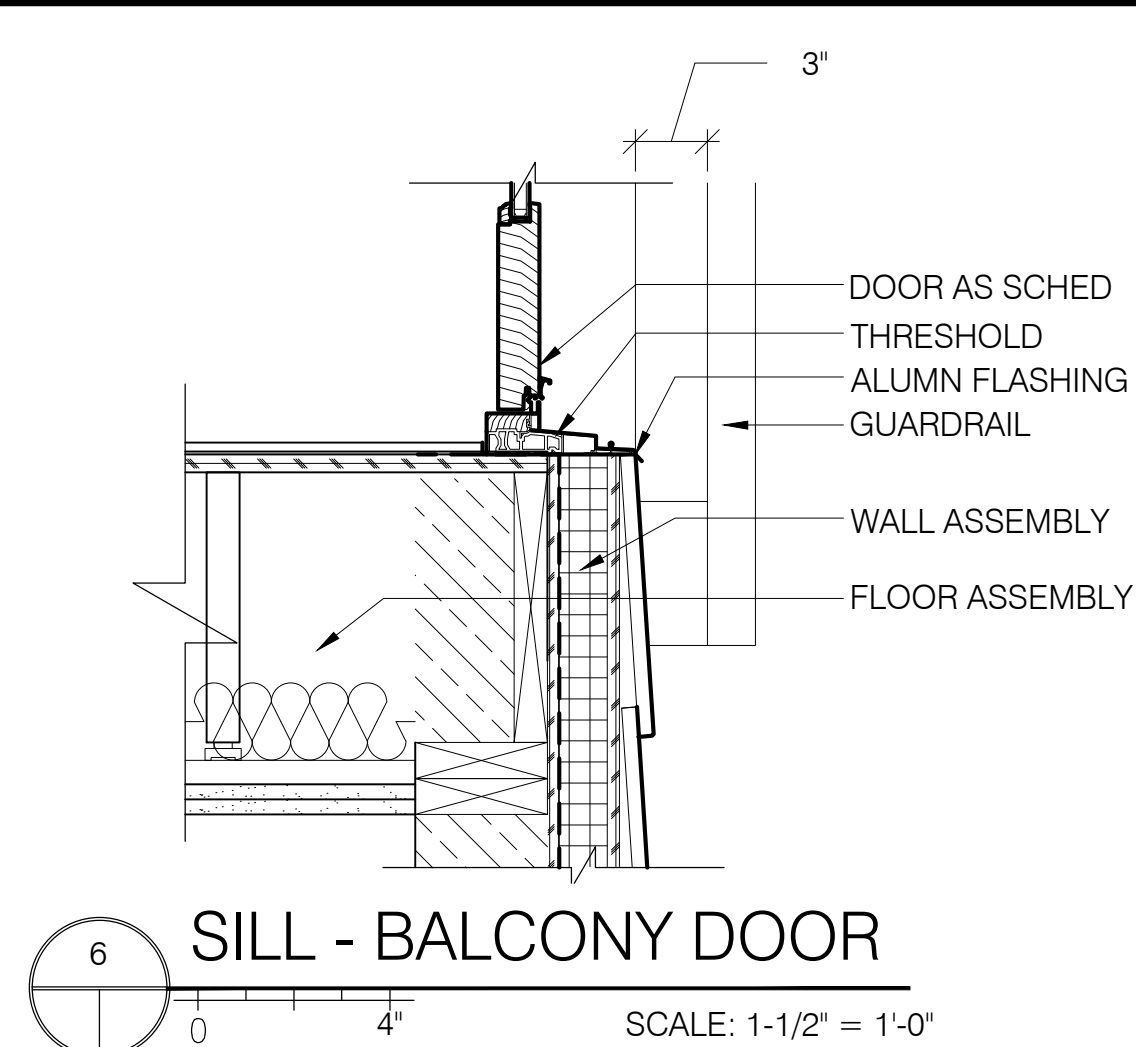
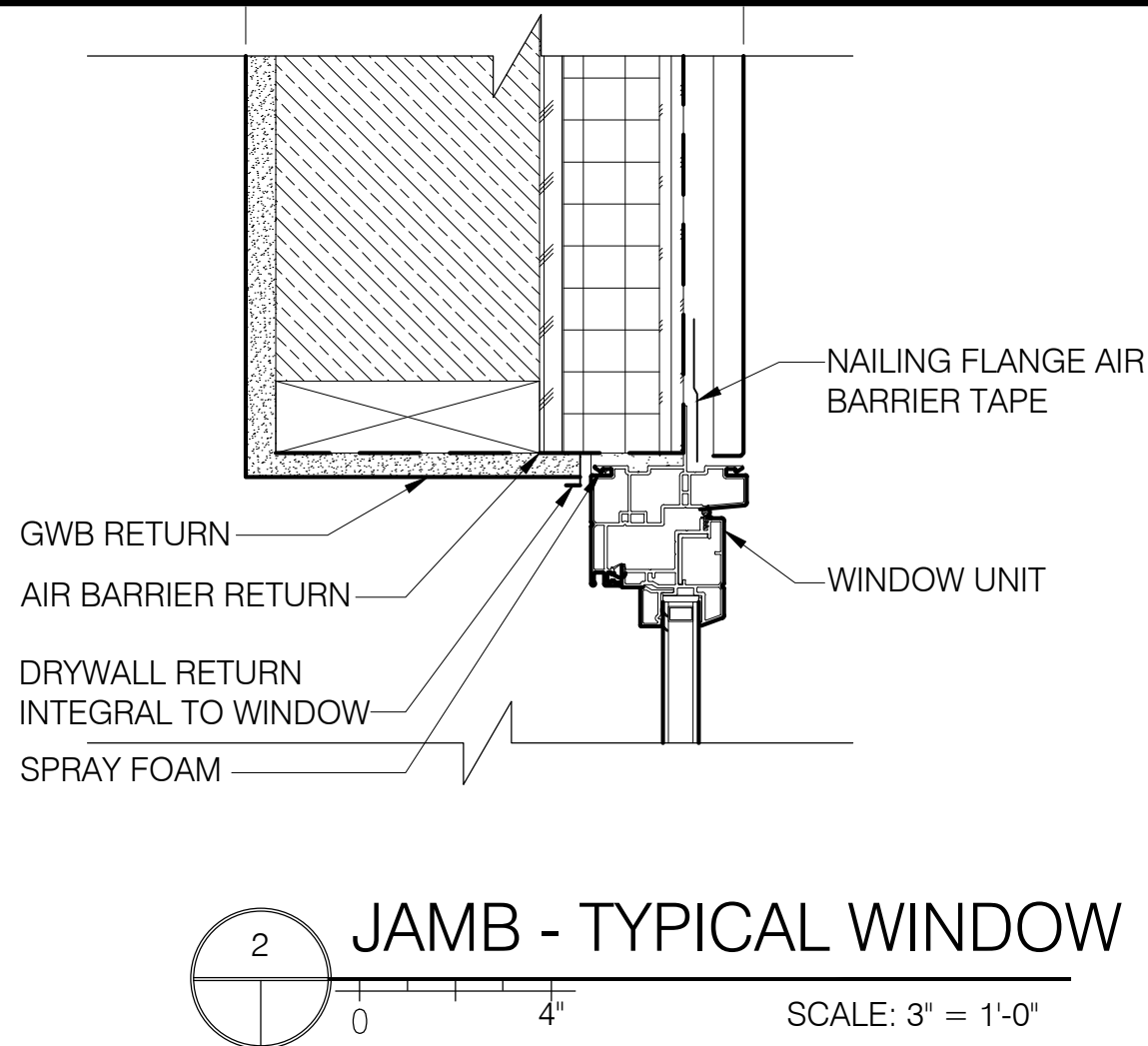
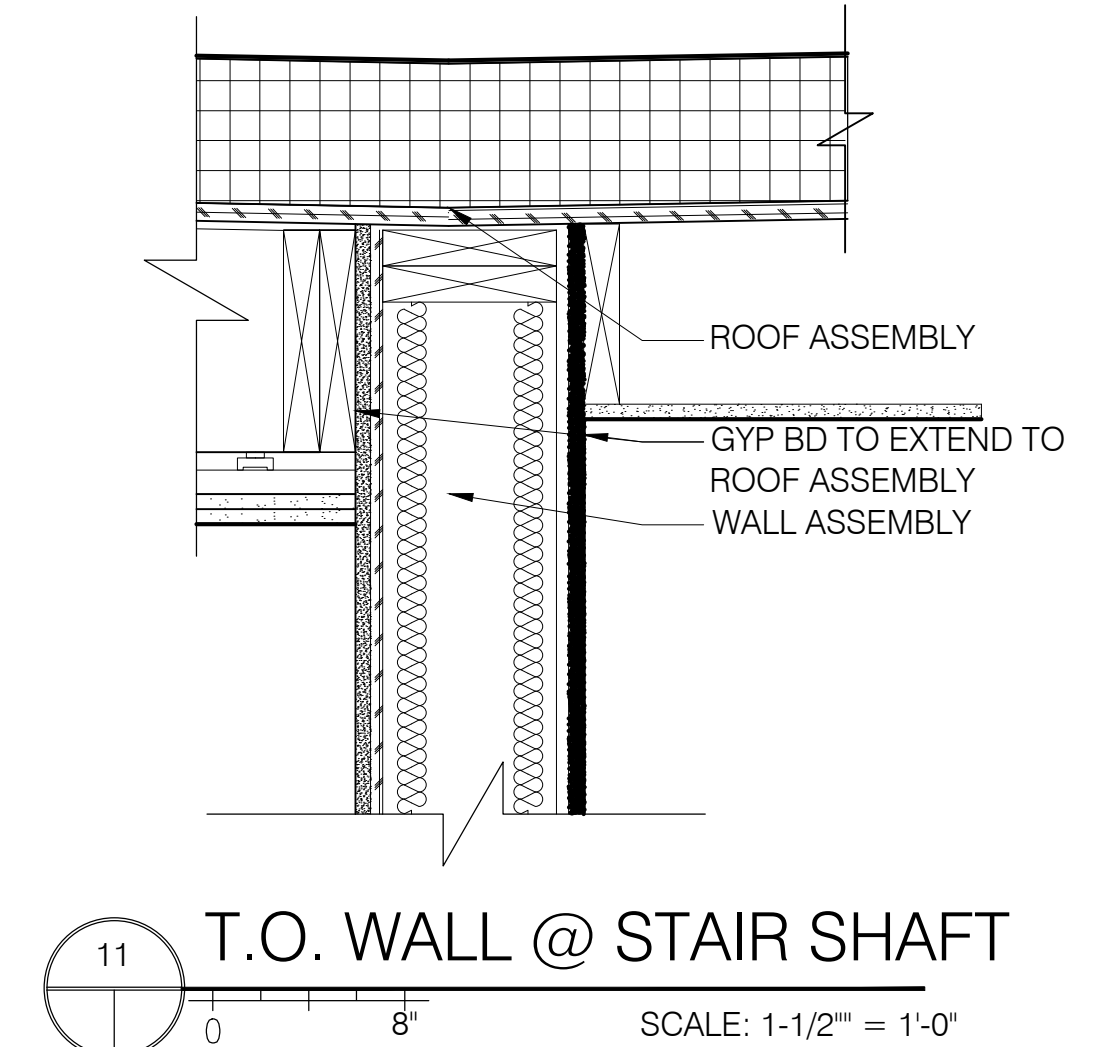
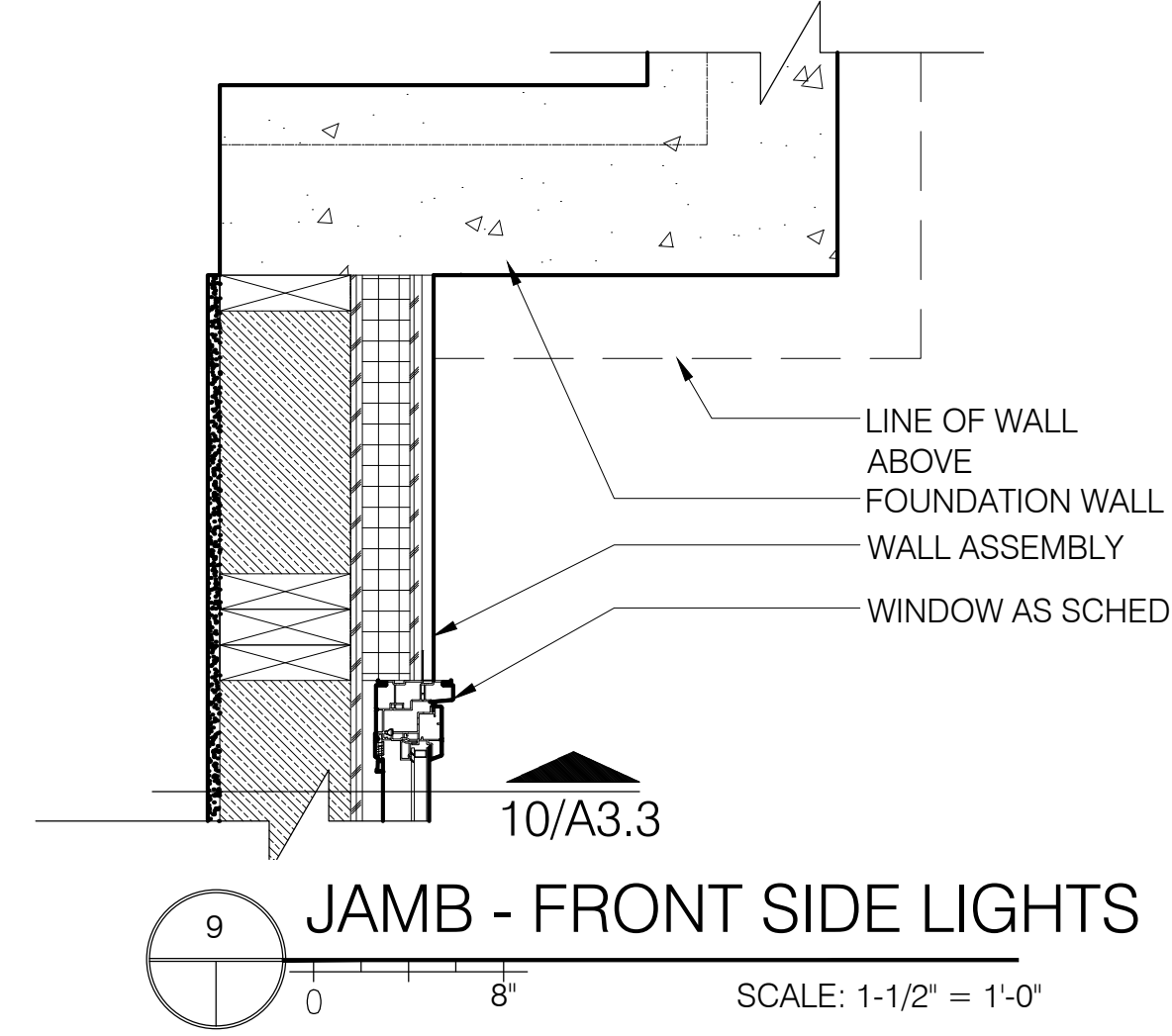
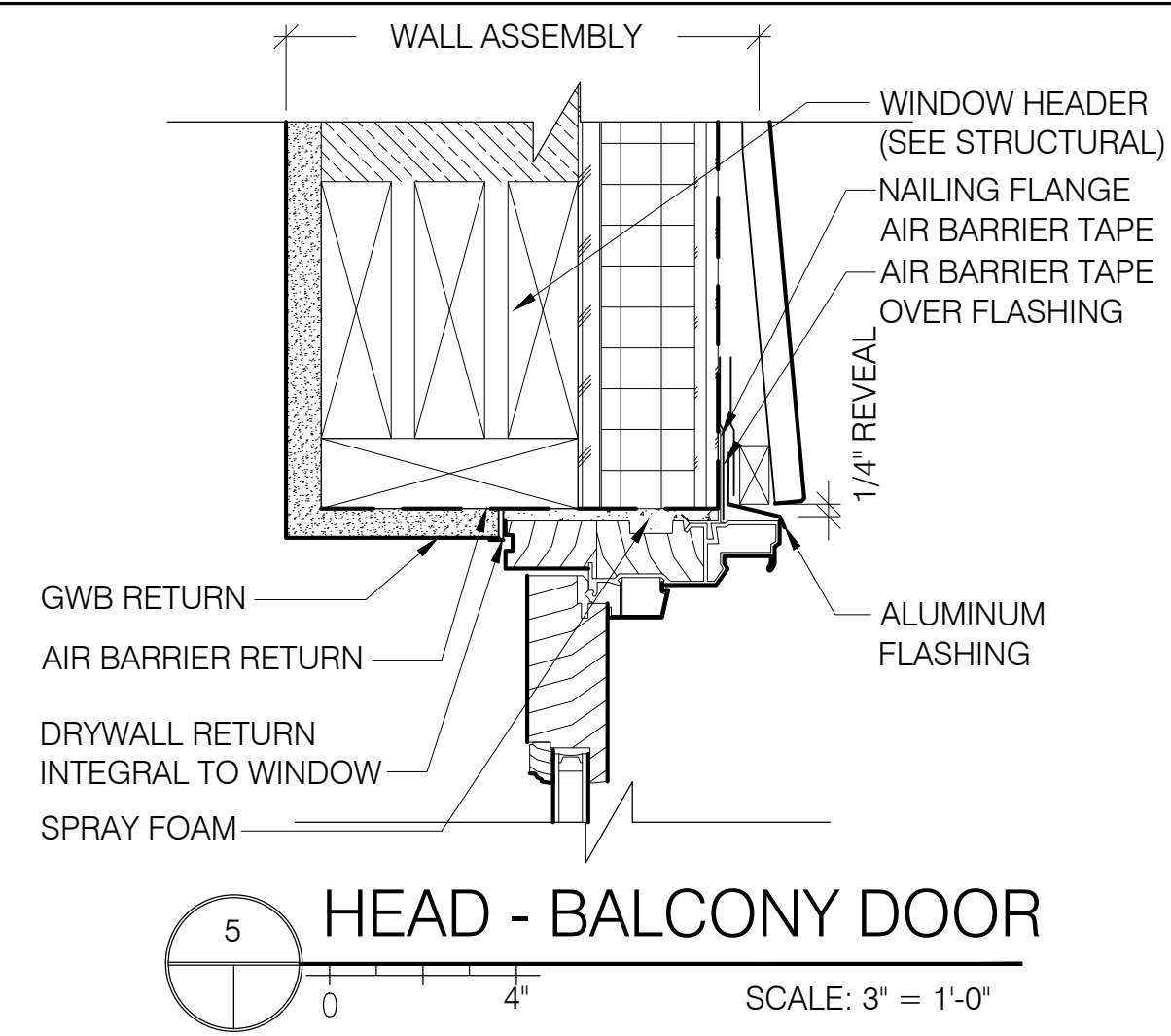
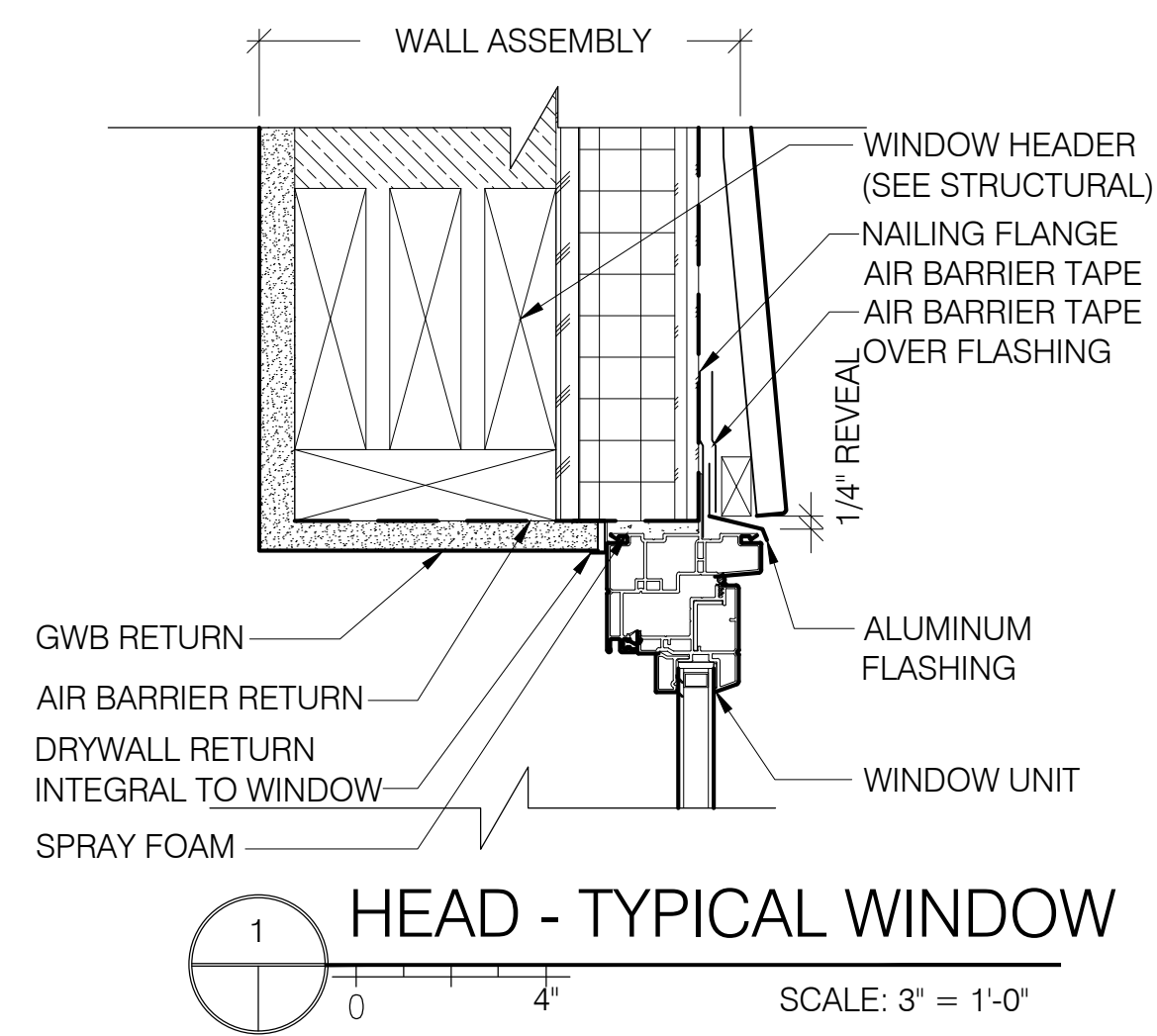


EXTERIOR TREAD/RISER DETAIL



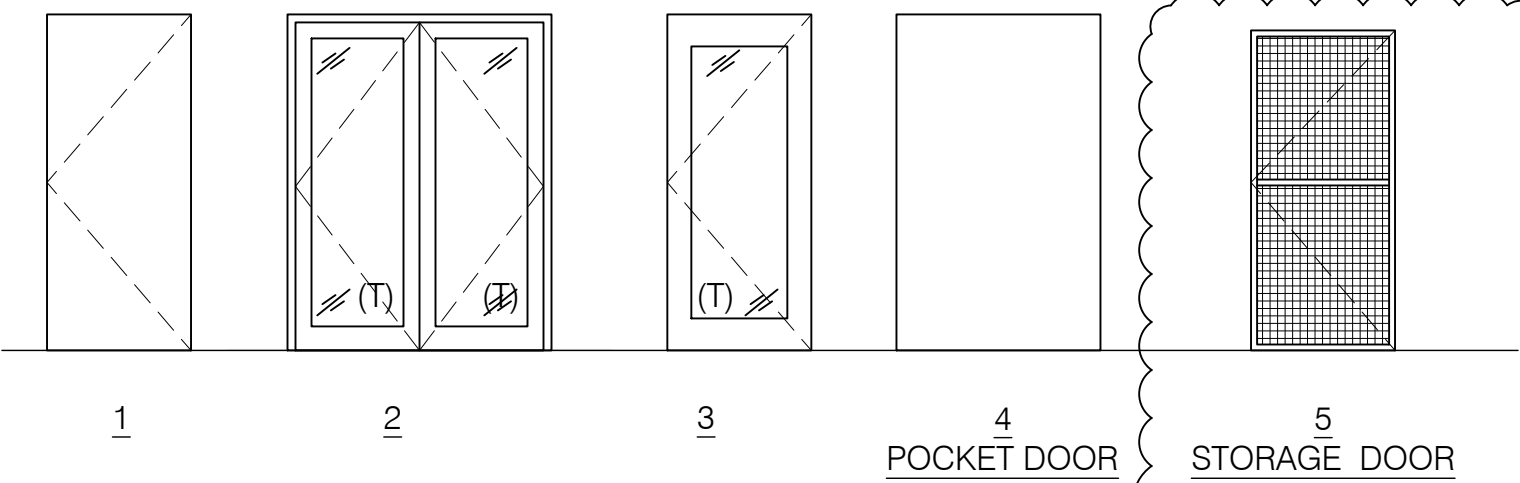
TYP. RISER TREAD DETAIL





DOOR SCHEDULE									
DOOR #	FROM	TO	SIZE	DOOR MATERIAL	DOOR TYPE	DOOR RATING	FRAME	HARDWARE SET	NOTES
001	NOT USED								
002	STAIRCASE	BASEMENT	3'-0" X 7'-0"	HM	1	1.5 HRS	HM	05	-
003 TO 009	BASEMENT	STORAGE	3'-0" X 6'-8"	2X WD	5	-	2X WD	06	3
101, 201	STAIRCASE	UNIT ENTRANCE	3'-0" X 7'-0"	SOLID CORE	1	1.5 HRS	HM	01	-
102, 202	UNIT	BALCONY	5'-6" X 7'-0"	COMPOSITE	2	-	COMP	03	1
103, 203	UNIT	TOILET	3'-0" X 7'-0"	SOLID CORE	1	-	WD	02	-
104, 204	UNIT	BEDROOM	4'-3" X 6'-8"	WD	4		N/A	07	
105	STAIRCASE	LOBBY	3'-0" X 7'-0"	SOLID CORE	1	1.5HRS	HM	05	-
106	LOBBY	EXTERIOR	3'-0" x 7'-0"	IA	3	-	ALUM	04	1,2
107	EXTERIOR	STAIR 01	3'-0" X 7'-0"	INSUL ALUMN	3	-	ALUMN	04	1,2
108	STAIRCASE	LOBBY	3'-0" X 7'-0"	SOLID CORE	1	1.5HRS	HM	05	-
301, 401	STAIRCASE	UNIT ENTRANCE	3'-0" X 7'-0"	SOLID CORE	1	1.5 HRS	HM	01	-
302, 402	UNIT	BALCONY	5'-6" X 7'-0"	COMPOSITE	2	-	COMP	03	1
303, 403	UNIT	TOILET	2'-8" X 7'-0"	SOLID CORE	1	-	WD	02	1
304, 404	UNIT	BEDROOM	4'-3" X 6'-8"	WD	4	-	N/A	07	-
501, 601	STAIRCASE	UNIT ENTRANCE	3'-0" X 7'-0"	BY WIN MANUF	1	1.5 HRS	HM	01	-
502, 602	UNIT	BALCONY	5'-6" X 7'-0"	COMP	2	-	COMP	03	1
503, 603	UNIT	TOILET	2'-8" X 7'-0"	SOLID CORE	1	-	WD	02	-
504, 506	UNIT	BEDROOM	4'-3" X 6'-8"	WD	4	-	N/A	07	-
505, 507	BEDROOM	DECK	3'-0" x 7'-0"	COMPOSITE	3	-	COMP	03	1
604	HALLWAY	W/D	3'-0" x 7'-0"	SOLID CORE	1	-	WD	08	-
605	HALLWAY	ROOF DECK	3'-0" x 7'-0"	COMPOSITE	1	-	COMP	03	-
606	HALLWAY	BEDROOM	3'-0" x 7'-0"	SOLID CORE	1	-	WD	02	-
607, 610	BEDROOM	TOILET	3'-0" x 7'-0"	SOLID CORE	1	-	WD	02	-
608, 611	BEDROOM	DECK	5'-6" X 7'-0"	COMPOSITE	2	-	COMP	03	-
609	UNIT	BEDROOM	4'-3" X 6'-8"	WD	4	-	N/A	07	-

DOOR TYPES



GENERAL DOOR SCHEDULE NOTES:

- ALL DOOR HANDLES TO BE ADA COMPLIANT LEVER HANDLES.
- ALL INTERIOR DOOR HARDWARE FINISH TBD
- DOORS WITHIN UNITS FINISH TBD
- PROVIDE A COMMON SPACES KEY FOR TENANT ENTRANCES AND STORAGE AREA (ISSUED TO EACH TENANT)

HARDWARE SETS:

- | | | |
|----|-----------------------|---|
| 01 | UNIT ENTRY DOORS: | PEEP HOLE, (3) HINGES, SOFT CLOSE DAMPER, STRIKE, DOOR STOP, SINGLE CYLINDER DEADBOLT, ENTRY LOCKSET, THROW-BOLT, LATCH ASSEMBLY, LEVER, CLOSER, THRESHOLD, SWEEP |
| 02 | BATHROOM DOORS: | (3) HINGES, STRIKE, DOOR STOP, LEVER, BED/BATH LOCKSET |
| 03 | PATIO DOORS: | (3) HINGES, ESCUTCHEON PLATE, HANDLE, DEADBOLT LOCKSET |
| 04 | ENTRY DOOR: | (3) HINGES, STRIKE, DOOR STOP, THRESHOLD, SWEEP, ENTRY LOCKSET, GASKET, LEVER, METAL PROTECTIVE TRIM, CLOSER |
| 05 | STAIRWAY/HALLWAY DOOR | (3) HINGES, SOFT CLOSE DAMPER, STRIKE, DOOR STOP, FREE PASSAGE LATCH ASSEMBLY, LEVER, CLOSER |
| 06 | STORAGE DOOR: | (3) HINGES, PADLOCK HARDWARE |
| 07 | BARN DOORS: | TRACK, COASTERS, DOOR GUIDE, DECORATIVE PULL |
| 08 | UTILITY ROOM DOOR | HINGES, STRIKE, PASSAGE LEVER |

DOOR SCHEDULE NOTES:

- SAFETY GLAZING
- INSULATED
- 2X WOOD FRAME WITH WIRE MESH
-
-
-

FINISH SCHEDULE											
UNIT #	ROOM	FLOOR	WALLS				BASE	CEILING	COUNTERTOP/ BACKSPLASH	NOTES	
			N	S	E	W					
-	STORAGE & BASEMENT	CONC	-	-	-	-	-	PT	-	1	
-	STAIR	CPT	PT	PT	PT	PT	RWB	PT	-		
1	STUDIO	VL	PT	PT	PT	PT	WD	PT	-	-	
1	BATHROOM	T	PT/T	PT/T	PT/T	PT/T	T	PT	C1	2	
1	KITCHEN	VL	PT	PT	PT	PT	WD	PT	C2	-	
2	STUDIO	VL	PT	PT	PT	PT	WD	PT	-	-	
2	BATHROOM	T	PT/T	PT/T	PT/T	PT/T	T	PT	C1	2	
2	KITCHEN	VL	PT	PT	PT	PT	WD	PT	C2	-	
3	STUDIO	VL	PT	PT	PT	PT	WD	PT	-	-	
3	BATHROOM	T	PT/T	PT/T	PT/T	PT/T	T	PT	C1	2	
3	KITCHEN	VL	PT	PT	PT	PT	WD	PT	C2	-	
4	STUDIO	VL	PT	PT	PT	PT	WD	PT	-	-	
4	BATHROOM	T	PT/T	PT/T	PT/T	PT/T	T	PT	C1	2	
4	KITCHEN	VL	PT	PT	PT	PT	WD	PT	C2	-	
5	BEDROOM 1	VL	PT	PT	PT	PT	WD	PT	-	-	
5	BEDROOM 2	VL	PT	PT	PT	PT	WD	PT	-	-	
5	BATHROOM	T	PT/T	PT/T	PT/T	PT/T	T	PT	C1	2	
5	KITCHEN	VL	PT	PT	PT	PT	WD	PT	C2	-	
6	POWDER ROOM	T	PT/T	PT/T	PT/T	PT/T	T	PT	C1	2	
6	KITCHEN	VL	PT	PT	PT	PT	WD	PT	C2	-	
6	BEDROOM 1	VL	PT	PT	PT	PT	WD	PT	-	-	
6	BATHROOM 1	T	PT/T	PT/T	PT/T	PT/T	T	PT	C1	2	
6	BEDROOM 2	VL	PT	PT	PT	PT	WD	PT	-	-	
6	BATHROOM 2	T	PT/T	PT/T	PT/T	PT/T	T	PT	C1	2	

GENERAL FINISH SCHEDULE NOTES:

- PAINT SHEENS TO BE AS FOLLOWS
 - WALLS: EGGHELL SATIN FINISH
 - CEILINGS: FLAT
 - TRIM: SEMI-GLOSS

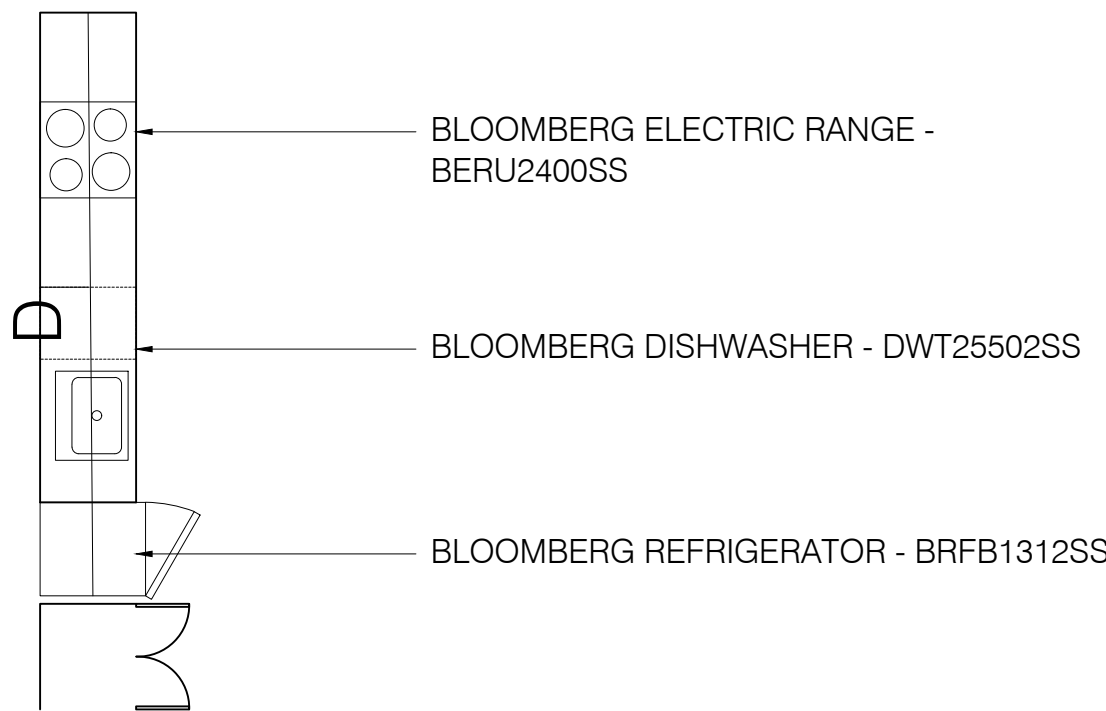
SPECIFIC FINISH SCHEDULE NOTES:

- ANY EXPOSED DRYWALL IN BASEMENT TO BE PAINTED ACCORDING TO GENERAL NOTE #1.
- SHOWERS TO BE TILE WALLS. SHOWER BASE TO BE SPECIFIED BY DEVELOPER.
-
-
-

LEGEND:

CODE:	MATERIAL:	SPECIFICATION BY DEVELOPER:
CONC	CONCRETE	
PT	PAINT	
CPT	CARPET	
T	TILE	
C-1	BATH COUNTERTOP	
C-2	KITCHEN COUNTERTOP	
RWB	RUBBER WALL BASE	
VL	ENGINEERED VINYL PLANK	
WD	WOOD	

KITCHEN APPLIANCES





1 CUMBERLAND AVE WEST



2 CUMBERLAND AVE EAST



N
5 SITE MAP
0 NTS



Bild Architecture
PO Box 8235
Portland, ME
04104
207.408.0168
evan@bildarchitecture.com



PROJECT NO.
16035
PROJECT NAME
**7 CUMBERLAND
PORTLAND, ME**

REVISIONS
1 -
2 -
3 -
4 -
5 -

PERMIT SET
NOT FOR CONSTRUCTION

DRAWN BY
EMW
SHEET TITLE
CONTEXT

ISSUE DATE
2/24/17
SHEET SCALE
NTS

A

8.1

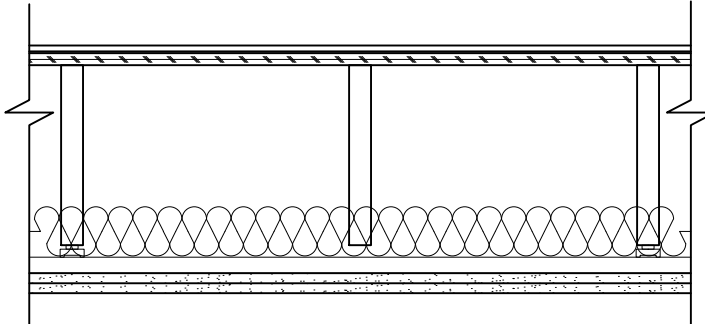
ROOF ASSEMBLY TYPES

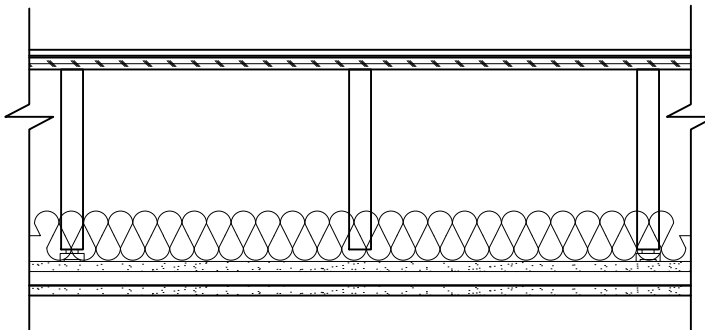
GRAPHIC DESCRIPTION		DESCRIPTION			
		- ADHERED MEMBRANE ROOFING SYSTEM 6" TAPERED EXTRUDED POLYISOCYANURATE (MIN R-30) 5/8" ZIP SYSTEM SHEATHING (AIR BARRIER) 2X12 JOIST PER STRUCTURAL 6 1/2" FIBERGLASS BATT INSULATION (R-20) 7/8" METAL HAT CHANNEL FURRING 5/8" TYPE X GYPSUM BOARD			
TYPE					
R1	FIRE RATING	UL NUMBER	STC RATING	R-VALUE	
	1-HR	SIM L528 & L513	N/A	53.06	

SLAB ASSEMBLY TYPES

GRAPHIC DESCRIPTION		DESCRIPTION			
		4" TROWELED, AND WAXED CONCRETE SLAB. REINFORCE PER STRUCTURAL DRAWINGS. 6 MIL POLY VAPOR BARRIER 2" RIGID INSULATION 6" CRUSHED STONE			
TYPE					
S1	FIRE RATING	UL NUMBER	STC RATING	R-VALUE	
	N/A	N/A	N/A	10.00	

FLOOR/CEILING ASSEMBLY TYPES

GRAPHIC DESCRIPTION		DESCRIPTION				
		• 8MM ENGINEERED VINYL PLANK • .11" INSULAYMENT PAD • 3/4" PLYWOOD T&G SUB-FLOOR • 2X12 JOIST PER STRUCTURAL W/ ACOUSTIC BATT INSULATION • SOUND ISOLATION CHANNEL HANGERS • 7/8" METAL HAT CHANNEL FURRING • 2 LAYERS OF 5/8" TYPE X GYPSUM BOARD				
TYPE						
F1	FIRE RATING	UL NUMBER	IIC RATING	STC RATING	R-VALUE	
	1-HR	L569	48	58	N/A	

GRAPHIC DESCRIPTION		DESCRIPTION				
		• 8MM ENGINEERED VINYL PLANK • .11" INSULAYMENT PAD • 3/4" PLYWOOD T&G SUB-FLOOR • 2X12 JOIST PER STRUCTURAL W/ ACOUSTIC BATT INSULATION • SOUND ISOLATION CHANNEL HANGERS • 5/8" TYPE X GYPSUM BOARD • 7/8" METAL HAT CHANNEL FURRING • 5/8" TYPE X GYPSUM BOARD				
TYPE						
F2	FIRE RATING	UL NUMBER	IIC RATING	STC RATING	R-VALUE	
	2-HR	SIM L511	48	58	N/A	

WALL ASSEMBLY TYPES

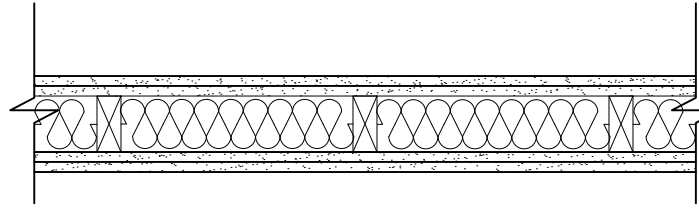
GRAPHIC DESCRIPTION		DESCRIPTION			
		- LP SMART SIDING - SMOOTH FINISH - CLAPBOARD - COMMERCIAL AIR/VAPOR BARRIER - HUNTER PANEL XCI NB 1/2" PLYWOOD SHEATHING. REFER TO STRUCTURAL DWGS FOR FASTENING SIZE, SPACING, AND BLOCKING REQUIREMENTS. 2X6 WOOD STUDS W/ BLOWN CELLULOSE INSULATION FULL CAVITY 6 MIL POLY VAPOR BARRIER 5/8" TYPE X GYPSUM BOARD (SEE X/A3.3 FOR EXTERIOR TOP OFF WALL DETAIL)			
TYPE					
E1	FIRE RATING	UL NUMBER	STC RATING	R-VALUE	
	1-HR (FROM INTERIOR)	U354	N/A	33.70	

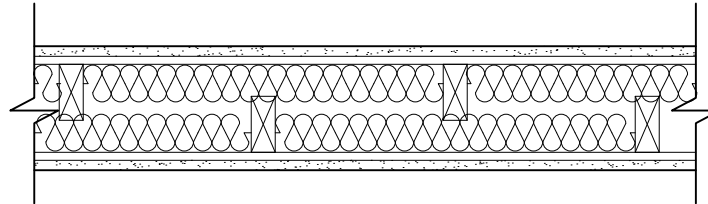
GRAPHIC DESCRIPTION		DESCRIPTION			
		- LP SMART SIDING - SMOOTH FINISH - CLAPBOARD - COMMERCIAL AIR/VAPOR BARRIER - HUNTER PANEL XCI NB 5/8" TYPE "X" DENSGLASS SHEATHING. REFER TO STRUCTURAL DWGS FOR FASTENING SIZE, SPACING, AND BLOCKING REQUIREMENTS. 2X6 WOOD STUDS W/ BLOWN CELLULOSE INSULATION FULL CAVITY 6 MIL POLY VAPOR BARRIER 5/8" TYPE X GYPSUM BOARD (SEE X/A3.3 FOR EXTERIOR TOP OFF WALL DETAIL)			
TYPE					
E2	FIRE RATING	UL NUMBER	STC RATING	R-VALUE	
	1-HR (FROM INT + EXT)	U364	N/A	33.63	

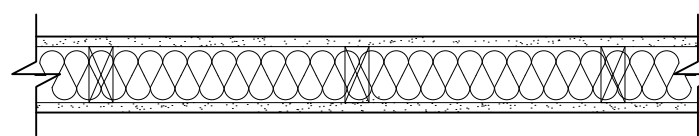
GRAPHIC DESCRIPTION		DESCRIPTION			
		- LP SMART SIDING - SMOOTH FINISH - CLAPBOARD - COMMERCIAL AIR/VAPOR BARRIER - HUNTER PANEL XCI NB 2X6 WOOD STUDS W/ BLOWN CELLULOSE INSULATION FULL CAVITY 6 MIL POLY VAPOR BARRIER 5/8" TYPE X GYPSUM BOARD (SEE X/A3.3 FOR EXTERIOR TOP OFF WALL DETAIL)			
TYPE					
E3	FIRE RATING	UL NUMBER	STC RATING	R-VALUE	
	1-HR (FROM INTERIOR)	SIM U354	N/A	33.70	

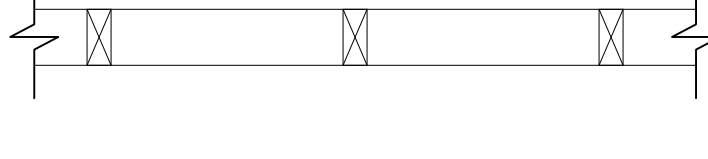
WALL ASSEMBLY TYPES

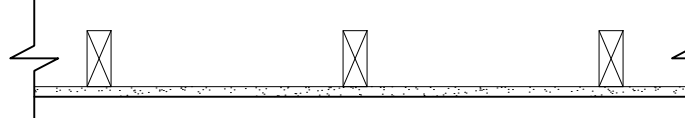
GRAPHIC DESCRIPTION		DESCRIPTION			
		<u>STAIR SEPARATION ASSEMBLY</u> • (2) LAYER 5/8" TYPE X GWB SEALED TO UNDERSIDE OF DECK. • 1/2" RESILIENT CHANNELS @ 16" O.C. HORIZONTALLY - SEE NOTE • 2X6 WOOD TOP AND BOTTOM PLATES TO UNDERSIDE OF DECK. REFER TO STRUCTURAL DWGS FOR STUD SIZE, SPACING, AND ALIGNMENT REQUIREMENTS. (2X4 STAGGERED @ 12" C/C U.N.O.) CONTINUOUS SOUND ATTENUATION BATTS. • 1/2" RESILIENT CHANNELS @ 16" O.C. HORIZONTALLY • (2) LAYER 5/8" TYPE X GWB SEALED TO UNDERSIDE OF DECK. WHEREVER STRUCTURAL LEDGERS ARE NEEDED - PLACE IN 1/2 PLYWOOD BLOCKING IN LIEU OF CHANNEL			
TYPE					
W1	FIRE RATING	UL NUMBER	STC RATING	R-VALUE	
	2-HR	SIM U301	54	N/A	

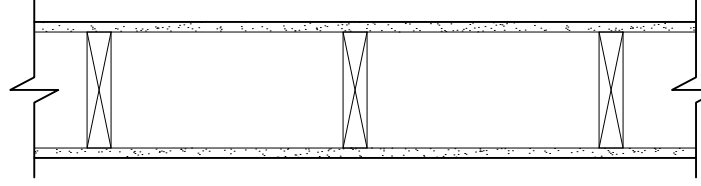
GRAPHIC DESCRIPTION		DESCRIPTION			
		(2) LAYER 5/8" TYPE X GWB SEALED TO UNDERSIDE OF DECK. 2X6 WOOD TOP AND BOTTOM PLATES TO UNDERSIDE OF DECK. REFER TO STRUCTURAL DWGS FOR STUD SIZE, SPACING, AND ALIGNMENT REQUIREMENTS. (2X4 STAGGERED @ 12" C/C U.N.O.) CONTINUOUS SOUND ATTENUATION BATTS. (2) LAYER 5/8" TYPE X GWB SEALED TO UNDERSIDE OF DECK			
TYPE					
W2	FIRE RATING	UL NUMBER	STC RATING	R-VALUE	
	2-HR	U301	NA	NA	

GRAPHIC DESCRIPTION		DESCRIPTION			
		<u>UNIT SEPARATION ASSEMBLY</u>			
		• (1) LAYER 5/8" TYPE X GWB SEALED TO UNDERSIDE OF DECK. • 1/2" RESILIENT CHANNELS @ 16" O.C. HORIZONTALLY • 2X6 WOOD TOP AND BOTTOM PLATES TO UNDERSIDE OF DECK. REFER TO STRUCTURAL DWGS FOR STUD SIZE, SPACING, AND ALIGNMENT REQUIREMENTS. (2X4 STAGGERED @ 12" C/C U.N.O.) CONTINUOUS SOUND ATTENUATION BATTS. • 1/2" RESILIENT CHANNELS @ 16" O.C. HORIZONTALLY • (1) LAYER 5/8" TYPE X GWB SEALED TO UNDERSIDE OF DECK. (3/A3.3) PROVIDE 2X FIRE BLOCKING AT CEILING LEVEL OR ALTERNATIVE METHOD APPROVED BY IBC 2009.			
TYPE					
W3	FIRE RATING	UL NUMBER	STC RATING	R-VALUE	
	1-HR	U340	54	N/A	

GRAPHIC DESCRIPTION		DESCRIPTION			
		5/8" GYPSUM BOARD 2X4 OR 2x6 WOOD STUDS @ 16" O.C. - SEE PLAN 5/8" GYPSUM BOARD NOTE: PROVIDE MOISTURE RESISTANT GWB AT BATHROOMS AND KITCHENS.			
TYPE					
W4	FIRE RATING	UL NUMBER	STC RATING	R-VALUE	
	N/A	N/A	N/A	N/A	

GRAPHIC DESCRIPTION		STORAGE PARTITION WALL			
		• WELDED WIRE FENCING • 2X4 WOOD STUDS @ 16" O.C. • WELDED WIRE FENCING			
TYPE					
W5	FIRE RATING	UL NUMBER	STC RATING	R-VALUE	
	N/A	N/A	N/A	N/A	

GRAPHIC DESCRIPTION		CHASE WALL			
		2X4 WOOD STUDS @ 16" O.C. 5/8" GYPSUM BOARD - MOISTURE RESISTANT GYP IN BATHS & WET AREAS			
TYPE					
W6	FIRE RATING	UL NUMBER	STC RATING	R-VALUE	
	N/A	N/A	N/A	N/A	

GRAPHIC DESCRIPTION		PLUMBING WALL			
		• 5/8" GYPSUM BOARD • 2X8 WOOD STUDS @ 16" O.C. • 5/8" GYPSUM BOARD			
TYPE					
W7	FIRE RATING	UL NUMBER	STC RATING	R-VALUE	
	N/A	N/A	N/A	N/A	

GRAPHIC DESCRIPTION		DESCRIPTION			
		2" THERMAX SHEATHING (R-13) 8" CONC WALL			
TYPE					
W8	FIRE RATING	UL NUMBER	STC RATING	R-VALUE	
	N/A	N/A	N/A	14.32	

Maine Human Rights Act (ANSI A117.1 - Use the Fair Housing Guidelines)
2. Applicability. This section applies to multifamily housing accommodations constructed for first occupancy after March 13, 1991.
3. Standards. Facilities subject to this section must meet the following standards.
A. Doors designed to allow passage into and within all premises within those accommodations must be sufficiently wide to allow passage by a person in a wheelchair.
B. A route accessible to a person in a wheelchair into and through the dwelling unit must exist.
C. Light switches, electrical outlets, thermostats and other environmental controls must be in locations accessible to a person in a wheelchair.
D. Bathroom walls must have reinforcements to accommodate the installation of grab bars.
E. Kitchens and bathrooms must be accessible to and usable by a person in a wheelchair.

Zoning:
Building, height of: The vertical measurement from grade, or the predevelopment grade on the islands, to the highest point of the roof beams in flat roofs

Building Area Information
Building Footprint: 1,676 SF
Building Area: 7,698 SF

NFPA Code Overview
Use: New Residential Apartment Building
Construction: No minimum requirement
Sprinkler: NFPA 13R
Occupancy: 32 Occupants

IBC Code Overview
Use: R-2, S-1
Construction: Type VA
Sprinkler: NFPA 13R
Occupancy: 30 in R-2 + 5 in S-2 = 35 Occupants

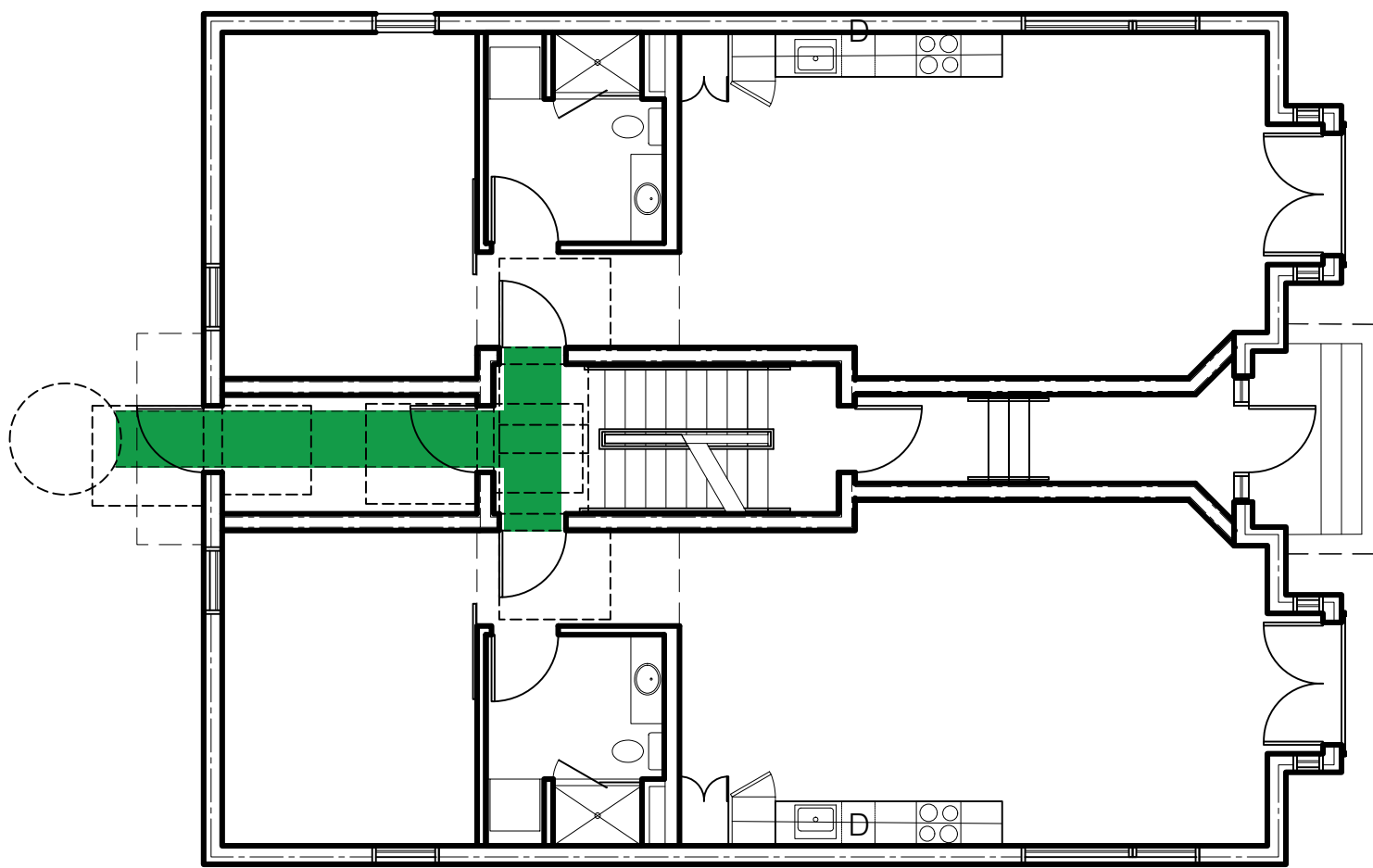
IBC - Detail Code Review					
Use and Occupancy Classification:					
310.1	Residential Group R-2 (Apartments)				
311.2	Storage S-1				
420.2	Fire Partitions Separating Dwelling Units (709)				
420.3	Floor Assemblies Separating Dwelling Units (712)				
503	R-2 VA	7,000sf	3 stories	50' tall	
	S-1 VA	14,000sf	3 stories	50' tall	
504.2	Where a building is equipped throughout with an approved automatic sprinkler system, the maximum building height is increased by 20 feet, and the maximum number of stories is increased by one.				
508.4	S-1 and R occupancies shall be separated by 2-HR when sprinkled w/ NFPA 13R				
601	Type VA - No fire-resistance rating requirements for building elements				
	Primary Structural Frame	1hr			
	Exterior Bearing walls	1hr			
	Interior Bearing walls	1hr			
	Nonbearing Exterior	See table 602			
	Nonbearing Interior	0hr			
	Floor Construction	1hr			
	Roof Construction	1hr			
602	Separation distance	5'≤X<10'	VA	1-hr exterior wall SW & NE building side (rated from both sides)	
		10'≤X<30'	VA	1-hr (inside only)	
		X≥30	VA	No rating required	
704.2	Columns in basement shall be individually wrapped to provide 1hr rating				
704.3	Dropped LVLs in basement shall be individually wrapped to provide 1hr rating				
704.4	Secondary member in ceiling and wall may be protected as part of ceiling and wall assemblies in wood frame construction				
705.2.2	Projections (including balconies) may be of any material				
705.5	When exterior walls are required to be rated:				
	X<10'	Rated for exposure from both sides			
	X>10'	Rated from inside			
705.8	Exterior wall openings limited by table 705.8 (see table on elevation sheets)				
705.11.4	Parapet not required on any exterior walls				
707.3.1	Fire Barrier required for shaft enclosure				
707.5	Fire barriers: From TOP of floor to bottom of decking above (cont. thru concealed)				
707.5.1	Fire Barrier supporting construction shall have same rating				
708.1	Shaft enclosures shall be constructed of fire barriers and horizontal assemblies.				
708.2	Shaft enclosure is required stair				
708.4	Shaft Enclosure: 2 hour when connecting four or more stories				
709.1	Fire partitions required to separate dwelling units				
709.3	Fire partitions shall be not less than 1-hr				
709.4	Fire partition continuity: from TOP of floor to bottom of decking above or to bottom of ceiling assembly (with fireblocking or draftstopping)				
712.3	Horizontal Assembly = Dwelling unit and sleeping unit separation in buildings of Type VA construction shall have a fire-resistance rating of not less than 1 hour in buildings equipped with an automatic sprinkler system.				
712.4	Supporting construction of horz. assembly between units is required to be rated in VA				
713	All Rated vertical and horizontal assemblies shall be complete assemblies in that any penetrations shall be treated as in accordance with this section.				
714	All Rated vertical and horizontal assemblies shall be complete assemblies in that any joints shall be treated as in accordance with this section.				
715	All Rated vertical and horizontal assemblies shall be complete assemblies in that any openings shall be treated as in accordance with this section.				
715.4	Doors in 2-hour stair shaft shall have a rating of 1-1/2 hour				
716	All Rated vertical and horizontal assemblies shall be complete assemblies in that any ducts and air transfers shall be treated as in accordance with this section.				
716.6.2	Ducts and air transfer openings penetrating a rated ceiling membrane must be installed with a listed ceiling radiation damper				
717	Fire blocking and draft-stopping shall be installed in concealed spaces in accordance with this section.				
803.9	R-2: Exit enclosures, corridors, rooms and enclosed spaces required to have Class C finishes.				
	S-1: Exit enclosures, corridors, rooms and enclosed spaces required to have Class C finishes.				
901.6.1	Automatic sprinkler system shall be monitored by a supervising station (NFPA 72)				
901.6.2	Fire alarm system shall be monitored by a supervising station				
903.2.8	Sprinkler System is required for Group R				
903.3.1.2	NFPA 13R is permitted up to and including 4 stories				
905.3.1	Class III standpipe system shall be installed				
906.1	Fire extinguisher REQUIRED				
907.2.9.1	Manual pull station fire alarm system is required as building is four stories.				
907.2.11.2	Interconnected Smoke Alarms Required:				
	Outside each sleeping area and in each sleeping room				

1003.2	Min egress ceiling height: 7'-6"
1003.5	Exception 1: A single step (under 7") allowed at exterior doors in R-2 that are not required to be accessible doors.
1004.1.1	Occupancy Load for Residential: 200 gross at 5,373 SF is 27 occupants Occupancy Load for Storage: 300 gross at 1,781 SF is 6 occupants
1005.3	Door swing shall not reduce the required egress width more than half
1006.1	Stair must be illuminated at all times
1007.3	Sprinkler precludes need for wider stair or area of refuge
1008.1.1	Min Door size: 32" clear (36" door)
1008.1.5	Same floor elevation on either side of doors
1008.1.6	Landing not less than width of door
1008.1.8.48"	plus door swing between doors in succession
1009.1	Min stair width 36" (for occ. less than 50)
1009.2	Min head clearance 80" (6'-8")
1009.4	7" rise max, and 11" run min
1009.5	Landing width no more than stair width
1009.6	Stair construction can be of any material permitted by construction type
1012.2	Handrails between 34"-38"
1012.6	Railing extensions must be 12" at top of stairs and 11" at bottom.
1013.2	Min Guard Height: 42"
1014.3	NFPA 101 Table A7.6 Sprinkled Apartments common Path Limit: 50' NFPA 101 30.2.5.3.2: "Travel within a dwelling unit shall not be included when determining the common path of travel
1015.1	One exit is permitting from dwelling units at occupant load for individual units is under 20 and building is sprinkled 13R.
1016.1	Exit Access travel Distance: 250' (for sprinkled 13R R-2)
1018.2	Corridor Min Width: 36" (for occ under 50)
1021.2	Three-story R-2 building is permitted to have one exit if under 4-units per floors, under 50' travel distance to exit, sprinkled 13R, and provided with emergency escape openings. Basement S-1 can have one exit is 29 occupants and 100 feet travel distance
1022.1	2-hour exit enclosure required when connecting 4-stories Stairway from basement not enclosed. Under 10 occupants and not open to story above
1022.8	Floor identification signs shall comply with this section
1023.2	Min exit passageway width: 36" for less than 50 occupants
1023.3	Exits passageway min rating: 1-hr (or rating of connected enclosure if greater: 2-hr) Constructed of fire barriers and horizontal assemblies.
1029.1	Sleeping rooms below the fourth story shall have emergency escape and rescue openings
1029.2	Min area: 5.7SF Min height: 24" Min width: 20"
1029.3	Max height about floor: 44"
1100	Chapter does not apply in the State of Maine
1207	Sound transmission between dwelling units Walls: STC-50 (45 field tested) Ceilings: IIC-50 (45 field tested)
2406.4	Safety Glazing: all swinging doors, fixed and sliding panels of sliding door assemblies, glazing in an individual fixed or operable panel adjacent to a door where the nearest exposed edge of the glazing is within a 24 inch arc of either vertical edge of the door in a closed position and where the bottom exposed edge of the glazing is less than 60 inches above the walking surface, glazing with exposed area of an individual pane greater than 9 square feet, and glazing w/ exposed bottom edge less than 18 inches above floor.

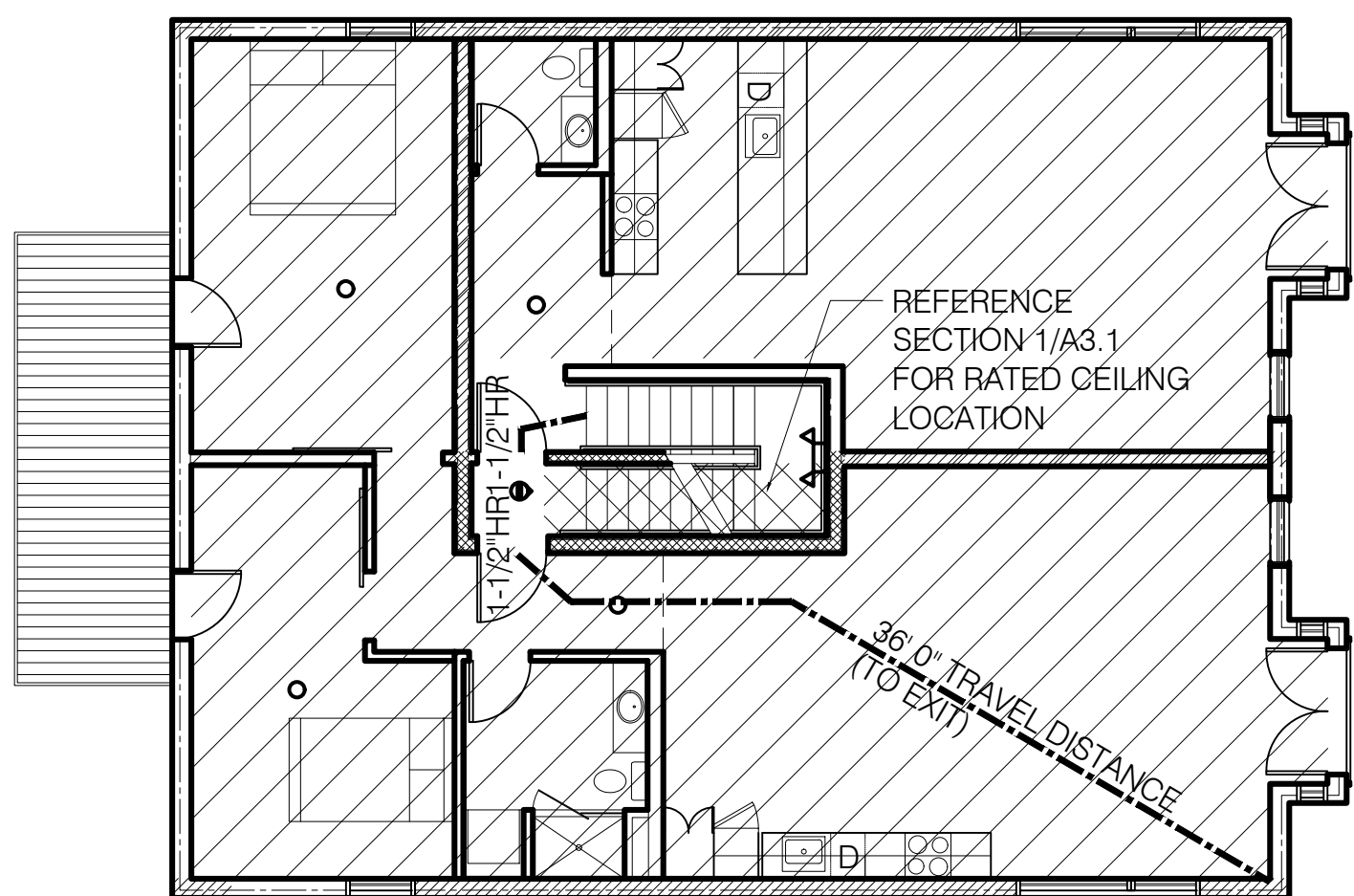
IECC			
301.1	Climate Zone 6A		
402.1.1	Element:	Required:	Provided:
	Fenestration U-Factor	0.35 max	0.17
	Ceiling R-Value	49 min	71
	Wood Frame R-Value	20 min	32.6
	Floor R-Value	30 min	51
	Slab R-Value	10 min	10
NFPA 10			
NFPA 106.2.1.1 Each floor shall have a single (2) unit Class A Fire Extinguisher			
NFPA 101			
3.3.32.5	New Building		
6.1.8.1.5	Residential Occupancy - Apartment Building (Chapter 30)		
6.1.13	Storage (Chapter 42)		
6.1.14.4.1	Required Separation - 2hr between Apt Bldg & Storage		
6.1.14.4.3	1 hour separation required in sprinkled building		
6.2.2.3	Ordinary Hazard Contents		
7.1.3.2.1	Stairs connecting four or more stories shall have a minimum of 2 hour rating		
7.1.5.1	Min headroom: 7'-6"		
7.1.6.3	Cross Slope limited to 1:48		
7.2.1.2.3.2	Egress door min clear width: 32"		
7.2.1.4	Door swing and force to open shall comply with this section		
7.2.1.5	Door locks, latches and alarms shall comply with this section		
7.2.2.2.1.1	Max riser height: 7" Min Tread depth: 11" Min headroom: 6'-8"		
7.2.2.2.1.2	Min stair width: 36" (for occupancy under 50)		
7.2.2.3.2.3	Min landing depth: stair width		
7.2.2.4.4.1	Handrail height: 36"		
7.2.2.4.4.6	Handrail shape: 1 ½" circular cross section		
7.2.2.4.4.9	Handrails shall return to wall or newel post		
7.2.2.4.4.10	Handrails shall extend 12" at top of stair and one tread length at bottom		
7.2.2.4.5.2	Min guard height: 42"		
7.2.2.4.5.3	Open guards shall not allow the passage of a 4" sphere		
7.2.2.5.4	Stairway identification shall comply with this section.		
7.2.6.3	Stair discharge shall have a 2-hr fire resistance rating.		
7.2.12.1.1	Sprinkler precludes need for area of refuge in stair.		
7.3.1.2	Occupancy Load		
	Residential Apartment:	200 gross at 7,164sf is	32 occupants
	Storage:	NA	0
	Total:		32 occupants
7.3.3.1	0.3 Occ. per in. for Stairs		
7.3.4	Min Egress width: 36"		
7.4.1.1	See 30.2.4.4 and 42.2.41		
7.8	Egress Illumination shall be in accordance with this section.		
7.9	Emergency Lighting shall be in accordance with this section.		
7.10	Marking for means of egress shall comply with this section.		
30.1.6	No minimum construction requirements		
30.2.1.1	Means of Egress shall comply with Chapter 7 and Chapter 30		
30.2.4.4	Single stair permitted from building given		
	• 4 stories		
	• Less than 4 units/floor		
	• Two exits from basement		
	• No distance from unit door to stair		
	• 2-hr rated stair		
	• Self-closing doors		
	• No corridors		
	• 1 hr rating between units		
30.2.5	Common Path Limit:		50'
30.2.5.4.2	Dead-End Limit:		50'
30.2.6.2	Max Travel Distance within unit (sprinkled):		125'
30.2.6.3.2	Max Travel Distance from unit door to exit (sprinkled):		200'
30.3.4	Fire detection and alarm system shall comply with this section.		
30.3.4.5	Smoke alarms shall be installed:		
	In every sleeping area		
	Outside every sleeping area		
	At least one on each level		
30.3.5.2	Sprinkler system NFPA 13R permitted for four or fewer stories.		
30.3.6.1.2	Corridor walls (sprinkled): ½ hour		
30.3.7.2	Dwelling unit separation (sprinkled): ½ hour		
42.1.6	No minimum construction requirements		
42.2.4.1	Single means of egress allowed within common path of travel limit.		
42.2.5	Dead End Corridor: 100'		
	Common Path of Travel: 100'		
42.2.6	Maximum Travel Distance: 400'		
42.2.3.2	Storage area walls and ceilings shall be Class A, Class V or Class C		



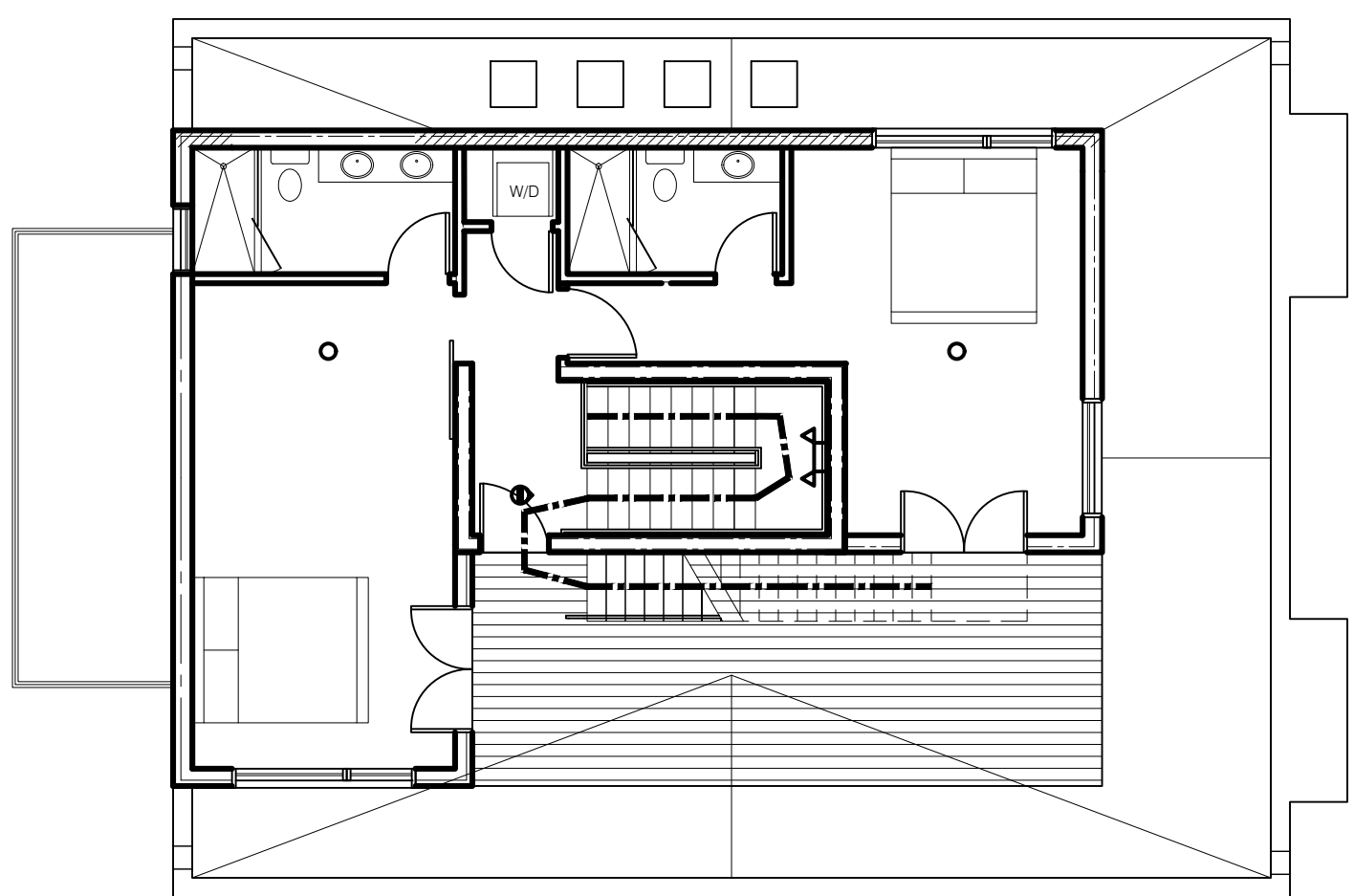
REVISIONS	
1	03-15-2017
2	-
3	-
4	-
5	-



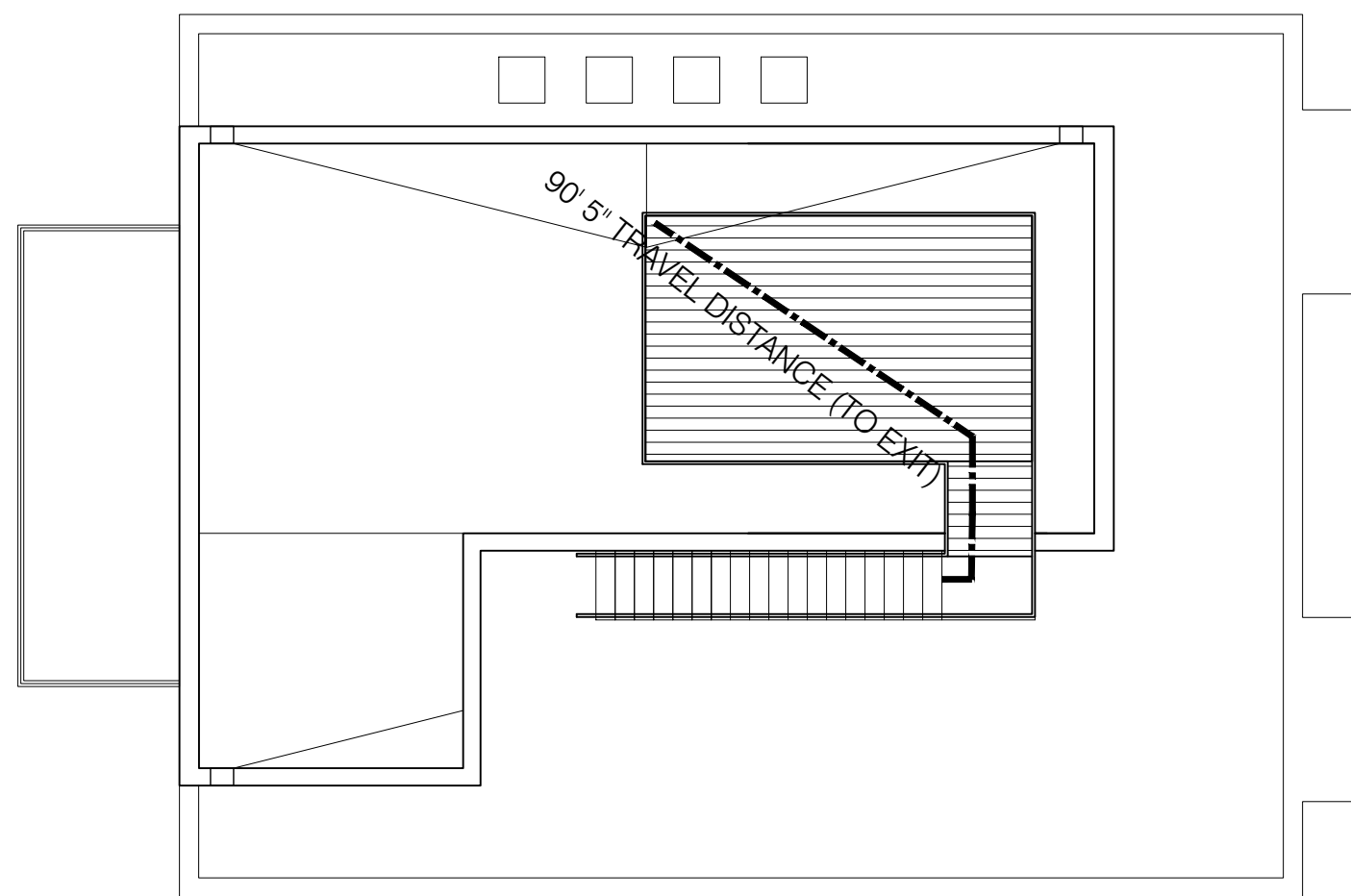
7 FIRST FLOOR ACCESSIBLE ROUTE
0 8'-0" SCALE: 1/8" = 1'-0"



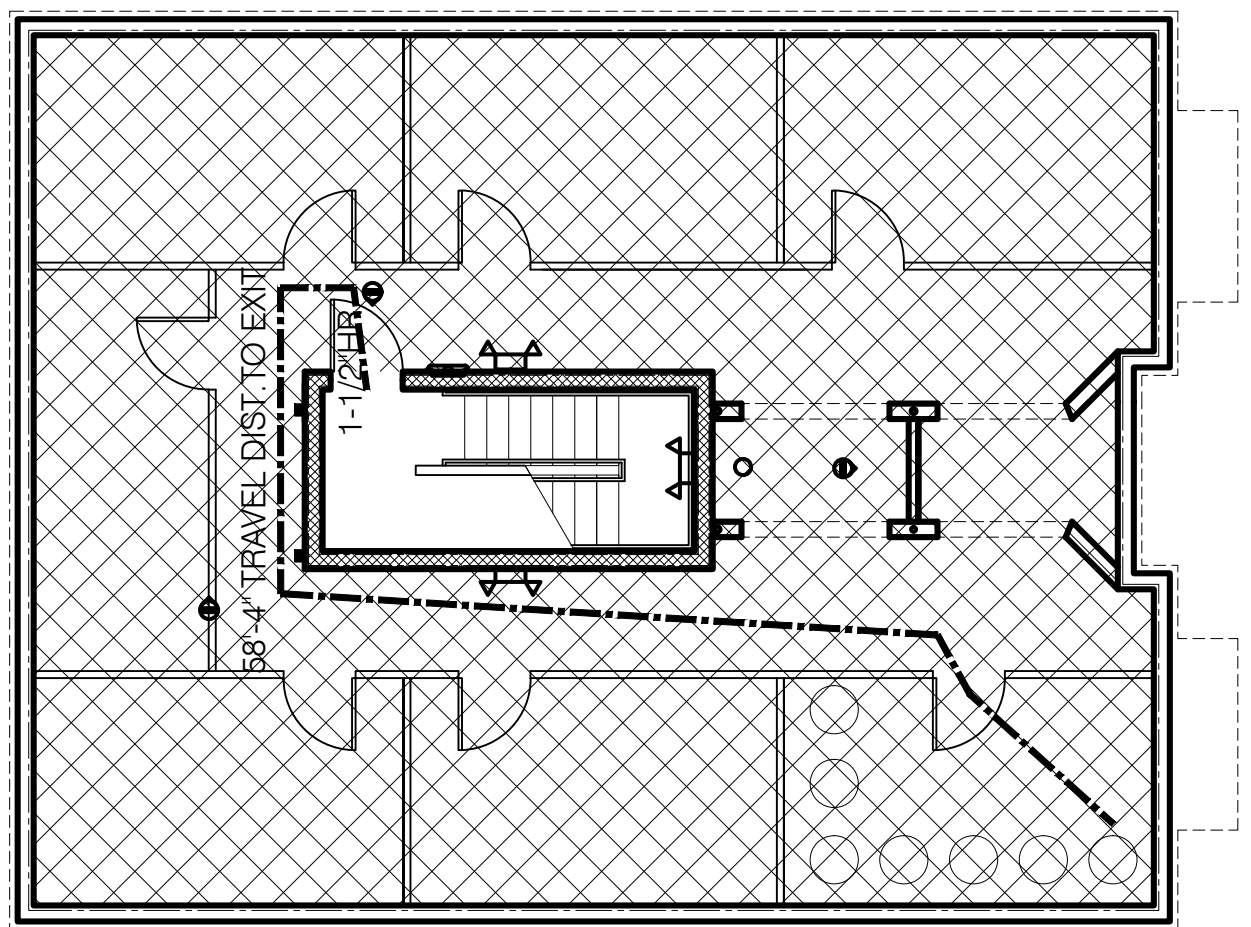
4 THIRD FLOOR
0 8'-0" SCALE: 1/8" = 1'-0"



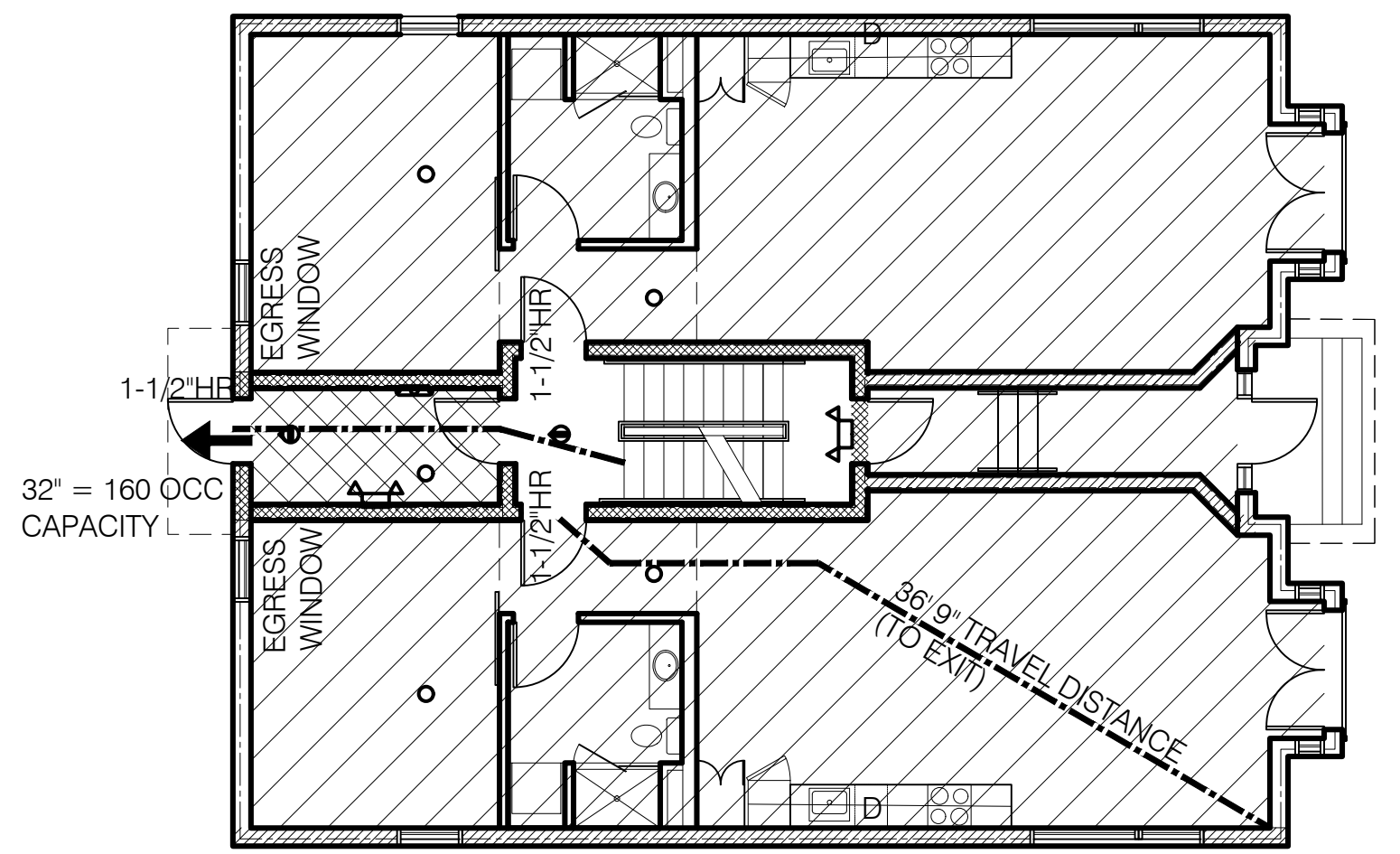
5 FOURTH FLOOR
0 8'-0" SCALE: 1/8" = 1'-0"



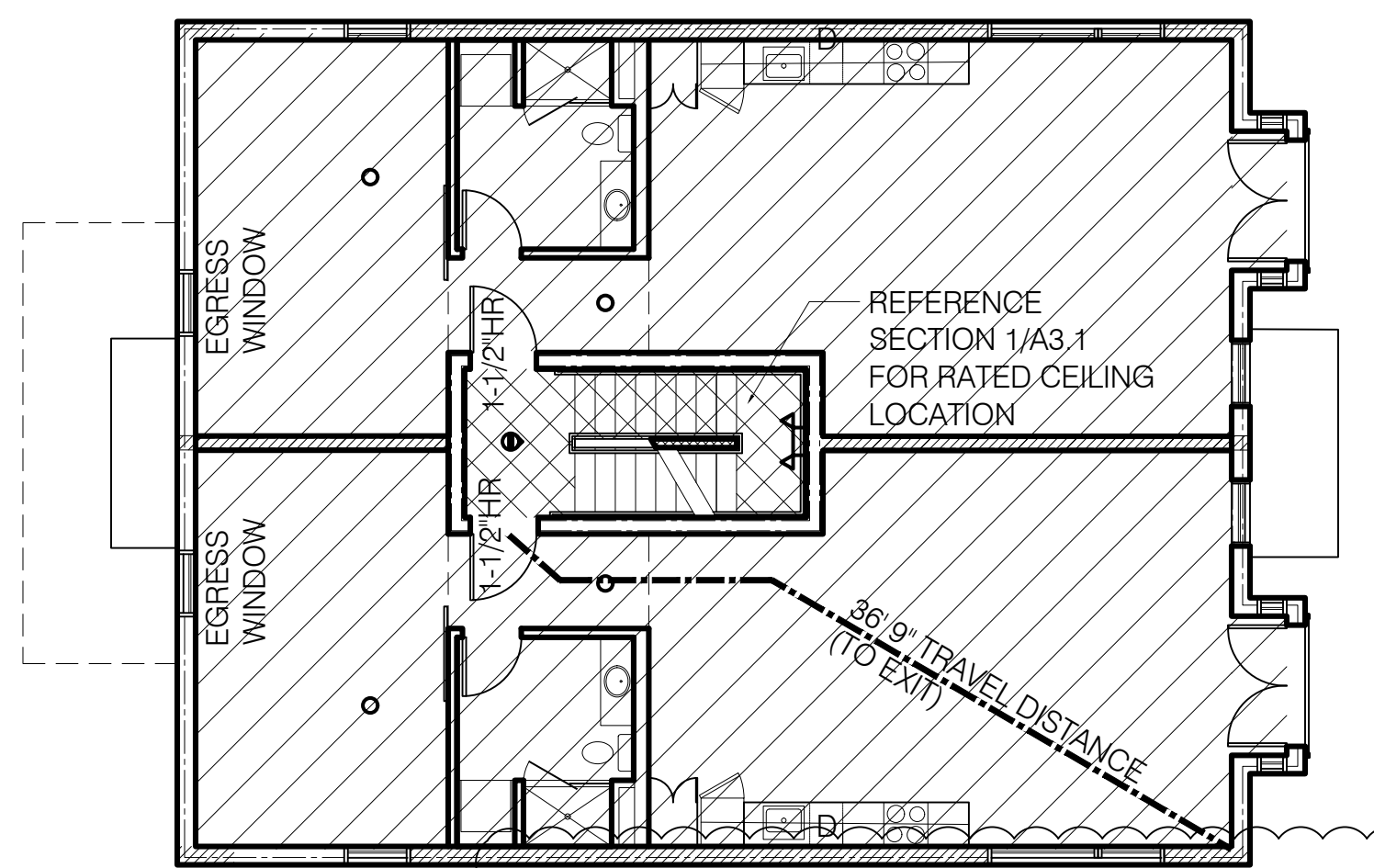
6 ROOF DECK
0 8'-0" SCALE: 1/8" = 1'-0"



1 BASEMENT
0 8'-0" SCALE: 1/8" = 1'-0"



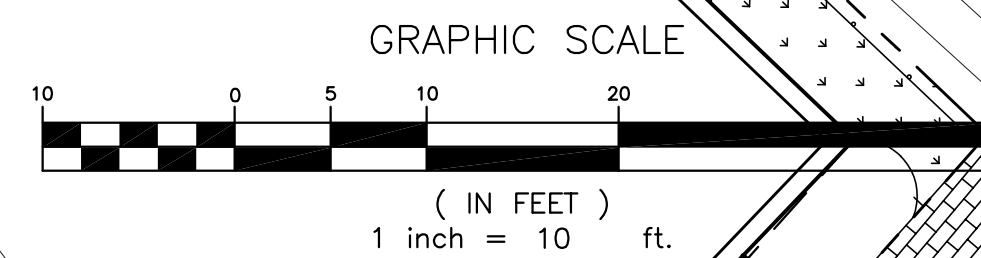
2 FIRST FLOOR
0 8'-0" SCALE: 1/8" = 1'-0"



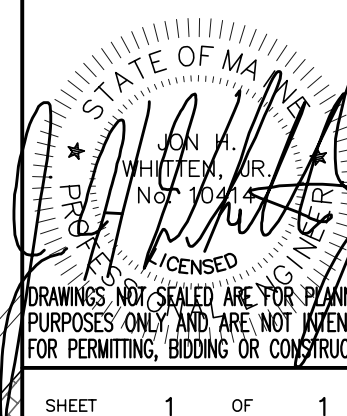
3 SECOND FLOOR
0 8'-0" SCALE: 1/8" = 1'-0"

KEY

- EXIT
- COMMON PATH (DISTANCE LABELED ON PATH)
- TRAVEL DISTANCE (DISTANCE LABELED ON PATH)
- SMOKE DETECTOR/ CO2 DETECTOR
- EMERGENCY LIGHTING
- FIRE EXTINGUISHER
- 1-HR RATED WALL ASSEMBLY
- 2-HR RATED WALL ASSEMBLY
- PROVIDE 1-HR RATED CEILING
- PROVIDE 2-HR RATED CEILING



Plymouth Engineering, Inc.
P.O. Box 46 30 Lower Detroit Road
Plymouth, Maine 04969
Tel: (207) 257-2071 Fax: (207) 257-2130
info@plymouthengineering.com
www.plymouthengineering.com



SHEET 1 OF

TT

[illegible]

PROJECT NAME:	7 CUMBERLAND AVE.	PORTLAND	MAINE
SHEET NAME:	TURNING TEMPLATES		

DESIGNED:	PROJECT NO.	17004
DRAWN:	DRAWING NO.	
CHECKED:	FIELDBOOK:	
APPROVED:	SCALE:	
PLAN DATE:	DATE ISSUED:	

OWNER:
 CLIENT & OWNER:
 BANNER PROPERTIES, LLC
 1000 BANNER DRIVE
 FALMOUTH, ME 04103



7 CUMBERLAND AVE
Portland, ME
Parking Lot Lighting

Designer

Heidi G. Connors
Visible Light, Inc.
24 Stickney Terrace
Suite 6
Hampton, NH 03842

Date

2/20/2017

Scale

Not to Scale

Drawing No.

Summary

Schedule											
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	A3	1	Brownlee Lighting	7171 8 B6LED 40K ES	Canopy Fixture; mounted at 7ft	LED	1	7171-C37LED-35K.ies	2961	0.17	9
	A4	2	V2 Lighting	Q2SS-DVW-078340-XX	Exterior Wall Sconce; mounted at 6ft	LED	1	QUBE 200 700lm 80CRI 600deg.IES	700	0.23	10
	B2	2	JUNO LIGHTING GROUP, INC	MSL2-35K-UN-BZ	Mini Wall Pack; mounted at 8ft	LED	1	MSL2-35K-UN-XX Led (164CHI-001).IES	662.7201	0.9	11

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Front of Building		0.2 fc	3.9 fc	0.0 fc	N/A	N/A
Outside of Parking Lot		0.4 fc	4.2 fc	0.0 fc	N/A	N/A
Parking Lot		0.3 fc	3.3 fc	0.0 fc	N/A	N/A

Plan View

Scale - 1" = 16ft



Memorandum

Planning and Urban Development Department

Planning Division

To: Elizabeth Boepple, Vice Chair, and Members of the Portland Planning Board
From: Nell Donaldson, Planner
Date: May 20, 2017
Re: St. Lawrence Arts Center Addition
Project #: 2016-265 **CBL:** 3-L-001
Meeting Date: May 23, 2017

I. INTRODUCTION

The Friends of the St. Lawrence Arts Center appears before the Planning Board for a public workshop associated with the site plan review of a proposed addition to their property at 76 Congress Street, the St. Lawrence Arts Center. Notice of this hearing appeared in the *Portland Press Herald* on May 15 and 16, 2017. Notices were sent to 275 property owners within 500 feet and to the interested citizens list.

Applicant: Friends of the St. Lawrence Church

Consultants: David Lloyd, Archetype; William Bray, Traffic Solutions; Sarah Cushman, Cushman Transportation Consulting

II. REQUIRED REVIEWS

<i>Waiver Requests</i>	<i>Applicable Standards</i>
<i>Driveway Separation</i> – to allow a curb cut approximately 6' from the adjacent property's	Technical Manual, <i>Section 1.7.2.7</i> . Along arterial, collector, and local streets, minimum acceptable spacing shall be 100-150 feet, depending on speed limit.

<i>Review</i>	<i>Applicable Statute</i>
Site Plan	<i>Section 14-526, with Historic Preservation review</i>

III. PROJECT DATA

Existing Zoning	Conditional Zoning Agreement C58
Existing Use	Place of Assembly
Proposed Use	Place of Assembly
Proposed Development Program	14,768 SF Addition to include: 401 seats and stage in sanctuary - New lobby and support space (green rooms, dressing rooms, bathroom, storage) - New conference and office space - New Promenade Room (to serve as lobby break area during performances, meeting space at other times)(200 person capacity)
Parcel Size	10,601 SF

	<i>Existing</i>	<i>Proposed</i>	<i>Net Change</i>
Building Footprint	3,360	9,075 SF	5,715 SF
Building Floor Area	10,540 SF	25,308 SF	14,768 SF
Impervious Surface Area	9,830 SF*	9,830 SF	0 SF
Parking Spaces (on site)	0	0	0
Bicycle Parking Spaces	0	20	20
Estimated Cost of Project	\$10 million		

* Impervious surface figures to be confirmed at time of final review.



Figures 1 & 2: Zoning context (left) and St. Lawrence Arts Center (existing Parish Hall theater) at present (above)

IV. CONTEXT

The St. Lawrence Arts Center sits at 76 Congress Street in the heart of Munjoy Hill. The property is subject to a conditional zoning agreement. While the underlying zoning is R-6 Residential, the St. Lawrence neighbors a B-1 Neighborhood Business zone and lies directly across from an active restaurant use in a B-1b zone (*Figure 1*). The Rosemont Market and a restaurant sit on the Congress Street block immediately west. Residential uses surround the site to the north, east, and south. The property lies three blocks from the Eastern Promenade.

V. BACKGROUND

The building now occupied by the St. Lawrence Arts Center was originally constructed in 1897 as a church, and was initially comprised of two sections - the Parish Hall and the sanctuary. The building served as a church for almost a hundred years until its closure in 1986. In 2001, the Friends of the St. Lawrence took ownership of the building and renovated the Parish Hall into a live theater/auditorium space under the zoning provisions for a community hall; the sanctuary portion of the building, however, was left vacant as the Friends of St. Lawrence sought the means for renovation. Ultimately, the sanctuary fell into disrepair. In 2006, the primary roof trusses partially collapsed; shortly thereafter, the sanctuary was deemed unsalvageable. It was dismantled in 2009, leaving the remainder of the Congress Street frontage of this Munjoy Hill block vacant. The Friends of the St. Lawrence recovered significant architectural features during the demolition with the intent of someday reconstructing the sanctuary building.

In 2010, the Friends of the St. Lawrence developed a proposal to do just that – rebuild the former church sanctuary in much its original form for use as a 402-seat performance venue. The applicant proposed a plan for the sanctuary that included many of the historic details of the old church building, down to the curbing, rose windows, and stone work. In order to rebuild such a structure, the applicant required relief from several provisions of the underlying R-6 zone, including the dimensional requirements. The concept was endorsed by the Historic Preservation Board and a conditional zoning agreement was drafted and formally adopted in November of 2010.

Following adoption of the agreement, the applicant embarked on a feasibility study with the intent of determining the extent of possible funding for the reconstruction project. It shortly became clear that the proposed reconstruction of the historic structure would be cost prohibitive. Instead, the Friends of the St. Lawrence shifted their vision for the proposed addition, focusing on what evolved into a contemporary expansion. In order to allow the change in design, an amended conditional zoning agreement was adopted by the City Council in early 2015.

It should be noted that, as a historic property on the National Register of Historic Places, development on the site is subject to Historic Preservation review. The building was placed on the National Register in 1979, and was designated locally as a historic landmark in 1990. The Historic Preservation Board has previously reviewed not only the demolition plans of the late 2000s, but also the reconstruction plans of 2010 and 2014.

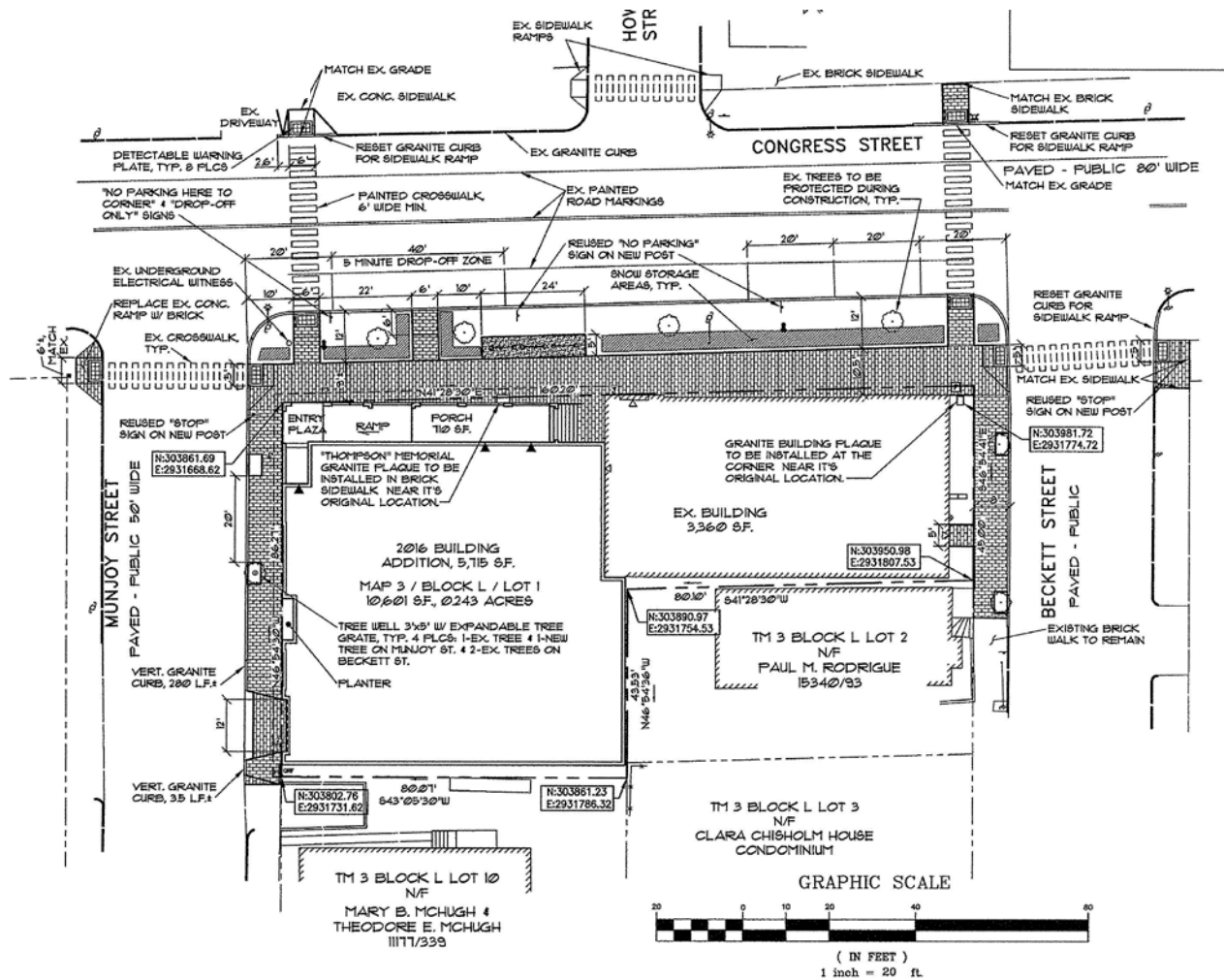


Figure 3: Site Plan

VI. PROPOSED DEVELOPMENT

The proposed St. Lawrence Arts Center project includes the renovation of the existing Parish Hall auditorium to increase the seating capacity to 120, add office space, and build a meeting room. The plans also include an addition in the old sanctuary space, including:

1. A 401-seat auditorium;
2. A new lobby to serve both the sanctuary and Parish Hall venues;
3. New support spaces including a catering kitchen, concession area, green room, dressing room, and bathrooms; and
4. A new function room, the Promenade Room, on the upper level, which would primarily be used as a lobby for the 401 seat performance hall

Overall, the footprint of the arts center is proposed to expand by just under 6,000 SF.

IX. PUBLIC COMMENT

The Planning Division has received no public comments on the site plan application for the St. Lawrence addition. However, the Planning Division did receive a number of comments over the course of the preceding conditional zoning agreement review. In general, the concerns regarding the development included:

- *Scale and Massing:* Neighboring residents expressed concerns about scale and shadow impacts. Some residents stated that they find the architecture of the addition inconsistent with both the existing Parish Hall and the neighborhood.
- *Parking Supply:* The Planning Division fielded concerns regarding the parking implications of the proposal. Neighbors expressed the opinion that insufficient on-street parking supply exists and questioned the capacity of the on-street network to absorb more vehicles, particularly during winter conditions. Related to these concerns, neighbors expressed fears regarding traffic safety and congestion resulting from visitors searching for on-street parking.
- *TDM Plan:* Lastly, there were a variety of comments on the Transportation Demand Management Plan, arguing that it is unlikely to be effective. Neighbors voiced doubts that the proposed strategies will ultimately promote significant changes in travel behavior. Residents questioned the efficacy of the METRO in serving St. Lawrence patrons, even at improved headways. Neighbors also noted the complexity of the plan and expressed concerns regarding its efficacy should any one component not come to fruition. Concerns about its monitoring arrangement were also been expressed.

The St. Lawrence held a neighborhood meeting in December (*Attachment M*). The summary indicates that attendees raised questions about architecture and parking.

VII. RIGHT, TITLE, & INTEREST

The St. Lawrence's application includes a deed as evidence of right, title, and interest (*Attachment D*). The site plan shows areas on private property that will require public access easements. A license may also be required for the 'Thompson Memorial Granite Plaque' and building footings, which are proposed to encroach into the right-of-way. Staff have requested additional information on the plaque in particular.

VIII. FINANCIAL & TECHNICAL CAPACITY

The estimated cost of the project is approximately \$10 million. Staff has requested evidence of financial and technical capacity in the revised submittal.

IX. ZONING ANALYSIS

Staff has conducted a zoning analysis based on the conditional zoning agreement (*Attachment E*).

Major Element of CZA		CZA Requirement	Proposal
Dimensional Standards	Use	Notwithstanding section 14-137(b)(6)(e)(i), the use shall be a place of assembly/community hall	Place of assembly
	Min. Lot Size	10,500 SF	10,601 SF
	Min. Front yard	0 ft.	0 ft.
	Min. Rear Yard	0 ft.	3 ft.
	Min. Side Yard on Side St.	0 ft.	0 ft.
	Max. Lot Coverage	95%	92% (9,785/10,601)
	Max. Sanctuary Structure Height	54 ft.	54 ft.
	Open Space Ratio	0%	0%
	Min. Lot Width	50 ft.	160 ft.

<i>Major Element of CZA</i>	<i>CZA Requirement</i>	<i>Proposal</i>
<i>Occupancy restriction</i>	Maximum number of attendees at any single event or combination of events limited to 485 persons. Maximum seats in Parish Hall theater restricted to 120. Seats in sanctuary auditorium restricted to 401. No separate audience events to be held in Parish Hall and sanctuary at same time.	
<i>Maintenance</i>	Owner responsible for ongoing maintenance.	
<i>Sidewalks</i>	Owner to install brick sidewalks along Munjoy, Beckett, and Congress Street frontages and reset existing pink granite curbing as necessary.	Brick sidewalks shown on plan. Staff has requested note related to curbing.
<i>Street Trees</i>	Owner to provide two street trees along Munjoy, Beckett, and Congress Street frontages, unless healthy trees exist.	One additional tree proposed on Munjoy Street. Other frontages have existing trees.
<i>Street Lighting</i>	Owner to install two Downtown District street lights along Congress Street frontage.	Two lights shown on plan. Staff has requested note regarding type.
<i>Crosswalks and Ramps</i>	Owner to install remaining crosswalks, ADA-compliant ramps, and other pedestrian improvements at Congress/Beckett Streets or Congress/Howard Streets and Congress/Munjoy Streets.	Crosswalks denoted on plan. See specific comments under site plan review below.
<i>TDM/Off-Street Parking Requirement¹</i>	TDM plan required, and must include annual \$70,000 contribution to Sustainable Transportation Fund and monitoring provisions. Requirement of TDM plan to supersede any and all parking requirements of the land use code. During site plan review, Planning Board to provide communication to Council that may include recommendations for on-street parking regulations.	No off-street parking proposed. \$70,000 annual contribution and monitoring requirements noted in TDM plan.
<i>Tour buses</i>	Owner to ensure that tour buses, vans, and trucks affiliated with events unload and relocate to remote, off-street parking location during event	Loading restrictions noted in TDM plan.

¹The off-street parking requirement for places of assembly (including community halls) in Division 20 of the city's land use ordinance is 1 space/125 SF used for assembly purposes. Division 20 includes an exception for historic structures subject to the Historic Preservation ordinance (*Section 14-332.2*).

X. SITE PLAN SUBMISSION REQUIREMENTS (*Section 14-527*)

Per the city's land use ordinance, the final plan submittal shall include all submittal requirements as noted in *Sections 14-527(e) and (f)*. In particular, in the final submittal, the applicant should provide:

- A wastewater capacity letter
- Distances from property line
- Construction management plan

XI. SITE PLAN REVIEW

The proposed development has been reviewed by staff for conformance with the relevant review standards of the City of Portland's site plan ordinance. Staff comments are below.

1. Transportation Standards

a. Impact on Surrounding Street Systems

At the request of the city's consulting traffic engineer, the applicant has provided a trip generation analysis (*Attachment I*). This analysis projects that the Arts Center, with the addition and at full occupancy (i.e. when filled to 485 person capacity), will generate approximately 170 *additional* trips

in the peak hour, noting that peak for the Arts Center typically occurs in the early evening and on weekends. Since the likely trip generation exceeds 100, a Traffic Movement Permit will be required. The applicant is currently preparing an application. As such, traffic impacts will be considered more fully under final review.

b. Access and Circulation

The proposed Arts Center addition will fill out the remainder of the block frontage on Congress Street between Beckett and Munjoy Streets. New brick sidewalks are proposed on the Beckett, Congress, and Munjoy Street frontages. Two ADA-accessible crosswalks are proposed across Congress Street, at both Beckett and Munjoy Streets, and improvements are proposed to the existing crosswalks across Beckett and Munjoy Streets. Staff has requested that the applicant indicate dimensions on the plan in the areas of tree wells, where clearances may be tight. Tom Errico, the city's traffic engineer, has also requested slight modifications to proposed ramps, writing,

I have reviewed the site layout plan and find the crosswalk at Beckett Street to be acceptable. For the Munjoy Street crosswalk, some separation is suggested between the sidewalk ramp and the abutting driveway. It is suggested that the driveway be narrowed to the minimum allowable width (10 feet) and the ramp shifted to the east. We recognize that the resultant crosswalk alignment will not be perpendicular. In conjunction with the design the applicant shall consider maximizing on-street parking to Howard Street.

It appears that the plans provide appropriate pedestrian accessibility, although dimensioning of the ramp area is required.

The plans show a curb cut at the southeasterly corner of the site along Munjoy Street, where an overhead door will stand. A driveway separation waiver should be requested in the revised submittal, as this curb cut is located in close proximity to the southerly neighbor's.

The city's Parking Manager has also requested that the applicant provide a plan for accommodating load-ins at this overhead door. The conditional zoning agreement continues to require that the property owner ensure that tour buses, vans, and trucks serving the site unload and then relocate to a remote, off-street parking location. Mr. Errico writes,

The applicant should provide specific information on truck loadings and bus parking requirements.

A truck loading memo has been provided to address this comment. However, given its timing, it has not yet been fully reviewed.

c. Public Transit Access

Greater Portland METRO's Route 1 extends up and down Congress Street into Munjoy Hill, where the route proceeds in a clockwise loop around the East End, first on North Street past the East End School, along the Eastern Promenade, and then up Atlantic Street (one block south of Munjoy Street) back to Congress. Though the St. Lawrence is not located directly on this route, the Route 1 has three stops proximate to the St. Lawrence, at North and Congress Streets, Lafayette and Congress, and Atlantic and Monument Streets. Headways are thirty minutes between 5:15 a.m. and 8:45 p.m., with decreased frequencies after 9. Sunday headways are one hour.

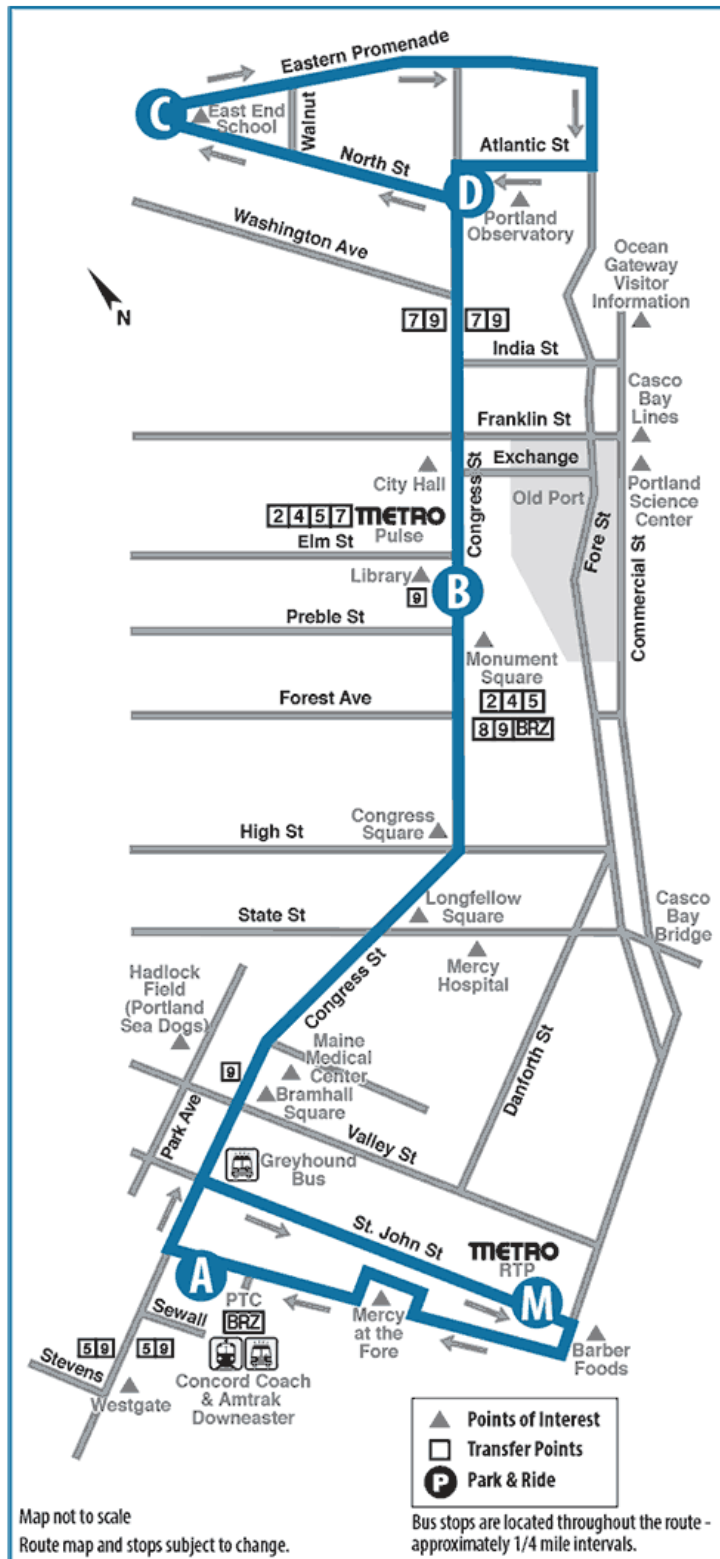


Figure 4: METRO Route 1

In their Transportation Demand Management (TDM) Plan (*Attachment J*), the St. Lawrence has proposed to provide an annual contribution of \$70,000, to be directed to METRO, to enhance and expand existing service on Route 1, which would permit METRO to improve evening headways to 15-20 minutes and offer service to 11 p.m., Monday through Saturday. In addition to the contribution to METRO, the St. Lawrence is proposing to subsidize transit passes for ticket holders, allowing patrons to use their ticket as valid bus fare.

d. Parking

The language of the St. Lawrence's conditional zoning agreement states that the requirements of TDM plan supersede any and all parking requirements of the land use code. Nonetheless, given neighborhood concerns that were raised through the conditional zoning agreement review, and at the request of the city's traffic engineer, the applicant has made an effort to show the potential impact of patron parking on the on-street parking supply. (*Attachment I*). This analysis develops parking ratios based on survey data from recent shows at the St. Lawrence, and arrives at a total projected patron demand, at peak occupancy, of 158 spaces. This figure is below that from the original Parking Demand Management Plan developed in association with the conditional zoning agreement, which projected a total demand (including staff) of 228, but less than that suggested by the city's TDM peer reviewer for the conditional zoning agreement review, Nelson-Nygaard, who developed an estimate of 122 based on ITE parking generation rates. Mr. Errico has reviewed the parking study methodology and writes,

The general estimate of a parking demand rate for the facility should be calculated according to the number of vehicles compared to the number

of attendees at each of the surveyed events. Based upon the data supplied by the applicant for events that occurred on Tuesday, February 28, 2017; Tuesday, April 4, 2017; Wednesday, April 26, 2017; Saturday, April 29, 2017; Friday, May 5, 2017; Saturday, May 6, 2017; and Sunday, May 7, 2017, the average

number of vehicles generated by each attendee is 0.4 vehicles. This rate corresponds well with ITE Parking Generation Rates (0.4 parking spaces per seat or attendee) and a parking survey conducted as part of the Contract Zone process on December 12, 2013 (0.4 parking spaces per seat or attendee). A parking survey was conducted on October 25, 2013 and determined a parking rate of 0.54 vehicles per seat or attendee. My general conclusions is that parking demand for a sold out event of 485 seats would be approximately 194 vehicles.

As with the parking study developed along with the conditional zoning agreement, the St. Lawrence has provided the results of a parking survey conducted in April of 2017. This study, which surveyed on-street parking spaces within a 5-minute walk of the St. Lawrence, showed a total on-street supply of approximately 880 spaces, between 65% and 72% of which were occupied during recent show times (with 572 and 636 spaces occupied, respectively). Of all the recent occupancy counts, the highest continues to leave approximately 220 spaces available. This is more than the projected parking demand.

The applicant performed updated parking observations on Wednesday April 26th and Saturday April 29th. The intent of the observations was to quantify on-street parking availability within a 5-minute walking radius of the project site. The observations were performed prior, during and early the following morning of the event days. As noted in the application materials, 883 on-street parking spaces exist within a 5-minute walking distance with between 222 and 309 unused on-street parking spaces. During the Contract Zone process a similar parking survey was conducted on December 10, 2014. That survey identified an on-street parking supply of 838 parking spaces with 179 unused parking spaces. I'm somewhat surprised that the amount of available parking spaces have increased given development activity in the area. I am equally surprised that the overall parking supply has increased, although by only about 5 percent. I need to continue to review the data to gain a full understanding of factors influencing parking conditions.

The applicant has proposed to modify on-street parking on Congress Street to include a 40 foot drop-off zone directly in front of the entrance at the southerly end of the block and a no parking zone at the center of the block. Roughly two existing on-street parking spaces would stand at the northerly end of the block. Staff has questioned whether time-limited on-street parking is necessary during off-show hours, and whether the no-parking zone is appropriate. Mr. Errico writes,

The "No Parking" designation on Congress Street abutting the site shall be eliminated and replaced with general unregulated parking. We continue to review the proposed 5-minute parking regulation. We find the time limit regulation to be acceptable, but would like to consider amending the regulation/condition so the spaces can be utilized during non-event time periods. We will provide guidance in the future.

John Peverada, the city's Parking Manager, has expressed concerns about the effect of two-hour parking restrictions pushing attendees further into the neighborhood.

The applicant has suggested valet parking as a major element of its TDM and parking management plan. Mr. Peverada writes,

I agree that valet parking is another alternative, but there will be delays and waits. They will have to be assure that there is no double parking, which may be hard to do. Currently when the Westin Hotel on High St. has a large event the

people waiting to valet double and sometimes triple park on High St. causing traffic delays, and serious safety issues. Both the Parking Div. and Police are challenged to keep up with the enforcement. I would think this would be a serious safety issue for Fire/EMS.

e. Transportation Demand Management

As required under the conditional zoning agreement, the applicant has included an updated Transportation Demand Management Plan in the preliminary submittal (*Attachment J*). The applicant developed this plan based on the draft included in the conditional zoning agreement by reference. As with that plan, the current TDM plan includes a number of mechanisms designed to foster use of alternative modes and thus reduce parking demand. St. Lawrence proposes the following:

- *METRO subsidies and transit incentives:* The central strategy of the revised TDM plan is a \$70,000 annual subsidy to METRO to improve its Route #1 service, both in terms of arrival frequencies and extended hours. METRO has stated that this \$70,000 would be sufficient to increase evening headways from 45 minutes to 30 minutes and extend service to 11 p.m. Monday through Saturday (*Attachment K*). The St. Lawrence has argued that this expansion of service will not only effectively serve their patrons but the greater neighborhood as well, and in this reduce baseline parking demand. As an incentive and as part of the arrangement with METRO, St. Lawrence patrons will be able to use their theater tickets as valid fare to board the bus. The lobby of SLA would be designed to include a display screen with real-time tracking information, allowing this area to effectively serve as a waiting area.
- *Valet parking:* The TDM plan also includes front-door valet service for patrons, with “simple incentives” at point of ticket purchase. Cars would be stored in remote lots.
- *Bicycle and pedestrian infrastructure:* The St. Lawrence proposes to encourage bicycling by providing 10 racks (or 20 spaces) in front of the building on Congress Street and becoming a Bicycle Benefits partner. They also propose pedestrian infrastructure improvements, such as sidewalks and crosswalks.
- *Free market options:* The TDM plan also notes the existence of other mode choices, such as cabs and pedicabs, which will be available to patrons.
- *Discounted ticket pricing for alternative modes:* The TDM Plan proposes ticket discounts for attendees “carpooling or traveling by preferred transportation modes” and a more intensive “short-term incentive campaign...for attendees who use preferred transportation modes” (*Attachment J*).

In addition to the above, the St. Lawrence proposes a number of programmatic elements around education and marketing in the TDM plan. The TDM plan states that the St. Lawrence will provide information regarding alternative mode choices on their website, at the point of ticket purchase, at a kiosk on site, and through consistent and regular communication with their patrons. The plan also includes a marketing campaign.

Lastly, the plan includes the designation of a TDM coordinator and provisions for immediate and long-term monitoring. The plan specifies monitoring to begin one month after opening and twice annual monitoring thereafter for five years. Annual monitoring would occur subsequently. Through surveys, ridership tracking, and valet data, the St. Lawrence would monitor mode choice and the potential for mode shifts. Ultimately, the goals of the TDM plan are to reduce trips and parking demand by 3-6% in the first year.

In reviewing the TDM plan, staff has requested that the applicant clarify the various incentives that are included in the TDM plan, including any incentives for remote parking. Staff has also requested that the valet parking arrangement be clarified. Mr. Errico writes,

The applicant has submitted a TDM plan and my initial comments are noted as follows:

- o The plan notes a parking reduction target of 3-6%. For the estimated parking demand of about 200 parking spaces, this correlates to a reduction of between 6 and 12 vehicles. Given that the target will have a minor effectiveness on parking impacts, a higher target should be considered.*
- o To further encourage use of transit, other supporting incentives should be considered including free or subsidized parking cost in the Portland Downtown District.*
- o The applicant shall provide examples (with specific detail on use, cost, location of valet parking lots, etc.) of valet service systems at a similar type facility. The applicant should provide an estimate of likely number of valet users and locations where vehicles will be parked.*
- o In an effort to promote bicycle and pedestrian modes to events, specific discussion on facility infrastructure improvements should be included. This may include, but not limited to, improvements to sidewalks, crosswalks, wayfinding signage, lighting (both pedestrian scale and roadway for bicyclists), bus shelters/stops, etc.*
- o I tend to believe that a carpool service will get limited use unless incentives are provided (and even this may not correlate to high use). One suggested option would be to provide free valet service to registered carpool vehicles.*

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 conditional zoning agreement requires two street trees along the Munjoy Street, Beckett Street, and Congress Street frontages. Each of these frontages currently has two or more trees, although one on Munjoy Street will need to be eliminated in order to allow the overhead door. This tree is proposed for replacement with an Armstrong maple. The landscaping plan shows other landscaping on the Beckett and Munjoy Street frontages, including miscanthus and hakonechloa grasses. Clematis and honeysuckle are proposed for the eastern property line.

Jeff Tarling, the City Arborist, has reviewed the plan and writes,

Street trees - project proposes 1 new street tree, 'Armstrong' (upright) Red Maple located on Munjoy Street. (Tree can be 2" caliper to better fit into the space vs the 2.5" shown) This is a good selection for the tight space. Other street trees along the project frontage a scheduled to be saved. Knowing construction activities we will likely need to work closely with the project team to actually save the trees with the help of good tree protection measures. The project should include this topic in the pre-construction meeting and these measures should be in place prior to any construction / site work. Suggest construction fencing in the tree protection area - Congress Street esplanade to prevent the storage of equipment, materials etc. See Note # 9 to include fence along sidewalk edge vs dripline or as agreed upon in pre-construction meeting.

Staff has requested that the preservation measures also be shown on the construction management plan.

Mr. Tarling has also commented on the placement of the bicycle racks and potential conflicts with street trees. He writes,

Bike rack placement impact to the existing tree roots should be adjusted away from existing root systems in the Congress Street esplanade. Would recommend that the two sets of five be placed closer towards the middle to avoid the existing trees.

c. *Water Quality/Storm Water Management/Erosion Control*

Although the area of the proposed St. Lawrence expansion is currently undeveloped, it is the site of the former church sanctuary, and the city's records indicate that it has been assessed as impervious area since the sanctuary demolition. As such, the proposed expansion is not deemed to change the quantity of existing impervious surface on site. Lauren Swett, the city's consulting civil engineer, writes,

The City has looked back at their GIS, and the existing data does include the former building as an impervious area – the property is being assessed a stormwater service charge based on this total impervious area. You can provide a stormwater analysis that considers the 2008 building footprint as part of the existing impervious area.

It should be noted that the city has identified capacity concerns within the combined sewer system in the area. New roof drains will likely not be permitted to be connected to the system. Ms. Swett writes,

Although it appears that you won't be required to provide stormwater treatment, we would like you to provide an evaluation of the change in stormwater flow to the combined sewers. The City would not like any increases to the combined sewer systems in this area.

3. Public Infrastructure and Community Safety Standards

a. *Consistency with Related Master Plans*

The project is generally deemed consistent with related master plans.

b. *Public Safety and Fire Prevention*

Keith Gatreau, Assistant Fire Chief, has reviewed the plans and has not requested any modifications.

c. *Availability and Capacity of Public Utilities*

Evidence of sewer capacity will be required at final review. Staff has also requested that the applicant consider placing the Beckett Street overhead electric underground with the new underground service from Congress. In addition, the location of any external utility connections or meters should be shown on the revised plans. Last, staff has requested a plan for managing trash and recycling.

4. Site Design Standards

a. *Massing, Ventilation, and Wind Impact*

The bulk, location, or height of the proposed buildings are not likely to result in health or safety problems from a reduction in ventilation to abutting structures.

b. *Shadows*

The project is not anticipated to result in shadows on publicly accessible open space.

c. *Snow and Ice Loading*

The project is not anticipated to result in snow or ice accumulation on public ways or adjacent properties.

d. View Corridors

The project does not abut a protected view corridor.

e. Historic Resources

The St. Lawrence is a historic property on the National Register of Historic Places. As such, development on the site is subject to Historic Preservation review. The city's Historic Preservation Board previously reviewed preliminary plans for the St. Lawrence addition. Final approval by the Historic Preservation Board will be required.

f. Exterior Lighting

The plan shows two street lights on Congress Street, which should be specified as Downtown fixtures in the final plans. Staff has also requested that the applicant provide cut sheets and a photometric plan for all proposed exterior lights in the final submittal.

g. Noise and Vibration

Staff has requested that the applicant show the location of HVAC and mechanical equipment in the final plans.

h. Signage and Wayfinding

On the final plans, the applicant should show proposed signage; this signage will be reviewed under a separate sign permit and reviewed by Historic Preservation.

i. Zoning-Related Design Standards

The conditional zoning agreement incorporates a set of elevations and floor plans by reference. These have been resubmitted with the site plan application (*Plans 14-17*). Given the historic landmark status of the existing structure, the applicant is required to obtain a certificate of appropriateness from the Historic Preservation Board for the proposed addition. The site plan ordinance exempts projects from design review when the development affects a designated historic landmark or is within a historic district and thus requires a certificate of appropriateness. The Friends of the St. Lawrence has not yet submitted drawings to the Historic Preservation Board for final design review. The Historic Preservation Board has generally given positive indications of their support for the design.

XII. NEXT STEPS

1. Applicant to address staff comments and additional comments of the Planning Board;
2. Applicant to prepare final plan submission, including site plan submittal requirements as included in 14-527(e) and (f) for review by the Planning Authority and Planning Board; and
3. Hold final Planning Board Hearing.

XIII. ATTACHMENTS**PLANNING BOARD REPORT ATTACHMENTS**

1. Traffic Engineer review (memo from Thomas Errico, 5/18/17)
2. City Arborist review (memo from Jeff Tarling, 12/20/16)
3. Civil Engineer review (memo from Lauren Swett, 12/21/16)
4. Civil Engineer review (memo from Lauren Swett, 1/6/17)
5. Fire Prevention Bureau review (memo from Keith Gautreau, 12/21/16)

APPLICANT'S SUBMITTALS

- A. Cover Letter (from Tom Greer, 11/18/16)
- B. Level III Site Plan Application
- C. Authorization Letter
- D. Evidence of Right, Title, and Interest

- E. Recorded Contract Zone
- F. Wastewater Capacity Application
- G. PWD Capacity Letter
- H. Cover Letter (from Tom Greer, response to civil comments, 1/25/17)
- I. SLAC Parking Study Update
- J. SLAC TDM Plan
- K. METRO letter (from Greg Jordan, 9/17/14)
- L. Truck Loading Description
- M. Neighborhood Meeting Minutes

PLANS

- Plan 1 Boundary & Topographic Survey
- Plan 2 Site Plan
- Plan 3 Existing Conditions & Demolition Plan
- Plan 4 Grading & Utilities Plan
- Plan 5 Erosion Control Plan
- Plan 6 Landscape Plan
- Plan 7 Details
- Plan 8 Details
- Plan 9 Basement Plan
- Plan 10 First Floor Plan
- Plan 11 Upper Theater Level
- Plan 12 Upper Theater Level Continued
- Plan 13 Promenade Floor Plan
- Plan 14 North Elevation
- Plan 15 West Elevation
- Plan 16 South Elevation
- Plan 17 East Elevation
- Plan 18 Building Section



Helen Donaldson <hcd@portlandmaine.gov>

St. Lawrence Arts Center - Updated Traffic Comments

Tom Errico <thomas.errico@tylin.com>

Thu, May 18, 2017 at 8:52 AM

To: Helen Donaldson <HCD@portlandmaine.gov>

Cc: Katherine Earley <kas@portlandmaine.gov>, Jeremiah Bartlett <JBartlett@portlandmaine.gov>, Jeff Tarling <jst@portlandmaine.gov>, Lauren Swett <lszett@woodardcurran.com>

Hi Nell – The following is a status update of my December 20, 2016 Preliminary Traffic Comments.

- The site plan proposes a crosswalk on Congress Street from the site frontage to the eastern corner of Howard Street. Given that the project will generate a significant amount of pedestrian activity during events, it is my recommendation that the proposed Howard Street crosswalk be replaced with a crosswalk on Congress Street from the west corner of Beckett Street to the area on the north side of Congress Street where parking is prohibited due to a fire hydrant. Additionally, a crosswalk should be added on Congress Street from the east corner of Monjoy Street to the opposite side of the street. The applicant shall submit plans for these two crosswalk locations for review and approval.

Status: I have reviewed the site layout plan and find the crosswalk at Beckett Street to be acceptable. For the Monjoy Street crosswalk, some separation is suggested between the sidewalk ramp and the abutting driveway. It is suggested that the driveway be narrowed to the minimum allowable width (10 feet) and the ramp shifted to the east. We recognize that the resultant crosswalk alignment will not be perpendicular. In conjunction with the design the applicant shall consider maximizing on-street parking to Howard Street.

- The sidewalk ramp at the westerly corner of Monjoy Street and at Beckett Street shall be redesigned so that the ramp flares are not impacting the pedestrian accessible route.

Status: It appears that the plans provide appropriate pedestrian accessibility, although dimensioning of the ramp area is required.

- The on-street parking regulations are subject to change following a coordination with the City's Parking Division Manager and the revised crosswalk layout.

Status: The "No Parking" designation on Congress Street abutting the site shall be eliminated and replaced with general unregulated parking. We continue to review the proposed 5-minute parking regulation. We find the time limit regulation to be acceptable, but would like to consider amending the regulation/condition so the spaces can be utilized during non-event time periods. We will provide guidance in the future.

- Given changes in the project area since the 2014 parking supply observations were performed, it is recommended that an updated parking analysis be performed. The methods and schedule for surveys shall be coordinated with the City.

Status: The applicant performed updated parking observations on Wednesday April 26th and Saturday April 29th. The intent of the observations was to quantify on-street parking availability within a 5-minute walking radius of the project site. The observations were performed prior, during and early the following morning of the event days. As noted in the application materials, 883 on-street parking spaces exist within a 5-minute walking distance with between 222 and 309 unused on-street parking spaces. During the Contract Zone process a similar parking survey was conducted on December 10, 2014. That survey identified an on-street parking supply of 838 parking spaces with 179 unused parking spaces. I'm somewhat surprised that the amount of available parking spaces has increased given development activity in the area. I am equally surprised that the overall parking supply has increased, although by only about 5 percent. I need to continue to review the data to gain a full understanding of factors influencing parking conditions.

- The applicant has submitted the TDM plan that was prepared during the contract zone process. Given the numerous materials submitted, it is recommended that the applicant submit a complete updated standalone document for review and approval (with the updated parking survey information).

Status: The applicant has submitted a TDM plan and my initial comments are noted as follows:

- The plan notes a parking reduction target of 3-6%. For the estimated parking demand of about 200 parking spaces, this correlates to a reduction of between 6 and 12 vehicles. Given that the target will have a minor effectiveness on parking impacts, a higher target should be considered.
 - To further encourage use of transit, other supporting incentives should be considered including free or subsidized parking cost in the Portland Downtown District.
 - The applicant shall provide examples (with specific detail on use, cost, location of valet parking lots, etc.) of valet service systems at a similar type facility. The applicant should provide an estimate of likely number of valet users and locations where vehicles will be parked.
 - In an effort to promote bicycle and pedestrian modes to events, specific discussion on facility infrastructure improvements should be included. This may include, but not limited to, improvements to sidewalks, crosswalks, wayfinding signage, lighting (both pedestrian scale and roadway for bicyclists), bus shelters/stops, etc.
 - I tend to believe that a carpool service will get limited use unless incentives are provided (and even this may not correlate to high use). One suggested option would be to provide free valet service to registered carpool vehicles.
- The applicant shall provide documentation that a Traffic Movement Permit is not required.

Status: Based upon updated traffic information provided by the applicant, the proposed project will generate traffic volumes that meet the requirement for a Traffic Movement Permit. The applicant has noted that a Traffic Movement Permit Application is being prepared.

- The applicant should provide specific information on truck loadings and bus parking requirements.

Status: Outstanding

Additional Comments

- The general estimate of a parking demand rate for the facility should be calculated according to the number of vehicles compared to the number of attendees at each of the surveyed events. Based upon the data supplied by the applicant for events that occurred on Tuesday, February 28, 2017; Tuesday, April 4, 2017; Wednesday, April 26, 2017; Saturday, April 29, 2017; Friday, May 5, 2017; Saturday, May 6, 2017; and Sunday, May 7, 2017, the average number of vehicles generated by each attendee is 0.4 vehicles. This rate corresponds well with ITE Parking Generation Rates (0.4 parking spaces per seat or attendee) and a parking survey conducted as part of the Contract Zone process on December 12, 2013 (0.4 parking spaces per seat or attendee). A parking survey was conducted on October 25, 2013 and determined a parking rate of 0.54 vehicles per seat or attendee. My general conclusions is that parking demand for a sold out event of 485 seats would be approximately 194 vehicles.

If you have any questions, please contact me.

Best regards,

Thomas A. Errico, PE
Senior Associate
Traffic Engineering Director

TYLIN INTERNATIONAL

12 Northbrook Drive
Falmouth, ME 04105

+1.207.781.4721 main

+1.207.347.4354 direct

+1.207.400.0719 mobile

+1.207.781.4753 fax

thomas.errico@tylin.com

Visit us online at www.tylin.com

Twitter | Facebook | LinkedIn | Google+

"One Vision, One Company"



Helen Donaldson <hcd@portlandmaine.gov>

Saint Lawrence comments

Jeff Tarling <jst@portlandmaine.gov>

Tue, Dec 20, 2016 at 5:21 PM

To: Helen Donaldson <hcd@portlandmaine.gov>

Hi Nel -

I have reviewed the landscape plan for the St Lawrence Arts Center project and offer the following comments:

a) Street trees - project proposes 1 new street tree, 'Armstrong' (upright) Red Maple located on Munjoy Street. (Tree can be 2" caliper to better fit into the space vs the 2.5" shown) This is a good selection for the tight space. Other street trees along the project frontage a scheduled to be saved. Knowing construction activities we will likely need to work closely with the project team to actually save the trees with the help of good tree protection measures. The project should include this topic in the pre-construction meeting and these measures should be in place prior to any construction / site work. Suggest construction fencing in the tree protection area - Congress Street esplanade to prevent the storage of equipment, materials etc. See Note # 9 to include fence along sidewalk edge vs dripline or as agreed upon in pre-construction meeting.

Bike rack placement impact to the existing tree roots should be adjusted away from existing root systems in the Congress Street esplanade. Would recommend that the two sets of five be placed closer towards the middle to avoid the existing trees.

See:

<http://www.treesaregood.com/treecare/resources/AvoidingTreeDamage.pdf>

b) Filterra System - We would like to review the list of plant(s) that are approved for this system, ideally we would like something other then the Miscanthus grass as shown, as it is in the City street ROW. Perhaps Bayberry...

Overall the Landscape Plan is acceptable as shown with these minor suggestions.

Thanks

Jeff

Jeff Tarling
City Arborist - City of Portland Maine
Parks, Recreation & Facilities Dept
212 Canco Road
Portland, ME. 04103
(207) 808-5446
jst@portlandmaine.gov

On Tue, Dec 20, 2016 at 9:12 AM, Helen Donaldson <hcd@portlandmaine.gov> wrote:

[Quoted text hidden]

MEMORANDUM



TO: Nell Donaldson, Planner
FROM: Lauren Swett, PE
DATE: December 21, 2016
RE: St. Lawrence Arts Center, Level III Site Plan Application

Woodard & Curran has reviewed the Level III Site Plan Application for the proposed redevelopment project at the St. Lawrence Arts Center in Portland, Maine. The project involves the construction of a building addition to add a performing arts center to the existing church building.

Documents Reviewed by Woodard & Curran

- Level III Site Plan Application and attachments, dated November 18, 2016, prepared by Pinkham & Greer Civil Engineers on behalf of the Friends of St. Lawrence Church.
- Engineering Plans, dated October 4, 2016, prepared by Pinkham & Greer Civil Engineers on behalf of the Friends of St. Lawrence Church.

Comments

- 1) 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. 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 accordance with Appendix A, B, & C of MaineDEP Chapter 500. Provisions to prevent the tracking of sediment onto City streets should be made. The location of a construction entrance/exit should be identified, and a detail should be provided. Notes should be included requiring that City streets be swept to remove any tracked sediment.
 - b) General Standard: The project will result in a net increase in impervious area of approximately 6,370 square feet. As such, the project is required to include stormwater management features for stormwater quality control. The Applicant has proposed an alternative to on-site treatment, providing a Filterra unit to treat a drainage area in Congress Street. This alternative is not ideal for the City, and the proposed location may be impacted by changes to crosswalks. The system would be located within the City right-of-way and would have implications on maintenance and operations. In addition, the off-site Filterra unit would not qualify for credit towards the City of Portland's stormwater fee and would not provide any flood control (see next comment). The Applicant should consider additional on-site treatment if possible. The landscaping plan refers to "drip strip" features on portions of the site. The Applicant could consider expanding these features to cover larger areas of the site. Roof drainage routing is unclear, but the Applicant could consider in-line roof drain filters, or other off-line systems that would allow for the direct treatment of roof drainage. We understand that the site is challenging, but the City is not currently in agreement that the in-street Filterra is the best option.
 - c) Flooding Standard: The project will result in a net increase in impervious area of approximately 6,370 square feet. As such, the project is required to control the rate or quantity of stormwater runoff from the site. A stormwater management plan has not been provided. An evaluation of pre-development and post-development flows should be completed. A stormdrain connection is provided into Congress Street from the existing building, but it is unclear how stormwater will be conveyed from the new building, i.e. roof drain connections. Additional information is necessary to determine if increases in stormwater flow require mitigation. The proposed Filterra unit will not provide any flooding control.



- 2) The Applicant should provide a detail for bituminous pavement repair in accordance with the City of Portland's Technical Standards.
- 3) This portion of Congress Street remains in a moratorium until September 11, 2017.

**Helen Donaldson** <hcd@portlandmaine.gov>

SLA

Lauren Swett <lswett@woodardcurran.com>

Fri, Jan 6, 2017 at 10:25 AM

To: Tom Greer <TGreer@pinkhamandgreer.com>

Cc: "HCD@portlandmaine.gov" <HCD@portlandmaine.gov>, Doug Roncarati <dar@portlandmaine.gov>, Bradley Roland <brad@portlandmaine.gov>

Hi Tom,

The City has looked back at their GIS, and the existing data does include the former building as an impervious area – the property is being assessed a stormwater service charge based on this total impervious area. You can provide a stormwater analysis that considers the 2008 building footprint as part of the existing impervious area.

That said, the City does have some concerns with adding new stormwater flows to the combined sewers. There are two systems in this area – Congress Street and Munjoy Street. You are showing your storm drain connection into Congress Street. Will this connection include all roof drainage from both buildings? How does this compare to prior roof drainage/stormwater discharge in the 2008 building condition?

Although it appears that you won't be required to provide stormwater treatment, we would like you to provide an evaluation of the change in stormwater flow to the combined sewers. The City would not like any increases to the combined sewer systems in this area.

Let me know if you have any questions.

Thanks,

Lauren

From: Tom Greer [mailto:TGreer@pinkhamandgreer.com]**Sent:** Monday, January 2, 2017 8:21 AM**To:** HCD@portlandmaine.gov**Cc:** Lauren Swett <lswett@woodardcurran.com>**Subject:** SLA

[Quoted text hidden]

MEMORANDUM

To: FILE
From: Nell Donaldson
Subject: Application ID: 2016-265
Date: 12/21/2016

Comments Submitted by: Keith Gautreau/Fire on 12/20/2016

Would like to see a capacity to serve letter from Portland Water District.

Comments Submitted by: Keith Gautreau/Fire on 12/20/2016**Premises Identification**

The main entrance of the building must be the address for the property. This should be consistent with 911, tax assessor, Inspections Division and future mailing address.

Street addresses shall be marked on the structure and shall be as approved by the City E-911 Addressing Officer. If the building entry faces a different street, both the street name and number should be large enough to read from the street.

Address numbers must be a minimum of 4 inches high.

The number should be in Arabic numerals rather than spelled out (for example, "130" instead of "One Hundred and Thirty").

Color: Addresses should be in a color that contrasts with the background.

Whenever possible, should be illuminated.

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.

Comments Submitted by: Keith Gautreau/Fire on 12/20/2016

Hydrant locations are within the acceptable distances per NFPA and AHJ.

Comments Submitted by: Keith Gautreau/Fire on 12/20/2016

Emergency access is excellent to the site. Access to three sides of the proposed structure.

Comments Submitted by: Keith Gautreau/Fire on 12/20/2016**Hydrants**

2009 NFPA 1 18.3 Water Supplies and Fire Hydrants

-Fire Department Connections shall not be located where large diameter hose may block egress.

File: 16107

Att. A

November 18, 2016

Ms. Barbara Barhydt, Planning Department
City of Portland
389 Congress Street, 4th Floor
Portland, ME 04101

RE: LEVEL III SITE PLAN APPLICATION
ST. LAWRENCE ARTS CENTER, CONGRESS STREET

Dear Barbara,

We are pleased to submit the attached Site Plan Application and supporting documentation for the St. Lawrence Arts Center expansion.

As you know, this has a separate zone created for the expansion. We have included the zoning data for easy reference.

Included in the package is the Parking Demand Management Plan created at the time of the zone change. No additional traffic studies have been completed.

The stormwater assessment led to the use of a Filterra System to treat the runoff in Congress Street. There is no room on site for treatment. By treating Congress Street runoff, we believe we make a better environmental impact by treating more contaminated water than would come off the roof.

We have revised the cross walks to make them ADA compliant. The walks on all three sides will be redone. The sidewalk along Congress Street will be raised to provide ADA access. To leave the windows in place, a small granite curb was added with bollards. This is a new unique feature.

Bike racks have been added on the Congress Street side near the new entrance.

Water service will be extended from the existing building. A new sewer service will be extended out to Munjoy Street.

This project will be funded with donations. The start of the project will be dependent on that success.

Ms. Barbara Barhydt
November 18, 2016
Page 2 of 2
File: 16107



Please let me know if you need any additional information.

Sincerely,

PINKHAM & GREER

A handwritten signature in black ink, appearing to read "Thomas S. Greer".

Thomas S. Greer, P.E.

Enclosures

cc: Deirdre Nice, David Lloyd, File

TSG/rjs

**Friends of the St. Lawrence Church
St. Lawrence Arts
76 Congress Street
Portland, ME 04101**

(207) 347-7177

September 28, 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 of the St. Lawrence Art Center in Portland, Maine.

This includes representing me with the City of Portland and any other State or local agencies who may become involved in the process.

Should you have any questions or concerns, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Deirdre Nice".

Deirdre Nice
Executive Director
St. Lawrence Arts

PROJECT NAME:

St. Lawrence Arts Addition

PROPOSED DEVELOPMENT ADDRESS:

76 Congress Street

PROJECT DESCRIPTION:

The addition of a 25,308 sq. ft. theater

CHART/BLOCK/LOT: 3 / L / 1

PRELIMINARY PLAN _____ (date)

FINAL PLAN _____ (date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Friends of St. Lawrence Church Business Name, if applicable: Deirdre Nice Address: 76 Congress Street City/State : Portland, ME Zip Code: 04101	Applicant Contact Information Work #: 207.347.7177 Home #: Cell #: 207.749.0507 Fax#: e-mail: deirdre.nice@stlawrencearts.org
Owner – (if different from Applicant) Name: Same as Applicant Address: City/State : Zip Code:	Owner Contact Information Work #: Home #: Cell #: Fax#: e-mail:
Agent/ Representative Thomas S. Greer Name: Pinkham & Greer, Civil Engineers Address: 28 Vannah Avenue City/State : Portland, ME Zip Code: 04103	Agent/Representative Contact information Work #: 207.781.5242 Home #: Cell #: Fax#: 207.781.4245 e-mail: tgreer@pinkhamandgreer.com
Billing Information Name: Same as Applicant Address: City/State : Zip Code:	Billing Contact Information Work #: Home #: Cell #: Fax#: e-mail:

Engineer Thomas S. Greer Name: Pinkham & Greer, Civil Engineers Address: 28 Vannah Avenue City/State : Portland, ME Zip Code: 04103	Engineer Contact Information Work #: 207.781.5242 Home #: Cell #: Fax#: 207.781.4245 e-mail: tgreer@pinkhamandgreer.com
Surveyor John Swan Name: Owen Haskell, Inc. Address: 390 US Route One, #10 City/State : Falmouth, ME Zip Code: 04105	Surveyor Contact Information Home #: Work #: 207.774.0424 Cell #: Fax#: 207.774.0511 e-mail: jswan@owenhaskell.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 Home #: Cell #: Fax#: 207.772.4056 e-mail: lloyd@archetypepepa.com
Attorney Barbara Vestal Name: Chester & Vestal Address: 107 Congress Street City/State : Portland, ME Zip Code: 04101	Attorney Contact Information Work #: 207.772.7426 Home #: Cell #: Fax#: 207.761.5822 e-mail: vestal@chesterand vestal.com
Designated person/person(s) for uploading to e-Plan: Name: Deirdre Nice e-mail: deirdre.nice@stlawrencearts.org Name: David Lloyd e-mail: lloyd@archetypepepa.com Name: Rita Sawyer e-mail: rsawyer@pinkhamandgreer.com	

APPLICATION FEES:

Level III Development (check applicable reviews) ☒ Less than 50,000 sq. ft. (\$750.00) ☐ 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 (\$50.00 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 (\$1,500) ☐ Stormwater Quality (\$250) ☐ Subdivisions (\$500 + \$25/lot) ☐ # of Lots x \$25/lot = ☐ Site Location (\$3,500, 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
--	--

INSTRUCTIONS FOR ELECTRONIC SUBMISSION:

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

1. Fill out the application completely and e-mail the **application only** to planning@portlandmaine.gov (Please be sure to designate a person who will be responsible for uploading documents and drawings.) This step will generate the project ID number for your project.
2. An invoice for the application fee will be e-mail to you. Payments can be made on-line at [Pay Your Invoice](#) , by mail or in person at City Hall, 4th Floor. Please reference the Application Number when submitting your payment which is located in the upper left hand corner of the invoice.
3. The designated person responsible for uploading documents and drawings will receive an email from epplan@portlandmaine.gov with an invitation into the project. At this time, you will upload all corresponding documents and plans into the project. For first time users you will receive a temporary password which you must change on entry. Make note of your username and password for any future projects.

Reminder: Before the project can move forward, the application fee shall be paid in full and all required documents and drawings shall be uploaded into e-plan correctly.

4. Follow the link below (Applying Online Instructions) for step by step instructions on how to do the following:
 Tab 1 - Setting up the appropriate compatibility settings for your PC and getting started in e-plan.
 Tab 2 - Preparing your drawings, documents and photos for uploading using the correct naming conventions
 Tab 3 - Preparing and uploading revised drawings and documents

[Applying Online Instructions](#)

5. When ready, upload your files and documents into the following folders:
 "Application Submittal – Drawings"
 "Application Submittal – Documents"

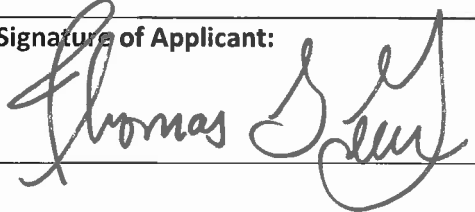
6. Once a preliminary check has been made of the submittal documents and drawings, staff will move them to permanent folders labeled Drawings and Documents. As the process evolves you will be able to log in and see markups, comments and upload revisions as requested into these folders.

APPLICANT SIGNATURE:

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.

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: 11/9/16
---	-------------------------

PROJECT DATA

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

Total Area of Site	10,601 sq. ft.
Proposed Total Disturbed Area of the Site	7,095 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)	3,460 sq. ft.
Impervious Area (Total Proposed)	9,830 sq. ft.
Building Ground Floor Area and Total Floor Area	
Building Footprint (Total Existing)	3,360 sq. ft.
Building Footprint (Total Proposed)	9,075 sq. ft.
Building Floor Area (Total Existing)	10,540 sq. ft.
Building Floor Area (Total Proposed)	25,308 sq. ft.
Zoning	
Existing	C58 (Building is a Historic Landmark)
Proposed, if applicable	C58 (Building is a Historic Landmark)
Land Use	
Existing	Assembly
Proposed	Assembly
Residential, If applicable	N/A
# of Residential Units (Total Existing)	
# of Residential Units (Total Proposed)	
# of Lots (Total Proposed)	
# of Affordable Housing Units (Total Proposed)	
Proposed Bedroom Mix	N/A
# of Efficiency Units (Total Proposed)	
# of One-Bedroom Units (Total Proposed)	
# of Two-Bedroom Units (Total Proposed)	
# of Three-Bedroom Units (Total Proposed)	
Parking Spaces	
# of Parking Spaces (Total Existing)	0
# of Parking Spaces (Total Proposed)	0
# of Handicapped Spaces (Total Proposed)	0
Bicycle Parking Spaces	
# of Bicycle Spaces (Total Existing)	0
# of Bicycle Spaces (Total Proposed)	20
Estimated Cost of Project	\$10,000,000

PRELIMINARY PLAN (Optional) - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	GENERAL WRITTEN SUBMISSIONS CHECKLIST
x		1	Completed Application form
x		1	Application fees
x		1	Written description of project
x		1	Evidence of right, title and interest
n/a		1	Evidence of state and/or federal approvals, if applicable
See Contract Zone		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.
		1	Evidence of financial and technical capacity
See PDMP		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;
x			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)
		1	* Completed Application form
		1	* Application fees
		1	* Written description of project
		1	* Evidence of right, title and interest
		1	* Evidence of state and/or federal permits
		1	* Written assessment of proposed project's specific compliance with applicable Zoning requirements
		1	* Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site
		1	* Evidence of financial and technical capacity
		1	Construction Management Plan
		1	A traffic study and other applicable transportation plans in accordance with Section 1 of the technical Manual, where applicable.
		1	Written summary of significant natural features located on the site (Section 14-526 (b) (a))
		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
		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;
X			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;
X			Existing vegetation to be preserved, proposed site landscaping, screening and proposed street trees, as applicable;
X			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 -

		Location of all existing and proposed fire hydrants and a life safety plan in accordance with Section 3 of the Technical Manual;
		Location, sizing, and directional flows of all existing and proposed utilities within the project site and on all abutting streets;
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;
		Plans showing the location, ground floor area, floor plans and grade elevations for all buildings;
		A shadow analysis as described in Section 11 of the Technical Manual, if applicable;
		A note on the plan identifying the Historic Preservation designation and a copy of the Application for Certificate of Appropriateness, if applicable, as specified in Section Article IX, the Historic Preservation Ordinance;
n/a		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.

BK 13333PG009

056583

WARRANTY DEED

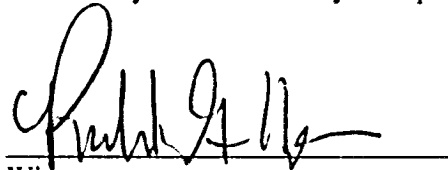
Know all Ye by these Presents,

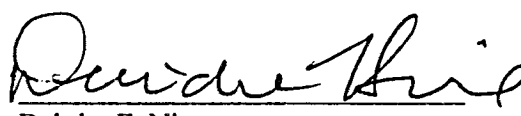
That I, DEIRDRE E. NICE (Grantor) of 4 Glen Road, Falmouth, Maine 04105,
for consideration paid, do hereby grant unto the said FRIENDS OF THE ST.
LAWRENCE CHURCH (Grantee), of 76 Congress Street, Portland, Maine 04101, with
Warranty Covenants, the following real property situated at 66-76 Congress Street, City
of Portland, County of Cumberland, described as follows:

A certain lot or parcel of land with the buildings thereon, situated in said
Portland, and being more particularly described on Exhibit A attached
hereto and made a part hereof.

Meaning and intending to convey the same premises described in a
warranty deed from Stephen P. Sunenblick and Roger Conover to Grantor
and Grantee dated December 9, 1993, and recorded in the Cumberland
County Registry of Deeds in Book 11160, Page 21.

Witness my hand this 12 day of September, 1997.


Witness


Deirdre E. Nice

STATE OF MAINE
CUMBERLAND, ss

September 12, 1997

Personally appeared the above Deirdre E. Nice, and acknowledged the foregoing
instrument to be her free act and deed.

Before me,


Attorney at Law/Notary Public

MAINE ESTATE TAX PAID

EXHIBIT A

Three certain lots or parcels of land and the church edifice and buildings on the same situated at the corners of Congress, Munjoy and Beckett Streets, in the said City of Portland and more particularly bounded and described as follows:

FIRST: Beginning at the corner formed by the intersection of the southerly side line of said Congress Street and the westerly side line of said Beckett Street; thence southeasterly by said Beckett Street forty-five (45) feet to a point; thence westerly on a line at right angles to said Beckett Street eighty (80) feet to Lot No. 1 in Block marked E. on a plan recorded in the Cumberland Registry of Deeds in Plan Book No. 4, Page 18; thence northerly by said Lot No. 1, forty-five (45) feet to said Congress Street; thence easterly by said Congress Street eighty (80) feet to the point begun at.

SECOND: Beginning at the northeasterly corner as formed by the intersection of the Southeasterly line of said Congress Street and the northeasterly line of said Munjoy Street; thence southeasterly by said Munjoy Street a distance of forty three and 27/100 (43.27) feet to a point; thence northeasterly at right angles to said Munjoy Street a distance of eighty (80) feet to a point; thence northwesterly at right angles to the last described line a distance of forty five and 69/100 (45.69) feet to Congress Street; thence southwesterly by said Congress Street to the corner begun at. Said lot is further shown on a plan of the premises recorded in said Cumberland Registry of Deeds in Plan Book 4, Page 18, and is the lot number one (1) in Block E on said Plan. The two parcels above described are the same conveyed to the St. Lawrence Street Parish by Jacob H. Groves by his deed dated September 28, 1895, and recorded in the Cumberland Registry of Deeds, Book 630, Page 261.

THIRD: Beginning at a point on the easterly side of Munjoy Street which point is forty three and 27/100 (43.27) feet southerly from the corner made by the intersection of the southerly line of Congress Street with the easterly line of Munjoy Street; thence southerly on said Munjoy Street forty three (43) feet to a point, and from these two points and keeping the same width extending back at right angles to Munjoy Street eighty (80) feet. Being the same premises conveyed to the Saint Lawrence Street Parish by John Cousens by his deed dated August 24, 1896 and recorded in said Registry, Book 639, Page 438. To the several deeds aforesaid and the records thereof reference is hereby made for further description of the premises hereby conveyed.

THIS CONVEYANCE IS MADE SUBJECT to an outstanding mortgage from the Grantor and Grantee herein to Fleet Bank of Maine, which mortgage the Grantee, as part of the consideration for this transaction, assumes and agrees to pay.

RECEIVED
RECORDED REGISTRY OF DEEDS

1997 SEP 19 PM 4: 16

CUMBERLAND COUNTY

John B O'Brien

CHESTER & VESTAL

A PROFESSIONAL ASSOCIATION

ATTORNEYS AT LAW

107 Congress Street, Portland, Maine 04101

Telephone (207) 772-7426 Fax (207) 761-5822

EDWIN P. CHESTER
BARBARA A. VESTAL
MICHAEL P. DIXON

chester@chesterandvestal.com
vestal@chesterandvestal.com
dixon@chesterandvestal.com

January 31, 2015

Nell Donaldson, Planner
Planning Division
City of Portland
389 Congress Street
Portland, Maine 04101

RE: Amended Conditional Rezoning/St. Lawrence Arts

Dear Nell:

Attached for the Planning Division records is a photocopy of the Amended Conditional Zone Agreement Re: St. Lawrence Church, with attached Exhibits A and B. As indicated on the copy, the document was recorded in the Cumberland County Registry of Deeds on January 15, 2015 in Book 32031, Pages 180 – 210.

It was a pleasure working with you on this matter.

Very truly yours,



Barbara A. Vestal

Enclosure
BAV/om
cc: Deirdre Nice

A TRUE COPY

ATTEST:

Kathrine L. Jones, City Clerk
Portland, Maine

DATE 1-12-2015

Order 101-14/15
Tab 7 12-1-14MICHAEL F. BRENNAN (MAYOR)
KEVIN J. DONOGHUE (1)
DAVID A. MARSHALL (2)
EDWARD J. SUSLOVIC (3)
JUSTIN COSTA (4)CITY OF PORTLAND
IN THE CITY COUNCILDAVID H. BRENNERMAN (5)
JILL C. DUSON (A/L)
JON HINCK (A/L)
NICHOLAS M. MAVODONES, JR (A/L)AMENDMENT TO CITY CODE
SEC. 14-49 (ZONING TEXT AND MAP AMENDMENT)
RE: FIRST AMENDMENT TO THE
CONDITIONAL REZONING AGREEMENT
FOR PROPERTY IN THE VICINITY OF
ST. LAWRENCE ARTS/CONGRESS STREET

SEAL

ORDERED, that the zoning map and text of the City of Portland, dated December 2000, as amended and on file in the Department of Planning & Development, and incorporated by reference into the Zoning Ordinance by Sec. 14-49 of the Portland City Code, is hereby amended to reflect a conditional rezoning as detailed below.

AMENDMENT TO CITY CODE
SEC. 14-49 (ZONING MAP AMENDMENT)
RE: FIRST AMENDMENT TO THE CONDITIONAL REZONING FOR
PROPERTY
IN VICINITY OF ST. LAWRENCE ARTS CENTER/CONGRESS STREET

ORDERED, that the Zoning Map of the City of Portland, dated December 2000 as amended and on file in the Department of Planning & Development, and incorporated by reference into the Zoning Ordinance by Sec. 14-49 of the Portland City Code, which was amended by a Conditional Zone Agreement dated November 4, 2010 and recorded in the Cumberland County Registry of Deeds in Book 28250, Page 201. is hereby further amended to reflect an amended conditional rezoning as detailed below:

AMENDED CONDITIONAL ZONE AGREEMENT
RE:
ST. LAWRENCE CHURCH

AGREEMENT made this 12 day of January, ²⁰¹⁵~~2014~~ by Friends of the St. Lawrence Church, 76 Congress Street, Portland, Maine ("Developer"), and its successors and assigns.

WITNESSETH

WHEREAS, the Developer owns land located at 76 Congress Street, and more particularly described in a deed from Deirdre E. Nice dated September 12, 1997 and recorded in the Cumberland County Registry of Deeds in Book 13333, Page 9 (the "Property"); and

WHEREAS, the existing building and a previously dismantled portion of the building located on the Property were formerly used as the St. Lawrence Congregational Church until 1986; and

WHEREAS, in 1996, the St. Lawrence Arts Center was founded; and

WHEREAS, in 2001, the building located on the Property had two principal portions, the sanctuary and the parish hall; and

WHEREAS, in 2001, the parish hall portion of the building was renovated to house a one hundred and ten (110) seat theater, green room, art studio workshops and staff offices; and

WHEREAS, in 2008, the sanctuary portion of the building was dismantled due to structural failure; and

WHEREAS, a conditional rezoning was approved in 2010 which was based upon a reconstruction of the dismantled sanctuary, but that reconstruction proved to be economically infeasible, so the Developer is seeking an amendment to the 2010 conditional rezoning which retains the same programmatic functions as proposed and approved in 2010 but contains them in a new rather than a reconstructed structure; and

WHEREAS, the Developer, as in 2010, proposes and intends to renovate the parish hall theater in order to increase its seating capacity to one hundred and twenty (120) seats substantially in accordance with the plans submitted as Exhibit A attached hereto; and

WHEREAS, the Developer proposes and intends to -reconstruct a performance arts hall on the site of the former sanctuary to provide a full basement for "back of house" green rooms, ADA toilets and storage; a lobby that serves both the auditorium and theater space, a top floor "promenade room"/additional lobby, and a new four hundred and one (401) seat auditorium substantially in accordance with the plans submitted as Exhibit A attached hereto; and

WHEREAS, the Developer proposes and intends to develop the building on the Property as an energy efficient and ~~LEED-certified facility~~; and

WHEREAS, the Developer intends to maintain the character of the original parish house, and construct a new structure which will respect the character-defining features of the historic and Property and complement the adjacent residential neighborhood; and

WHEREAS, the ~~existing underlying~~ zoning is R-6 which has dimensional requirements that the existing structure on the site does not meet; and

WHEREAS, the Developer has requested an amended rezoning of the Property in order to permit the proposed development of the Property; and

WHEREAS, the proposed community hall use of the Property is consistent with the Comprehensive Plan and existing and permitted uses in the underlying zone and neighborhood, which include a mix of residential, commercial and institutional uses including churches places of assembly, schools, the Portland Observatory Museum and the Portland Company Marine Complex; and

WHEREAS, the City's Comprehensive Plan calls for strengthening neighborhood identity through cultural programming and creating connections between neighborhoods and the Arts District; and

WHEREAS, the City's Comprehensive Plan calls for the preservation of the Downtown's Portland's unique identity and historic fabric through the re-use of existing structures and the development of new construction that is respectful of the built and natural surroundings; and

WHEREAS, the City's Comprehensive Plan promotes the enhancement of Portland's cultural community and creative economy through retaining and encouraging arts and cultural organizations and retaining and expanding performance and exhibition space, studio space and office/support space for artists, institutions and organizations; and

WHEREAS, the Planning Board, after notice and hearing and due deliberation thereon, recommended the rezoning of the Property as aforesaid, subject, however, to certain conditions contained in this Agreement; and

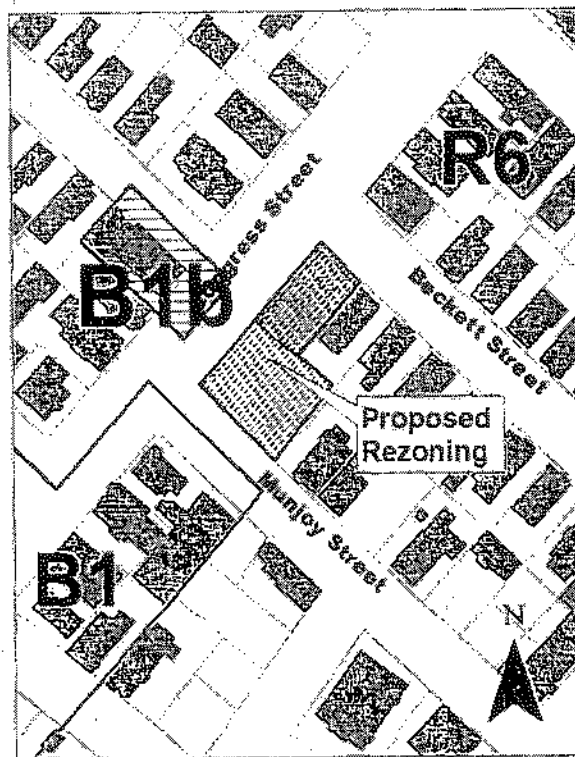
WHEREAS, the Portland City Council, pursuant to 30-A M.R.S.A. § 4352(8) and Portland City Land Use Code (the "Code") §§ 14-60 to 14-62, after notice, hearing and due deliberation thereon, has determined that because of the unusual nature and unique location of the proposed development, and its minimal impact on and compatibility with the surrounding community, it is necessary and appropriate to recommend the amended rezoning of the Property as aforesaid, with the following conditions and restrictions set forth in this Agreement; and

WHEREAS, the Portland City Council has on December 15, 2014 approved this Agreement in its entirety, by City Council Order No. 101-14/15, a true copy of which is attached hereto as Attachment 1 (the "Order");

NOW, THEREFORE, in consideration of the rezoning, the Developer covenants and agrees as follows:

1. Pursuant to the Order, the City shall amend the Zoning Map of the City of Portland, dated September, 2000 (as amended from time to time and on file in the Department of Planning and Urban Development, and incorporated by reference into the Zoning Ordinance by § 14-49 of the Code) by adopting the map change amendment shown below to zone the property conditional R-6, subject to the conditions contained below.

Image 1: Proposed Rezoning



Prepared by Department of Planning and Development based on GIS Workgroup Data

If this Agreement is not recorded within sixty (60) days after the effective date of the City Council's approval of the Order, then the first amendment to the conditional rezoning shall become null and void and the zoning of the Property shall revert to the pre-existing R-6 zone or the equivalent zone in effect at the time of reversion.

2. Notwithstanding section 14-137(b)(6)(c)(i), the use of the Property shall be considered and be operated as a place of assembly/community hall.

3. The underlying dimensional requirements of the R-6 zone shall apply and are modified as follows:

- a. Minimum lot Size: 10,500 square feet.
- b. Minimum Yard Dimensions:
 - 1. Front yard: 0 feet.
 - 2. Rear Yard: 0 feet.
 - 3. Side Yard on Side Streets: 0 feet.
- c. Maximum Lot Coverage: 905%.
- d. Maximum Tower Height: 90 feet NA.
- e. Maximum Sanctuary Structure Height: 5465 feet.
- f. Open Space Ratio: 0%.
- g. Minimum Lot Width: 50 feet
- h. The following plans and documents are attached hereto and incorporated into this agreement by reference. The Property will be developed substantially in accordance with these plans and documents, provided, however, that the development of the Property shall be subject to site plan review by the Planning Board and to review by the Historic Preservation Board. Any site plan or historic preservation review applications shall fully comply with the application requirements in the City's Land Use Code. The Planning Board and Historic Preservation Board may require modifications to these documents during their review: subject to such subsequent modifications as may be required by the Planning Board during site plan review and by the Historic Preservation Board during its review and approval: Site Plan A0.01 dated October 15, 2014, Floor Plans A1.00 through A1.04 dated January 16, 2014, and Elevations A2.00 through A2.03, dated September 10, 2014, St. Lawrence Arts Addition for Friends of the St. Lawrence Church by Archetype Architects.

4. The proposed theater in the parish hall shall have no more than one hundred and twenty (120) seats, and the proposed auditorium on the former sanctuary site shall have no more than four hundred and fiveone (4015) seats. The Developer and its successors and assigns shall not be permitted to hold separate audience events in the parish hall and the sanctuary auditorium at the same time. The Developer shall be permitted to hold a separate event in the Promenade Room when another concurrent event is being held in the parish hall or the sanctuary auditorium. This does not preclude the Developer from using the parish hall, the Promenade Room and/or the

sanctuary auditorium for one (1) single event with the total number of attendees of said event not to exceed four hundred and eighty five (485) people. Under no circumstances may more than 485 attendees of any single event or combination of events be present on the Property at the same time.

5. The owner of the Property shall be responsible for ongoing maintenance of the Property, including snowplowing, salting, sanding, sweeping, lighting, trash removal (at least weekly), mowing, etc.

6. Prior to the issuance of a Certificate of Occupancy, the Developer shall install, according to City specifications, new brick sidewalk along the Munjoy Street, Beckett Street and Congress Street property frontages and shall reset, as necessary, the existing pink granite curbing. If, at the time of site plan review, the Public Services Department determines that the curbing is in poor condition, the applicant shall replace it, as necessary.

7. Prior to the issuance of a Certificate of Occupancy, the Developer shall provide two (2) trees along each of the Munjoy Street, Beckett Street and Congress Street property frontages. If healthy street trees are already in place along any of these frontages, they may be counted towards this requirement. The size and type of trees to be planted shall be approved by the Portland City Arborist or their designee. If, due to site constraints, the Developer is unable to provide the two (2) required trees per street frontage, they shall contribute \$200.00 per tree or, if the required contribution is greater at the time of the application, that amount, to the City of Portland's Tree Fund. This contribution, if necessary, is independent of any conditions which the Planning Board may lawfully require under site plan review. The Planning Board shall not be authorized, however, to waive this requirement.

8. Prior to the issuance of a Certificate of Occupancy, the Developer shall, at its own expense, install a minimum of two (2) municipal street lights along the Congress Street frontage of the property that meet the specifications and color designated for the Downtown Lighting District, as detailed in the Municipal Street Lighting Standards of the City of Portland Technical Manual, or of a type as may be specified by the City Lighting Plan at the time of the application or by the Planning Division.

~~9. Prior to the issuance of a Certificate of Occupancy, the Developer shall construct any remaining sidewalk connections and sidewalk ramps meeting City technical standards at the intersection of Congress Street and Eastern Promenade on both sides of the street and at the intersection of Moody Street and Eastern Promenade on both sides of the street, unless these improvements are already in place at the time of the application. This may include walkway connections to the Cutter Street parking lots as described in the Eastern Promenade Master Plan (2004).~~

9. Prior to the issuance of a Certificate of Occupancy, the developer shall install any remaining crosswalks, ADA-compliant sidewalk ramps, and other pedestrian improvements meeting City technical standards at the intersections of Congress Street

and Beckett Street or Howard Street and Congress Street and Munjoy Street, unless these improvements are already in place at the time of application.

10 The Developer shall submit a transportation demand management ("TDM") plan during site plan and conditional use review for review and approval by the Planning Board in a form substantially in accordance with Exhibit B attached hereto as a starting point subject to Planning Board and applicant modification during Site Plan Review (the terms of the attached TDM are incorporated by reference herein). The requirement of TDM plan shall supersede any and all parking requirements under the Land Use Code for the Property. During the site plan review process, the Planning Board shall provide a communication to the City Council that may include recommendations, if the Board deems it necessary, for additional on-street parking regulations in the vicinity of the project site. These may include but shall not be limited to two (2) hour parking limits and/or a residential parking program.

The TDM plan shall include provisions for the contribution of \$70,000 annually to the city's Sustainable Transportation Fund, with the initial contribution due at the time of Certificate of Occupancy. This funding shall be designated at the city's sole discretion consistent with the provisions of Section 14-346.2 for improvements intended to enhance transportation choice, promote transit, and/or promote non-automotive transportation to and from Munjoy Hill, and shall initially be used for improvements to Greater Portland Transit District's #1 Line, which serves Congress Street and Munjoy Hill. If, following monitoring of the TDM plan, the Planning Board or Planning Authority deem other transportation demand management strategies to be more effective in meeting the benchmarks of the TDM plan, the Planning Board or Planning Authority may recommend redesignation of those funds toward such strategies.

The TDM plan shall include monitoring provisions to periodically review the efficacy of the plan over time. The efficacy of the TDM plan shall be reviewed by the TDM plan administrator within three (3) months from the issuance of the certificate of occupancy. The results shall be promptly provided to the City for evaluation upon completion of the review. From that time forward, the TDM plan administrator shall review the TDM plan and report results to the City for evaluation on, at a minimum, an annual basis or in accordance with the TDM monitoring schedule outlined in the TDM plan. Changes to the TDM plan as a product of monitoring shall be reviewed and approved by the Planning Authority.

If at the time of review (and/or at any time thereafter) the City and/or the Developer has received any five (5) or more complaints within a one (1) year period about traffic/parking generated by the use of the facility, the Developer shall report that information to will be required to institute a review process, working in concert with the Planning Authority as part of the annual review process, in accordance with sub-paragraph F of the attached TDM plan.

11. The Developer shall be responsible for ensuring that tour buses, vans and trucks affiliated with performances and events at the Property unload and then relocate to a remote, off street parking location away from the venue for the duration of the event.

12. The provisions of this Agreement are intended to replace and/or supersede the requirements of the underlying R-6 zone and the requirements of the 2010 conditional rezoning. As stated above, to the extent not otherwise altered herein, the zoning requirements for the R-6 zone shall otherwise apply to the Property.

13. In the event of a breach by the Developer or its successors or assigns of the zoning provisions and conditions contained herein (whether the Zoning Administrator, the Planning Authority, the Zoning Board of Appeals or a court determines such breach), the Planning Board, after notice and hearing, may recommend to the City Council that the conditional zone and this Agreement be amended, or be rescinded, such rescission to result in the termination of this Amended Agreement and a reversion of the Property to the underlying R-6 zone requirements in place before the execution of this Agreement or its equivalent in effect at the time of the reversion.

14. The above stated restrictions, provisions, and conditions are an essential part of the rezoning, shall run with the Property, shall bind and benefit the Developer, any entity affiliated with the Developer that takes title to the Property, its successors and assigns, and any party in possession or occupancy of said Property or any part thereof, and shall inure to the benefit of and be enforceable by the City of Portland, by and through its duly authorized representatives. The Developer shall file a counterpart original of this Agreement in the Cumberland County Registry of Deeds.

15. This amended conditional rezoning shall become null and void and the Property shall revert to the pre-existing R-6 zone or its equivalent in effect at the time of the reversion in the event that the Developer fails to commence construction within ten (10) years from the date of the Council approval of this amended rezoning agreement. This ten (10) year period shall be extended up to an additional one (1) year period if:

- a. The Developer has applied for all required approvals but has not received all required approvals within the aforementioned ten (10) year period; or
- b. Any other event beyond the control of the Developer has occurred which will delay the closing on some or all of the parcels and Developer has notified the City of such event.

If any required approval, including the Council's approval of this amended conditional rezoning, has been appealed, then this rezoning shall become null and void and shall revert to the underlying R-6 zoning or its equivalent in effect at the time of the reversion if the Developer fails to commence construction within one (1) year from the final disposition of such appeal or the above mentioned ten (10) year period, whichever occurs last.

16. This amended conditional rezoning agreement shall be enforced pursuant to the land use enforcement provisions of state law including, but not limited to, 30-A MRSA § 4452 and the Portland City Code.

17. If any of the restrictions, provisions, conditions, or portions thereof set forth herein is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed as a separate, distinct, and independent provision and such determination shall not affect the validity of the remaining portions hereof.

18. Except as expressly modified herein, the development shall be governed by and comply with the provisions of the Portland City Code and any applicable amendments thereto or replacement thereof.

WITNESS: *Deirdre Nice*

FRIENDS OF THE ST. LAWRENCE CHURCH

Deirdre Nice

BY: Deirdre Nice
Its Executive Director

1/12/2015

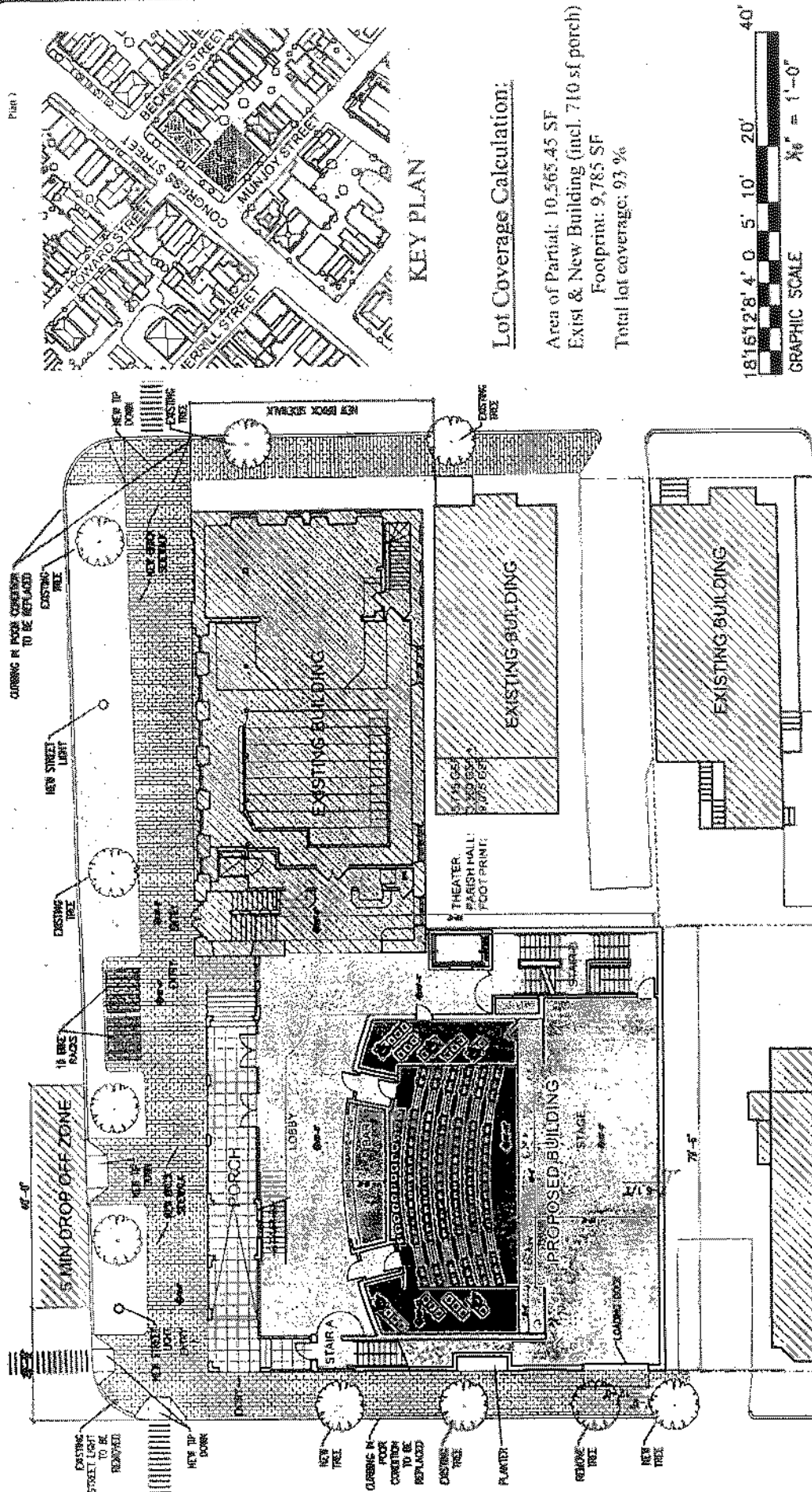
STATE OF MAINE
CUMBERLAND, ss.
20104 2015

Personally appeared before me the above-named Deirdre Nice, in his/her capacity as Executive Director of FRIENDS OF THE ST. LAWRENCE CHURCH, and acknowledged the foregoing instrument to be his/her free act and deed in his/her said capacity and the free act and deed of said corporation.

Before me,

Katherine L. Jones

Notary Public/Attorney at Law



Lot Coverage Calculation:

Area of Partial: 10,565.45 SF
Exist & New Building (incl. 710 sf porch)
Footprint: 9,785 SF
Total lot coverage: 93 %

SITE PLAN

Date: 15 OCT 1974 5034 1116 = 1160

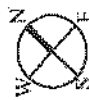
ST. LAWRENCE ARTS
ADDITION36 CONGRESS STREET
FOXBORO, MASSACHUSETTS 01521

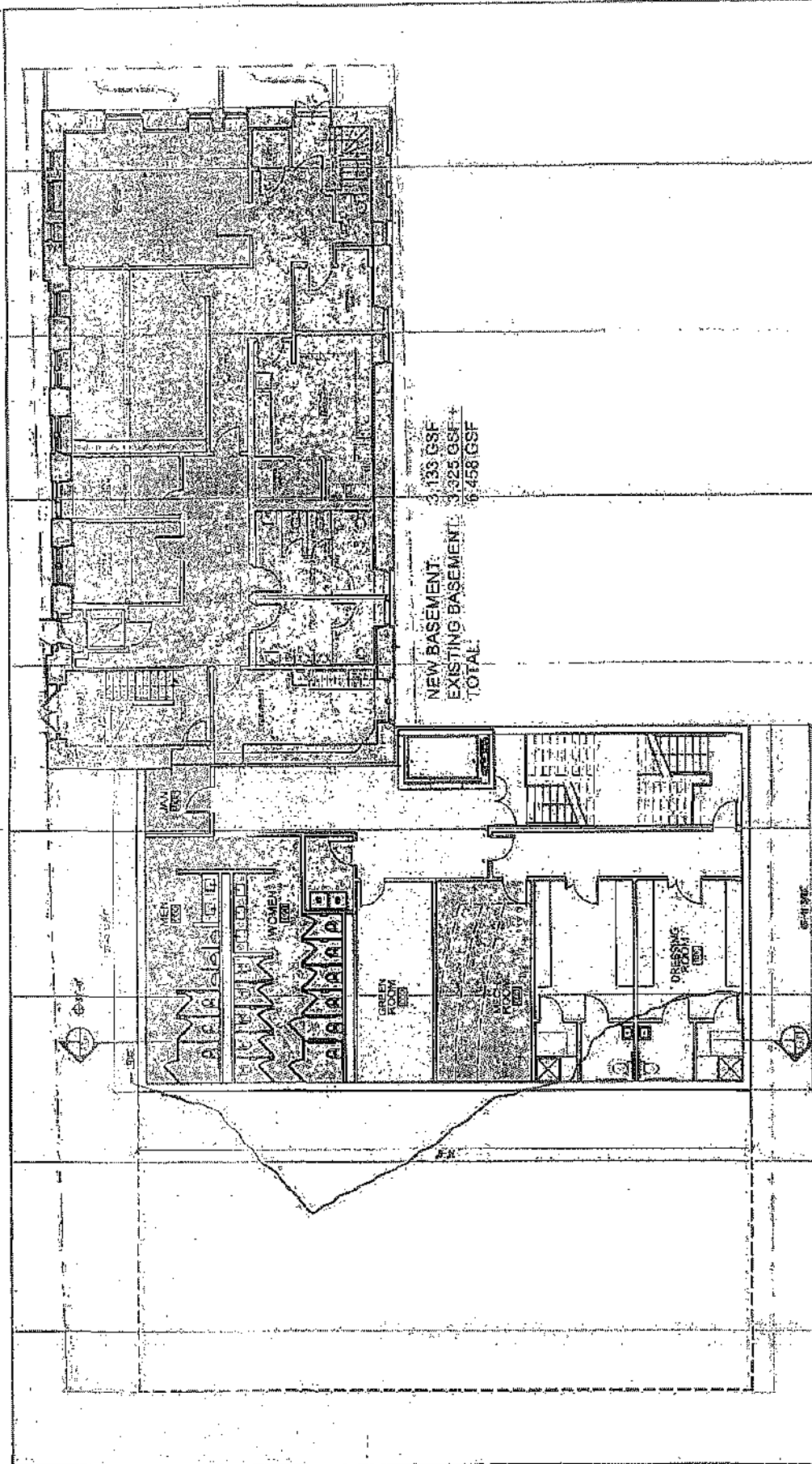
PROJECT

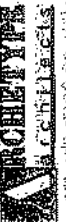
Architects
26 Union Wharf, Portland, Maine 04101

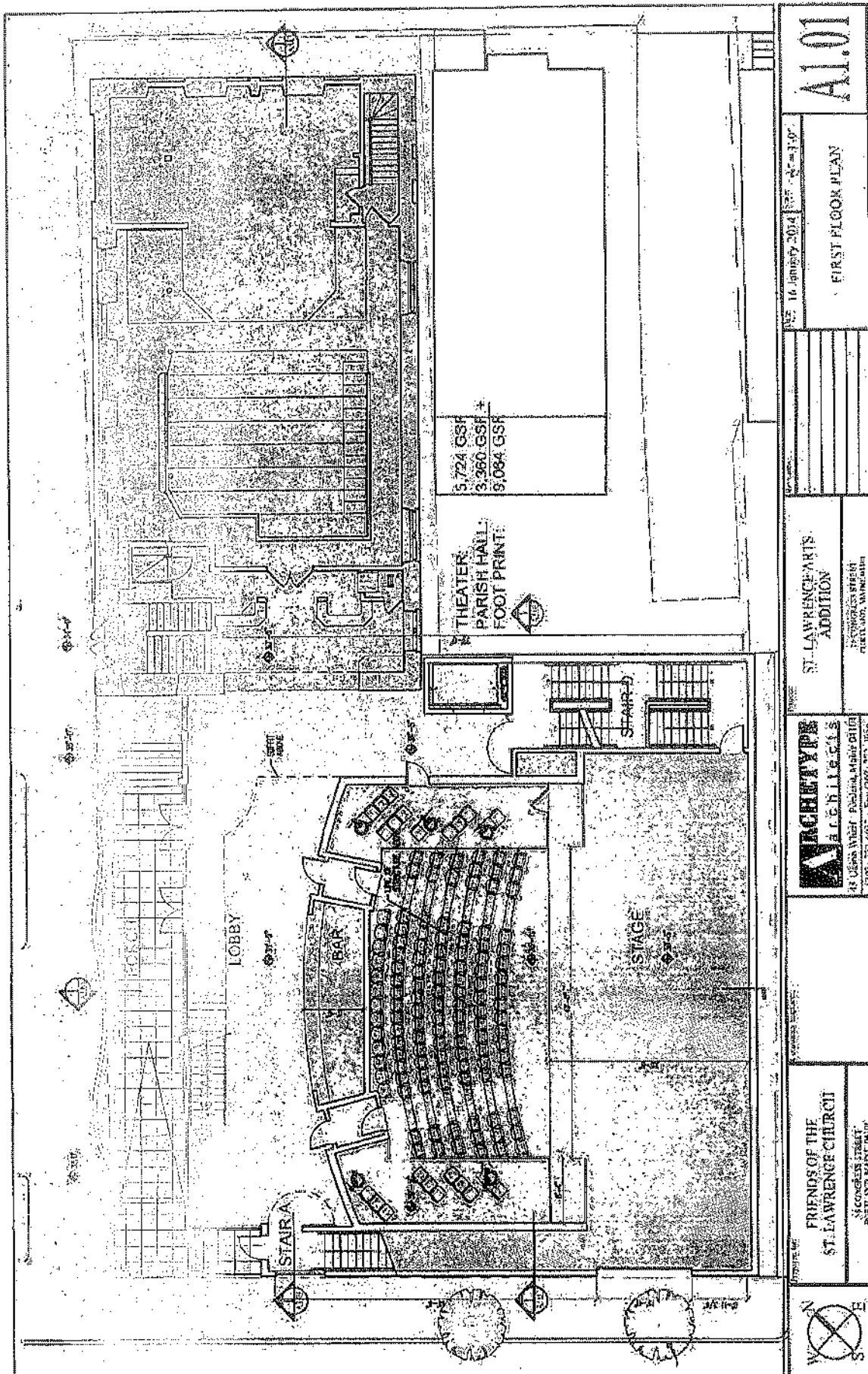
DATE: _____

FRIENDS OF THE
ST. LAWRENCE CHURCH

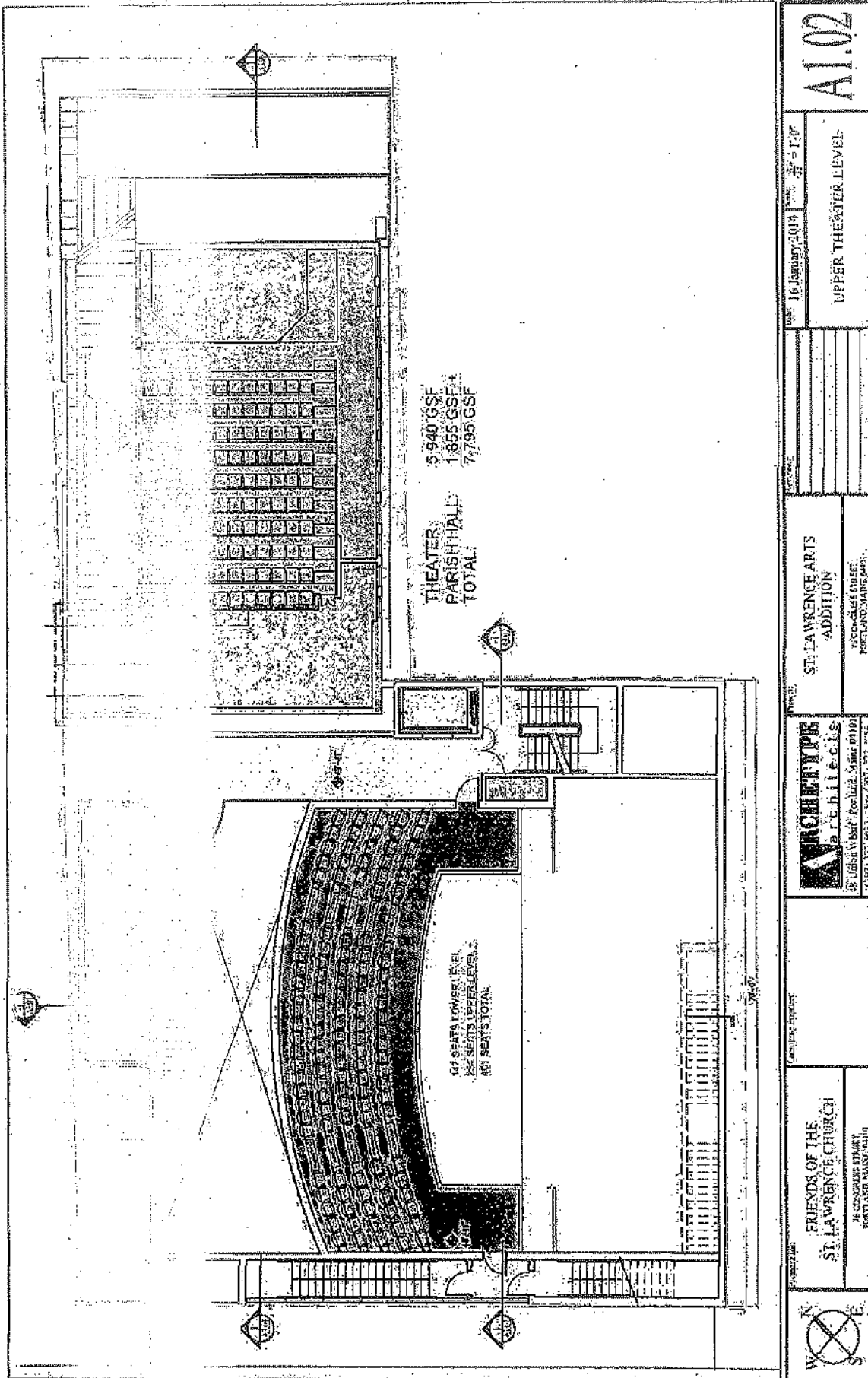
[illegible]

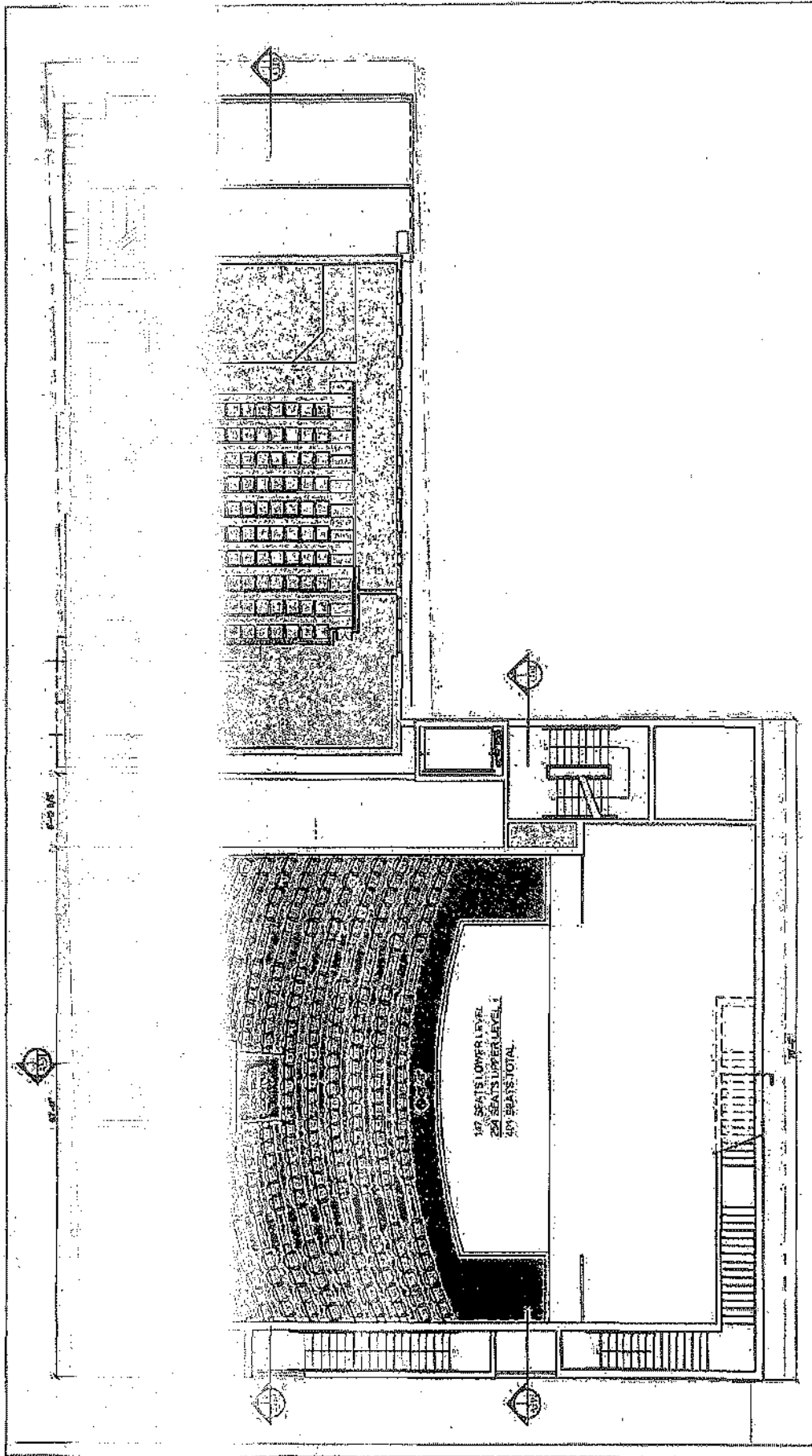


	FRIENDS OF THE ST. LAWRENCE CHURCH 2100-1000 10TH ST PORTLAND, OREGON 97201		ARCHITECT  411000 10TH ST PORTLAND, OREGON 97201 (503) 273-0012 FAX (503) 273-0063	ST. LAWRENCE ARTS ADDITION 16 CONGRESS STREET PORTLAND, OREGON 97201	BASEMENT PLAN	A1.00
	DATE: 16 January 2019					

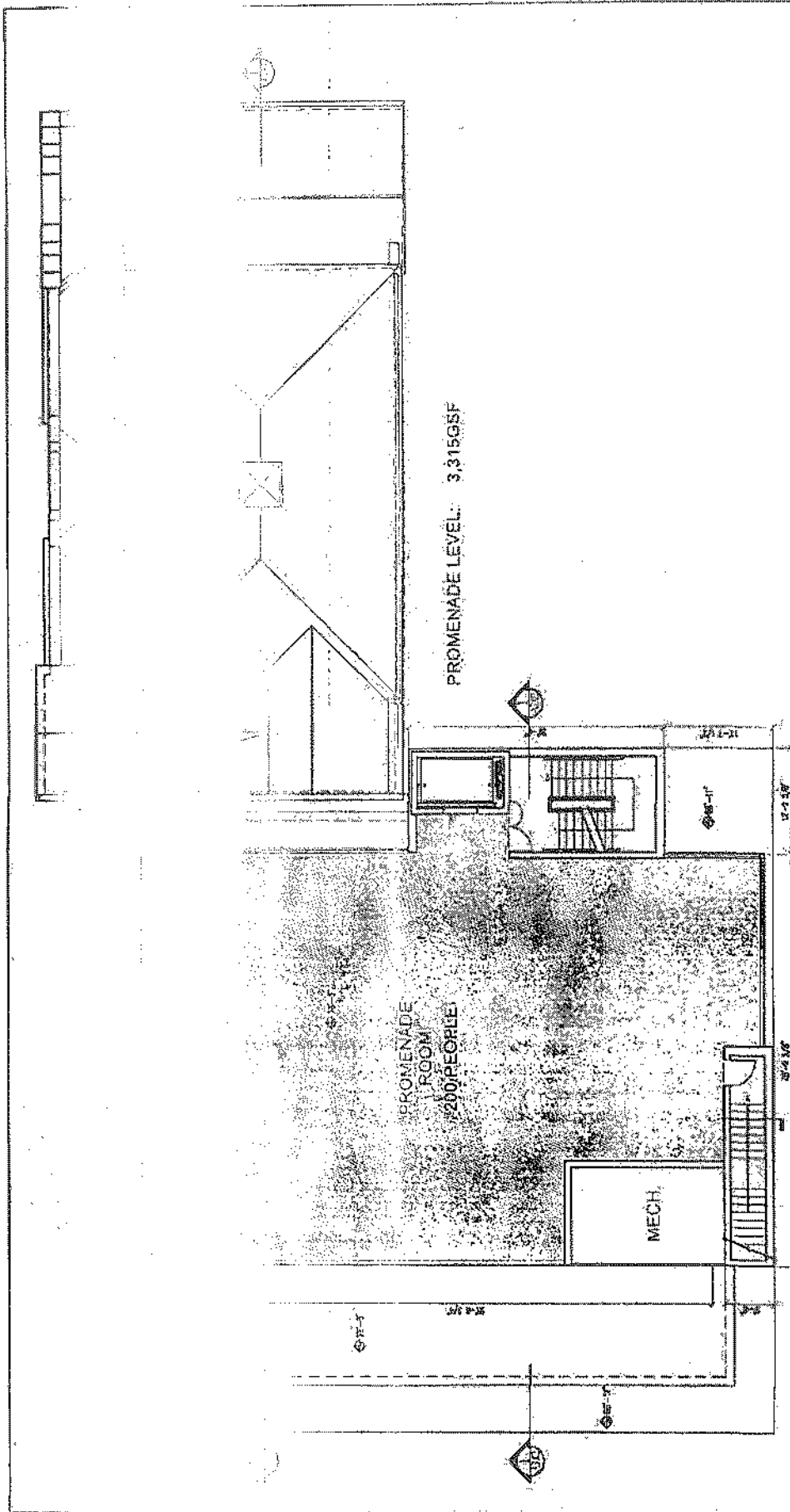


PROJECT: FRIENDS OF THE ST. LAWRENCE CHURCH 11000 11th Street Portland, Maine 04101	DATE: 16 January 2014 SCALE: 1/8" = 1'-0"	PROJECT: ST. LAWRENCE ARTS ADDITION 11000 11th Street Portland, Maine 04101	ARCHITECT: ARCHITECTURE 48 Union Street Portland, Maine 04101 (207) 773-2001 Fax (207) 773-2010	PROJECT: ST. LAWRENCE ARTS ADDITION 11000 11th Street Portland, Maine 04101	DATE: 16 January 2014 SCALE: 1/8" = 1'-0"	PROJECT: ST. LAWRENCE ARTS ADDITION 11000 11th Street Portland, Maine 04101	PROJECT: ST. LAWRENCE ARTS ADDITION 11000 11th Street Portland, Maine 04101
--	--	--	--	--	--	--	--



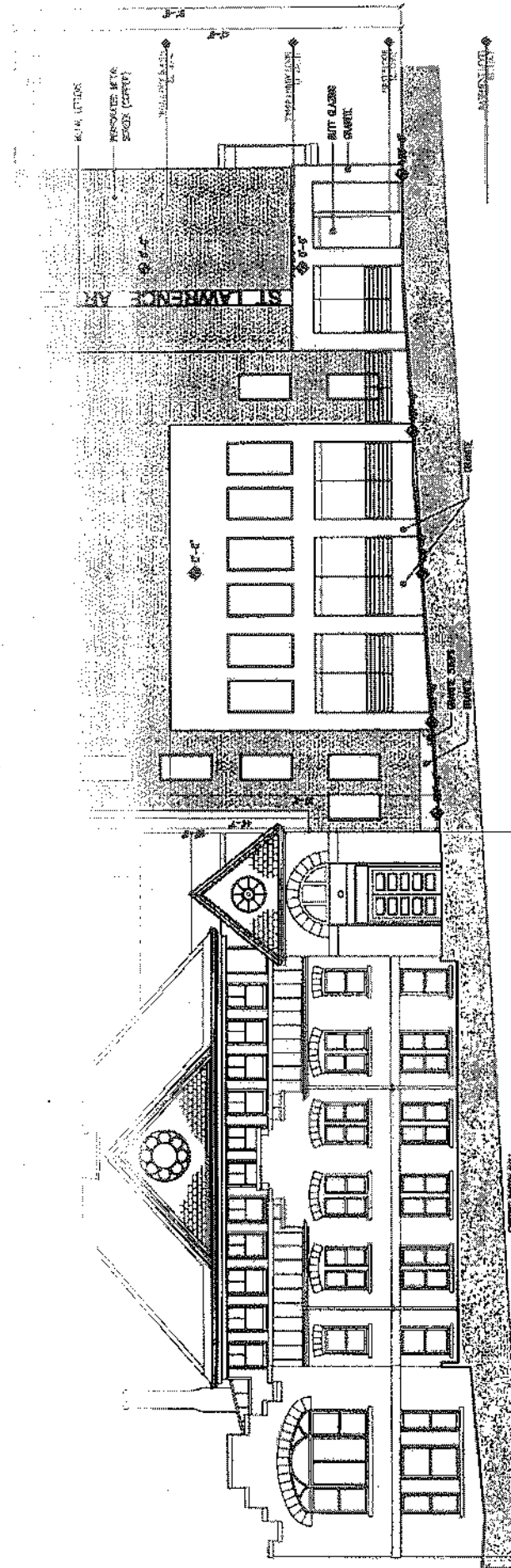


	PROJECT FRIENDS OF THE ST. LAWRENCE CHURCH - 38 CONGRESS STREET - PORTLAND, ME 04101	ARCHITYPE a r c h i t e c t s 23 Green Wall Street Portland, Maine 04101 Tel: 207.723.4000 Fax: 207.723.4000	ST. LAWRENCE ARTS ADDITION - 38 CONGRESS STREET - PORTLAND, MAINE 04101	DATE 16 January 2014	SCALE 1" = 10'	PROJECT UPPER THEATER LEVEL CONTINUED	PROJECT A1.03
--	--	--	---	--	----------------------------------	---	---------------------------------

[illegible]

Plan 76

ST. LAWRENCE CHURCH
36 CONGRESS STREET
PORTLAND, MAINE 04101



10' 8" 6' 4" 2' 0" 5' 10' 20'
GRAPHIC SCALE 1/32" = 1'-0"



Project for
**FRIENDS OF THE
ST. LAWRENCE CHURCH**
36 CONGRESS STREET
PORTLAND, MAINE 04101

Consulting Engineer:

ARCHETYPE
architects
48 Union Street Portland, Maine 04101
(207) 773-8022 Fax: (207) 773-4026

Client
**ST. LAWRENCE ARTS
ADDITION**
14 CONGRESS STREET
PORTLAND, MAINE 04101

Date: 10 Sept. 2014 Scale: 1/32" = 1'-0"
NORTH ELEVATION

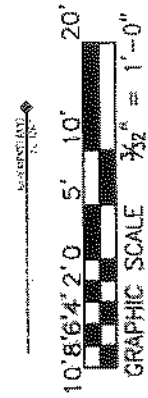
A2.00



10' 8' 6' 4' 2' 0' 5' 10' 20'

GRAPHIC SCALE $\frac{1}{32}'' = 1'-0''$

	FRIENDS OF THE ST. LAWRENCE CHURCH 78 CONGRESS STREET PORTLAND, MAINE 04101	ARCHETYPE architects 48 Union Wharf Portland, Maine 04101 (207) 773-6022 Fax (207) 772-4056	ST. LAWRENCE ARTS ADDITION 78 CONGRESS STREET PORTLAND, MAINE 04101	SCALE: _____ DRAWN BY: _____ CHECKED BY: _____ DATE: _____	10 Sept. 2014 SOUTH ELEVATION A2.02
				Prepared for: _____ Consulting Engineer: _____ Project: _____ Date: _____	





PO Box 1237
15 Shaker Rd.
Gray, ME 04039

207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

October 1, 2014

Deirdre Nice, Executive and Artistic Director
St Lawrence Art Center
76 Congress Street
Portland, ME 04101

Subject: Parking Demand Management Plan
St. Lawrence Arts Center
76 Congress Street Portland, Maine

Dear Ms Nice:

Gorrill-Palmer Consulting Engineers, Inc (GP) completed an evaluation of the parking demand anticipated when the capacity at St Lawrence Arts (SLA) on Congress Street in Portland is expanded from a capacity of 110 to 485 and worked with SLA to develop a Parking Demand Management Plan. The Performance Hall will be 401 seats; however, 485 is the limit set under the current Conditional Rezoning Agreement (2010) and is the number used to estimate parking demand. This report takes into consideration the comments and suggestions provided by an outside peer review (Nelson Nygaard Consulting) on the first TDM completed January, 2014, as well as input from City of Portland planning staff. GP and SLA appreciate that the peer review focused on tangible solutions to discourage patrons of SLA from seeking parking primarily on residential streets directly near the building. SLA plans to implement a combination of solutions to successfully mitigate a parking problem for Munjoy Hill residents, and businesses, as well as patrons of SLA.

Estimate of Parking Demand

There are three potential sources to estimate the parking demand for the facility. Each of these sources is discussed below:

Institute of Transportation Engineers

The Institute of Transportation Engineers (ITE) publication, "Parking Generation, 4th Edition" presents parking rates for various land uses based on studies across the country. Land Use 441, Live Theater projects an average parking ratio of 0.38 vehicles per attendee with a range of 0.37 to 0.40 vehicles per attendee based on rural sites with an average of 800 attendees. The information was based on four studies. Since SLA is only projected to have capacity for 485 and the trip rate increases with fewer attendees, the rate would likely be closer to 0.40 vehicles per attendee.

Gorrill-Palmer Consulting Engineers, Inc.

Ms Deirdre Nice
October 1, 2014
Page 2 of 12

St Lawrence Arts Survey Data

SLA has furnished our office with the results of surveys of attendees to two Friday night shows which started at 7:30 p.m. on October 25, 2013 and December 13, 2013. The results are summarized below:

DATE	ATTENDANCE	SURVEYS COMPLETED	PARKING RATIO	NO. OF VEHICLES
10-25-13	103	103	0.54	56
12-13-13	110	110	0.40	44

It is our understanding that the October show attracted an older crowd and therefore the number of people traveling by car may have been higher than other shows.

Staff Demand- Based on information provided by SLA, an attendance of 401 people (sold-out performance) will require 10 staff members. Assuming each staff member commutes in their own vehicle results in a need for 10 staff parking spaces.

Parking Observations

A parking study was conducted by Gorrill-Palmer Consulting Engineers, Inc. on October 25th, the same night as the first survey was distributed to attendees. Two counts were conducted, the first was done before the show (5:45 p.m. to 7:00 p.m.) and the second was completed during the show (7:40 p.m. to 9:10 p.m.). Parked vehicles were counted on all surrounding streets within a half-mile radius of SLA. However, vehicles parked in the vicinity of SLA were the main focus. A walking radius was measured from a one minute walk to the St Lawrence Arts Center up to a four minute walk, assuming the average person walks 3 feet per second (180 feet per minute).

The increase in parked vehicles during the show is provided below:

LENGTH OF WALK	WALKING RADIUS	# OF VEHICLES BEFORE SHOW	# OF VEHICLES DURING SHOW	DIFFERENCE (+/-)
1 minute	180 feet	36	45	+ 9
2 minutes	360 feet	129	147	+ 18
3 minutes	540 feet	293	336	+ 43
4 minutes	720 feet	415	490	+ 75
5 minutes	900 feet	544	664	+ 120

Although we might find these results informative and useful, we can't assume the entire difference of vehicles is representing SLA. The Front Room is a local restaurant and bar located across the street from

Gorrill-Palmer Consulting Engineers, Inc.

Ms Deirdre Nice
October 1, 2014
Page 3 of 12

SLA, a popular spot on a Friday evening. Venues, like The Front Room, located near SLA can also influence the demand. Based on these considerations, the 56 vehicles based on the survey appear reasonable.

Comparing Estimates

The parking rate of 0.40 based on ITE coincides with the 0.40 ratio determined from the December show but is less than the 0.54 determined from the October show. However, as previously mentioned, the October show attracted an older crowd and therefore the number of people traveling by car may have been higher than other shows. In addition, as a general principal, parking ratio can be expected to decline as the number of seats increases.

Recommendation for Number of Spaces

After consideration of these variations, our office estimates a demand of 228 spaces (0.45 vehicles per attendee) for the site. This number comprises 218 cars from patrons, and 10 cars for staff. It is our understanding that SLA will distribute a policy to staff and performers that staff park at a set distance from the Performance Hall. This policy will apply to any performers, cast and crew travelling by bus to the Performance Hall in their own vehicle. Performers, cast, and crew who arrive in a bus will be able to unload on Munjoy Street, and all buses will be contractually required to park in an accommodating lot (i.e. not on a residential street). The recommendation for 228 spaces exceeds that forecast by ITE for a live theater and observed during the December show but less than the 0.54 ratio derived from October show which attracted an older crowd. Nelson Nygaard's review of the parking demand for a 401-seat Performance Hall in the Munjoy Hill neighborhood estimates that SLA will need to provide 122 parking spaces. Our parking analysis cited a need for 228 parking spaces, which is based on occupancy of 485 among the three different spaces (Parish Hall Theater, Performance Hall, and the Promenade Room) for one event. It should be noted the typical maximum audience will not exceed 401 people, and many times much less. It is our opinion that 228 spaces is more realistic as it is based on statistically significant surveys conducted during sold-out performances of the current 110-seat Parish Hall Theater (10/25/2013 and 12/13/13) operated by SLA. Furthermore, an independent survey of needed parking spaces for the venue conducted by members of the Concerned Citizens of Munjoy Hill (CCMH) complemented the recommended 228 spaces and therefore, we have proceeded drafting the plan based on a need of 228 spaces.

During the first year of monitoring, SLA will determine the actual parking demand. Once the actual number has been established, SLA will base its monitoring and reduction of single occupancy vehicle (SOV) goal upon the correct and realistic parking demand.

Gorrill-Palmer Consulting Engineers, Inc.

Ms Deirdre Nice
October 1, 2014
Page 4 of 12

Parking Supply

A count was also done of the total number of occupied parking spaces on each street within a 900 foot radius of the SLA on Tuesday evening, December 10th beginning at midnight. The purpose of the counts was to estimate the number of spaces used by the area residences and most of the parking that late at night should be associated with residences. The results of these parking observations are provided as follows.

<i>Length of Walk</i>	<i>Walking Radius</i>	<i># of Spaces</i>	<i># Occupied 12:00 midnight Tuesday</i>	<i>Available Spaces</i>
1 minute	180 feet	42	30	12
2 minutes	360 feet	144	107	37
3 minutes	540 feet	345	273	72
4 minutes	720 feet	551	436	115
5 minutes	900 feet	838	659	179

The Cutter Street parking lots located on the Eastern Promenade were vacant during our surveys and have a capacity of 95 vehicles. Results of the Cutter Street parking lots are provided on the following page.

<i>Parking Area</i>	<i># of Available Spaces</i>
Lower Parking Lot	24
Middle Parking Lot	35
Upper Parking Lot	15
On-Street Parking	21
Total:	95

Combining the results of the available on-street parking and Cutter Street lot parking, a total of 274 spaces are available to attendees.

Parking Demand and Supply

As discussed in the "Recommendations for Number of Spaces" section, SLA will typically incur a parking demand of approximately 228 vehicles (including 10 cars for staff) during show events. Though these spaces have been identified, SLA plans to encourage patrons to park downtown and travel by public transportation to the facility.

The available parking in the vicinity of the site is as follows:

- 179 on-street automobile parking spaces
- 95 Cutter Street automobile parking spaces

Gorrill-Palmer Consulting Engineers, Inc.

Ms Deirdre Nice
October 1, 2014
Page 5 of 12

This will provide 274 automobile parking spaces for attendees of each show. The 179 on-street parking spaces are based on a 5 minute walk radius around SLA.

Transportation Demand Management (TDM)**Purpose of Plan**

The City of Portland requires the creation of a Transportation Demand Management Plan for all projects in excess of 50,000 square feet, or with 100 or more employees or students. SLA meets these requirements. However, in the case of this project, the TDM Plan serves a series of important needs:

- Make maximum use of nearby existing transit infrastructure
- Reduce peak hour trip impacts to adjacent roadway infrastructure
- Reduce the amount of needed parking on-site, especially as land is limited
- Encourage healthy activities

It is important to note that this Plan should not be viewed as a series of fixed, or unchanging recommendations. It is a living document intended to be reviewed and updated on a regular basis as SLA works with changes in local transportation patterns, preferences, and prices. Ultimately, the goal will be to make significant reductions in peak hour single-occupancy vehicle (SOV) activity on the local street networks as well as the need for on-site parking.

TDM Coordinator

SLA has designated its Executive Director as the TDM Coordinator, charged with coordinating the TDM plan. The TDM coordinator will be responsible for the following:

- Coordinating and promoting rideshare opportunities
- Coordinating with and promoting Metro
- Monitoring parking usage
- Overseeing event scheduling
- Encouraging the greater use of bicycling, walking, and bus-based transit
- Overseeing ongoing monitoring and updating of the plan
- Filing annual reports with the City

Gorrill-Palmer Consulting Engineers, Inc.

Ms Deirdre Nice
October 1, 2014
Page 6 of 12

The proposed TDM plan will be utilized during both public and private (i.e. corporate rental) events.

Single Occupancy Reduction Strategies

METRO Subsidies

SLA is located on Munjoy Hill in Portland on Congress Street. Its location is nearby the following transit services:

- *Metro Route 1, Congress Street:* Portland METRO provides service to Munjoy Hill with other major stops including Monument Square and the State Theatre. It also allows access to the Greyhound Bus Station and the Elm Street METRO facility. A limited service combining Routes 1 and 5 is provided on Sundays.
- *Primary User:* Patrons of SLA and Community Members
- *Responsibility:* SLA, METRO

SLA is proposing that the core of its TDM be a partnership with Metro to both extend and enhance the service of the Route 1 that travels up and down Congress Street. At present the Route 1 runs on a thirty-minute frequency between 7:00 a.m. and 8:00 p.m. with less frequency between 8:00 p.m. and 10:00 p.m. It is our understanding that Metro is working independently of this project to reduce those intervals to 20 minutes. Based on our conversations with SLA, they are mindful of the discussion taking place at the City of Portland on changes to the downtown's Tax Increment Finance (TIF) policy and that peninsula transit improvements are a potential use of this revenue. SLA recognizes that its proposed partnership with Metro and the revenue SLA proposes to bring to the table could be joined with TIF revenue to support a broader and more consequential transit improvement, one that could eventually lead to 15 minute frequency on the Route 1 all day and evening. The implications of this plan would not only serve the patrons of SLA, but would also allow residents the opportunity to take advantage of more frequent evening transit service on the peninsula.

With enhanced Metro service, patrons of SLA would be encouraged to utilize downtown parking lots, garages and street parking and use the Route 1 to travel up to SLA. The Temple Street and Free Street garages are open until 10:00 p.m. Monday – Saturday and it is our understanding that both have plenty of available parking after 5:00 p.m. Both garages are within one block of stops along the Route 1. The number of parking spaces that these parking facilities provide should exceed the 228 spaces we recommend. Patrons of SLA would have their parking ticket validated for up to three-hours of free parking. It is our understanding that SLA will subsidize and encourage use of this remote parking.

SLA has met with representatives from Metro and it is our understanding that both organizations are highly enthusiastic about a partnership. The Nelson Nygaard review encourages SLA to create a "more

Gorrill-Palmer Consulting Engineers, Inc.

Ms Deirdre Nice
October 1, 2014
Page 7 of 12

specific and targeted PTDM" and part of doing so will be an understanding what motivates patrons of SLA to drive and park close to SLA. For this approach to work, SLA and Metro will need to effectively communicate and market the transit option as convenient, affordable, easy, and fun. In particular, the marketing effort should promote transit as a key piece of a fun night out that includes both dining and entertainment. In addition to the higher frequency service on the Route 1 proposed by this plan, Metro will be rolling out real-time bus arrival information in 2015. This technology will allow riders to get actual bus arrival information through smart phones, text, website and, in some places, message boards at bus shelters.

A financial investment by SLA to the Metro will enhance these kinds of conveniences to Portland's public transportation system. Another key of this partnership is making parking downtown and travelling to and from SLA easy by suggesting patrons park in a specific place (lot or garage) and wait for the Route 1 bus at a specific spot to ride up Munjoy Hill to SLA. At present, the Route 1 stops at the corner of North Street and Cumberland. Possible modifications to the Route 1 would include a stop at Congress and North Street as well as bringing the stop currently on Atlantic and Congress back to Munjoy and Congress (the corner of the new Performance Hall), where it originally was until poor street conditions forced it to be relocated. It is our understanding that SLA and Metro agree that a carefully laid out marketing plan is essential to the success of the TDM plan as well as making the parking and bus ride part of a ticket surcharge so that patrons do not incur extra charges along the way. SLA will commit to validating up to 3 hours of parking in a downtown garage. If patrons partake of other downtown entertainment, i.e. shopping or dinner, the "Park and Shop" system in place by Portland's Downtown District can be used by patrons to cover additional time in the parking garage. SLA patrons will be able to use their venue ticket as valid fare to board the bus. Based on discussions with SLA, they have included in their financial projections that each patron will pay a ticket surcharge.

SLA is proposing to commit \$70,000 in annual funding to the Greater Portland Metro, which would increase evening frequency on the Route 1 (Congress) from about every 45 minutes to every 30 minutes and extend service to 11:00 p.m. (Monday-Saturday). SLA will provide this funding through its ticket surcharge. Furthermore, the long-term plan of the Greater Portland Metro is to expand its local partnerships in an effort to effectively work with the city of Portland and the Federal Transit Administration to develop the funding programs needed to improve transit service on the peninsula that will include all day frequencies of 20 minutes or even 15 minutes, hours of service through midnight, and added weekend service. While this service improvement to 30 minute frequency will help the Route 1 be an effective transit option for patrons, the number of patrons that can reasonably use the Route 1 bus must be considered. Metro buses' seating and standing capacity can comfortably accommodate 30-40 people; hence, it is realistic that 2 trips will be required before and after an event to accommodate SLA patrons. This makes the Route 1 option possible for 60-80 patrons. Service improvements that lower frequency to 15 minutes would increase Metro's capacity to the point where we could accommodate 120-160 patrons in the hour before and after an event. By growing ridership and diversifying the transit system's revenue base, the partnership can make Metro more competitive in obtaining new federal grant funds that can support further transit expansion. In this manner, this partnership is truly strategic in that it can help

Gorrill-Palmer Consulting Engineers, Inc.

Ms Deirdre Nice
October 1, 2014
Page 8 of 12

achieve positive transportation outcomes for the broader community in addition to the specific goal of getting SLA patrons from point A to point B.

Patrons who use the Greater Portland Metro system will be able to wait in the lobby of the Performance Hall for the Route 1, which will negate needing a structure in inclement weather.

Valet Parking

➤ Primary User: Patrons

Gorrill-Palmer agrees with Nelson Nygaard's finding that a superior front-door valet service should be available to patrons who want to arrive at the Performance Hall with their car. SLA is proposing to work with Unified Parking Partners (UPP), a full service parking Management Company based in Portland, Maine, and servicing all of New England. UPP is an affiliate of Towne Park Ltd. from Annapolis, MD. Their focus is garage, flat lot, healthcare, hotel and restaurant, and event parking management. UPP is experienced with accommodating parking for large scale sporting and entertainment events. This service will be available to patrons who wish to pay for exceptionally convenient parking over and above the price of event tickets. Patrons can pay in advance for VIP valet parking as well as pay at the door. Patrons utilizing this service would be charged a fee to cover the cost above the (parking) ticket surcharge. Valet parking fees will fluctuate based on event sales as well as the performer(s). UPP will staff its valet parking service based on estimates of how many patrons will utilize the service. For example, if UPP expects to valet park 50 – 60 cars, a minimum of 5 valet parking attendants would be present. Estimates will be figured by how many patrons sign up in advance to use VIP valet parking as well as a "capture rate" that is based on how many cars are expected for a given event. The number of valet parking attendants is based on services levels, the primary one being the time the patron has to wait. Successful valet parking will have enough valet parking attendants to ensure patrons have a less than 4-minute wait time. For a per-staff, per-hour fee, UPP provides valet parking attendants, environmentally safe and friendly vehicle shuttle for the valet parking staff, and security of the lot where cars are parked during the event. Unified Parking Partners manages several parking lots in Portland and their owner would also utilize Cutter Street and its two parking lots (95 spaces).

Patrons who use Valet Parking will be able to wait in the lobby of the Performance Hall for their car, which will negate needing a structure in inclement weather.

Bicycle Transportation

Portland is an extremely friendly pedestrian and biking city. SLA will encourage patrons who live within a walking and biking distance to access these TDM friendly modes of transportation. SLA will provide 10, uncovered bike racks outside the facility (20 spaces) encouraging patrons and staff members to bike to the Performance Hall. SLA will become a participating business in Bicycle Benefits (www.bicyclebenefits.org), a national program that offers incentives and rewards for patrons who show

Gorrill-Palmer Consulting Engineers, Inc.

Ms Deirdre Nice
October 1, 2014
Page 9 of 12

up to an establishment on a bicycle. Portland, Maine businesses already have strong membership in Bicycle Benefits.

- Primary User: Patrons
- Responsibility: SLA

SLA will also work with the City of Portland's Pedestrian-Bicycle Committee as well as The Bicycle Coalition of Maine, an organization that formed in 1992 to make Maine better for bicycling and promote bicycling in Maine.

Pedestrian Accommodations

Pedestrian connections currently surround the SLA building. Congress Street provides sidewalks on both sides of the street for pedestrians walking from in-town Portland. A majority of side streets provide sidewalks for guests who are walking from local neighborhoods. Crosswalks are also provided to nearby streets including Beckett Street, Munjoy Street, and Howard Street as well as on the Eastern Promenade at Moody and Wilson Streets.

- Primary User: Patrons
- Responsibility: City of Portland

Education for Patrons

As discussed, the SLA will provide route maps, schedules, and ticket information via the website with ticket reservations. Information about the METRO Route 1 and downtown parking will be provided. There will also be announcements before and after the show regarding the bus schedule, including real-time arrivals available in the lobby. It is important that this information also be provided on SLA's website along with a link to the METRO Route 1 webpage. A direct link to the parking information should be at the top of SLA's website, next to "Directions." This link should provide exact directions to parking and bus incentives encouraging attendees to carpool or use the transit system.

- Primary User: Patrons
- Responsibility: SLA

Free Market Options

Transportation by Cabs and Pedicabs (bicycle cabs), will also be a viable option to patrons of SLA who live in Portland, or patrons who have parked downtown and elect to not use public transportation.

Gorrill-Palmer Consulting Engineers, Inc.

Ms Deirdre Nice
October 1, 2014
Page 10 of 12

Carpooling

Some patrons will still travel by automobile up to Munjoy Hill and SLA will promote car sharing as an option to reduce the number of cars that travel to the facility for an event. SLA will provide information on its website for Go Maine, which is Maine's statewide commuter service providing access to low-cost, healthy, economical and eco-friendly options for commuting. SLA will promote ride share, a multi-modal, one-time ride share opportunity.

Marketing

A carefully thought-out marketing plan that provides easily accessible information is the key to implementing a successful TDM for SLA. SLA will create a marketing strategy that complements and works closely with the other area Portland organizations that promote walking, bicycling, and public transit as alternative modes of transportation. SLA will also implement "honor system" strategies such as a button at the end of the online ticket system to check if you are carpooling or travelling by bus/foot/bike with an associated discount. An outline of the marketing plan is presented below:

- SLA will have a "Where to Park" tab clearly posted on its website that outlines instructions on utilizing the Metro system, including what downtown garage to park in and where to wait for the Route 1 bus. Instructions on how to use public transportation, walk, and bike will be provided at the top of the page emphasizing it over travelling by automobile.
- SLA will have a travel information kiosk in its lobby
- All ticket holders will receive instructions on parking at the time of purchase.
- SLA's website will include a map of the neighborhood encouraging patrons NOT park within 300 feet of SLA citing the negative impact such congestion will have on residents and neighboring businesses.
- SLA's website will have easy to understand information (and links to Portland Trails and Metro) on how to bike or use transit to get to the Performance Hall. SLA will provide a link to Google Transit walk trip planner.
- SLA will try to establish its Performance Hall as a Green Certified event space, acknowledging that the biggest carbon element to an event is how people travel to and from the property (i.e. encourage people to leave cars behind).
- SLA will work with Metro to create a catchy and green marketing campaign to target its audience. The marketing campaign will need to be developed, but will generally focus on the following key messages: Using the Route 1 to get to SLA is easy, free, fast, green and connects dining and entertainment.

Gorrill-Palmer Consulting Engineers, Inc.

Ms Deirdre Nice
October 1, 2014
Page 11 of 12

Monitoring*Parking Counts*

As part of its TDM Plan monitoring program, SLA will assess the use of its various operational components, starting one month after the opening of the expansion and twice annually thereafter for five years. After five years, once a year monitoring will take effect. As the most critical component of the TDM program will be to reduce parking demand, the first part of each monitoring effort will include a parking count of the surrounding streets before and during an event. This count will include the Cutter Street parking lots on the Eastern Promenade.

Greater Portland Metro

The goal is to have the Metro reduce SOV traffic by 6% in the first year or eliminate 14 cars. In order for SLA patrons to gain ridership on the Route 1, they will have to show their ticket (paper or smart phone), allowing Metro to keep track of ridership as well. This will provide SLA with an exact count of how many Performance Hall patrons are using the bus system.

Surveys – Employees

One month after the expansion of the facility, SLA employees will be surveyed regarding their transportation choices such as automobile/bicycle ownership, parking demand, and the frequency of trips using bicycle, walking carpool/vanpool, and the bus. The survey will be developed in consultation with the City's TDM manager and conform to overall City TDM modeling planning.

The surveys will be conducted to determine:

- Mode of travel to and from work (car/carpool/biking/walking/bus)
- Preferences or concerns with mode of travel
- An important component of the survey will be to determine the flexibility of employees to utilizing various travel modes to access the facility

Surveys – Attendees

For attendees to SLA, surveys will be either conducted as patrons enter the site in the form of one or two questions from a volunteer, or patrons will be given a survey they can complete and return in exchange for a free gift.

The surveys will be conducted to determine:

- Mode of travel to and from the show (car/carpool/walking/bus)
- Preferences or concerns with model of travel

Gorrill-Palmer Consulting Engineers, Inc.

Ms Deirdre Nice
October 1, 2014
Page 12 of 12

➤ Specify as a driver or a passenger

Submission of Monitoring Information/Updated TDM Plan

Based upon the results of the monitoring, SLA will update the TDM Plan and submit a draft plan to the City's TDM Manager for review and comments. The primary goal of the initial year will be to ascertain the actual parking demand number (228 vs. 122) and reduce the parking demand six percent from the calculated demand.

Closure

The TDM plan and SLA's investment in Greater Portland Metro will be a tremendous benefit to the community at large as well as SLA patrons, emphasizing less reliance on automobile traffic, utilization of downtown structures, and investment in an important public infrastructure.

Please contact us with any questions.

Sincerely,

Gorrill-Palmer Consulting Engineers, Inc.



Thomas L. Gorrill, P.E., PTOE
Principal

TLG/tlg/JN2818 /TDM August 2014.doc

Received
Recorded Register of Deeds
Jan 15, 2015 02:41:04P
Cumberland County
Nancy A. Lane

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

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



Bradley Roland, P.E.
Water Resources Division

Date: September 29, 2016

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

Site Address: 76 Congress Street

Chart Block Lot Number: 3/L/1

Proposed Use: Assembly

Previous Use: Assembly

Existing Sanitary Flows: 500 GPD

Existing Process Flows: 0 GPD

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

St. Lawrence Street near Congress

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: Barbara Barhydt Phone: (207) 874-8699

Owner/Developer Name: Friends of the St. Lawrence Church

Owner/Developer Address: 76 Congress Street, Portland, ME 04101

Phone: 207.347.7177

Fax: _____ E-mail: deirdre.nice@stlawrencearts.org

Engineering Consultant Name: _____

Pinkham & Greer, Civil Engineers (Thomas S. Greer)

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: 5,000 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) 500 visitors at 5 pgd

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.



Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

October 19, 2016

Rita Sawyer
Pinkham and Greer
28 Vannah Ave
Portland, ME 04103

Re: 66 Congress Street, PO
Ability to Serve with PWD Water

Dear Ms. Sawyer:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on September 29, 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. **Please note that this letter does not constitute approval of this project from the District. Review and approval of final plans is required.**

Conditions of Service

The following conditions of service apply:

- Since the water demand at this site is not anticipated to exceed the capacity of the current service, the existing service line at this site may be used to provide domestic water to the building. Our records show that the property is currently served with a 1.5-inch domestic water service. If any use other than that stated in your letter of September 29, 2016 is expected, please contact the District so we can review the ability of the existing service to meet your domestic water needs. It is highly recommended that the service size on private be increased to 2-inches in order to avoid significant pressure loss due to pipe friction.
- 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.
- Once the project is ready for construction, the owner or contractor will need to make an appointment to come in and complete a service application form and pay the necessary fees.



Existing Site Service

According to District records, the project site does currently have existing water service. A 1.5-inch diameter copper domestic water service line and a 6-inch ductile iron fire service line provides 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 an 8-inch diameter ductile iron water main in Beckett Street where the fire and domestic services originate and a public fire hydrant located 100 feet from the site. The most recent static pressure reading was 54 psi on July 21, 2016.

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.

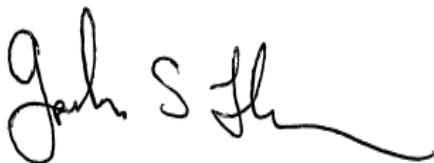
Private Fire Protection Water Needs

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.

Should you disagree with this determination, you may request a review by the District’s Internal Review Team. Your request for review must be in writing and state the reason for your disagreement with the determination. The request must be sent to MEANS@PWD.org or mailed to 225 Douglass Street, Portland Maine, 04104 c/o MEANS. The Internal Review Team will undertake review as requested within 2 weeks of receipt of a request for review.

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, sweeping horizontal line extending to the right.

Gordon S. Johnson, P.E.
Engineering Services Manager

File: 16107

January 25, 2017

Ms. Helen Donaldson, Planning Department
City of Portland
389 Congress Street, 4th Floor
Portland, ME 04101

RE: ST. LAWRENCE ARTS CENTER, CONGRESS STREET

Dear Nell,

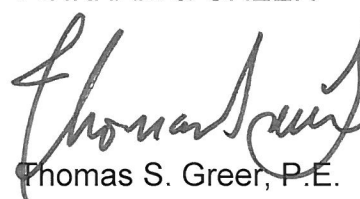
I would like the City to waive any stormwater treatment or controls for the Arts Center. I make this request based on not increasing the impervious area based on the 2008 building footprint. The center has been pursuing the replacement of that structure since that time.

As a non-profit, it is limited in how aggressively it can replace the building. It is limited by funds and time commitments of its staff. They have been working diligently at getting the zone changed and the building replaced.

It is my understanding the City Staff did not like the treewell solution, so this is an opportunity to void that request. Please give our request consideration and let us know how we should proceed. Thank you.

Sincerely,

PINKHAM & GREER



Thomas S. Greer, P.E.

cc: Deirdre Nice, David Lloyd, Lauren Swett, File

TSG/rjs



Traffic Solutions
 William J. Bray, P.E.
 235 Bancroft Street
 Portland, ME 04102
 (207) 774-3603
 (207) 400-6890 mobile
trafficsolutions@maine.rr.com

May 10, 2017

**Traffic and Parking Demand Assessment
 For Proposed
 St. Lawrence Arts Center
 Portland, Maine**

Friends of St. Lawrence Church are proposing a 401-seat addition to the existing St. Lawrence Arts Center (SLAC) at 76 Congress Street increasing the capacity of the arts venue from 110 to 485 seats. Preliminary traffic and parking demand forecasts have been developed for the proposed project based upon travel choice and parking trends measured at the existing 110-seat venue.

Theater attendees to seven scheduled shows in 2017 were interviewed by the SLAC staff to establish travel modal choice trends of the existing 110-seat facility. Neighborhood parking supply and demand studies were also conducted on the eve of two of these events; Wednesday and Saturday events to develop parking demand and supply patterns within the extended neighborhood area.

Travel Mode Survey Summary

Patron interviews were completed by SLAC staff during the following scheduled events:

Tuesday, February 28, 2017
 Tuesday, April 4, 2017
 Wednesday, April 26, 2017
 Saturday, April 29, 2017
 Friday, May 5, 2017
 Saturday, May 6, 2017
 Sunday, May 7, 2017

SLAC staff interviewed each attendee upon entering the theater:

1. *How did you get here?*
2. *If the answer was auto, a second question was asked: were you the driver?*
3. *If the answer was yes, a third question was asked – how many people traveled with you in your auto?*

A summary of the interview survey information is presented as follows:

<u>Tuesday, February 28, 2017</u>	<u>Tuesday, April 4, 2017</u>	<u>Wednesday, April 26, 2017</u>	<u>Saturday, April 29, 2017</u>
72 attendees	80 attendees	74 attendees	78 attendees
59 passengers in 24 autos	61 passengers in 21 autos	44 auto trips	64 passengers in 36 autos
7 attendees walked	15 attendees walked		3 people Uber
1 attendee METRO	2 people METRO		6 people walked
5 attendees cab/Uber	2 people scooter/Moped		

<u>Friday, May 5, 2017</u>	<u>Saturday, May 6, 2017</u>	<u>Sunday, May 7, 2017</u>
58 attendees 51 passengers in 23 autos 7 people walked	54 attendees 44 passengers in 21 autos 10 people walked	58 attendees 50 passengers in 22 autos 1 person biked 5 people walked 2 people in hotel shuttle

Vehicle occupancy and parking space rates were established for the existing 110-seat SLAC by “*averaging*” the survey results recorded for each scheduled event. The average vehicle occupancy rate determined for the SLAC is **2.20** persons per automobile [$59 \div 24 = 2.46 + 61 \div 21 = 2.90 + 74 \div 44 = 1.68 + 64 \div 36 = 1.77 = 51 \div 23 = 2.22 + 44 \div 21 = 2.10 + 50 \div 22 = 2.27$].

Average peak parking rates were established for the SLAC venue based upon the survey data for two variables consistent with the Institute of Transportation Engineers 4th edition of the Parking Generation publication; 1) per attendee and, 2) per seat. The calculations for each follows:

Average Parking Rate/Attendee = **0.40** spaces per attendee [$24 \div 72 = 0.33 + 21 \div 80 = 0.26 + 44 \div 74 = 0.59 + 36 \div 78 = 0.46 + 23 \div 58 = 0.40 + 21 \div 54 = 0.39 + 22 \div 58 = 0.38$]

Average Parking Rate/Seat = **0.25** spaces per seat [$24 \div 110 = 0.21 + 21 \div 110 = 0.19 + 44 \div 110 = 0.40 + 36 \div 110 = 0.33 + 23 \div 110 = 0.21 + 21 \div 110 = 0.19 + 22 \div 110 = 0.20$]

Estimate of Peak Hour Trip and Parking Demand

Peak hour trip generation and parking demand values were determined for the proposed SLAC project based upon rates determined for the existing smaller 110-seat SLAC site.

Peak Hour Trip Generation: An increase of **170** vehicle trips are generated in the peak hour of the site with completion of the proposed 401-seat expansion of the SLAC [485 total seats of new facility minus existing 110 seat facility] equals a “*net*” increase of $375 \text{ seats} \div 2.20 = \mathbf{170}$ vehicle trips.

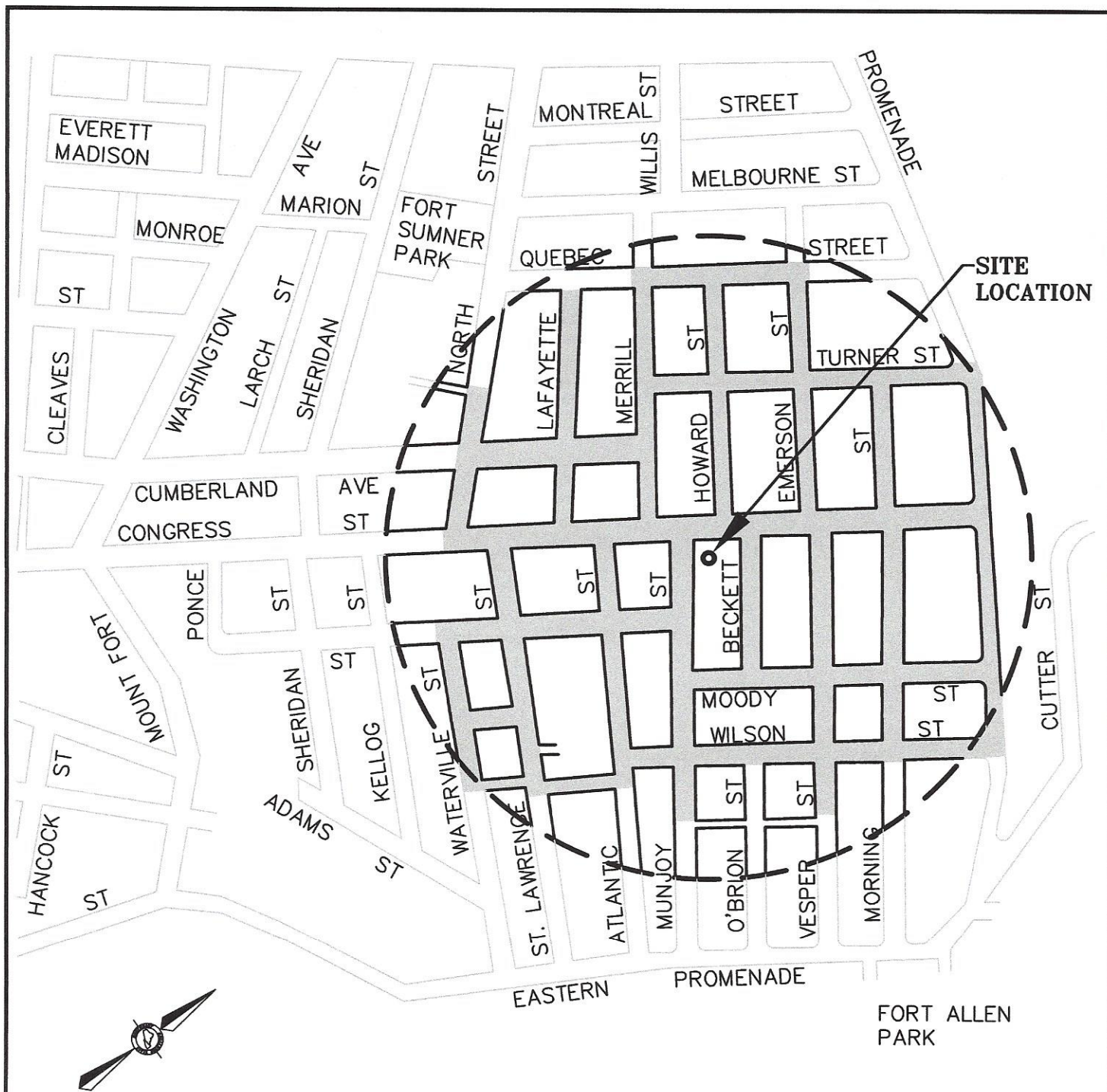
Peak Parking Space Demand: Peak parking space demand was calculated for the proposed SLAC site by averaging the calculations performed for two variables: 0.40 spaces per attendee and 0.25 spaces per seat. The former rate generates a parking demand of 194 spaces and the latter value estimates the parking demand at 121 spaces. Accordingly, the proposed 485-seat facility can be expected to generate peak parking demand of **158** spaces¹.

Parking Supply Determination

Parking Space Inventory: An inventory of existing neighborhood parking spaces was completed for all streets located within an approximate 900-foot walking radius (approximately 5-minute walk at 3 feet/second) from the 76 Congress SLAC site. Figure 1 illustratively identifies all streets and street segments included in the survey. The number of parking spaces were estimated applying City ordinance requirements (i.e. parking restrictions at hydrants, driveways, crosswalks and intersections) and an average parking stall length of 20-feet. A total of **883** parking spaces were counted within the study area.

Parking Studies: Parking occupancy studies were conducted on Wednesday, April 26 and Saturday, April 29, 2017. Both dates coincide with scheduled theater events at the existing SLAC. Total vehicle parking counts were recorded for each street block during three separate time periods: 1) Pre-event time, 2) During the show, and 3) Early morning after show. Actual survey times were as follows:

¹ April 18, 2014 Nelson/Nygaard project review memorandum estimated peak parking demand at 122 spaces.
August 18, 2014 Gorrill-Palmer, Inc. study estimated peak parking demand at 218 spaces.



LEGEND

--- 5 MINUTE WALK RADUIS

■ STUDY AREA

FIGURE 1
ON-STREET PARKING OCCUPANCY
STUDY AREA

<u>Wednesday, April 26, 2017</u>	<u>Saturday, April 29, 2017</u>
1. Pre-Show = 5:00 to 5:30 PM	1. Pre-Show = 5:30 to 6:00 PM
2. During Show = 7:15 to 7:45 PM	2. During Show = 7:45 to 8:15 PM
3. Thursday morning = 4:30 to 5:00 AM	3. Thursday morning = 4:30 to 5:00 AM

Table 1 presents the actual vehicle occupancy counts recorded for each street and street segment located with the defined study area.

Table 1							
Summary Report							
On-Street Parking Occupancy Study							
Street/Segment	Measured⁽¹⁾ Spaces	April 26/27, 2017			April 29/30, 2017		
		5:00 to	7:15 to	4:30 to	5:30 to	7:45 to	4:30 to
		5:30 PM	7:45 PM	5:00 AM	6:00 PM	8:15 PM	5:00 PM
Howard Street Entire	17	14	18	18	15	18	17
Merrill Street	41	30	30	20	28	28	24
- Congress to Quebec							
Quebec Street	11	15	11	9	15	13	12
- Merrill to Emerson							
Emerson Street Entire	45	14	30	32	26	26	33
Congress Street	75	57	73	70	66	74	62
- North to E. Prom							
North Street	14	12	15	14	14	13	12
- Congress to Stetson							
Lafayette Street Entire	40	28	17	16	33	25	25
Eastern Promenade	47	7	10	14	36	20	15
- Turner to Wilson							
Cumberland Avenue	26	20	16	11	21	17	16
- North to Merrill							
Turner Street	60	37	35	13	41	31	29
Morning Street	67	54	59	61	55	57	65
- Wilson to Turner							
Wilson Street Entire	64	13	14	31	24	27	37
Moody Street Entire	46	5	14	21	14	20	20
St. Lawrence Street	51	30	32	36	33	36	39
- Congress to Hoyt's							
Sherbrook Street	13	3	5	10	7	5	9
Waterville Street	38	13	19	25	22	22	25
- Congress to Hoyt's							
Atlantic Street	44	25	33	31	27	35	32
- Congress to Gilbert							
Munjoy Street	48	28	44	37	43	51	42
- Congress to Alley							
Beckett Street Entire	42	17	25	24	26	24	25
Vesper Street	54	50	45	54	55	58	61
- Congress to Alley							
Monument Street	40	18	27	27	30	36	30
- Waterville to Munjoy							
TOTAL	883	490	572	574	631	636	661
PERCENT OCCUPANCY		55%	65%	65%	71%	72%	75%

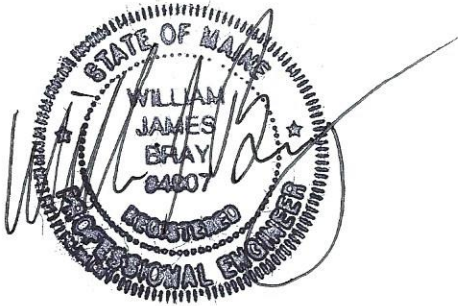
Note⁽¹⁾: Number of spaces estimated based upon City Ordinance Requirements and parking stall length of 20-feet

Approximately 56% of the parking spaces located in the neighborhood study area were occupied on Wednesday evening prior to the theater show time and the number of spaces occupied during the show time increased to 572 spaces. A total of 574 spaces were occupied in the early hours of Thursday morning. Parking occupancy trends measured on Saturday, overall, were somewhat higher than the weekday values. A total of 631 vehicles were parked in the study area before the start of the event, that number increased to 636 vehicles during the show, increased again in the early morning hours of Sunday to 661 vehicles.

The early Sunday morning parking usage value (661 vehicles), which represents the highest recorded number of parked vehicles in the study area, leaves a balance of **222** unused parking spaces in the neighborhood.

Summary of Findings

- The proposed 485-seat St. Lawrence Arts Center project will generate a “*net*” increase of **170** vehicle trips during the peak hour of the site. Show times are presently scheduled in the early evening hours when peak traffic times have diminished and that practice will continue with the new arts center.
- The Maine Department of Transportation requires any project whose peak hour trip generation exceeds 100 trips per hour to file for and obtain a Traffic Movement Permit. An application permit is currently being prepared and will be submitted to the City this month.
- The proposed Arts Center project can be expected to generate a peak parking demand of **158** parking spaces with sellout of all 401 theater seats and companion events occurring in other rooms of the facility.
- A total of **883** public on-street parking spaces exists on streets located within a walking time of 5-minutes or less (approximately 900-feet) from the SLAC site at 76 Congress Street. Parking studies conducted in the early morning hours (4:30 to 5:00 AM) on Thursday, April 27 and Sunday, April 30, 2017 (Both dates follow a schedule evening theater event at SLAC) measured a peak neighborhood parking demand of 574 spaces on Thursday and 661 spaces on Sunday, leaving an unencumbered balance of **309** parking spaces on Thursday and **222** spaces on Sunday.





Transportation Demand Management (TDM) Plan

St. Lawrence Arts

May 10, 2017

St. Lawrence Arts (SLA) provides this updated Transportation Demand Management (TDM) Plan for its proposed 401-seat Performance Arts Hall, located at 76 Congress Street. This plan is based directly on the TDM work conducted by Gorrill Palmer, the City of Portland initiated review of Gorrill Palmer's plan by Nelson\Nygaard Consulting Associates, and TDM planning documents that informed SLA's conditional rezoning application in 2014. This plan also includes an updated parking study conducted by Traffic Solutions.

SLA has been a vibrant and engaged neighbor since the venue's opening in 2001 and has made compelling financial commitments to mitigate the potential parking and transportation impact of its proposed addition to the Munjoy Hill neighborhood. SLA will enable patrons to access a variety of transportation options including public transportation, remote parking, shared vehicles, bicycling and walking versus single occupancy vehicles parked near the venue. The plan is strategic and achieves positive transportation outcomes for the broader community, emphasizing less reliance on the automobile, utilization of downtown amenities, and investment in important public infrastructure.

A. Site Transportation Overview & Context

The Performance Hall will be built on the site of the former historic sanctuary, which suffered a partial collapse in 2006 and was subsequently dismantled in 2008 after it was determined that the integrity of the structure was at risk. The new design integrates a state-of-the-art performing arts venue with an exterior that complements both the mix of contemporary and historic architecture of the neighborhood as well as the existing historic façade of the Parish Hall. The activities of the Performance Hall support the mixed-use, urban form, and multi-modal objectives of the primary 1993 *A Time of Change: Portland Transportation Plan* and the City of Portland's draft 2017 Comprehensive Plan.

Munjoy Hill is a dense residential neighborhood that has experienced tremendous growth with the addition of businesses, restaurants, and art galleries that have flourished in the area since the opening of the Parish Hall Theater in 2001. This growth has stimulated development, specifically of high-end residential real estate and condominiums. New residents to Munjoy Hill, attracted by the amenities of the neighborhood, are within walking distance of SLA. The site is pedestrian and bicycle-friendly, located within the strong sidewalk network and lower-speed street grid of the Portland peninsula, and it is generally a short walk and bike ride from the Eastern Promenade Trail. The neighborhood is served by the METRO Route 1 bus, which enables easy access to other bus routes via the METRO Pulse on Elm Street.

Meanwhile, nearby restaurants provide an attractive dual-purpose trip for other patrons who drive and park nearby to dine before an event and then walk to the venue. These "internally captured" trips represent no net new parking demand over existing restaurant demand. Many event-goers are also likely to originate or conclude their entertainment trip to the downtown area, where dynamic nightlife

and after-work hour parking availability is greater. Given the inherent shared parking synergies of nearby residents who attend performances, dual-purpose restaurant and venue patrons, and those parking and then traveling by other means from downtown, the parking demand in the immediate vicinity could be lower still. Internal capture rates between performance venues and nearby businesses similar to the area in question on this stretch of Congress Street are generally very high.

The proposed Performance Hall will create a mid-sized venue not currently available in Portland that will attract tier one and tier two musicians (determined by guaranteed fees), a broader range of performances from Portland Ovations, and provide much needed space to many local non-profit organizations including Portland Ballet Company. The rectilinear stage and state-of-the-art lighting and sound system has been designed to successfully feature a multitude of performing arts and events, including dance, top-touring theater groups, film, lectures, assembly activities for neighborhood, social, and civic events, readings, and music. These events will substantially enhance the creative arts available to the community, offering a boost to Portland's economy as well as bringing in a wider and younger demographic of patrons to SLA.

SLA's TDM Plan serves a series of important needs:

- Making maximum use of existing transit infrastructure near the Performance Hall
- Reducing event peak-hour trip impacts to adjacent roadway infrastructure
- Reducing the amount of needed parking on-site, especially as land is limited
- Reducing on-street parking demands on residential streets directly near the building
- Encouraging healthy, cost-saving and sustainable transportation activities

B. TDM Coordinator

Highly successful TDM programs share three vital characteristics: (1) they are dynamic, piloting strategies, assessing impacts, and modifying tactics as needed; (2) they are rigorously monitored and supported by local governing bodies, in this case, the City of Portland; and (3) they are managed by committed and enthusiastic staff who are responsible for overseeing, promoting and sustaining the program.

The St. Lawrence has designated its Development Director as the TDM Coordinator, charged with coordinating the TDM plan. SLA's dedication to the TDM program is excellent and the organization's ongoing care for it at a senior staff level throughout the planning and development process is further evidence of this commitment. Acknowledging that roles and responsibilities change over time in any position, the organization has enumerated the TDM Coordinator's responsibilities in detail for any other staff to uphold the responsibility of the position. Julia Kirby is the current Development Director and will be the TDM Coordinator for the new combined Performing Arts Hall and Parish Hall Theatre. The Coordinator's contact information is: Julia Kirby, St. Lawrence Arts, 76 Congress Street, Portland, ME 04101; (207) 775-1248. SLA's dedication to the TDM program throughout the planning and development process is evidence of the organization's commitment to successful implementation.

The SLA TDM coordinator is responsible for the following:

- Growing the organization’s alternate transportation fund via ticketing surcharges and coordinating the Metro subsidy (see Section D)
- Encouraging the greater use of transit, bicycling, walking, remote parking, ridesharing and valet parking through website development, incentives, and the on-site kiosk (Sections D & E)
- Overseeing event scheduling; the TDM plan will be utilized during both public and private (i.e. rental) events
- Overseeing comprehensive surveying of patrons, volunteers and staff (see Section F)
- Monitoring of patron parking usage and the effectiveness of TDM strategies (Section F)
- Filing annual reports and updating the plan with the City (Section F)
- Exploration of additional TDM strategies, if needed

C. Trip Generation and Parking Demand Projections and Targets

SLA is committed to reduce single and low-occupancy patron automobile trips and parking near the building. The goal of the TDM is to improve multi-modal safety at and near the site while easing traffic congestion and parking demand. On behalf of SLA and at the request of the City of Portland, Traffic Solutions has updated ITE trip generation and parking demand projections to establish the impact of the combined St. Lawrence Performance Arts Hall and Parish Hall.

These numbers are preliminary and SLA staff and the engineering team is continuing to collect and refine the data. The initial forecast for total net trips during the “event” peak hour is 170. Again, subsequent patron survey data will likely enhance these numbers.

The parking demand projection is for 158 spaces. This forecast is based on the average of the two different methods the *ITE Parking Generation* manual offers for making projections for similar venues, one based on the number of seats and one based on the number of attendees. It also happens to land in the middle of the 218 spaces that Gorrill Palmer projected and the 122 spaces that Nelson\Nygaard’s peer review suggested as an alternate interpretation during the 2014 conditional rezoning process.

Trip Reduction Target

SLA will use the first full year of operations to confirm a more consistent number of drive-alone trips to the site, METRO transit trips, valet parking usage and other transportation modes. Based on the venue’s expansion and multi-modal accessibility and depending on the number of single-occupancy trips determined an achievable trip reduction target for patrons is 3-6% for the first year. The trip target will be re-visited after the first year of implementation.

Parking Reduction Target

Similar to the trip reduction target, the primary goal of the initial year will be to ascertain the actual parking demand number for the expanded site from the three provided estimations and reduce the demand by 3-6%, depending on the determined demand:

- 228 spaces by Gorrill-Palmer
- 122 spaces by Nelson/Nygaard
- 158 spaces by Traffic Solutions

The parking demand target will be re-visited after the first year of implementation.

SLA plans to work with a local TDM consultant to continue creating and achieving goals for shifting modes and to closely monitor existing trends to attain a reasonable mode-shift goal over time.

D. Trip/Parking Reduction Strategies & Incentives

SLA proposed a number of strong and sensible parking and trip reduction strategies during the 2014 Conditional Rezoning Process that it continues to develop and plan for in this next stage of site review and eventual construction. These include:

- Subsidizing extended METRO bus service from downtown for both patrons and the larger community
- Incentivizing and facilitating carpooling, bicycling, walking, remote parking downtown, and valet parking use among patrons through:
 - ticket discounts for carpooling, bicycling, and walking
 - discounts or other incentives for parking downtown and valet parking use
 - the provision of on-site bicycle parking
 - working with the City of Portland to ensure walking routes from downtown are inviting, navigable, safe, in good condition, and well-lit
 - marketing transit, remote parking, rideshare, bicycling, walking, and valet parking travel information at the point of ticket purchase, on the website and via the on-site TDM kiosk
- Funding the organization's alternate, preferred transportation modes programming and services through a small ticket surcharge

METRO Subsidy & Downtown Parking Incentives

The core of SLA's TDM program will be a partnership with the Greater Portland Transit District (METRO) to both extend and enhance the service of the Route 1 bus that travels up and down Congress Street. In 2015, METRO increased frequency and length of service on the Route 1; currently it runs on a thirty minute frequency between 5:15 a.m. and 8:45 p.m. with less frequency between 9:00 p.m. and 10:50 p.m. With the approximate \$70,000 in annual funding from a ticket surcharge that the Arts Center is proposing to commit to the expansion project, METRO could further increase evening frequency on the Route 1 from about every 30 minutes to every 15-20 minutes and extend service to 11:00 p.m. (Monday-Saturday).

At the point of purchase, event patrons will be offered an incentive from SLA to park in Portland's downtown district, where they can enjoy dinner and use their performance ticket as valid fare to ride the Route 1 bus to and from SLA. Service improvements that lower frequency to 15 minutes would increase METRO's capacity to accommodate 120-160 patrons in the hour before and after the event. METRO will ascertain how many patrons used the transit system free of charge and will recoup the cost from SLA.

In June of 2016, METRO also introduced “real time” transit tracking so riders know when the bus will arrive at their stop. This information can be accessed through the smatracker.com website, smart-phone app, or by texting using a bus stop ID number. A display screen will also be installed in the lobby of SLA with live, up-to-the-minute bus arrival information for patrons. New fare media that METRO has planned for 2018 could streamline the process for this partnership for both METRO and SLA by allowing patrons to use smartphone technology to scan their tickets. In addition, possible modifications to the Route 1 bus could include a stop on Munjoy Hill on Congress near North Street, in addition to the current stop on North Street & Cumberland Avenue.

The proposed partnership between SLA and METRO is part of a broader plan by the Greater Portland METRO to participate in arts programming and citywide initiatives for transit use. For example, since last summer METRO has partnered with Creative Portland and Portland Downtown District to offer free bus rides during First Friday Art Walk. This partnership exemplifies how easy, low-cost or free transportation methods can directly support creative and artistic events. Creative Portland and METRO are in discussion about increasing service on First Friday Art Walk and expanding to neighborhoods off the peninsula that are considered First Friday Art Walk destinations. METRO is also developing a partnership with the Portland Museum of Art and opportunities for enhanced transportation for patrons to and from its service area.

METRO and Portland Public Schools have implemented a Transit Pass Program for high school students. This program provides a free METRO Student Transit Pass to all high school students enrolled in Portland, Deering and Casco Bay High Schools, including students living within two miles of school. The pass allows unlimited use of METRO bus routes during the academic school year, including weekends and break periods. This initiative is establishing a new generation of savvy METRO users who will take advantage of the TDM incentives SLA is proposing and who will favor public transportation over single-occupancy vehicles.

With enhanced METRO service and SLA incentivizing parking away from the building, patrons will be encouraged to utilize downtown parking lots, garages and street parking. Evening parking is abundantly available, according to the recent findings of the City of Portland Parking Study, underway for areas of the downtown and waterfront. In addition to on-street parking, the Temple Street garage is open until 12:00am (midnight) and is within one block of a METRO Route 1 stop. The number of parking spaces that this facility provides should exceed the needed 168 spaces recommended by Traffic Solutions.

SLA staff met recently with representatives from METRO and both organizations continue to be highly enthusiastic about a partnership. The 2014 Nelson\Nygaard review of SLA’s TDM plan encourages a “more specific and targeted PTDM” and part of doing so will be understanding what motivates patrons to drive and park close to the venue. For this approach to work, SLA and METRO will need to effectively communicate and market the transit option as convenient, affordable, easy, and fun. In particular, the marketing effort will promote transit as a key piece of a fun night out that includes both dining and entertainment. SLA and METRO agree that a carefully laid out marketing plan is essential. SLA details its ongoing planning process for education and promotion in Section E.

SLA is aware of the City of Portland’s Downtown Transit-Oriented Development Tax Increment Financing (TIF) approved in 2015 and activated in 2016, and that peninsula transit improvements are a potential use of this revenue. SLA recognizes that its proposed partnership with METRO and the revenue it will bring to the table could be joined with TIF revenue to support even broader and more consequential transit improvements. By growing ridership and diversifying the transit system’s

revenue base, the partnership can make METRO more competitive in obtaining new federal grant funds that can support further transit expansion.

This plan will not only serve SLA patrons, but also will allow all city residents and visitors the opportunity to take advantage of more frequent evening transit availability on the peninsula. For example, the enhancement of METRO serves not only the community at large, but also collaborates closely with the many different arts organizations along Congress Street, making these cultural offerings in the city more accessible. In addition, the availability of inexpensive, handicapped-accessible transportation removes the barrier many people face of how to travel to and from arts-related events in Portland. SLA is keen to participate in this city-wide initiative to benefit its patrons and neighbors.

Valet Parking

Another key component of SLA's TDM plan is to offer superior front-door valet service. SLA will offer simple incentives at the point of purchase to encourage driving patrons to pay for this exceptionally convenient parking, in lieu of on-street parking. The organization will work with Unified Parking Partners (UPP), a full-service parking management company based in Portland, Maine and servicing all of New England. UPP is an affiliate of Towne Park Ltd. From Annapolis, Maryland. Its focus is garage, flat lot, healthcare, hotel and restaurant, and event parking management with experience accommodating parking for large-scale sporting and entertainment events.

Patrons can pay in advance for valet parking, as well as pay at the door. Similar to the universal ticket surcharge to subsidize the METRO partnership, part of the fee to utilize this service would contribute to SLA's transportation alternatives fund. Valet parking fees will fluctuate based on event sales as well as the performer(s). Patrons who use valet parking will be able to wait in the lobby of the Performance Hall for their vehicle, which will negate needing a covered structure outside in inclement weather.

UPP will staff its valet parking service based on estimates of how many patrons will utilize the service. For example, if UPP expects to valet park 50-60 cars, a minimum of 5 valet parking attendants would be present. Estimates will be made using the number of patrons who sign up in advance to use valet parking as well as a "capture rate" that is based on how many cars are expected for a given event. The number of valet parking attendants is based on service levels, the primary one being the time the patron has to wait. Successful valet parking will have enough parking attendants to ensure patrons have a less than 4-minute wait time. For a per-staff, per-hour fee, UPP provides valet parking attendants, environmentally safe and friendly vehicle shuttling for the valet staff, and security of the lot where cars are parked during the event. UPP manages a number of lots in Portland.

Bicycle and Pedestrian Transportation

Portland's sidewalks and roadways make it an extremely pedestrian and bicycle friendly city. SLA's location on the peninsula makes it especially accessible on foot and by bike. Through ticketing incentives and the provision of 10 bicycle racks (20 spaces), SLA will encourage patrons who live within walking and biking distance to use these TDM-friendly modes of transportation. SLA is also committed to meeting a higher demand for bike parking if needed. One possibility might be an on-street bike parking corral for the extended "no parking" segment on Congress Street near the corner of Beckett Street. SLA will join Bicycle Benefits (www.bicyclebenefits.org) as a participating business, a national program that offers incentives and rewards for patrons who arrive at an establishment by bicycle. Portland, Maine businesses already have strong membership in Bicycle Benefits.

Pedestrian connections currently surround SLA; Congress Street provides contiguous sidewalks on both sides of the street for pedestrians walking from in-town Portland. A majority of side streets provide sidewalks and crosswalks for patrons who are walking from local neighborhoods. SLA will also make crosswalk improvements as part of this project.

SLA will continue to work with City of Portland staff, the Portland Bicycle & Pedestrian Advisory Committee, Portland Trails and the Bicycle Coalition of Maine to further enhance safe and convenient pedestrian and bicycle access.

Free Market Options

Transportation by taxis, transportation network companies (TNCs) such as Uber and Lyft, and Pedicabs (bicycle cabs) will also be a viable option for patrons of SLA who live in Portland or those who park downtown and elect not to use public transportation.

Carpooling

SLA understands that some patrons will still travel by automobile to Munjoy Hill and not use the valet parking service. The organization will offer discounted tickets for carpoolers and promote ridesharing as an option to reduce the number of cars that travel to the facility for a performance. SLA will work with Go Maine, the statewide commuter assistance program, to develop a system for one-time ride-matching to connect patrons with others driving to the same event. This service is not currently in place under Go Maine's new technology contract with NuRide; however, Go Maine is working to develop and provide this additional amenity for use by various local organizations and events. Those who use Go Maine are also eligible for NuRide rewards for non-single occupancy vehicle trips, such as discounts at local stores. If the Go Maine option is not implemented, SLA will investigate the use of groupcarpool.com, a national app and online service that is specifically designed and caters best to one-time events. For example, one package charges \$10 for each event of up to 500 participants, with no registration or fee required for attendees to use the service.

Other Incentives

Building patron awareness of SLA's TDM efforts, the organization will implement a short-term incentive campaign, entering attendees who use preferred transportation modes into a monthly raffle for gift cards, movie passes, or other benefits.

E. Marketing

A carefully thought-out marketing plan that provides easily accessible information is another critical and valued component for the success of SLA's TDM Plan. SLA has begun designing a marketing strategy that complements other area Portland organizations that promote walking, bicycling, and public transit as preferred modes of transportation. For example, SLA will utilize marketing materials that the City of Portland and Portland Downtown District are developing for area partners with a marketing firm. (RFP for marketing firms will be issued by the City of Portland this summer). SLA will also implement "honor system" strategies such as a button at the end of the online ticket system to check if attendees are carpooling or travelling by preferred transportation modes and offer an associated discount.

SLA's initial marketing plan:

- Instruct all online ticket purchasers at the point of sale regarding incentives and the use of preferred modes to reach the site.

- Work with the City of Portland, METRO and other community partners to design and actively maintain a “How to Get Here/Where to Park” page for SLA’s website that is clearly posted. The page will include:
 - Prioritizing the instructions for how to use the preferred modes of public transportation, remote parking, walking, bicycling, and valet service at the top of the page; emphasizing these options over travelling by automobile
 - Instructions for utilizing the METRO system, the preferred downtown garage for parking, locations of Route 1 bus stops closest to the garage, and bus arrival times including a link to the Google Maps (Transit) trip planner and Southern Maine Transit Tracker
 - Valet parking information
 - A Map identifying:
 - the walk zone, common walk routes and bike lanes and trails, links to Google Maps walking and bicycling trip planners and Portland Trails. Estimated walk and bike times will be provided to emphasize ease and swiftness to encourage these preferred transportation options.
 - transit stops and routes
 - one-time carpooling match source
 - valet service drop-off and “no parking” area within 300 feet (or a block) of SLA
 - A clear and compelling statement citing the negative impact of traffic congestion on residents, neighboring businesses, and visitors. Emphasis of ease of preferred transportation methods (“Why drive around frustrated looking for parking when these options are available”)
 - Information about specific incentives offered by SLA for patrons to use METRO, park downtown, carpool, walk, bike and use valet parking
 - Information sharing, such as the results of patron and staff transportation surveys
- Broadcast real-time METRO Route 1 arrival information on a transit screen in the lobby.
- Provide a highly visible and well-maintained travel information kiosk in the lobby containing the same content as the website “How to Get Here/Where to Park” page and similarly involving the City of Portland, METRO and other community partners
- Consistent and regular communication via email, the website, social media and at events. SLA’s goal is to shift as many patrons as possible to preferred transportation methods
- Work to establish the Performance Hall as a Green Certified event space, acknowledging that an event’s largest environmental impact comes from how people travel to and from the venue
- SLA’s utilization of and co-branding with the upcoming multi-modal marketing campaign elements that are soon to be developed by the City of Portland and Portland Downtown District for use by area partners. SLA will adapt these materials to create a catchy marketing campaign to target its audience and promote the various preferred modes to reach the site. In particular, the marketing effort will emphasize public transportation as an integral part to a fun night out of dining and entertainment. One key message will be a version of: “using the Route 1 bus to travel to SLA is easy, free, fast and green!”

F. Surveying & Monitoring

Recognizing that the implementation of a TDM Plan is a dynamic process, SLA's TDM Coordinator will monitor the TDM Plan's components to assess whether it is achieving the trip and parking reduction targets listed above. This evaluation will begin one month after the opening of the expansion and be conducted twice annually thereafter for five years. After five years, once-a-year monitoring will be implemented. The most critical component of SLA's TDM plan is to reduce parking demand, thus an assessment of METRO usage by event patrons, valet parking utilization and a survey of how attendees arrived at events will be the first part of the monitoring assessment. A particularly important piece of this surveying will be to determine the flexibility of patrons to utilize various travel modes to access the facility. SLA will also use the monitoring period to assess the value of both the METRO subsidy and valet service to the TDM program and make improvements.

Greater Portland Metro

SLA patrons will show their ticket (paper or smart phone) to ride the Route 1 bus, enabling METRO to track ridership. This will provide SLA with an exact count of how many event attendees are using transit.

Valet Parking

SLA will work with Unified Parking Partners to produce a summary of valet parking usage by event.

Patron Surveys

SLA will survey patrons with two travel mode questions as they enter the site. In addition, patrons will be given a survey to further determine their travel flexibility and preferences. They will complete and return this in exchange for a free gift. The surveys will be conducted to determine:

- Mode of travel to and from the show
- If by car:
 - Specify as a driver or a passenger
 - If driver, ascertain how many passengers and parking location (downtown or on-street in the neighborhood)
- Preferences, barriers or concerns with modes of travel

Surveys – Employees & Volunteers

SLA currently has a written policy and contractual agreement with employees, volunteers, and performers to park five blocks from the building during high peak hours. This policy will be in place and enforced for all employees, volunteers, and performers with the Performance Hall. Furthermore, one month after the operations begin, SLA will survey its employees and volunteers. This survey will then be conducted annually. The survey will be developed in consultation with the city's TDM manager and conform to overall city TDM modeling and planning. It will include:

- Mode of travel to and from work or volunteering
- Flexibility of employees to utilize various travel modes to access the facility
- Verification of employee and volunteer commitment to the parking policy

While SLA will conduct traffic and parking observations to cross-reference with the annual surveying, extensive parking counts of surrounding streets before and during an event have not been as helpful

and do not seem appropriate for the monitoring phase. As stated in the 2014 SLA Parking and TDM Plan drafted by Gorrill-Palmer, “While we might find these results informative and useful, we can't assume the entire difference of vehicles is representing SLA [the St. Lawrence]. The Front Room is a local restaurant and bar located across the street from SLA, a popular spot on a Friday evening.” In addition to the Front Room, four other establishments with evening hours are located within a block of the SLA: Lolita and the Blue Spoon (both restaurants) and Rosemont Market and Hilltop Coffee Shop. Moreover, the Eastern Promenade Park, located just three blocks from SLA, is a busy destination for vehicular traffic during early evenings in the spring, summer and fall.

The data collection and surveys will produce comparable data from year to year and be available for compilation with other sites’ travel data by a third party, such as the city. Based upon the results of the monitoring, SLA will update the TDM Plan and submit a draft plan to the city's TDM Manager for review and comments.

Oversight and enforcement of the TDM plan will be conducted in-house by the appointed SLA TDM Coordinator; however, SLA will retain the services of a TDM consultant to review initiatives, problem-solve, and develop new strategies where and when necessary.

G. Project Specific Improvements

METRO Subsidy for Expanded Service

SLA will contribute \$70,000 per year to the Greater Portland Transit District (METRO) to expand the frequency and length of service of the Route 1 bus from Monday through Saturday.

Sidewalk Improvements

SLA will rebuild the sidewalks immediately adjacent to the site on Congress, Beckett and Munjoy Streets.

Crossing Improvements

SLA will construct two ADA-accessible crosswalks traversing Congress Street and make improvements to the existing crosswalks at Beckett and Munjoy Streets.

Bicycle Parking

A total of 10 bicycle racks are being installed for parking 20 bicycles as part of SLA’s site plan. If demand warrants additional bike parking, SLA will provide it, including exploration of a bicycle parking corral for the extended “no parking” segment on Congress Street near the corner of Beckett Street.

TDM Bulletin Board

In addition to SLA’s website transportation page, the venue will erect a transportation bulletin board in a prominent location with information on the preferred modes for reaching the site, valet parking, and venue parking policies.

METRO

Greater Portland Transit District

September 17, 2014

Ms. Deirdre Nice
Executive Director
St. Lawrence Arts
76 Congress Street
Portland, Maine 04101

Re: Enhanced Transit Service on Congress in support of St. Lawrence Theater

Dear Deirdre:

The Greater Portland Transit District (Metro) is pleased to partner with St. Lawrence Arts and offer useable transit services as part of your multi-pronged effort to manage the traffic and parking impacts associated with the theater's proposed expansion.

Using the approximate \$70,000 in annual funding that St. Lawrence Arts is proposing to commit, Metro would increase evening frequency on the Route 1 (Congress) from about every 45 minutes to every 30 minutes and extend service to 11:00 p.m. (Monday-Saturday). As part of this program, theater patrons will be able to use their venue ticket as valid fare to board the bus. This plan will make it easier for patrons to park in Portland's downtown district, enjoy pre-performance activities or dinner, then catch the Route 1 for a quick ride up to the theater on Munjoy Hill.

Additionally METRO will work with St. Lawrence Arts staff to develop a marketing plan to promote these public transit options in a way the catches people's attention. Elements of this plan will include promoting patron's use of "Real-Time Arrival" technology either through smartphones, text or possibly on display in the theater's lobby as well as providing incentives for taking public transit to performances at St. Lawrence.

While this service improvement to 30 minute frequency will help the Route 1 be an effective transit option for some theater patrons, we must be mindful of the number of patrons the Route 1 can reasonably transport both before and after events. Realistically, 2 trips both before and after events (depending performance start and end times) are likely to be reasonable options for theater patrons. Metro buses' seating and standing capacity can comfortably accommodate 30-40 people. So, the Route 1 can be a realistic option for up to 60-80 people per event. Service improvements that lower frequency to 15 minutes would increase Metro's capacity to the point where we could accommodate 120-160 patrons in the hour before and after an event.

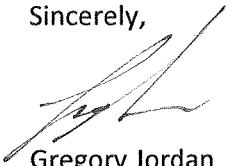
Not only does this partnership benefit St. Lawrence patrons with convenient transit service connecting the downtown district with the theater, it will also provide enhanced transit service for Portland residents and visitors travelling on the peninsula and up to Munjoy Hill and the Eastern Promenade. This is truly a strategic partnership in that we can work together toward making transit a

useable option for theater patrons while also improving transit service generally for Portland residents of Munjoy Hill and the Eastern Promenade.

As Metro continues advancing transit in Portland and growing ridership, we also plan to expand this concept and work with other cultural and artistic venues along our transit routes to promote public transit use through this kind of creative payment arrangement. As we expand our local partners, Metro can more effectively work with the city of Portland and the Federal Transit Administration to develop the funding programs needed to seriously improve transit service on the peninsula with all day frequencies of 20 minutes or better, hours of service through midnight, and added weekend service.

Thank you for this opportunity to work with you and we look forward to a successful partnership.

Sincerely,

A handwritten signature in black ink, appearing to read 'Gregory Jordan', written over a horizontal line.

Gregory Jordan
General Manager

MEMO

TO: Helen Donaldson, and Barbara Barhydt, City of Portland
FROM: Deirdre Nice, Executive Director, St. Lawrence Arts
DATE: May 19, 2017
SUBJECT: Truck Loading and Bus parking requirements

Staff of St. Lawrence Arts met with John Peverada in February of 2017 to discuss the logistics of having performers unloading and loading trucks/buses into the new Performance Hall and requirements for parking of these larger vehicles.

It should be noted that the New Performance Hall is a mid-sized space that will not be attracting large-scale performances that have large, multi-performer casts and the equipment that would accompany such a grand-scale production. For example, the trucks and buses parked on Center and Spring streets before and during performances at the Cross Insurance Arena will not be the kinds of performances coming to SLA.

In the event a performer does arrive in a bus and/or with an equipment truck, all loading and unloading will be done on Munjoy Street near the facility loading dock during **non-peak** parking hours. For smaller storage vehicles like passenger trucks and vans, the facility will have a small pull-up area near the dock for the purpose of loading and unloading. Temporary parking will be requested on Munjoy Street for large buses and trucks in an effort to keep pedestrian walkways clear at all times.

St. Lawrence Arts will have a contractual agreement with all performers requiring that equipment vehicles and buses will not be parked near the facility, but will be required to park in designated satellite parking on Commercial Street promptly after unloading and loading. Furthermore, the agreement will include time-frames for unloading (during non-peak hours), and enforced time-limits.

In summary, St. Lawrence Arts will continue enforcement of its current policies regarding unloading and loading equipment for performers and their vehicles for the new Performance Hall. SLA will not allow trucks and/or buses to block pedestrian walkways, will require performers to utilize the five-minute zone and/or temporary parking in front of or near the building, and will contractually require all performers park trucks and/or buses in satellite lots designated by the City of Portland.

St. Lawrence Arts Center, Congress Street
December 28, 2016

SUMMARY OF PUBLIC INFORMATIONAL MEETING

The neighborhood meeting was held on site. The meeting was attended by 9 members of the public. Deirdre Nice opened the meeting and went through the history of the project and the Arts Center. The current building is sited on the same footprint as the building removed in 2008 for structural reasons. This is the second design to be completed. The first was a recreation of the previous building. It was too expensive to move forward. This building has its own architecture and program for the future.

The project is in a Contract Zone which was approved by the City after many meetings. The people attending knew much of the history.

David Lloyd went through the architecture and responded to questions.

Questions included:

Do the stain glass windows stay at the front of the existing building? Yes.

What were the costs of the previous design and the new design? 17 million dollars and 10 million dollars.

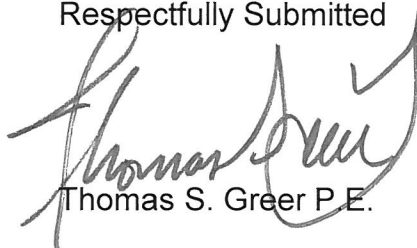
Julie Kirby went through the parking study prepared as part of the Contract Zone. The neighborhood was surveyed within a 5 minute walk. There are excess parking spaces available to meet the demand.

Parking was raised by several people as an issue. A Howard Street landlord was concerned about visitors to his unit. Overall parking is the only issue of concern.

It was noted the neighbor has changed in the last 10 years for the better, making parking the issue. It was noted the center will not operate 365 days a year and that performances are spread out. The parking demand will use Metro busses and valet parking to help offset the issues.

In general the project was well received.

Respectfully Submitted



Thomas S. Greer P.E.

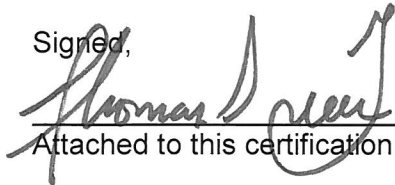
Neighborhood Meeting Certification

I, Thomas S. Greer hereby certify that a neighborhood meeting was held on December 28, 2016 at 76 Congress Street, in Portland at 6:00PM concerning the St. Lawrence Arts Center.

I also certify that on November 29, 2016 and December 6, 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:

12/30/16 (date)

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

Neighborhood Meeting

November 29, 2016

Dear Neighbor:

Please join us for a neighborhood meeting to discuss our plans for the St. Lawrence Arts Addition at 76 Congress Street. We will add 25,308 sq. ft. theater addition.

Meeting Location: 76 Congress Street (St. Lawrence Arts)

Meeting Date: December 21, 2016 (Wednesday)

Meeting Time: 6:00pm

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.



***** MEETING DATE CHANGE *****

**Due to a schedule conflict
the
Public Neighborhood Meeting
for
St. Lawrence Arts
Has Been Changed!**

**Meeting Date: December 28, 2016 (Wednesday)
Same Place
St. Lawrence Arts Center
76 Congress Street
6:00PM**

NEIGHBORHOOD MEETING ATTENDEE LIST
St. Lawrence Arts Addition, 76 Congress Street
December 28, 2016

Name & Address	Name & Address
Thomas S. Greer Pinkham & Greer Civil Engineers 28 Vannah Avenue Portland, ME 04103	
CAROL McCracken 645 Congress St. Portland, ME	
Laurie McBride 55 Moody St Portland, ME	
Jennifer Wikstrom & Paul Morrissey 82 Munjoy Street Ptd 04101-4444	
Peter Manning 20 Howard St.	
GARY MARCISSE 64 Vesper St gmarcisse@yahoo.com	
Gary Arden 14 Munjoy	
SUSAN MORRIS 118 Congress St #401 Portland ME 04101	
Whitney Meyer 85 BECKETT ST PORTLAND ME 04101	

St. Lawrence Arts Center, Congress Street
December 28, 2016

SUMMARY OF PUBLIC INFORMATIONAL MEETING

The neighborhood meeting was held on site. The meeting was attended by 9 members of the public. Deirdre Nice opened the meeting and went through the history of the project and the Arts Center. The current building is sited on the same footprint as the building removed in 2008 for structural reasons. This is the second design to be completed. The first was a recreation of the previous building. It was too expensive to move forward. This building has its own architecture and program for the future.

The project is in a Contract Zone which was approved by the City after many meetings. The people attending knew much of the history.

David Lloyd went through the architecture and responded to questions.

Questions included:

Do the stain glass windows stay at the front of the existing building? Yes.

What were the costs of the previous design and the new design? 17 million dollars and 10 million dollars.

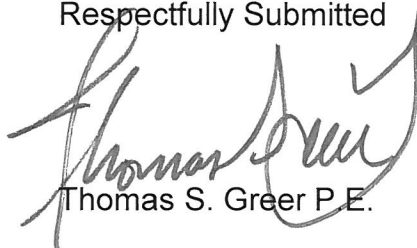
Julie Kirby went through the parking study prepared as part of the Contract Zone. The neighborhood was surveyed within a 5 minute walk. There are excess parking spaces available to meet the demand.

Parking was raised by several people as an issue. A Howard Street landlord was concerned about visitors to his unit. Overall parking is the only issue of concern.

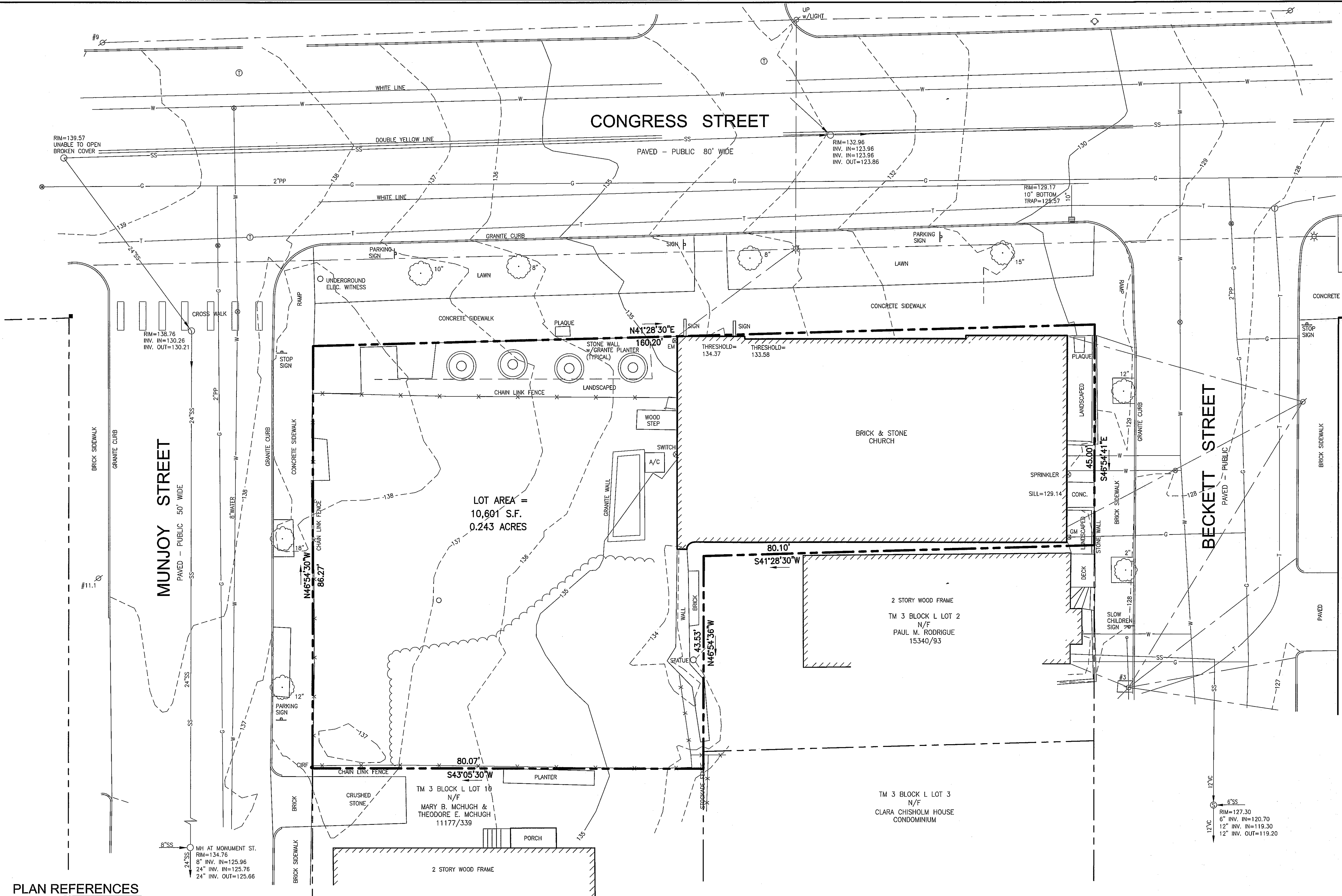
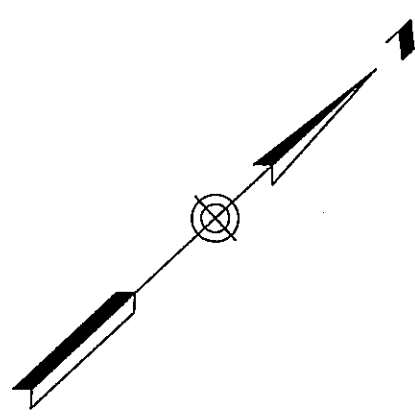
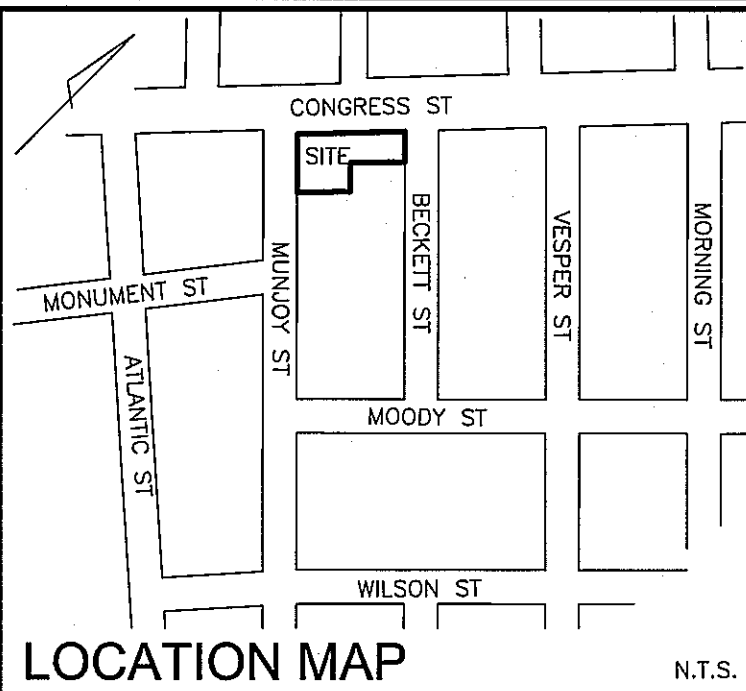
It was noted the neighbor has changed in the last 10 years for the better, making parking the issue. It was noted the center will not operate 365 days a year and that performances are spread out. The parking demand will use Metro busses and valet parking to help offset the issues.

In general the project was well received.

Respectfully Submitted



Thomas S. Greer P.E.



- LEGEND**
- IRON PIPE OR ROD FOUND
 - MONUMENT FOUND
 - UTILITY POLE
 - MANHOLE
 - ELECTRIC/GAS METER
 - SIGN
 - CATCH BASIN
 - HYDRANT
 - WATER VALVE OR SHUTOFF
 - GAS VALVE
 - LIGHT POLE
 - DECIDUOUS TREE
 - FENCE
 - CURB
 - OHW OVERHEAD WIRES
 - E UNDERGROUND POWER
 - W WATER LINE
 - G GAS LINE
 - T TELEPHONE
 - SD STORM DRAIN
 - SS SANITARY SEWER
 - 1' CONTOUR
 - FFE FINISHED FLOOR ELEVATION
 - N/F NOW OR FORMERLY
 - 000/000 DEED BOOK AND PAGE

PLAN REFERENCES

- "CONDOMINIUM PLAT OF THE CLARA CHISHOLM HOUSE CONDOMINIUM, 94 BECKETT STREET, PORTLAND, MAINE FOR JEFFREY J. LOWERY" MAY 13, 2002 BY BACK BAY BOUNDARY, INC. RECORDED IN C.C.R.D. IN PLAN BOOK 202, PAGE 458.
- "STANDARD BOUNDARY SURVEY OF THE ST. LAWRENCE ARTS & COMMUNITY CENTER, 66-76 CONGRESS STREET, PORTLAND, MAINE FOR THE FRIENDS OF THE ST. LAWRENCE CHURCH" OCT. 18, 2002 BY BACK BAY BOUNDARY, INC.
- "SURVEY PLAT 'BECKETT ON THE PROM' CONDOMINIUMS, 99 BECKETT STREET, PORTLAND, MAINE MADE FOR CYNTHIA L. HOLMES" AUGUST 2, 2001 BY OWEN HASKELL, INC.
- "PLAN OF BOUNDARY SURVEY, 59 MUNJOY STREET CONDOMINIUMS, 59 MUNJOY STREET, PORTLAND, MAINE MADE FOR PENINSULA PROPERTY DEVELOPMENT LLC" FEBRUARY 11, 2013 BY TITCOMB ASSOCIATES RECORDED IN C.C.R.D. PLAN BOOK 215, PAGE 355.
- "EXISTING CONDITIONS PLAN, BECKETT STREET, WILSON STREET TO CONGRESS STREET, FOR CITY OF PORTLAND, MAINE PUBLIC SERVICES DEPARTMENT ENGINEERING DEPARTMENT" DECEMBER 16, 2014 BY OWEN HASKELL, INC.

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.

GENERAL NOTES

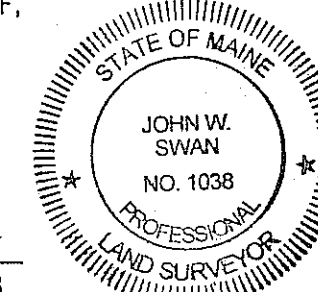
- OWNER OF RECORD: FRIENDS OF THE ST. LAWRENCE CHURCH, 76 CONGRESS STREET, PORTLAND, MAINE CUMBERLAND COUNTY REGISTRY OF DEEDS BOOK 13333, PAGE 9 TAX MAP 3 BLOCK L LOT 1
- BASIS OF BEARINGS: MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE NAD83. BASED ON CITY MONUMENTS T102-69-7 AND T102-68-5.
- ELEVATIONS ARE BASED ON NGVD 1929. BENCH MARK: MONUMENT WITH BOLT NORTHWEST CORNER OF MORNING AND WILSON STREETS ELEVATION 114.63.

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 9/28/16

JOHN W. SWAN, PLS NO. 1038



BOUNDARY AND TOPOGRAPHIC SURVEY

OF
SAINT LAWRENCE ARTS CENTER
66 CONGRESS STREET, PORTLAND, MAINE
MADE FOR
ARCHETYPE, P.A.



OWEN HASKELL, INC.
PROFESSIONAL LAND SURVEYORS

390 U.S. ROUTE ONE, FALMOUTH, ME 04105 (207) 774-0424

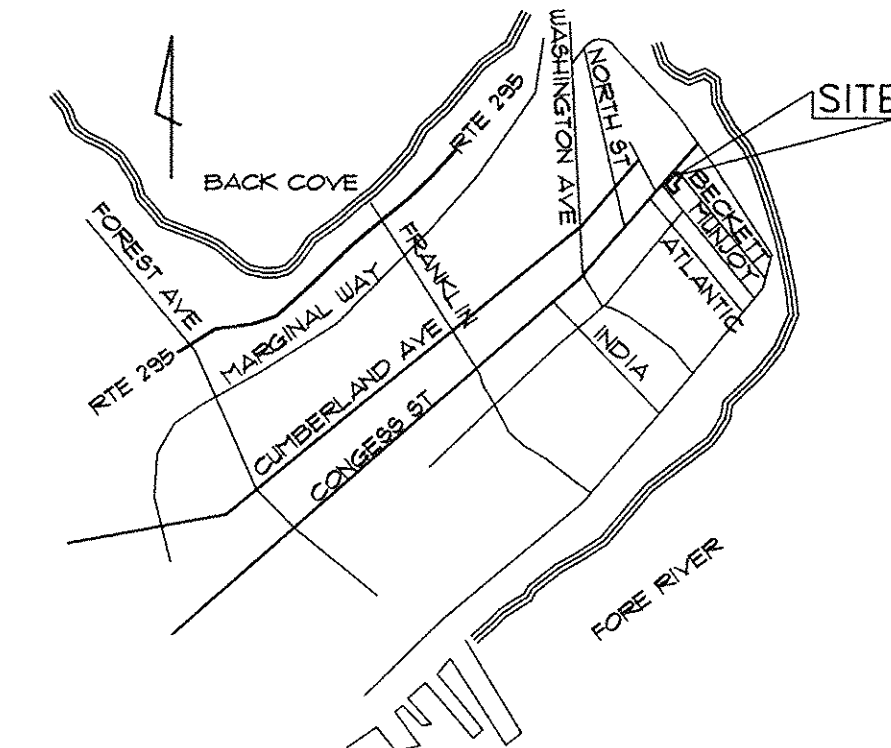
Drawn By RS	Date MARCH 23, 2016	Job No. 2016-045 P
Trace By JLW	Scale 1" = 10'	Drwg. No. 1
Check By JWS		
Book No. FILE		

CITY OF PORTLAND SITE PLAN 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 FROM THE EXISTING SERVICE POLE.
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 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.
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.

ZONE INFORMATION

EXISTING ZONE: C58 (UNDERLYING ZONE: R-6)		
EXISTING USE: PERFORMING ARTS HALL		
SPACE STANDARDS	REQUIRED	PROVIDED
MINIMUM LOT SIZE	10,500 SF.	10,601 SQ. FT.
MINIMUM FRONT YARD	0 FEET	0 FEET
MINIMUM REAR YARD	0 FEET	3 FEET
MINIMUM SIDE ON A SIDE STREET	0 FEET	0 FEET
MAXIMUM LOT COVERAGE	95%	92%
MAXIMUM TOWER HEIGHT	NA	-
MAXIMUM SANCTUARY STRUCTURE HEIGHT	54 FEET	EXISTING
OPEN SPACE RATIO	0%	0%
MINIMUM LOT WIDTH	50 FEET	160 FEET



LOCATION PLAN

SCALE: 1"=250'

GENERAL NOTES

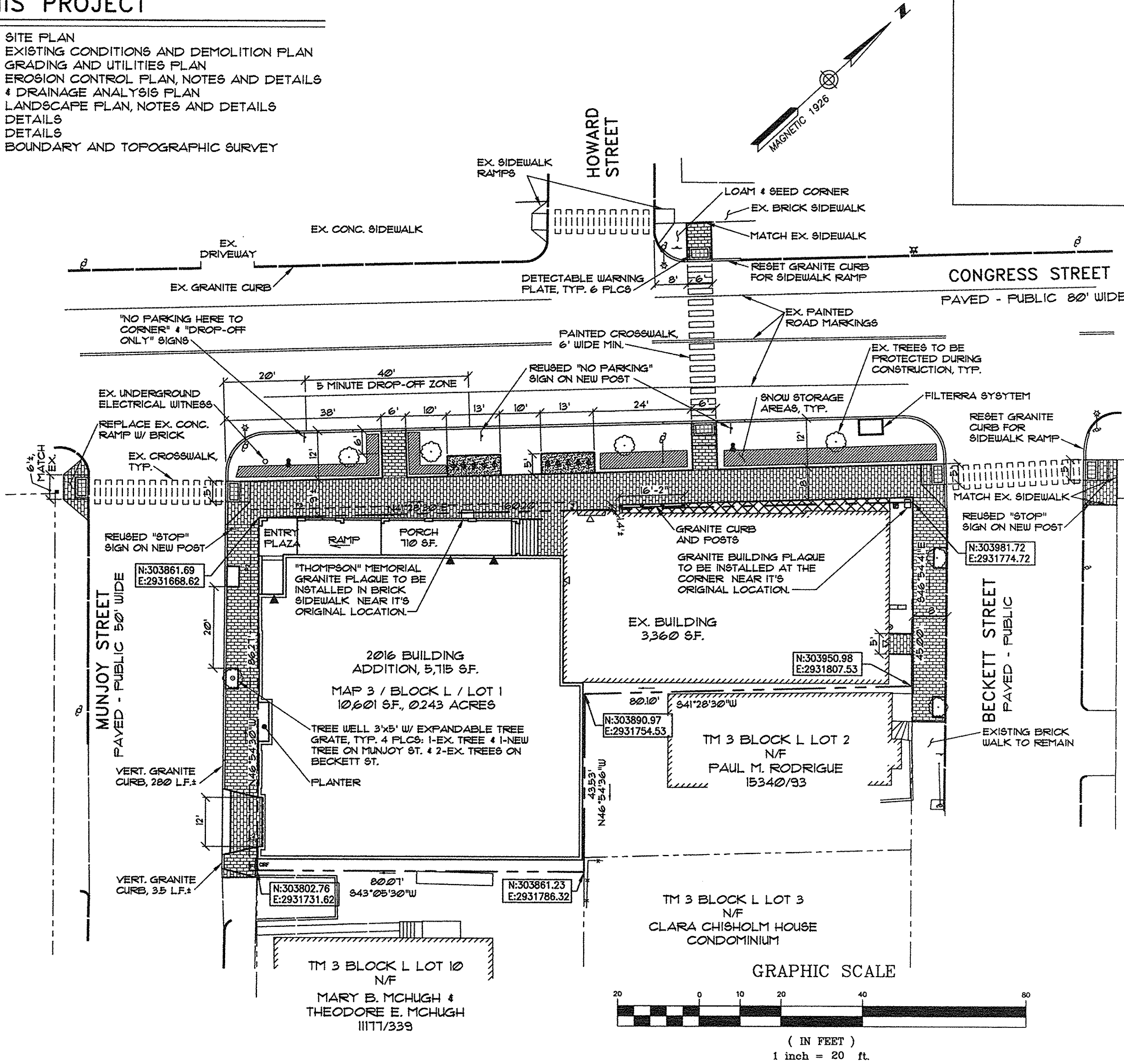
1. OWNER/APPLICANT: FRIENDS OF THE ST. LAWRENCE CHURCH, 76 CONGRESS STREET PORTLAND MAINE 04101. DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS BK. 1333, PG. 9, DATED SEPTEMBER 19, 1991.
2. ENGINEER: PINKHAM & GREER CIVIL ENGINEERS, 28 VANNAH AVENUE, PORTLAND, MAINE, 04103.
3. ARCHITECT: ARCHETYPE ARCHITECTS, 48 UNION WHARF, PORTLAND, MAINE, 04101
4. TOPOGRAPHIC AND BOUNDARY INFORMATION: QUEN HASKELL, INC. 390 US ROUTE ONE, FALMOUTH, MAINE. BENCHMARK: MONUMENT WITH BOLT NORTHWEST CORNER OF MORNING AND WILSON STREETS ELEVATION 114.63. BASIS OF BEARINGS: MAINE STATE PLANE COORDINATE SYSTEM WEST ZONE NAD83. BASED ON CITY MONUMENTS 1102-69-1 AND 1102-68-5.
5. SOILS MAPPING TAKEN FROM SOIL CONSERVATION STUDY OF CUMBERLAND COUNTY AND CLASSIFIED AS HINCKLEY (H1B), GRAVELLY SANDY LOAM, 3-8% SLOPES, HYDROLOGICAL GROUP "A".
6. TAX MAP REFERENCE: MAP 3 / BLOCK L / LOT 1.
7. TOTAL PARCEL = 0.243 acres
8. CALL DIG-SAFE PRIOR TO COMMENCING WORK, 1-800-DIG-SAFE.
9. ALL WORK WITHIN THE RIGHT OF WAY IS TO MEET CITY OF PORTLAND STANDARDS.
10. BUILDING TO BE SERVICED BY PUBLIC WATER AND SEWER. THESE SERVICES, INCLUDING EXISTING HYDRANTS, ARE AS SHOWN ON SHEET C14, GRADING AND UTILITIES PLAN.
11. POWER, TELEPHONE AND CABLE SERVICES ARE TO BE UNDERGROUND. THESE SERVICES ARE SHOWN ON SHEET C14, GRADING AND UTILITIES PLAN.
12. EXISTING UTILITIES, INCLUDING SIZE AND VERTICAL AND HORIZONTAL LOCATIONS, ARE SHOWN ON SHEET C14, GRADING AND UTILITIES PLAN.
13. THERE ARE NO APPARENT PERMANENT ONSITE EASEMENTS OR RESTRICTIONS BURDENING OR BENEFITING THE SUBJECT PROPERTY.
14. THE EXISTING ONSITE STRUCTURE IS LISTED BY THE CITY OF PORTLAND AS A HISTORIC LANDMARK. NO OTHER STRUCTURES OR HISTORIC SITES ON OR ADJACENT TO THIS SITE APPEAR ON OR ARE NOMINATED TO THE NATIONAL REGISTER.
15. THE SUBJECT PARCEL SHOWN AS 76 CONGRESS STREET IS SUBJECT TO THE CITY OF PORTLAND LEVEL III SITE PLAN DEVELOPMENT REVIEW APPLICATION.
16. REQUIRED STREET TREES ARE INCLUDED ON THE LANDSCAPE PLAN AS PART OF THE APPROVAL FOR ST. LAWRENCE ARTS ADDITION SITE PLAN.
17. FLOODPLAIN: THIS PROPERTY SHOWN ON FLOOD INSURANCE RATE MAP, COMMUNITY PANEL 230051 0014 A, EFFECTIVE DATE JULY 17, 1996. IT IS NOT IN A SPECIAL FLOOD HAZARD ZONE.
18. THIS PROJECT COMPLIES WITH CONDITIONS OF PORTLAND CODE OF ORDINANCES, CHAPTER 32 STORMWATER, INCLUDING ARTICLE III, POST-CONSTRUCTION STORMWATER MANAGEMENT. THE DEVELOPER/CONTRACTOR/SUBCONTRACTORS MUST COMPLY WITH CONDITIONS OF THE CONSTRUCTION STORMWATER MANAGEMENT PLAN AND SEDIMENT & EROSION CONTROL PLAN BASED ON CITY STANDARDS AND STATE GUIDELINES. SEE SHEET C14, GRADING AND UTILITIES PLAN, FOR THE LIST OF INSPECTION AND MAINTENANCE OF STORMWATER MANAGEMENT FACILITIES REQUIREMENTS.
19. EXISTING TREE PRESERVATION AND PROTECTION MEASURES ARE TO BE UNDERTAKEN IN ACCORDANCE WITH THE STANDARDS SHOWN ON SHEET L10, LANDSCAPE IMPROVEMENT PLAN.

SITE PLAN CONDITIONS OF APPROVAL

PLANNING BOARD CONDITIONS OF APPROVAL PER THE CITY OF PORTLAND PLANNING BOARD REVIEW MEMO DATED:

SITE DRAWINGS INCLUDED IN THIS PROJECT

- C11 SITE PLAN
C12 EXISTING CONDITIONS AND DEMOLITION PLAN
C13 GRADING AND UTILITIES PLAN
C14 EROSION CONTROL PLAN, NOTES AND DETAILS
C15 DRAINAGE ANALYSIS PLAN
C21 LANDSCAPE PLAN, NOTES AND DETAILS
C22 DETAILS
1 BOUNDARY AND TOPOGRAPHIC SURVEY



LEGEND

EXISTING	PROPOSED
PROPERTY LINE	PROPERTY LINE
ABUTTERS PROPERTY	ABUTTERS PROPERTY
EDGE OF PAVEMENT	EDGE OF PAVEMENT
BUILDING CURB	BUILDING CURB
UTILITY POLE	UTILITY POLE
UTILITY POLE W/ GUY WIRE	UTILITY POLE W/ GUY WIRE
LIGHT POST	LIGHT POST
SIGN	SIGN
PLANTER WALL	PLANTER WALL
CHAINLINK FENCE	CHAINLINK FENCE
MONUMENT FOUND	MONUMENT FOUND
IRON ROD FOUND OR SET	IRON ROD FOUND OR SET
HYDRANT	HYDRANT
PAINTED CROSSWALK	PAINTED CROSSWALK
TREE	TREE
	FOOTING LICENSE
	EDGE OF PAVEMENT
	VERTICAL GRANITE CURB
	GRADE BREAKS IN SIDEWALKS
	BUILDING ENTRY/EGRESS
	DRIPSTRIP W/ UNDERDRAIN
	FIELD INLET
	PEDESTRIAN SCALE LIGHTING
	BIKE RACK
	SIGN
	GRANITE CURB & POST
	FULL DEPTH BITUMINOUS PAVEMENT
	BRICK SIDEWALK
	DETECTABLE SURFACE AT RAMP
	SNOW STORAGE AREAS
	CROSSWALK, 6' WIDE

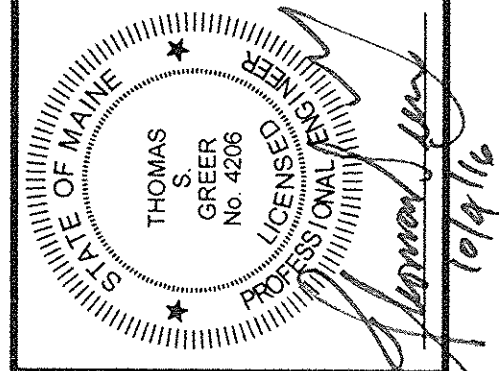
EASEMENTS & LICENSES

1. PROPOSED TEMPORARY EASEMENT: CONSTRUCTION EASEMENT FROM CITY OF PORTLAND TO THE FRIENDS OF ST. LAWRENCE CHURCH.
2. PROPOSED LICENSE: FROM THE CITY OF PORTLAND TO THE FRIENDS OF ST. LAWRENCE CHURCH FOR BUILDING FOOTINGS.

FOOTING LICENSE

LINE	BEARING	DISTANCE
F1	S 43°05'30" W	2.00'
F2	N 46°54'30" W	88.21'
F3	N 41°28'30" E	80.00'
F4	S 46°54'30" E	2.00'

PINKHAM & GREER
CIVIL ENGINEERS



FRIENDS OF ST. LAWRENCE CHURCH
76 CONGRESS STREET
PORTLAND, MAINE 04101

ST. LAWRENCE ARTS ADDITION
76 CONGRESS STREET
PORTLAND, ME

C1.1

MAP/LOT /BLOCK 3/L/1

28 VANNAH AVE. PORTLAND, ME 04103
TEL: 207.781.5542 FAX: 207.781.4465

REV.	DATE	DESCRIPTION
1	10/14/16	10/14/16

SCALE: AS SHOWN
DATE: OCTOBER 4, 2016
PROJECT: 16107

DRN BY: JDC
DES BY: TSG
CHK BY: JSG

SITE PLAN

LANDSCAPE NOTES

GENERAL:

1. SAVE EXISTING TREES AS SHOWN. DO NOT CUT OR CLEAR ANY VEGETATION BEYOND THE CONSTRUCTION LIMIT.
2. ALL PLANT MATERIALS INSTALLED ARE TO MEET THE SPECIFICATIONS OF THE "AMERICAN STANDARDS FOR NURSERY STOCK" BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
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 NON-LANDSCAPED 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 90% 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. 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.

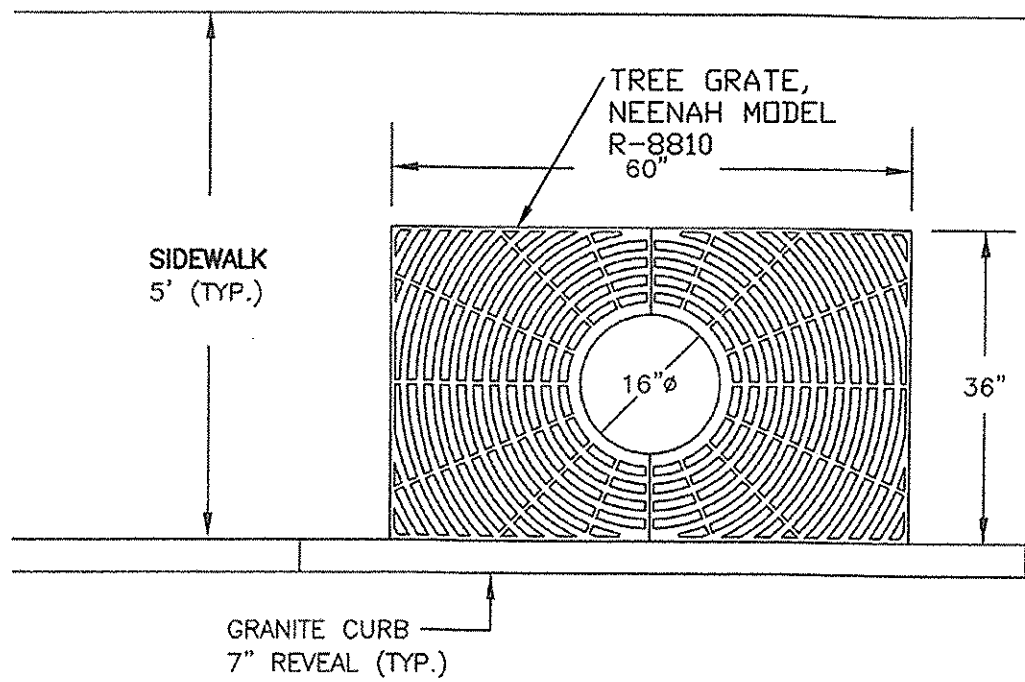
NOTES:

16" EXPANDABLE TREE OPENING. 0.25" SLOT OPENINGS.

SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY.

WHEN THE TREE GRATE IS INSTALLED IN A CONCRETE SIDEWALK, A NOTCH MUST BE INSTALLED ALONG THE EDGE TO HOLD THE GRATE. WHEN INSTALLED IN A BRICK SIDEWALK IT REQUIRES A FRAME TO BE INSTALLED TO HOLD THE GRATE IN PLACE.

ALTERNATE: POROUS PAVEMENT, KBI FLEXI-PAVE (WWW.KBIUS.COM)



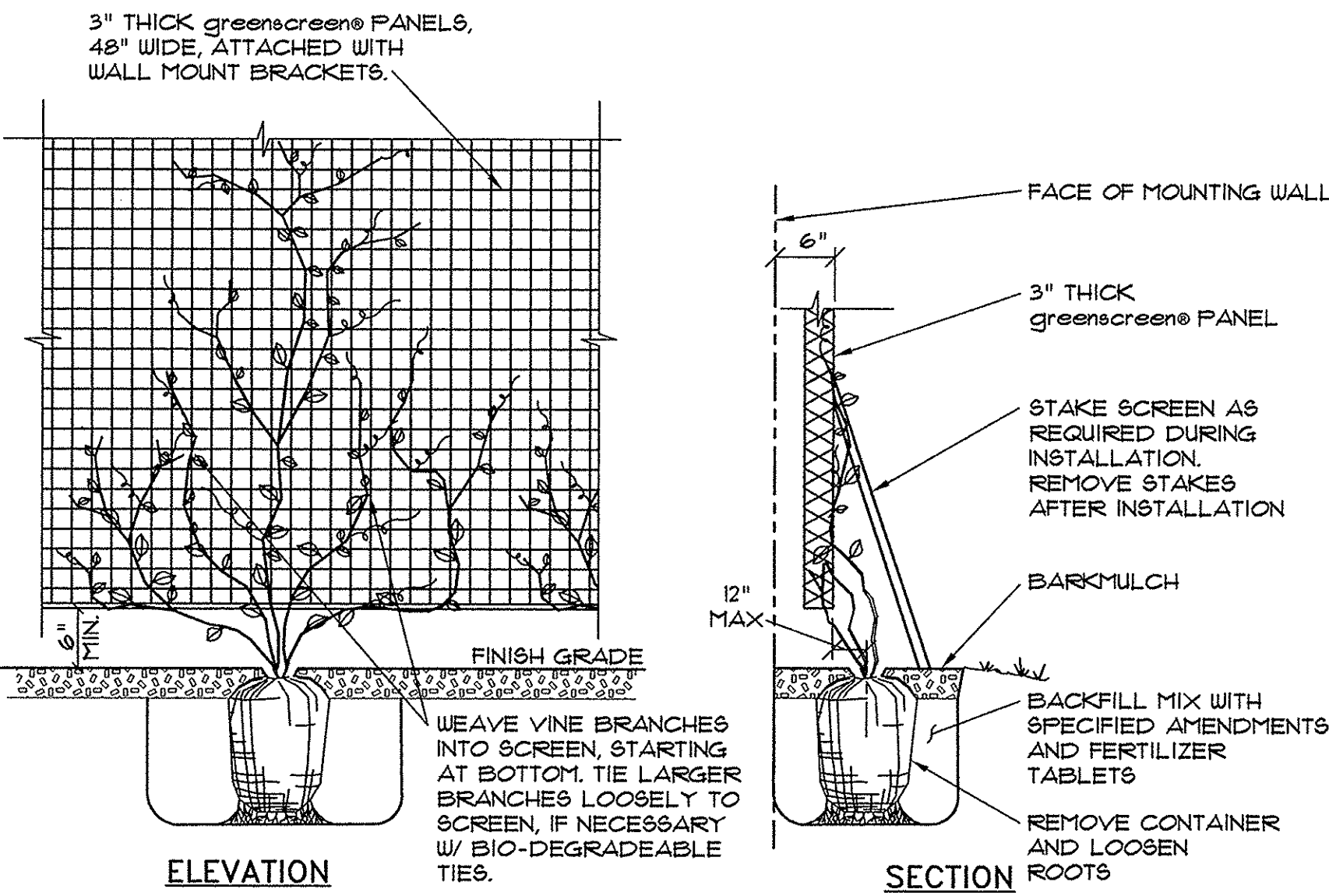
PLAN VIEW

4 EXPANDABLE TREE GRATE (IV-4A)

NOT TO SCALE

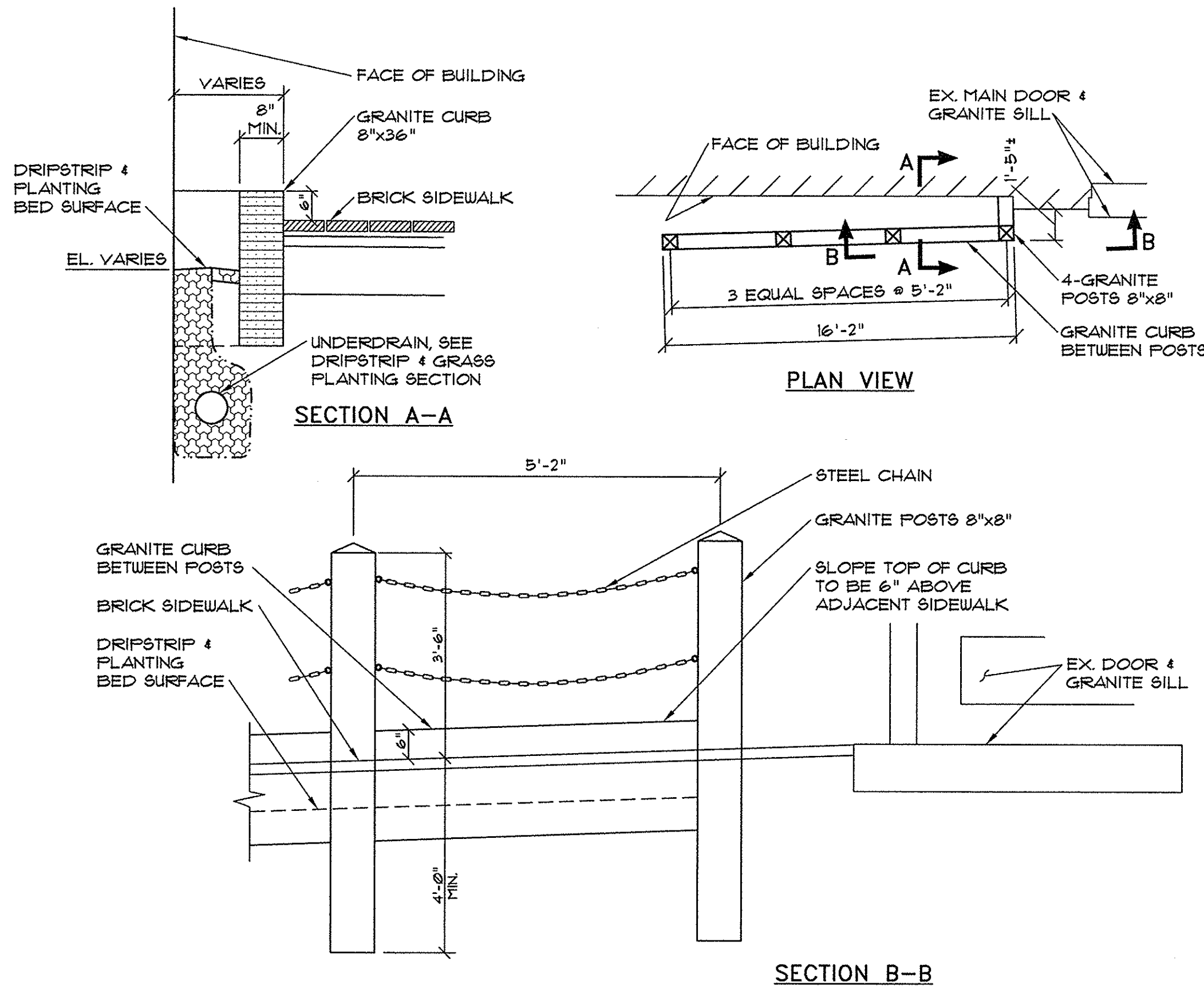
2 GRANITE CURB & POST DETAILS

NOT TO SCALE



3 greenscreen® VINE PLANTING DETAIL

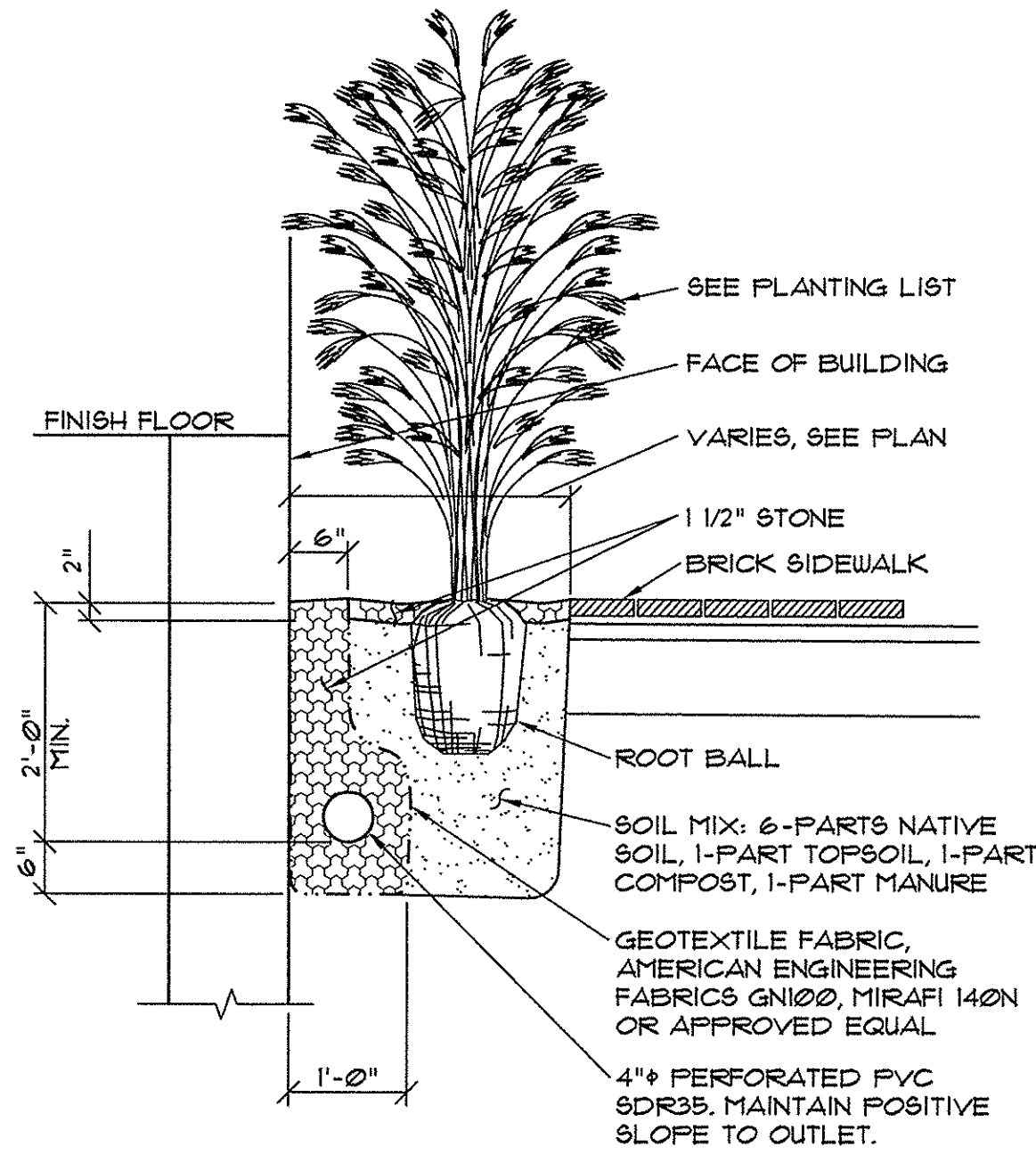
NOT TO SCALE



SECTION B-B

1 DRIPSTRIP & GRASS PLANTING SECTION

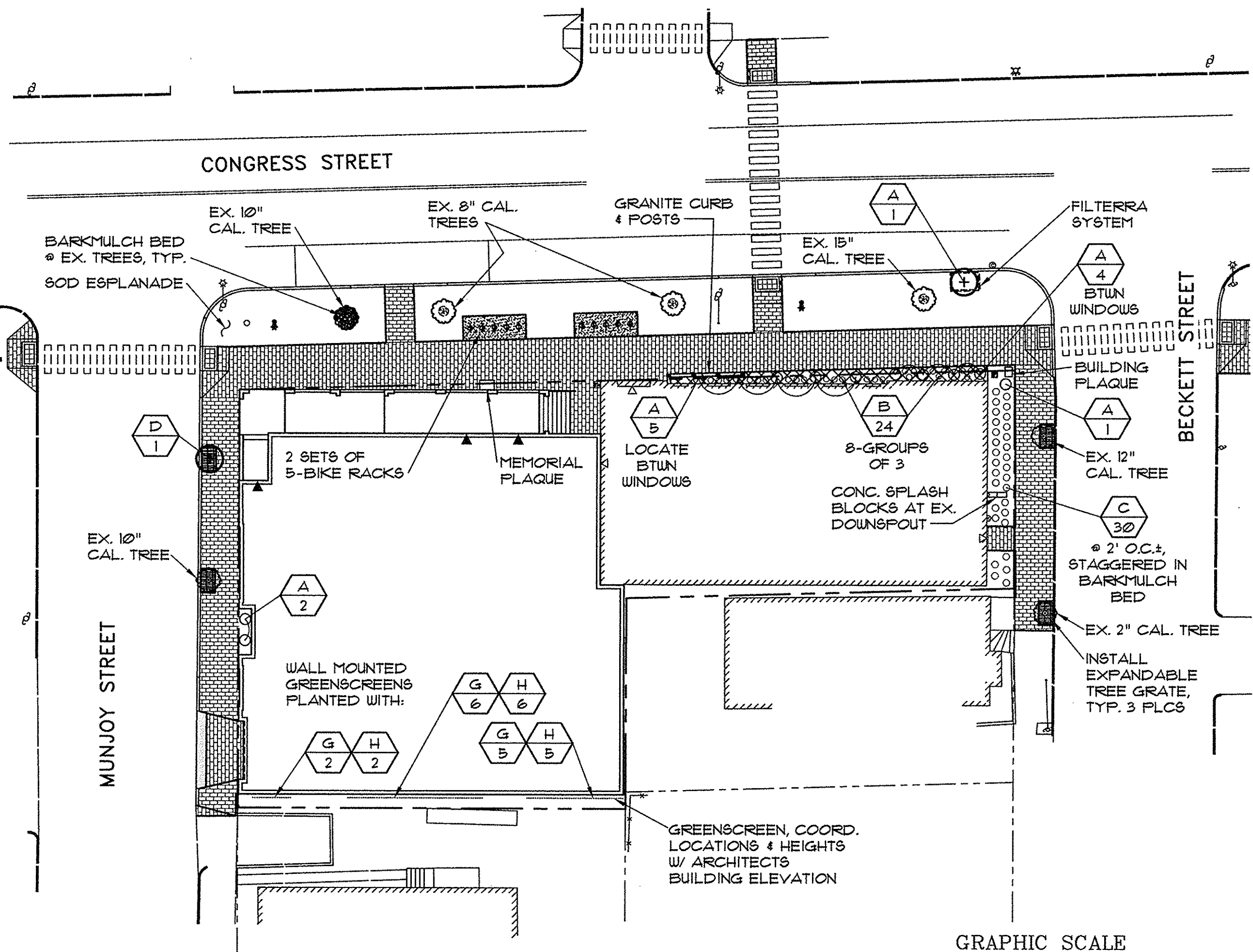
NOT TO SCALE



PLANT LIST

SYMBOL QUANTITY

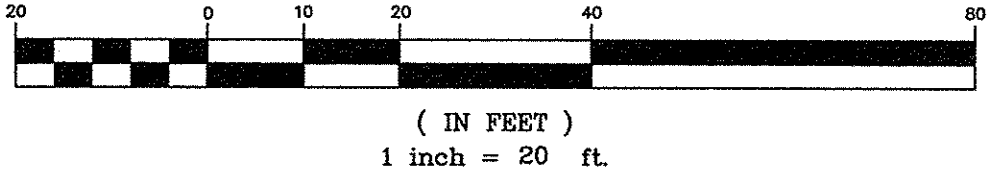
SYMBOL	COMMON NAME/BOTANICAL NAME	SIZE	QUANTITY	ROOT
A	MISCANTHUS / Miscanthus Autumn Anthem	1 gal.	13	POTTED
B	FESCUE / Festuca glauca Boulder Blue	1 gal.	24	POTTED
C	HAKONECHLOA / Hakonechloa macra All Gold	1 gal.	30	POTTED
D	ARMSTRONG MAPLE / acer freemanii 'Armstrong'	2 1/2" cal.	1	B&B
G	CLEMATIS VARIETIES / SWEET AUTUMN / paniculata	--	13	POTTED
H	HONEYSUCKLE VINE / lonicera x heckrottii 'goldflame'	--	13	POTTED



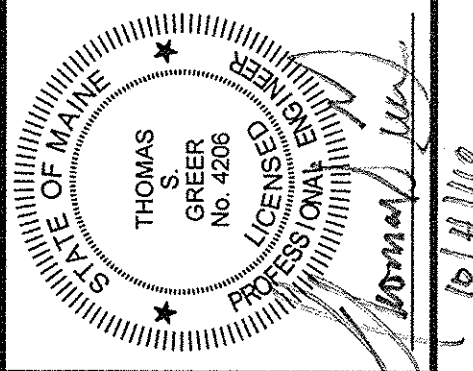
LANDSCAPE PLAN

FOR SITE PLAN LEGEND
SEE SHEET C1.3

GRAPHIC SCALE



PINKHAM & GREER
CIVIL ENGINEERS
28 WINDHAM AVE. PORTLAND, ME 04103
TEL: 207.761.5342 FAX: 207.761.0455



ST. LAWRENCE ARTS ADDITION
76 CONGRESS STREET
PORTLAND, ME

FRIENDS OF ST. LAWRENCE CHURCH
76 CONGRESS STREET
PORTLAND, MAINE 04101

C1.5

MAP/LOT /BLOCK 3/L/1

LANDSCAPE PLAN,
NOTES AND DETAILS

SCALE: AS SHOWN
DATE: OCTOBER 4, 2016
PROJECT: 16107

REV. DATE DESCRIPTION

DRN BY: JDC
DES BY: TSG
CHK BY: JY

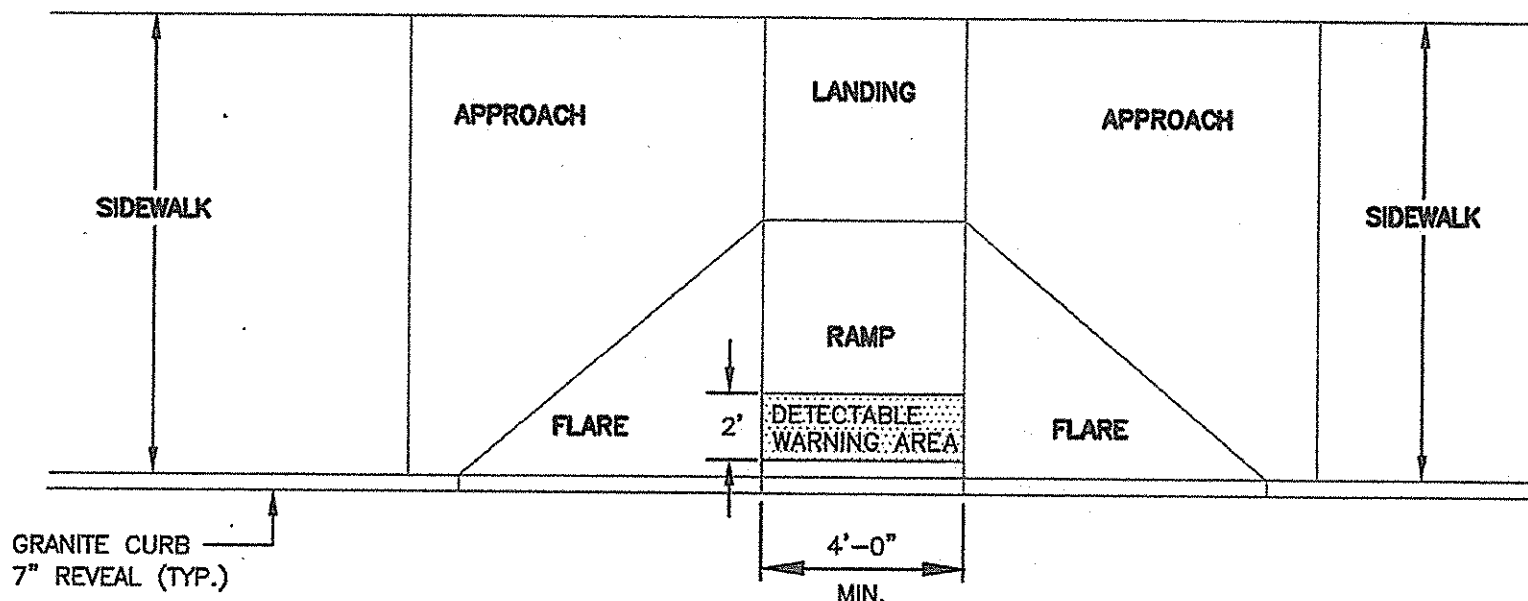
MAP/LOT /BLOCK 3/L/1

NOTES:

ALL RAMPS SHALL COMPLY WITH ADA STANDARDS.

GRANITE CURB ADJACENT TO RAMP SHALL BE FLUSH WITH STREET.

DESIGN ELEMENT	SLOPE	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%



PLAN VIEW

PERPENDICULAR ADA RAMP LAYOUT FOR WIDE SIDEWALK WITH NO ESPLANE (I-6A)

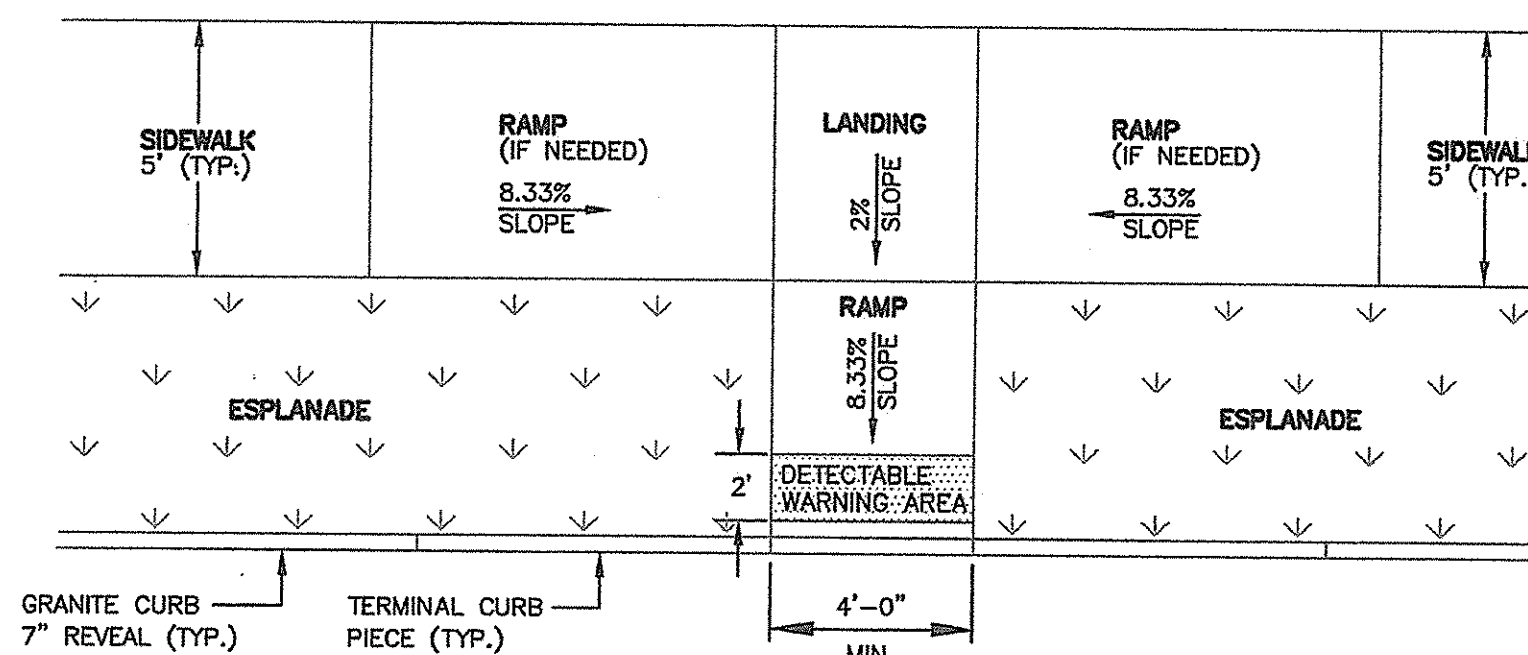
6 NOT TO SCALE

NOTES:

ALL RAMPS SHALL COMPLY WITH ADA STANDARDS.

GRANITE CURB ADJACENT TO LANDING SHALL BE FLUSH WITH STREET.

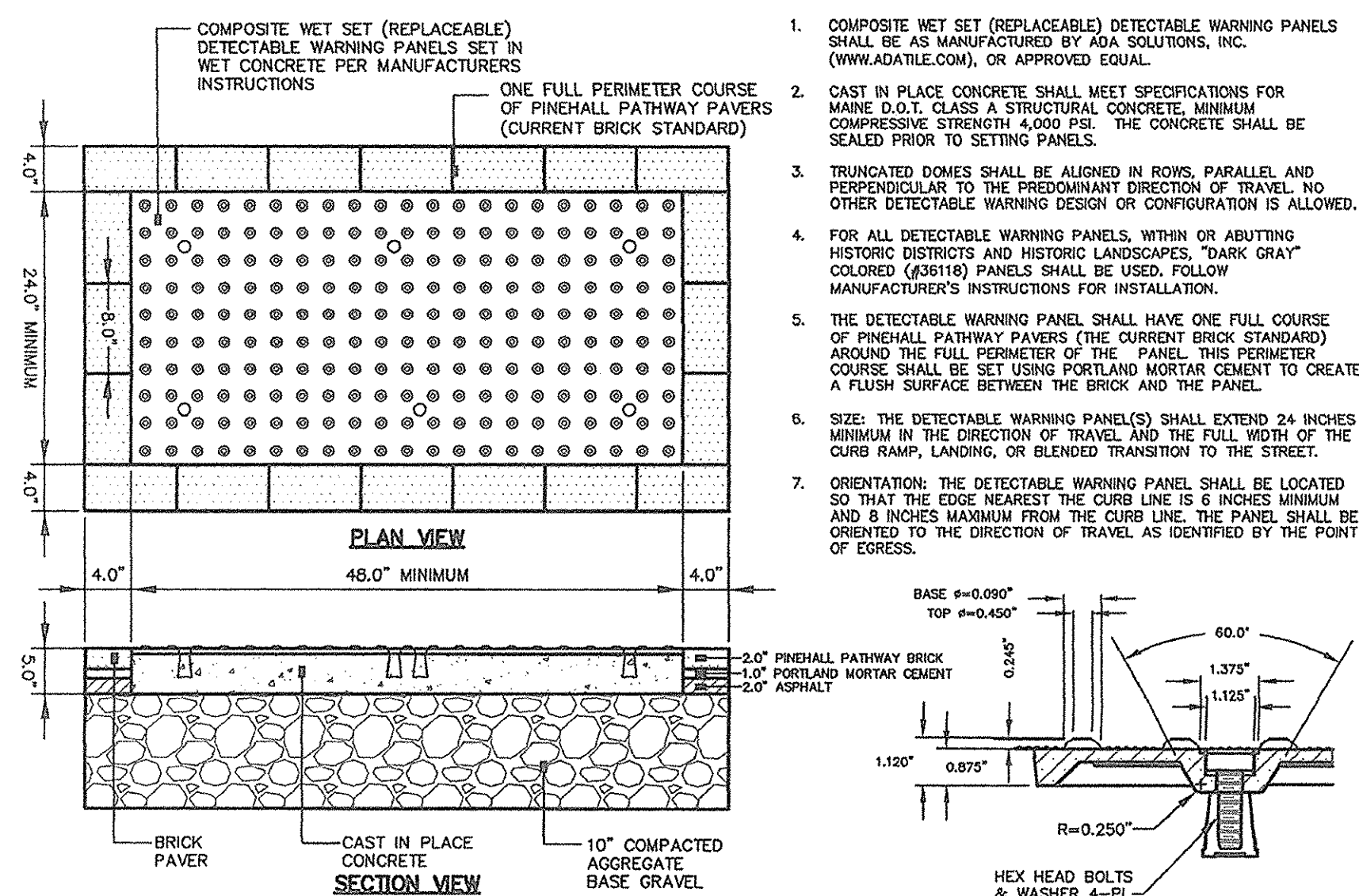
SIDEWALK MATERIAL PER CITY SIDEWALK MATERIAL POLICY.



PLAN VIEW

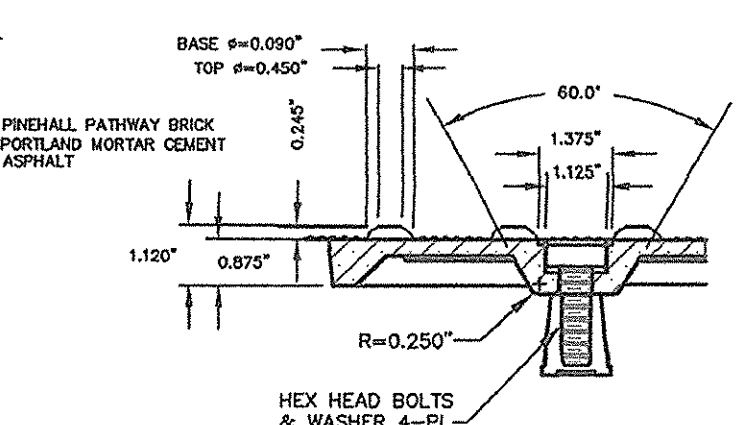
PERPENDICULAR ADA RAMP LAYOUT FOR NARROW SIDEWALK WITH ESPLANE (I-6C)

7 NOT TO SCALE



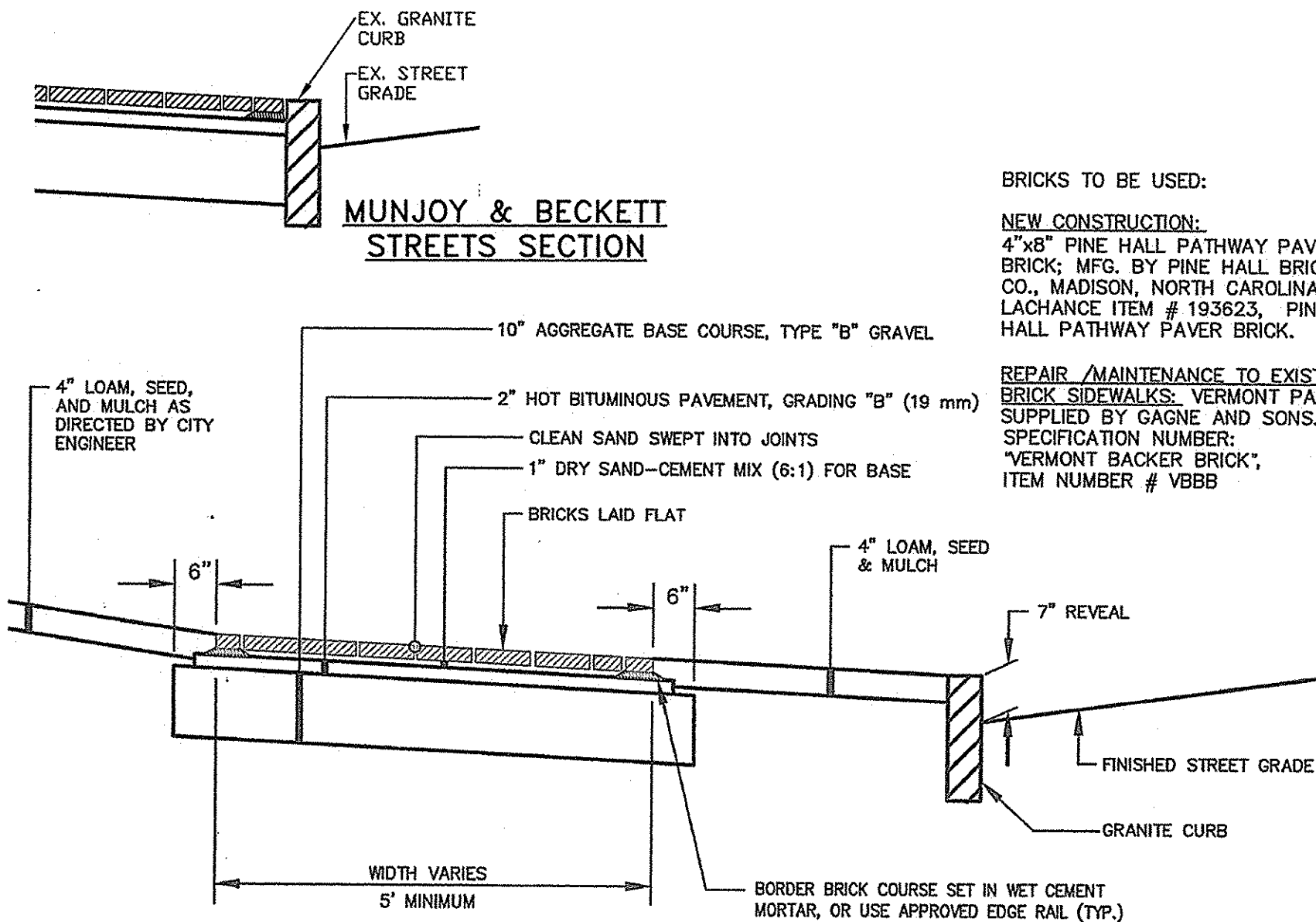
NOTES:

1. COMPOSITE WET SET (REPLACEABLE) DETECTABLE WARNING PANELS SHALL BE AS MANUFACTURED BY ADA SOLUTIONS, INC. (WWW.ADASOLUTIONS.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 ADJUTING HISTORIC DISTRICTS AND HISTORIC LANDSCAPES, "DARK GRAY" COLORED (#38118) 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 ENTRY.



8 SIDEWALK RAMP DETECTABLE WARNING TILE (I-7A)

NOT TO SCALE



MUNJOY & BECKETT STREETS SECTION

BRICKS TO BE USED:

NEW CONSTRUCTION:
4"x8" PINE HALL PATHWAY PAVEMENT BRICK; MFG. BY PINE HALL BRICK CO., MADISON, NORTH CAROLINA. LACHANCE ITEM # 193623, PINE HALL PATHWAY PAVEMENT BRICK.

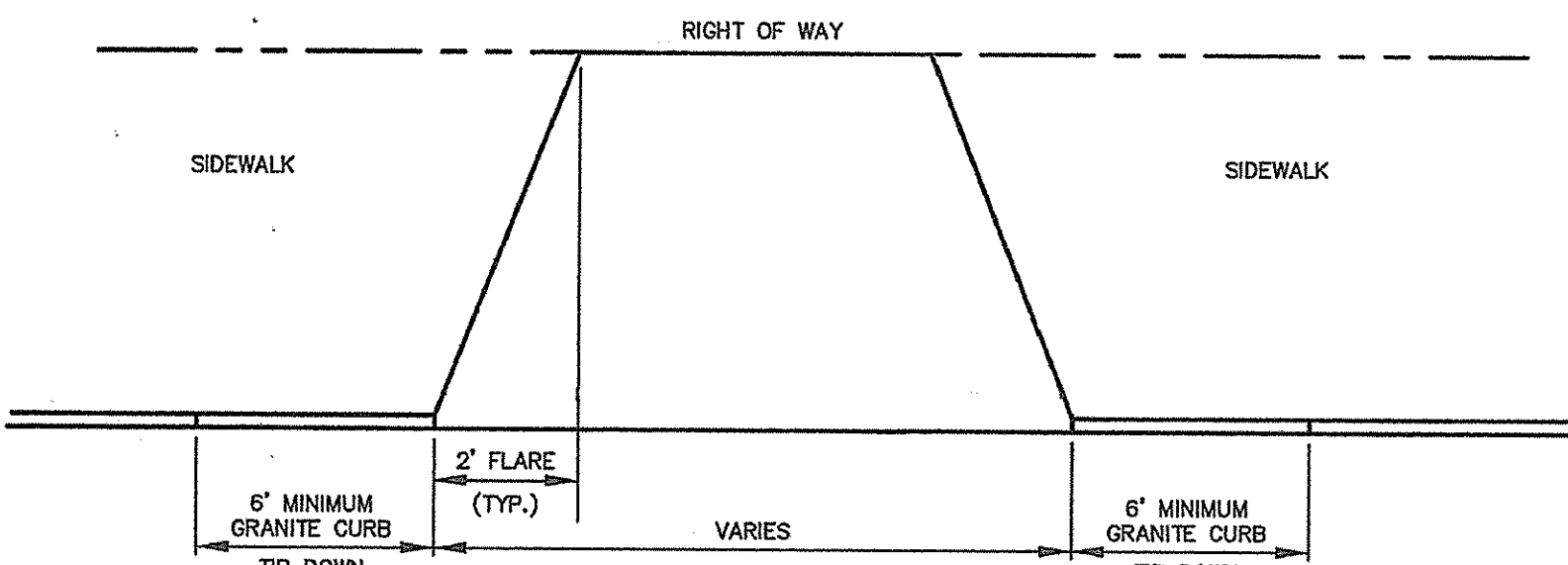
REPAIR / MAINTENANCE TO EXISTING BRICK SIDEWALKS: VERMONT PAVEMENT SUPPLY BY GAGNE AND SONS. SPECIFICATION NUMBER: "VERMONT BACKER BRICK", ITEM NUMBER # VB88

CONGRESS STREET SECTION

3 BRICK SIDEWALK WITH BITUMINOUS BASE (I-10)

NOT TO SCALE

NOTE:
MATCH GRADE OF EXISTING DRIVEWAY AT R. O. W. LINE, EXCEPT WHEN DIRECTED OTHERWISE BY CITY ENGINEER.



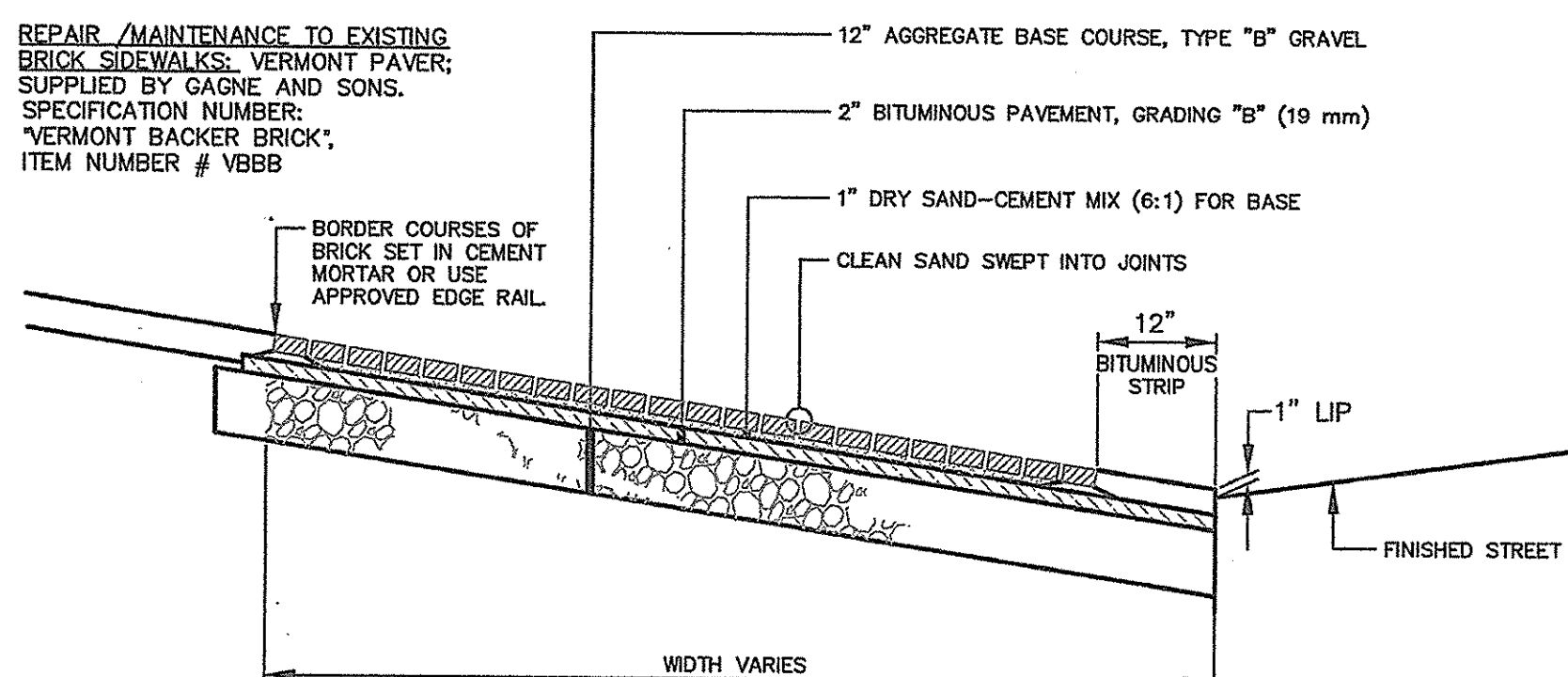
4 DRIVEWAY APRON LAYOUT (I-9)

NOT TO SCALE

BRICKS TO BE USED:

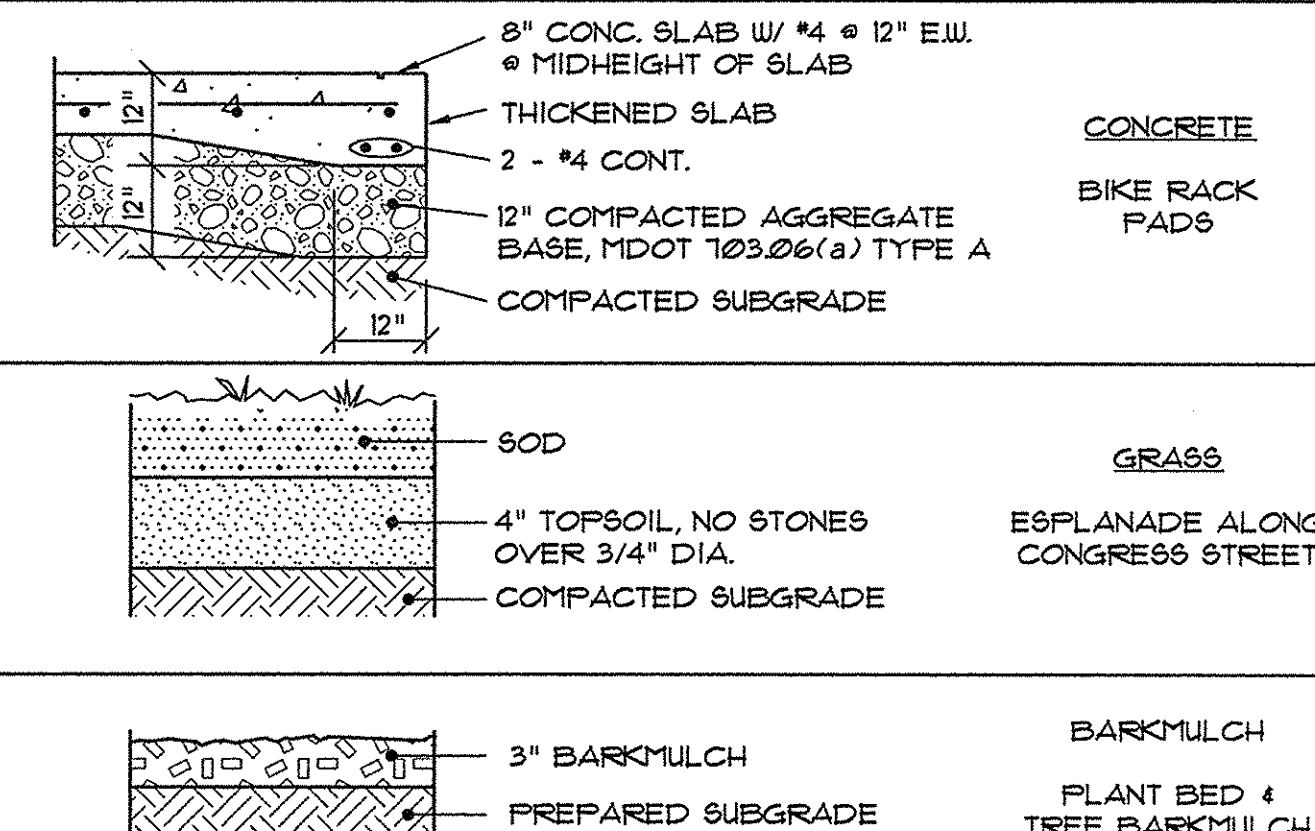
NEW CONSTRUCTION:
4"x8" PINE HALL PATHWAY PAVEMENT BRICK; MFG. BY PINE HALL BRICK CO., MADISON, NORTH CAROLINA. LACHANCE ITEM # 193623, PINE HALL PATHWAY PAVEMENT BRICK.

REPAIR / MAINTENANCE TO EXISTING BRICK SIDEWALKS: VERMONT PAVEMENT SUPPLY BY GAGNE AND SONS. SPECIFICATION NUMBER: "VERMONT BACKER BRICK", ITEM NUMBER # VB88



5 BRICK DRIVEWAY APRON WITH BITUMINOUS BASE (I-11)

NOT TO SCALE

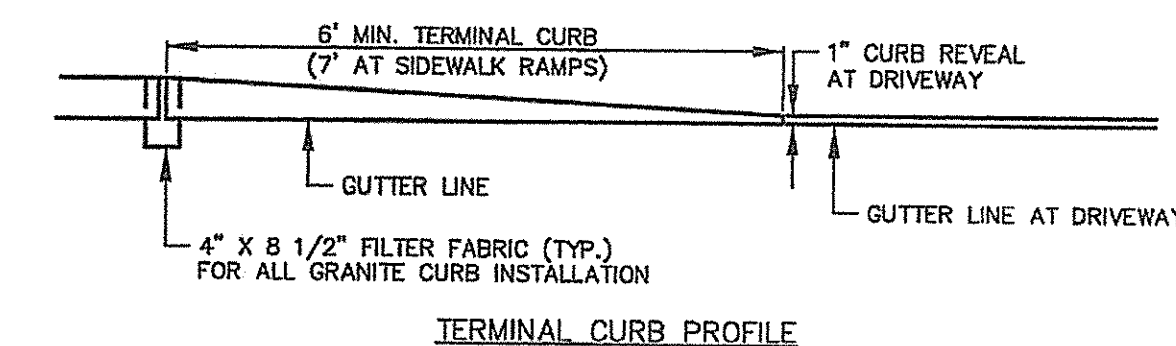


NOTES:

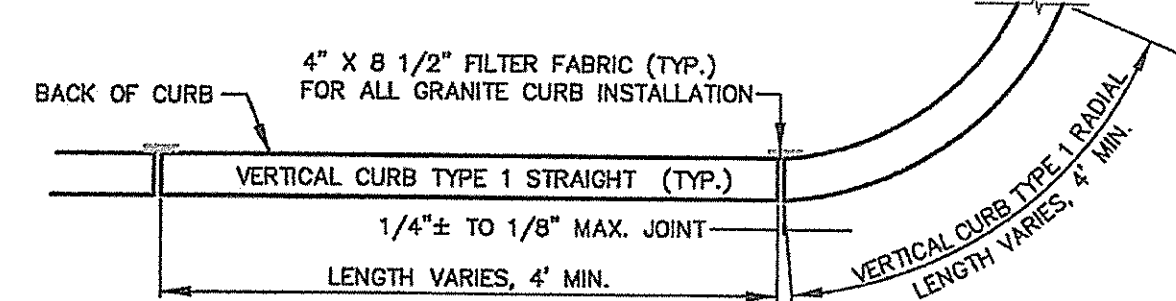
1. HMA = HOT MIX ASPHALT.
MDOT = MAINE DEPARTMENT OF TRANSPORTATION.
2. ALL COURSE THICKNESS AFTER FINAL COMPACTION.

1 SCHEDULE OF SURFACE FINISHES

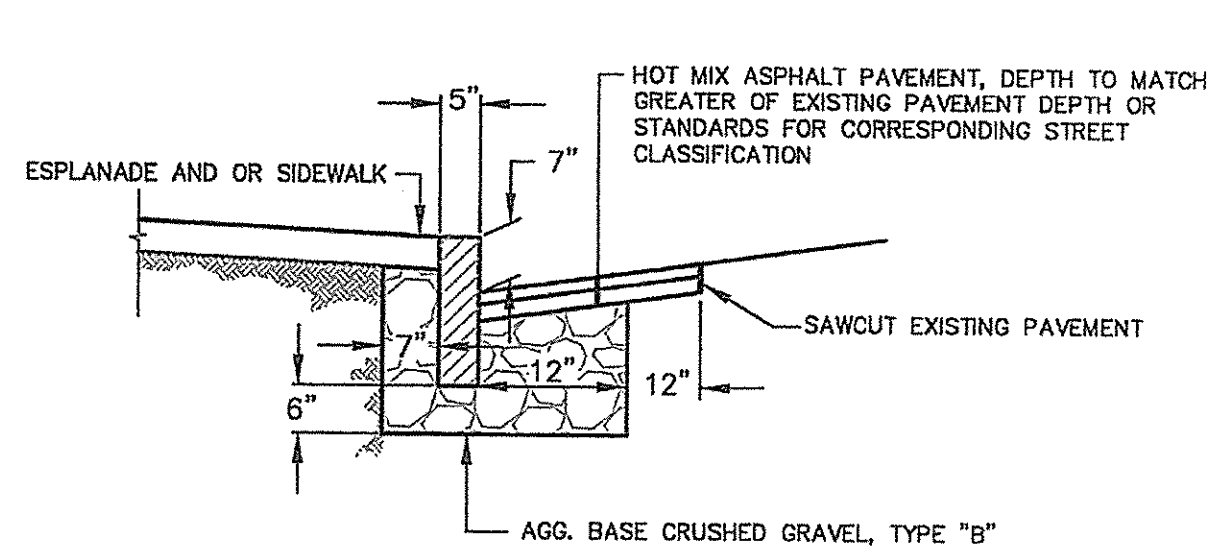
NOT TO SCALE



TERMINAL CURB PROFILE



VERTICAL GRANITE CURB PLAN VIEW



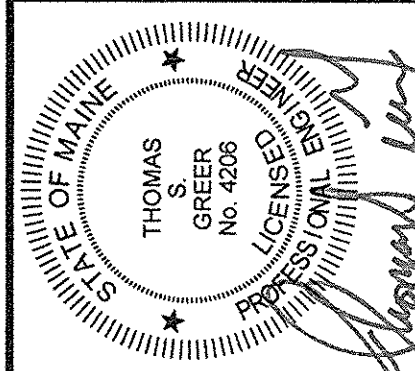
VERTICAL GRANITE CURB CROSS SECTION

2 VERTICAL GRANITE CURB INSTALLATION IN EXISTING STREET (I-17)

NOT TO SCALE

PINKHAM & GREER CIVIL ENGINEERS

28 WAWANAH, ME. PORTLAND, ME 04103
TEL: 207.781.5442 FAX: 207.781.4245



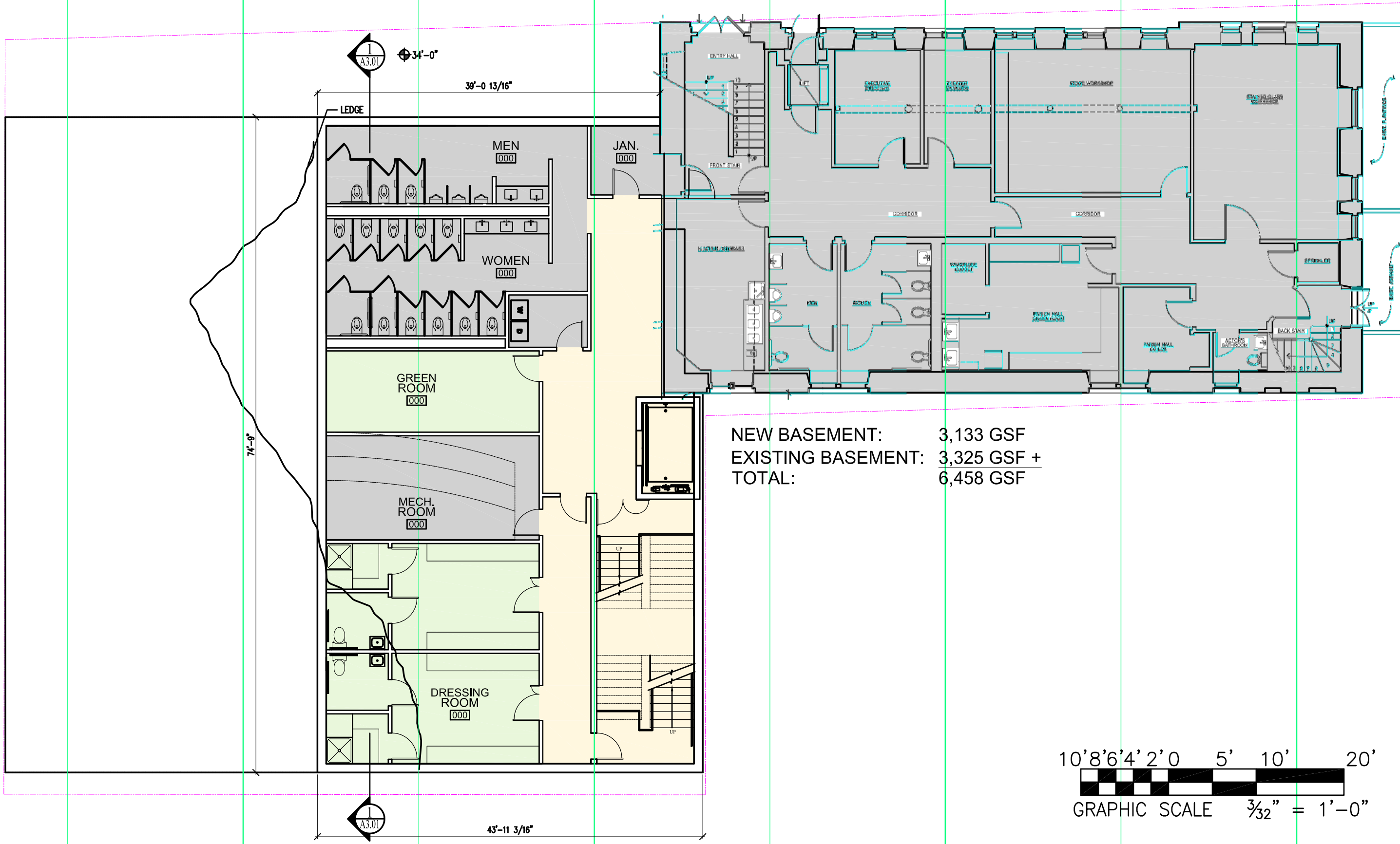
FRIENDS OF ST. LAWRENCE CHURCH
76 CONGRESS STREET
PORTLAND, MAINE 04101

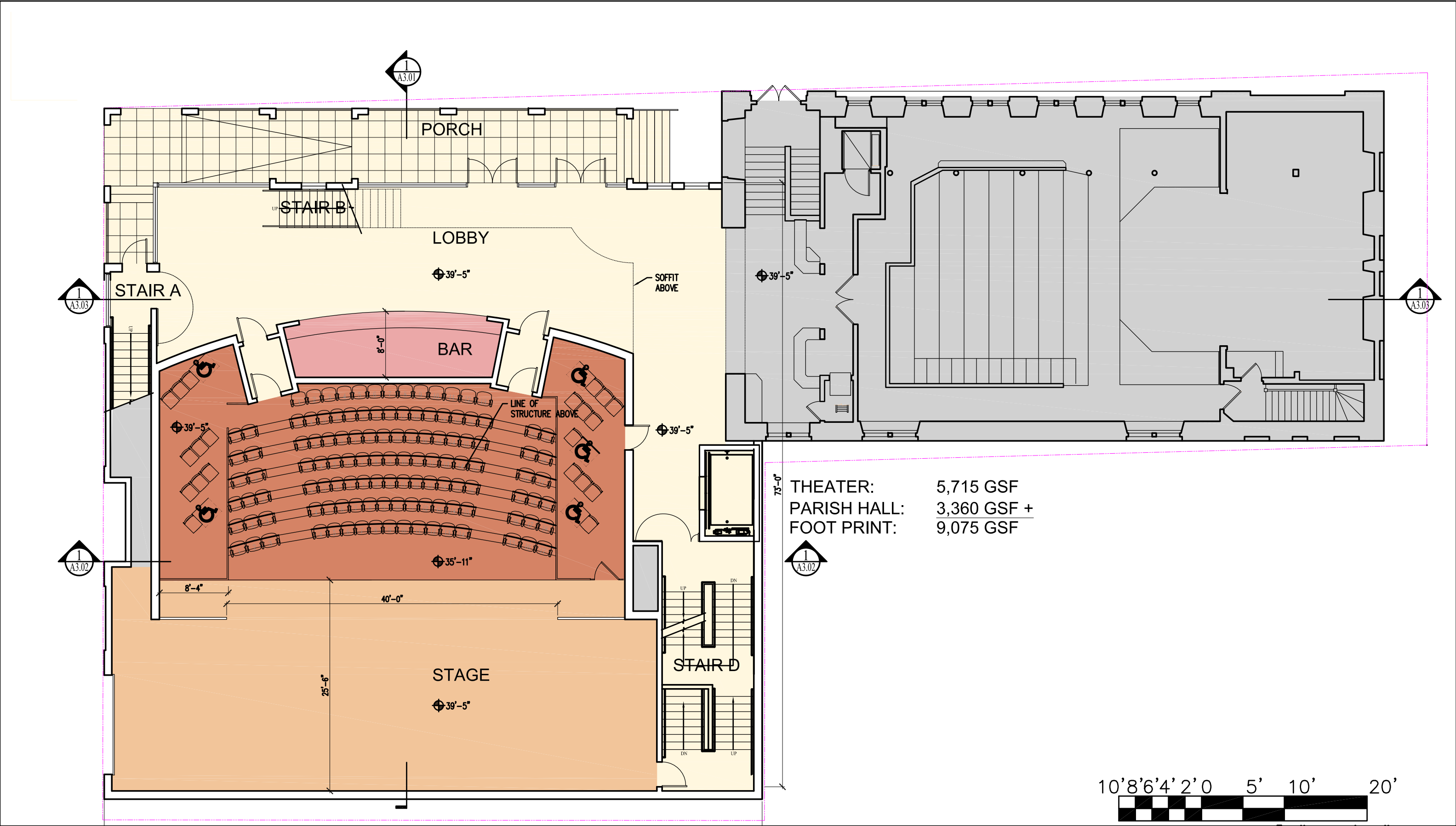
ST. LAWRENCE ARTS ADDITION
76 CONGRESS STREET
PORTLAND, ME

DETAILS

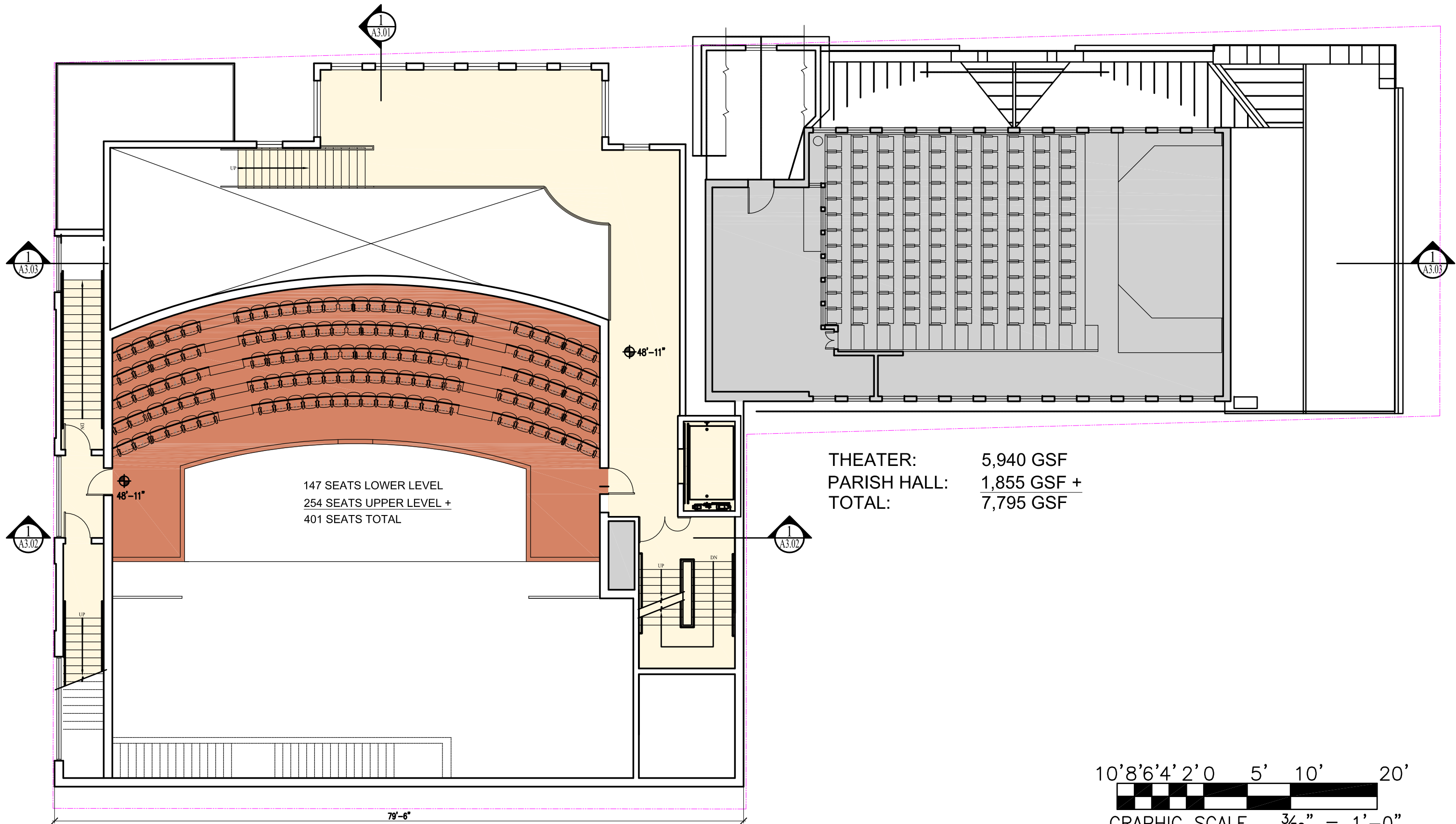
C2.2

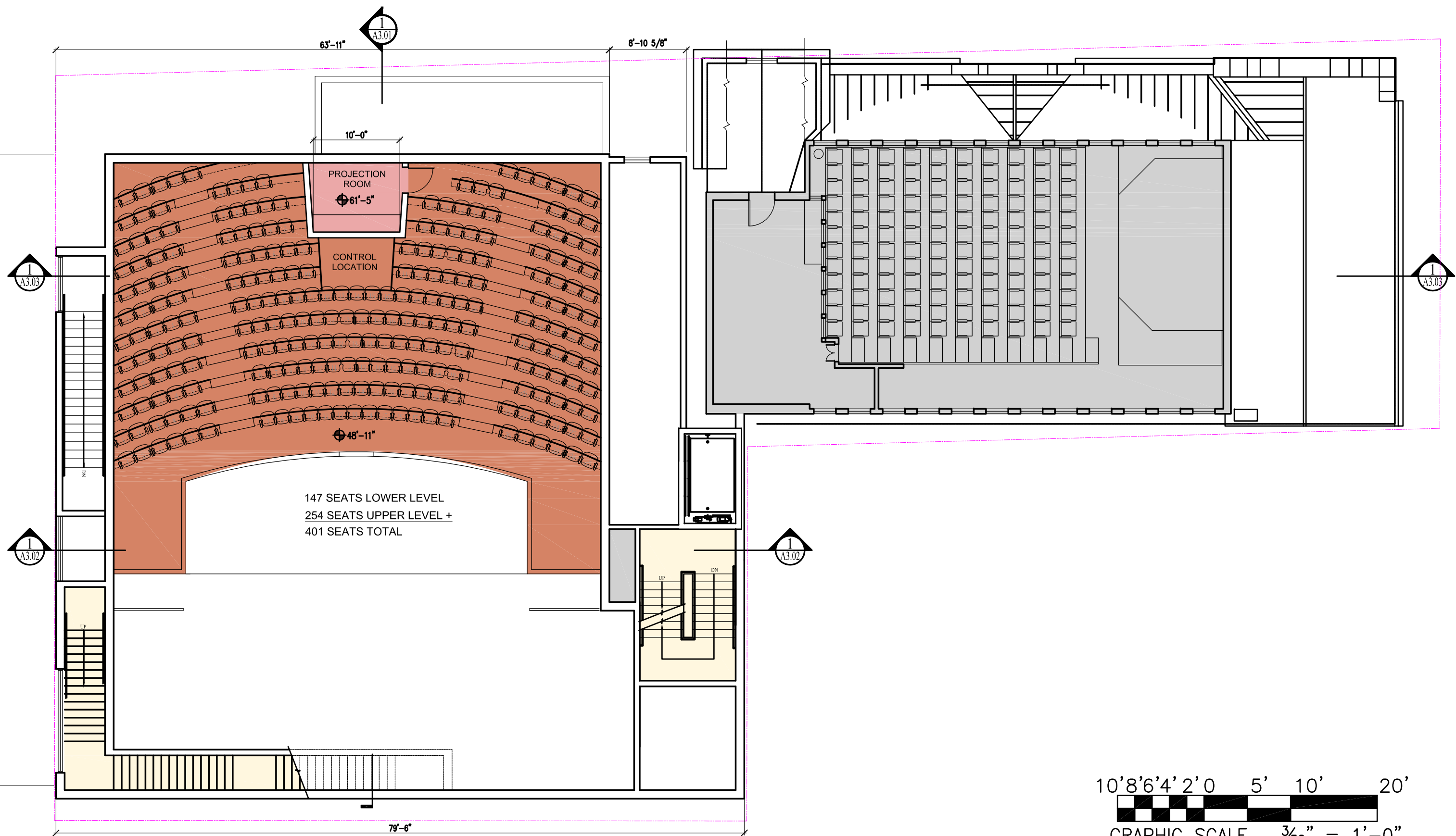
MAP/LOT / BLOCK 3/L/1



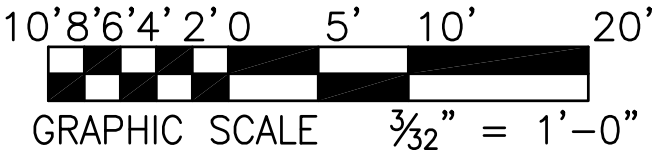


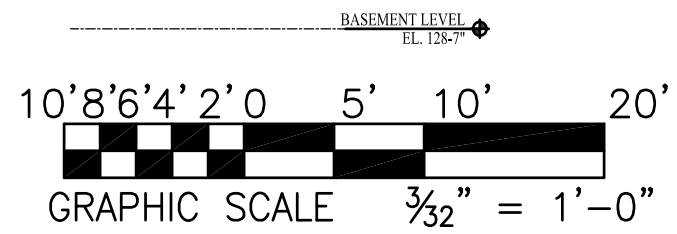
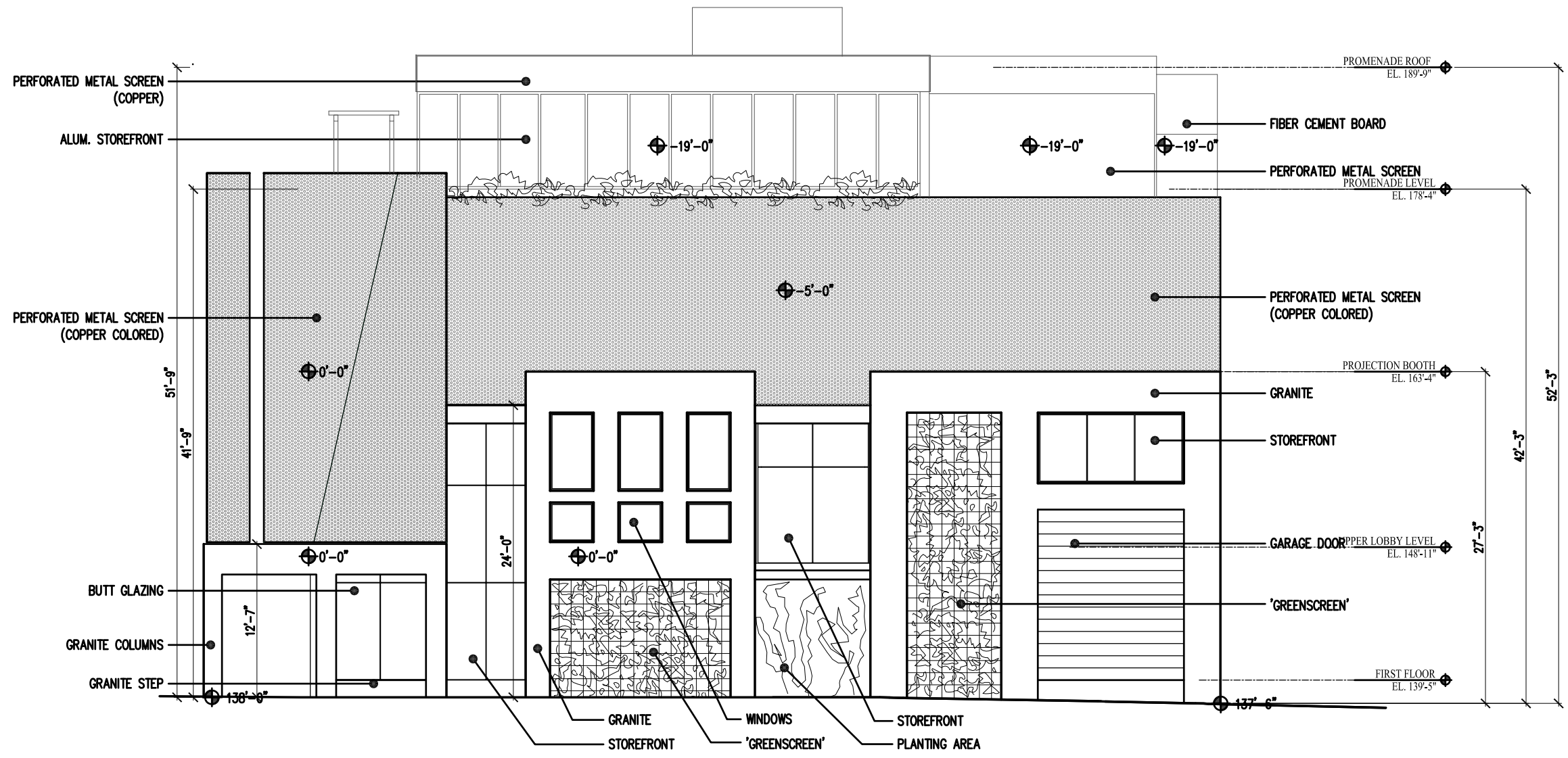
THEATER: 5,715 GSF
PARISH HALL: 3,360 GSF +
FOOT PRINT: 9,075 GSF

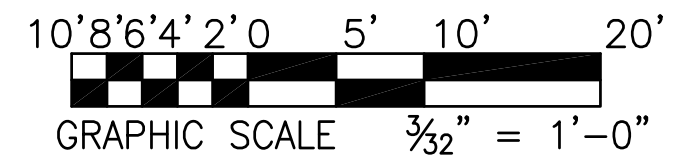
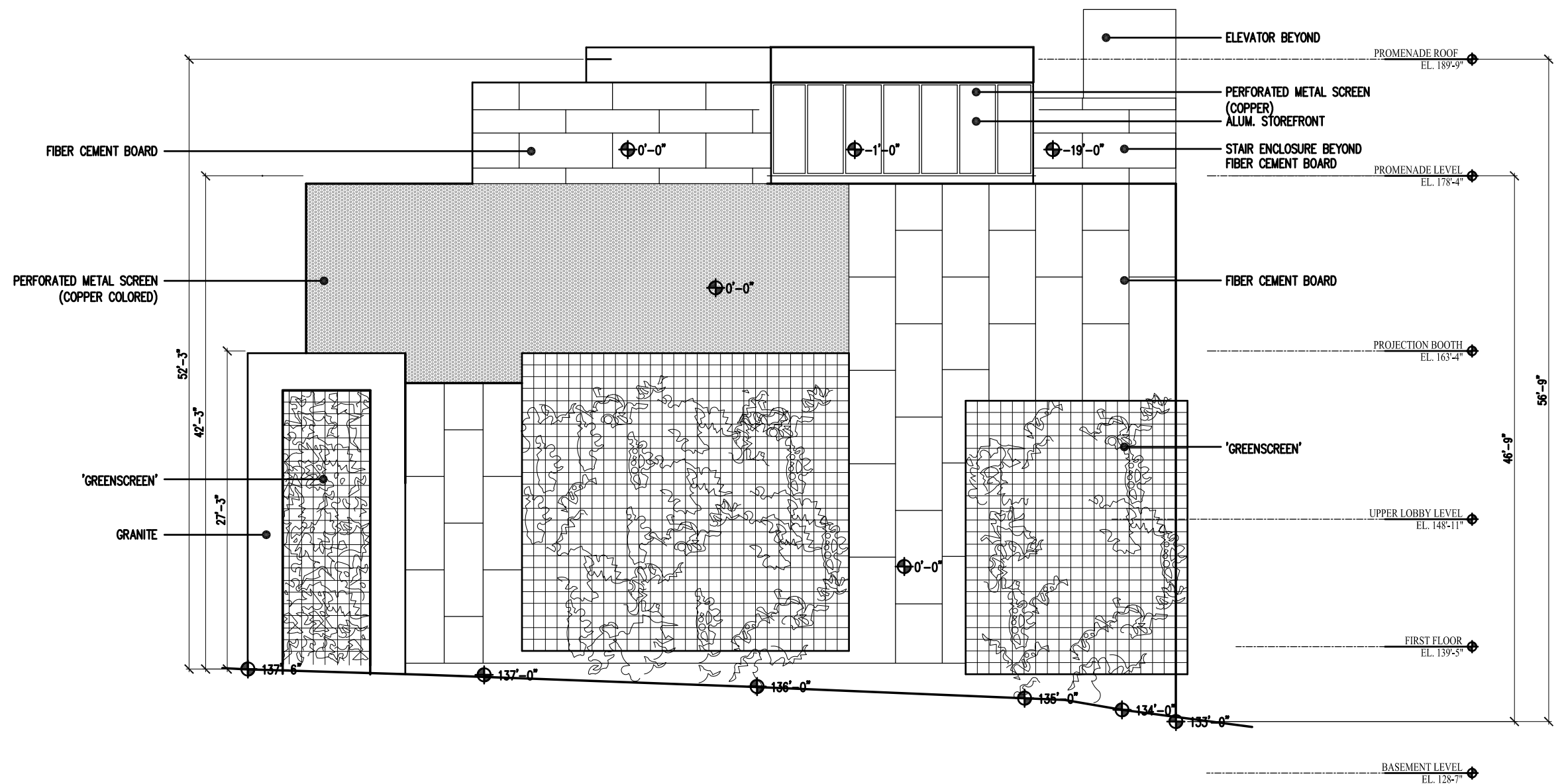




- GENERAL NOTES:
1. AVERAGE GRADE BY DEFINITION: 4 CORNER AVERAGE GRADE -
NW 138'-0" + NE 134'-6" + SE 133'-0" + SW 137'-6" = 136'-0" / 4 = 135'-9"
(AVERAGE GRADE)
 2. BUILDING HEIGHT: THE VERTICAL MEASUREMENT AT THE FOUR
CORNERS FROM GRADE TO HIGHEST POINT OF ROOF BEAM -
NW 51'-9" + NE 55'-3" + SE 56'-9" + SW 52'-3" = 217'/4 = 54'-0" FEET
(BUILDING HEIGHT)







Prepared for:
**FRIENDS OF THE
 ST. LAWRENCE CHURCH**

76 CONGRESS STREET
 PORTLAND, MAINE 04101

Consulting Engineer:

ARCHETYPE
 architects

48 Union Wharf Portland, Maine 04101
 (207) 772-6022 Fax (207) 772-4056

Project:
**ST. LAWRENCE ARTS
 ADDITION**

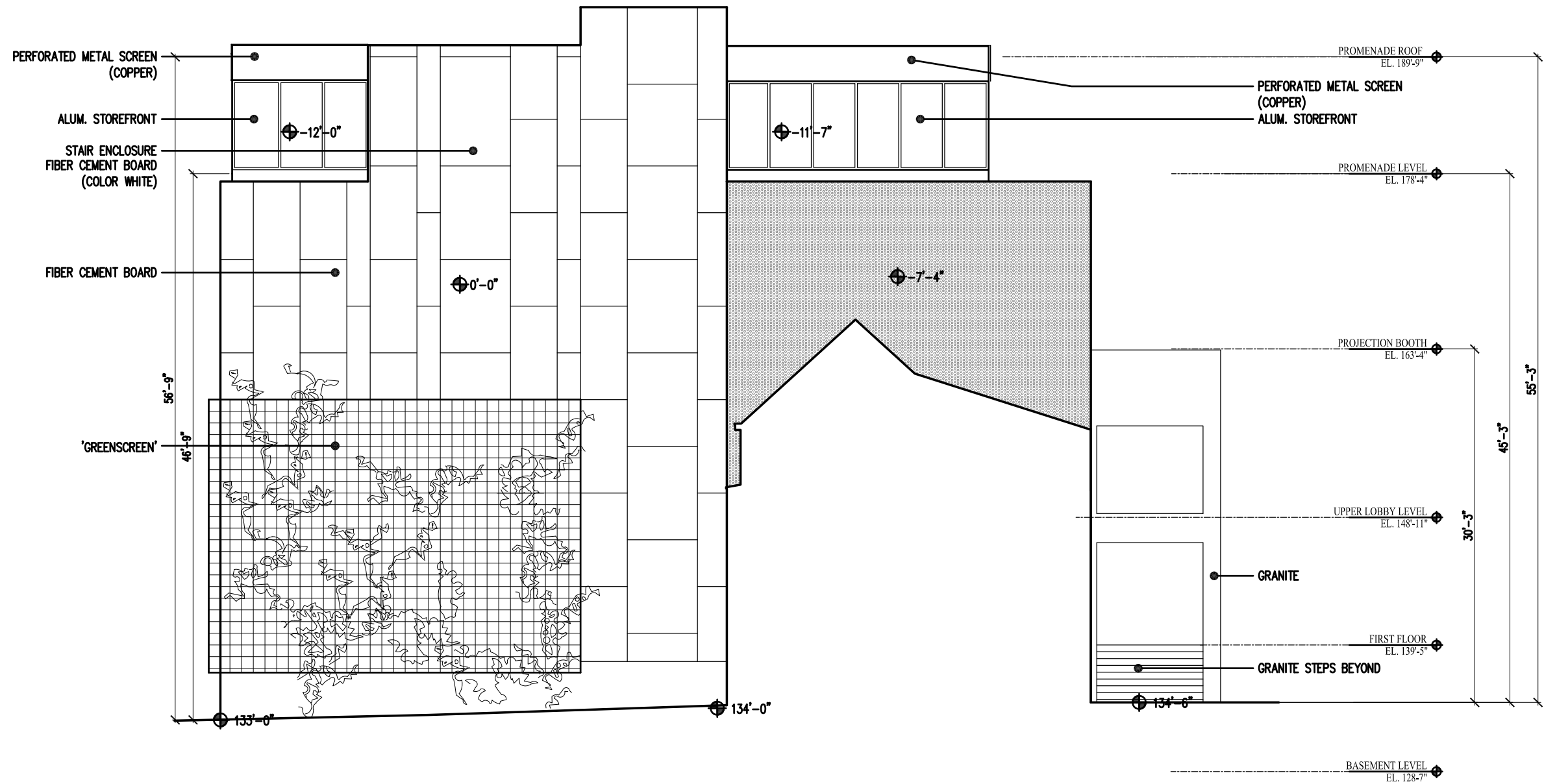
76 CONGRESS STREET
 PORTLAND, MAINE 04101

Revisions:

Date: 10 Sept. 2014 Scale: $\frac{3}{32}$ " = 1'-0"

SOUTH ELEVATION

A2.02



Prepared for:

**FRIENDS OF THE
ST. LAWRENCE CHURCH**

76 CONGRESS STREET
PORTLAND, MAINE 04101

Consulting Engineer:

ARCHETYPE
architects

48 Union Wharf Portland, Maine 04101
(207) 772-6022 Fax (207) 772-4056

Project:

**ST. LAWRENCE ARTS
ADDITION**

76 CONGRESS STREET
PORTLAND, MAINE 04101

Revisions:

Date: 10 Sept. 2014

Scale: $\frac{3}{32}" = 1'-0"$

EAST ELEVATION

A2.03

