



December 12, 2014

Ms. Christine Grimando, Senior Planner
Planning and Development Department
City of Portland, Maine
389 Congress Street
Portland, Maine 04101-3509

**Subject: The Forefront at Thompson's Point
Subdivision Plan Application**

Dear Christine:

On behalf of Forefront Partners I, LP, we are pleased to provide the accompanying package of submission materials related to the proposed Overall Subdivision Plan of The Forefront at Thompson's Point development. This submission package is intended to meet the City's Subdivision Submission requirements to the extent practicable as outlined in the Subdivision Application procedures as well as Article IV Section 14-496 (a) of the Code of Ordinances. These materials represent minor revisions to the March 2014 approved Master Development Plan, additional engineering detail for common areas, and inclusion of the Amended Phase 1A Brick North Site Plan approved earlier this month.

MASTER PLAN

The project has undergone minor changes since the Master Development approval from March 2014. While the Master Plan remains very similar in layout, program, and parking, some of the program elements have shifted locations within previously defined building envelopes. Changes to the buildings are summarized as follows:

- At the heart of the layout adjustments, is Forefront's decision to retain and renovate the existing brick building referred to as Brick South. Brick South shown as Building C1 on the enclosed plans will serve as the entrance to the 125-room hotel (which has been relocated to the southeasterly side of Brick South), maker space, and event space. The event space is meant to complement the proposed event center and is not intended to increase the overall size of events or number of people at the site at one time.
- A multi-story mixed-use building (restaurant and office space) and surface parking lot will reside in place of the hotel.
- The educational building (Circus Conservatory) will be divided into multiple spaces within the Brick North and the Event Center Buildings. By dividing this use into multiple spaces, the school will take on more of a campus approach and bring a higher efficiency to the Event Center building which nevertheless will continue to accommodate the other uses (sports including basketball at 3,500 seats, concerts at approximately 5,000 seats, and trade show/conference floor uses) that have always been part of the Event Center program. In our space planning efforts with the Circus Conservatory, we came to find that the large volume training space that we had designed for them was virtually identical in size and scope to the large open multi-use area of the Event Center; we have been able to generate a scheduling methodology that enables the key program elements to share the large volume space without compromising function. This has enabled us to make a far more efficient use of the Event Center, put the Circus Conservatory next to the Transportation Center which is desirable for

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them, and, importantly, enable us to retain virtually all of the “Brick South” building (two-thirds of which had initially been planned for demolition in order to make room for the new large volume training center that the Circus Conservatory required, and which now can be accommodated in the Event Center). We view this as a tremendous and multi-faceted gain for the project.

- The office (Building G) located on the panhandle will reduce in gross square footage to offset the office space proposed in Building D and create a net balance in total office space proposed for the overall site.
- The Cultural Center (Building E) has grown in gross square footage and building footprint however the program has remained the same.

The updated Master Plan Building Program is summarized in the table below:

TABLE 1 MASTER PLAN PROGRAM		
Building Master Plan	Master Plan-Approved March 2014 Gross Size Change	Master Plan December 2014 Gross Size
Building A: Mixed Use: Office + Studio Circus Program Café Specialty Retail	34,000 SF	40,000 SF
Building B1: Multi-Purpose (Assume Live Theater)	14,000 SF (4,800 Seats)	14,000 SF (4,800 Seats)
Building B2: Restaurant (Assumed)	3,600 SF	3,600 SF
Building B3: Ancillary to B1	6,000 SF	6,000 SF
Building C1: Event Space/Maker (Circus)	41,000 SF	34,600 SF
Building C2: Hotel Condominiums	125 Rooms 24 Units 70,000 SF	125 Rooms 24 Units 70,000 SF
Building D1: Office Space Restaurant	6,000 SF	6,000 SF
Building E: Cultural Center	25,000 SF	40,000 SF
Buildings F1/F2: Parking Garage <small>*(see next page)</small>	730 Spaces 163,105 SF	730 Spaces 163,105 SF
Building G: Office	180,000 SF	150,000 SF
Building H: Event Center (Includes Arena, Convention & Educational (Assume Circus Conservatory)	63,000 SF	63,000 SF
Building I: Gym/Sports Medical Office	11,000 SF	8,000 SF
Building J1: Condominiums (Assumed)	160,000 SF/ 160 Units	160,000 SF/ 160 Units
Building J2: Condominiums (Assumed)	196,500 SF/ 160 Units	196,500 SF/ 160 Units
Total SF	973,205	986,985
Total Non-Garage SF	810,100	823,880

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** Depending on the timing of garage construction which will follow the relocation of Suburban Propane and the commencement of the phase two buildings, it is conceivable that by the time the garage is ready to begin construction we may actually elect to add floors taking advantage of the 120' height limit to increase structured parking capacity. It may also be desirable to build the garage structure to provide for the possibility of adding floors in the future after the initial 730 spaces are built. We are continuing to assess these options now, but would suggest that the Master Plan retains the ability to plan for a dynamic future outcome without compromising the needs of the first phase of development.*

Subdivision Plan

The overall subdivision plan takes a holistic approach to how the Master Plan will be implemented and shows the subdivision of what are currently four lots (two lots owned by Forefront Partners, one lot owned by Suburban Propane, and one lot owned by Northern New England Rail Authority (NNEPRA)). The overall subdivision envisions 20 lots plus common area with vested ownership by all lots. The subdivision would occur over the course of four (4) or more sectional recordings. A description of the overall Subdivision Plan development sequence is as follows:

1. **Sectional 1 Recording Plat:** The initial development activity now includes the redevelopment of the existing Brick North building for mixed use. This former brick rail building is well suited for its reuse as commercial space housing multiple small tenants. This initial activity has begun as part of a Phase 1A sectional recording based on a subdivision approval in 2012 and amended in 2013. As part of this subdivision application, the first sectional subdivision plat would modify and replace the previously recorded lot configuration around Brick North to include Lots 1-5 plus Lot 11 as depicted on the enclosed plan Sheet C-2.1. Lot 11 would create a separate lot for the existing building referred to as The Depot.
2. **Sectional 2 Recording Plat:** The applicant is proposing the adaptive reuse of the former Barnstormers building located at the south end of the point (Lot 11). The applicant has resurrected this structure (aka The Depot) for use as a multi-purpose space related to an open space/concert venue area to be located at the south end of the point. This outdoor concert area is of equal capacity (approximately 5,000) to the outdoor concert area that was adjacent to the Event Center in our June 2013 plan; we have relocated it to the point to take advantage of the proximity to this unique structure. It is important to note that during the licensing process for the events that occurred this past summer, the Fire Department asked us to assess the maximum capacity of the Depot area from a public safety perspective; Mark Cummings, P.E. determined that it was feasible to accommodate 7,300 people safely on the site, assuming that an adequate off-site parking plan and temporary pedestrian safety layout could be provided, in the context of a business licensing scenario.

Sectional Recording 2 would create Lots 9, 10, 13 and 14 to support The Depot as well as Lot 8 (the Cultural Center); Lots 6 and 7 (Sports Medicine office); Lot 12 (Restaurant); and additional common space. These lots are depicted on the enclosed plan Sheet C-2.2.

3. **Sectional 3 Recording Plat:** The applicant has a Purchase and Sale agreement for the acquisition of the Suburban Propane property and a land swap agreement with NNEPRA. Upon closing on these two parcels, the applicant would consolidate the land and create Lots 15 and 16. This sectional plat would create the lots required for the parking garage (Lot 15) and the event center (Lot 16). Additional common space would complete a loop road around the peninsula portion of the project.

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4. Sectional 4 Recording Plat: This is anticipated to be the last recording of the full subdivision plan. Lots 17-20 would be used for the major office space component as well as the potential residential buildings planned for the Panhandle portion of the site.

As you are aware, the original Level III Site Plan and Subdivision approval documents included a substantial design effort that was found to address the City's technical standards. Our plan documents included full design for geometric layout, grading, drainage, and related utility infrastructure. We also produced detailed landscape architecture design and details. Based on the original subdivision, Site Plan and subsequent Master Plan approvals, the City has found that the development site can adequately support the development program proposed. The enclosed application provides the engineering details to show how the project continues to meet the City's technical standards as well as state and federal regulatory permits.

On behalf of the Forefront at Thompson's Point development team, we look forward to your continued assistance on the project and we look forward to the next scheduled workshop meeting with the Planning Board. Please find one hard copy of the application materials including 11 x 17 and full size plans, along with a diskette containing PDF files for all submission materials.

If you have any questions regarding these materials, please contact this office.

Sincerely,

FAY, SPOFFORD & THORNDIKE, LLC



Bo Kennedy, P.E., C.P.E.S.C.
Engineer

BEK/cmd

- Enc: Attachment A – Subdivision Plan Submission Supporting Narrative
Attachment B – AutoTURN Figures
Attachment C – Traffic Study Information
Attachment D – Stormwater Management Report & Supplemental Information
Attachment E – Life Safety Plan
Attachment F – Photometric Cut Sheets & Specifications
Attachment G – State and Federal Permits
Attachment H – Utility Capacity Information
Attachment I – Conformity to Applicable Design Standards
Attachment J – Title, Right & Interest
Attachment K – Financial Capacity Letter
Attachment L – Declaration of Easements, Covenants & Restrictions

- c: Chris Thompson, Forefront Partners I, LP
Jed Troubh, Forefront Partners I, LP
Paul Ureneck, Boulos Company
Pat Carroll, Carroll Associates



Jeff Levine, AICP, Director
Planning & Urban Development Department

Electronic Signature and Fee Payment Confirmation

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

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

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

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

Applicant Signature: _____

Bo E. Kennedy, P.E. _____

I have provided digital copies and sent them on: _____

December 12, 2014 _____

Date:

December 12, 2014 _____

Date:

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



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

Planning and Urban Development Department
Planning Division

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

Level III: Site Plan Development includes:

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

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

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

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

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

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

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

PROJECT NAME: The Forefront at Thompson's Point

PROPOSED DEVELOPMENT ADDRESS:

1 Thompson's Point

PROJECT DESCRIPTION:

This subdivision application proposes a 20 lot subdivision plan for the Forefront at Thompson's Point to be Consistent with the March 2014 approved Master Plan.

CHART/BLOCK/LOT: 201/ A / 5, 8, 10
202/ A / 1 & 4

PRELIMINARY PLAN N/A (date)
FINAL PLAN 12/11/14 (date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: Chris Thompson Business Name, if applicable: Parallax Partners (dba Forefront Partners I, LP) Address: 501 Danforth Street City/State : Portland, ME Zip Code: 04102	Applicant Contact Information Work # 207-747-5288 Home# Cell # 207-347-1614 Fax# 207-747-5941 e-mail: parallaxpartners@gmail.com
Owner – (if different from Applicant) Name: Address: SAME AS APPLICANT City/State : Zip Code:	Owner Contact Information Work # Home# Cell # Fax# e-mail:
Agent/ Representative Name: Bo E. Kennedy, P.E. Fay, Spofford & Thorndike Address: 778 Main Street, Suite 8 City/State : South Portland, ME Zip Code: 04106	Agent/Representative Contact information Work # 207-775-1121 Cell # 207-318-8364 e-mail: bkennedy@fstinc.com
Billing Information Name: Address: SAME AS APPLICANT City/State : Zip Code:	Billing Information Work # Cell # Fax# e-mail:

Engineer Name: Bo E. Kennedy, P.E. Fay, Spofford & Thorndike Address: 778 Main Street, Suite 8 City/State : South Portland, ME Zip Code: 04106	Engineer Contact Information Work # 207-775-1121 Cell # 207-318-8364 Fax# 207-879-0896 e-mail: bkennedy@fstinc.com
Surveyor Name: Owens McCullough Sebago Technics Address: P.O. Box 1339 City/State : Westbrook, ME Zip Code: 04098	Surveyor Contact Information Work # 207-856-0279 Cell # 207-232-1649 Fax# 207-856-2206 e-mail: omccullough@sebagotechnics.com
Architect Name: Bill Hopkins* Archetype, PA Address: 48 Wharf Street City/State : Portland, ME Zip Code: 04101 * Other members of Architect - To be determined	Architect Contact Information Work # 207-772-6022 Cell # 207-671-9194 Fax# 207-772-4056 e-mail: hopkins@archetype-architects.com
Attorney Name: David L. Galgay, Jr. Verrill Dana LLP Address: P.O. Box 586 - 1 Portland Square City/State : Portland, ME Zip Code: 04112-0586	Attorney Contact Information Work # 207-774-4000 Cell # 207-253-4514 Fax# 207-774-7499 e-mail: dgalgay@verrilldana.com

APPLICATION FEES:

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

Level III Development (check applicable reviews) <input type="checkbox"/> Less than 50,000 sq. ft. (\$500.00) <input type="checkbox"/> 50,000 - 100,000 sq. ft. (\$1,000) <input type="checkbox"/> 100,000 – 200,000 sq. ft. (\$2,000) <input type="checkbox"/> 200,000 – 300,000 sq. ft. (\$3,000) <input type="checkbox"/> over \$300,00 sq. ft. (\$5,000) <input type="checkbox"/> Parking lots over 11 spaces (\$1,000) <input type="checkbox"/> After-the-fact Review (\$1,000.00 plus applicable application fee) Plan Amendments (check applicable reviews) <input type="checkbox"/> Planning Staff Review (\$250) <input type="checkbox"/> Planning Board Review (\$500) The City invoices separately for the following: <ul style="list-style-type: none"> • Notices (\$.75 each) • Legal Ad (% of total Ad) • Planning Review (\$40.00 hour) • Legal Review (\$75.00 hour) Third party review fees are assessed separately. Any outside reviews or analysis requested from the Applicant as part of the development review, are the responsibility of the Applicant and are separate from any application or invoice fees.	Other Reviews (check applicable reviews) <input type="checkbox"/> Traffic Movement (\$1,000) <input type="checkbox"/> Stormwater Quality (\$250) <input checked="" type="checkbox"/> Subdivisions (\$500 + \$25/lot) # of Lots <u>20</u> x \$25/lot = <u>500</u> = \$1,000* <input type="checkbox"/> Site Location (\$3,000, except for residential projects which shall be \$200/lot) # of Lots <u>tbid</u> x \$200/lot = <u>tbid</u> ** <input type="checkbox"/> Other _____ <input type="checkbox"/> Change of Use <input type="checkbox"/> Flood Plain <input type="checkbox"/> Shoreland <input type="checkbox"/> Design Review <input type="checkbox"/> Housing Replacement <input type="checkbox"/> Historic Preservation *A check for \$500 was provided on 10/10/14. **Fee deferred until Site Plan Application process for residential uses.
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APPLICATION SUBMISSION:

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

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


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

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

APPLICANT SIGNATURE:

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

This application is for a Level II 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: December 12, 2014
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PROJECT DATA

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

Total Area of Site	32.67 sq. ft.
Proposed Total Disturbed Area of the Site	23.26 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)	908,661 sq. ft.
Impervious Area (Total Proposed)	714,384 sq. ft.
Building Ground Floor Area and Total Floor Area	
Building Footprint (Total Existing)	123,684 sq. ft.
Building Footprint (Total Proposed) (Excludes Potential D2)	300,439 sq. ft.
Building Floor Area (Total Existing)	123,684 sq. ft.
Building Floor Area (Total Proposed) (Includes Garage F1 & F2) (Excludes Potential Garage D2)	986,985 sq. ft. See Cover Letter*
Zoning	
Existing	B-5
Proposed, if applicable	B-5
Land Use	
Existing	Industrial
Proposed	Mixed Use/T.O.D
Residential, If applicable	
# of Residential Units (Total Existing)	0
# of Residential Units (Total Proposed)	344
# of Lots (Total Proposed)	20
# of Affordable Housing Units (Total Proposed)	Unknown
Proposed Bedroom Mix	
# of Efficiency Units (Total Proposed)	TBD
# of One-Bedroom Units (Total Proposed)	TBD
# of Two-Bedroom Units (Total Proposed)	TBD
# of Three-Bedroom Units (Total Proposed)	TBD
Parking Spaces	
# of Parking Spaces (Total Existing)	Not Known
# of Parking Spaces (Total Proposed)	1,342
# of Handicapped Spaces (Total Proposed)	26
Bicycle Parking Spaces	
# of Bicycle Spaces (Total Existing)	0
# of Bicycle Spaces (Total Proposed)	92
Estimated Cost of Project	\$100 - \$110 million

NOT APPLICABLE

PRELIMINARY PLAN (Optional) - Level III Site Plan			
Applicant Checklist	Planner Checklist	# of Copies	GENERAL WRITTEN SUBMISSIONS CHECKLIST
		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
X		1	* Evidence of state and/or federal permits
X		1	* Written assessment of proposed project's specific compliance with applicable Zoning requirements
X		1	* Summary of existing and/or proposed easements, covenants, public or private rights-of-way, or other burdens on the site
X		1	* Evidence of financial and technical capacity
*		1	Construction Management Plan
X		1	A traffic study and other applicable transportation plans in accordance with Section 1 of the technical Manual, where applicable.
X		1	Written summary of significant natural features located on the site (Section 14-526 (b) (a))
X		1	Stormwater management plan and stormwater calculations
X		1	Written summary of project's consistency with related city master plans
X		1	Evidence of utility capacity to serve
*		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
*		1	Manufacturer's verification that all proposed HVAC and manufacturing equipment meets applicable state and federal emissions requirements.

*To be provided under Level III Site Plan Application.

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; (Written Plan)
X			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;
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 -

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

ATTACHMENT A

Subdivision Plan Submission Supporting Narrative

ATTACHMENT A

SUBDIVISION PLAN SUBMISSION SUPPORTING NARRATIVE

In accordance with Section 14-527 (f) and (g) and the General Written Submission Checklist, we offer the following narrative describing the information supporting the current Subdivision Plan submission.

Section 14-527 (f)

1. Existing structures are shown on Sheet C-2.9 – Overall Existing Conditions Plan and all proposed buildings are shown on Sheets C-3.1 and C-3.2 – Site Layout Plans.
2. Existing abutting structures are shown on Sheet C-2.9 – Overall Existing Conditions Plan.
3. The offsite improvements project construction is nearly complete. The offsite improvements project was constructed to support the full volume of traffic approved as part of the site MDOT Traffic Movement Permit. As a stakeholder, the City has a copy of these plans on file.
4. The proposed driveways, vehicle and pedestrian access ways, and bicycle access ways, with corresponding curb lines are shown on Sheets C-3.1 and C-3.2 – Site Layout Plans. The Site Layout Plans depict material types and refer to details with specific sectional buildup of material thicknesses.
5. Cross sectional drawings of the access roadway are provided on Sheets C-7.8 and C-7.9.
6. Loading areas are shown on the Site Layout Plans – C-3.1 and C-3.2. Figures 1 thru 6 are enclosed in Attachment B and show turning movements for service and loading areas using AutoTURN® turning template Computer software.
7. The existing site does not have public transit infrastructure; however, the proposed Subdivision Plan anticipates a public Metro Bus stop, taxi stand, skywalk bridge to Amtrak train platform, and pedestrian trail link.
8. The location of bicycle parking spaces for the Phase 1A Brick North Site Plan is shown on the Level III site plans dated 2014.09.10. As the applicant submits subsequent Level III Site Plans, additional bicycle parking stalls will be added in accordance with the city's technical standards.
9. Snow storage management will employ three strategies:
 - On-site snow storage around the perimeter of the site.
 - Snow removal and offsite storage.
 - Mechanical snow removal (i.e. melting bins).
 - The city of Portland has been designated a turnaround area easement for the purpose of snow removal on Thompson's Point Connector Road
10. A Traffic Control Plan was approved as part of the original Site Plan submission in 2012 and subsequently updated for the amendment in 2013. The approved Traffic Control Plan is still applicable and enclosed in Attachment C.
11. Landscaping buffers and preservation measures are shown on the enclosed Landscaping Plans L-1.0 and L-1.1. The proposed Landscaping measures meet the City of Portland Technical Standards for streets and the buffering requirements of the MeDEP Natural Resources Protection Act Permit. It is noted that subsequent site plans will include the required landscaping for internal parking lots once a more detailed site plan can be produced.
12. Watercourse alterations are not proposed for this project.

13. Wetland boundaries are shown on the enclosed ALTA/ACSM Land Title Survey plans prepared by Sebago Technics Land Surveyors.
14. The site is largely a historical development property that contains limited natural features other than those conditions related to the Fore River mud flats and tidal area. These low-lying areas at the perimeter of the site do contain river related wetland and floodplain. No part of the proposed development areas will be within these wetlands or floodplain, except for several drainage discharges that will outfall into the river, as is currently occurring today.
15. Existing soil conditions are included with a Geotechnical Technical Data Report which is on file with the City and available upon request. All test pit and boring locations are shown on the enclosed Sheet C-2.9 – Overall Existing Conditions Plan.
16. Landscaping buffers and preservation measures are shown on the enclosed Landscaping Plans L-1.0 and L-1.1. The proposed Landscaping measures meet the city of Portland Technical standards for streets and the buffering requirements of the MeDEP Natural Resources Protection Act permit. It is noted that subsequent site plans will include the required landscaping for internal parking lots once a more detailed site plan can be produced.
17. A Stormwater Management Supplemental Report is included in Attachment D. The enclosed Sheet C-4.0 – Overall Grading and Drainage Plan and C-4.1 – Overall Stormwater Management Plan show the site’s compliance with section 5 of the Technical manual.
18. The Grading Plan is enclosed as Sheet C-4.0.
19. The Stormwater Management Plan contemplates structural separation between groundwater and stormwater runoff through the use of an impermeable liner. The project is serviced by a public wastewater system. The project will not pose a risk of groundwater contamination.
20. The existing sanitary sewer system is shown on the Existing Conditions Plan – C-2.9 and the proposed sanitary sewer system is shown on Sheets C-6.0, C-6.1 and C-6.2.
21. Sheet C-6.0- Overall Utility Plan shows all existing hydrants which will remain in service and proposed hydrants. A Life Safety Plan prepared by Mark Cummings, Fire Risk Management is enclosed in Attachment E.
22. All proposed utilities are shown on Sheets C-6.0, C-6.1 and C-6.
23. The site has on-site public infrastructure which is shown on Sheet C-2.9 – Existing Conditions Plan.
24. Solid waste receptacles are shown on the site layout plans.
25. The Overall Site Plan Sheet C-3.0 shows the location, ground floor area, and use of all proposed buildings. Building floor plans and elevations are not available at this time. Detailed building information will be provided with subsequent Level III site plan applications.
26. A shadow analysis is not applicable for this application.
27. The development is not located in a historic district, historic landscape district or City designated landmark; however, the project is seeking Federal Grant money and consequently a Section 106 review was prepared and accepted by the Maine Historic Preservation Office.

The originally approved site plan received approval to demolish all existing structures on the site. Since that time, the applicant has decided to keep and renovate the two existing brick buildings, and the Depot Structure.
28. The location and dimensions of all proposed HVAC equipment is not available at this time. This information will be submitted under subsequent site plan applications.

29. Exterior lighting for all common areas are shown on the enclosed Landscaping plans. Additionally, exterior lighting information, including specification sheets, photometric light levels, etc. is enclosed in Attachment F.
30. Standard street signs location and sizes are shown on the enclosed Site Plans. Internal directional, wayfinding, and building signage will be submitted under subsequent Site Plan Applications.
31. Existing and proposed easements, land ownership, and public rights of way are shown on the enclosed Subdivision Plans C-2.0 thru C-2.4 and Site Easements and Encumbrance Plan C-2.5.

Section 14-527 (g)

1. A detailed Construction Management Plan (CMP) will be submitted under subsequent Level III Site Plan Applications. The mixed-use development construction will be phased and may include multiple activities occurring concurrently. In general, the construction management plan will be prepared and supplied by the general contractor prior to the start of each phase of construction. The CMP will include how the contractor will communicate with the City of Portland, the owner, and abutting land owners including temporary access and utility interruptions which may affect daily their daily operations. The CMP will include Key issues such as:
 - i. Public safety
 - ii. Communication with abutters
 - iii. Traffic management
 - iv. Parking for work force
 - v. Coordination of material deliveries
 - vi. Laydown and material storage areas including job trailers
 - vii. Crane pads and erection sequences
 - viii. Utility location including managing temporary utilities during construction
 - ix. Waste management
 - x. Office trailer areas
 - xi. Designated areas for stockpile materials
 - xii. Snow removal and potential for onsite storage

The CMP will change and evolve throughout the project as sequencing of phases becomes available and contractors are brought onboard to complete various phases of work.

2. A Traffic Study was prepared for the originally approved Site Plan Application and most recently amended as part of the approved Master Development Plan. Traffic Study information is enclosed in Attachment C.
3. The development is designed to maintain a 25' foot buffer from the annual mean high tide to all building structures. Grading and stormwater quality improvements are proposed inside of this setback. The project will avoid impacts to the wetland of special significance around the perimeter of the site with the exception of a small permitted wetland alteration for a stabilized stormwater discharge (<500 SF of impact). The development will improve water quality of stormwater runoff entering the Fore River by meeting the City Stormwater standards described in chapter 32 of the technical manual. Portions of the site have been designated as Piping Plover Bird migration habitat by the Maine department of Inland Fish and Wildlife during the MeDEP NRPA Permit review. The development subsequently received an individual NRPA Permit in 2012 and amended in 2014 for a change to the seasonal dock design. The development also received an Army corps of Engineers Wetland fill permit. The proposed Subdivision Plan complies with the standards and conditions of these permits. Copies of all State and Federal Permits are enclosed in Attachment G.
4. Narrative describing the proposed site hydrology is included in the Supplemental Stormwater Report enclosed in Attachment D.

5. Stormwater runoff calculations are provided in Attachment D as part of the Supplemental Stormwater Report.
6. The project was found to be consistent with the City Master Plans as part of the March 2014 Master Development Plan approval.
7. Applicable evidence of Utility Capacity to Serve documentation is included in Attachment H.
8. Estimated types and quantities of solid waste generation will be submitted under subsequent Level III Site Plan application as specific tenants are identified. In general, solid waste will be handled through a property management services company. Construction waste will be managed to meet LEED Silver level requirements including percentage volume of recycled materials.
9. A code summary referencing NFPA 1 and all fire department technical standards was prepared by Mark Cummings, Fire Risk Management services during the Master Development Plan Review. This review is still applicable to the current site plan and is enclosed in Attachment E for ease of reference.
10. An assessment of Conformity with Applicable Design Standards is enclosed in Attachment I.
11. Proposed HVAC equipment will be provided under submitted under subsequent Level III Site Plan Application as specific tenants are identified.

General Written Submissions Checklist

As acknowledged on the Subdivision Plan Submission's General Written Submissions Checklist, we note the following items not previously covered in this supporting narrative:

Item: Evidence of Right, Title and Interest

Copies of the Transfer Deed to Forefront Partners, I LP and agreements with Suburban Propane accompany this submission in Attachment J.

Item: Evidence of State and/or Federal Approvals; if applicable

The Applicant has previously provided copies of the State and Federal permits issued for the project including the Traffic Movement Permit, U.S. ACOE Permit, and MeDEP NRPA Permit.

Item: Written Assessment of Proposed Project's Compliance with Applicable Zoning Requirements

A Written Summary is contained in Attachment I to this submission.

Item: Evidence of Financial and Technical Capacity

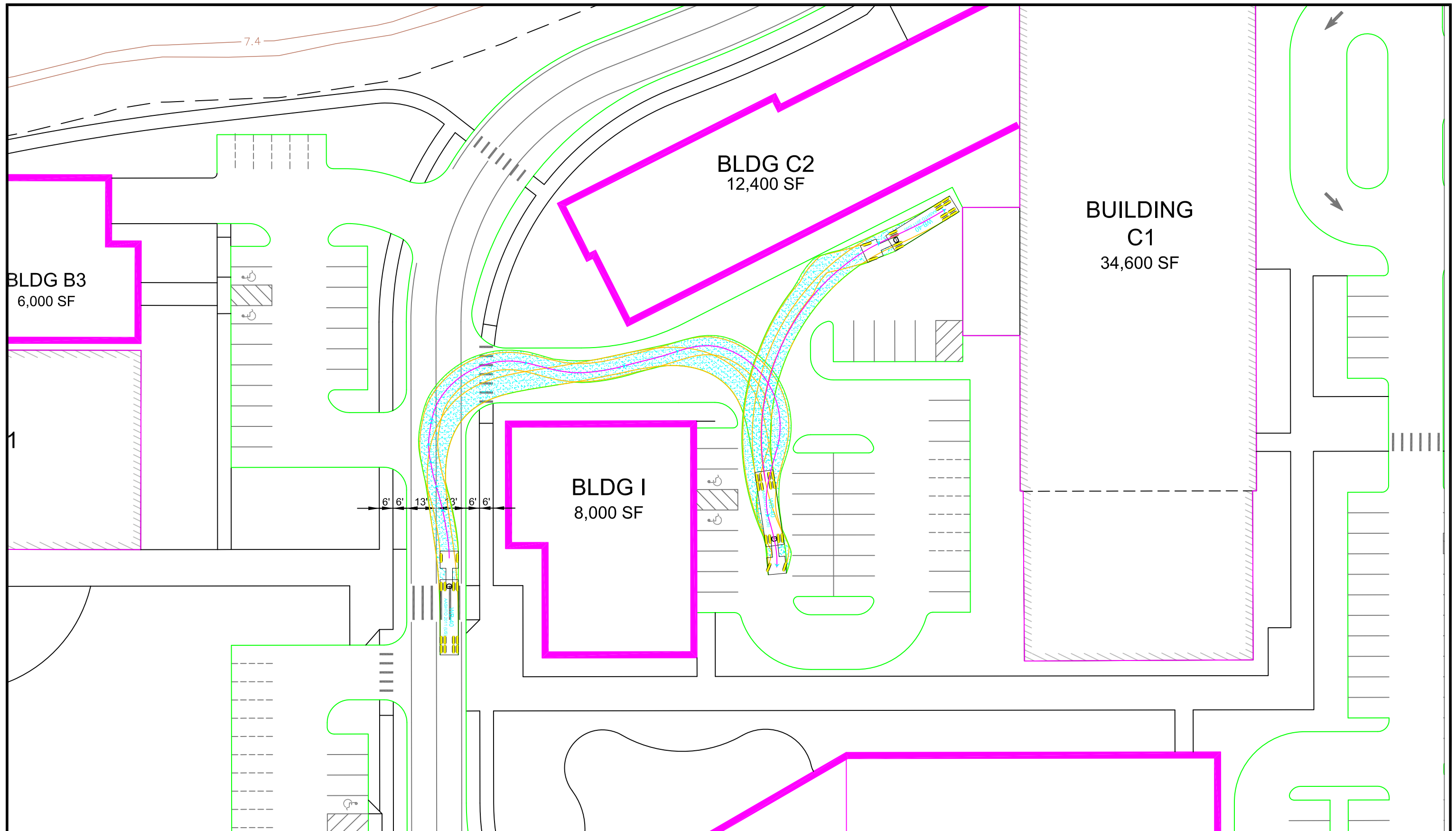
The Applicant has previously provided information pertaining to financial and technical capacity. A copy of the letter from TD Bank accompanies this submission in Attachment K.

Item: Summary of Proposed Easements, Covenants and Public Rights-of-Way

The Applicant has provided a copy of the Declaration of Easements, Covenants and Restrictions which is included in Attachment L.

ATTACHMENT B

AutoTURN® Figures



FST
100 YEARS

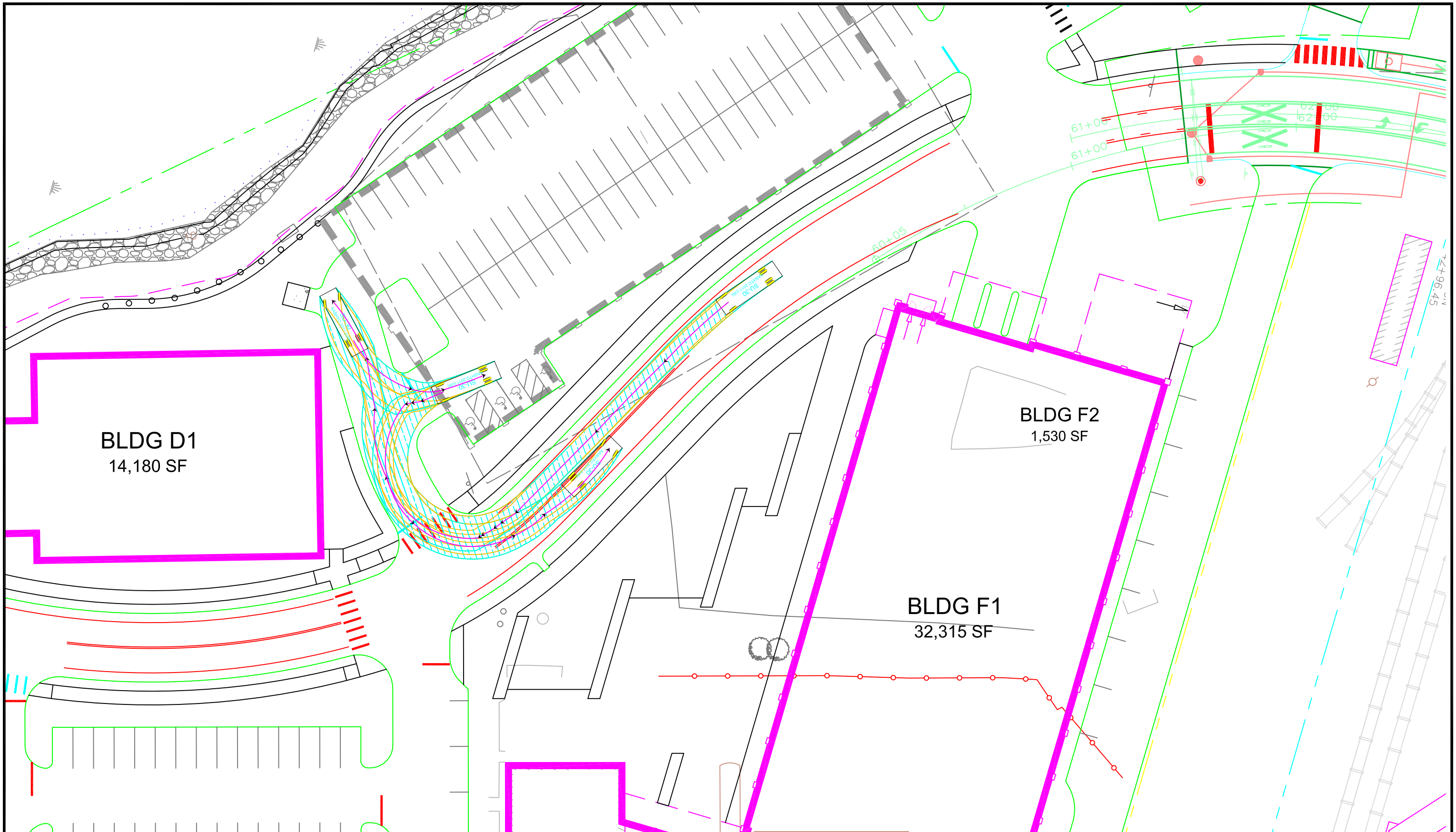
FAY, SPOFFORD & THORNDIKE
ENGINEERS · PLANNERS · SCIENTISTS
778 MAIN ST, SUITE 8, SOUTH PORTLAND, ME 04106


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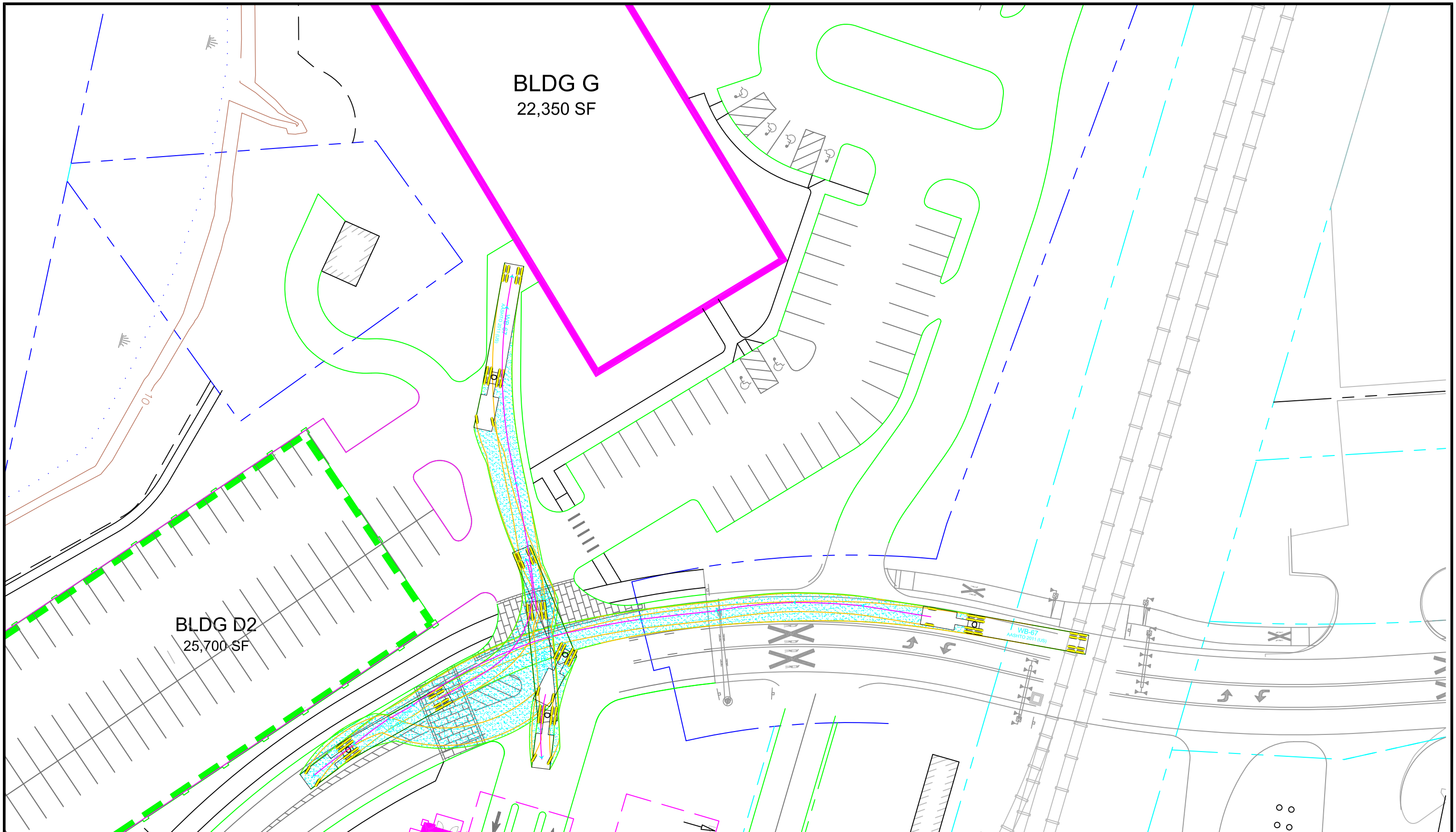
**THE FOREFRONT AT THOMPSON'S
POINT**

**WB-40 BUILDING C1 LOADING
DOCK AUTO TURN SIMLUATION**

FIGURE
2



 FAY, SPOFFORD & THORNDIKE ENGINEERS · PLANNERS · SCIENTISTS 778 MAIN ST, SUITE 8, SOUTH PORTLAND, ME 04106	DRAWN: JRP DATE: SEPTEMBER 2014	THE FOREFRONT AT THOMPSON'S POINT	SU-30 BUILDING D-1 AUTO TURN SIMULATION	FIGURE 3
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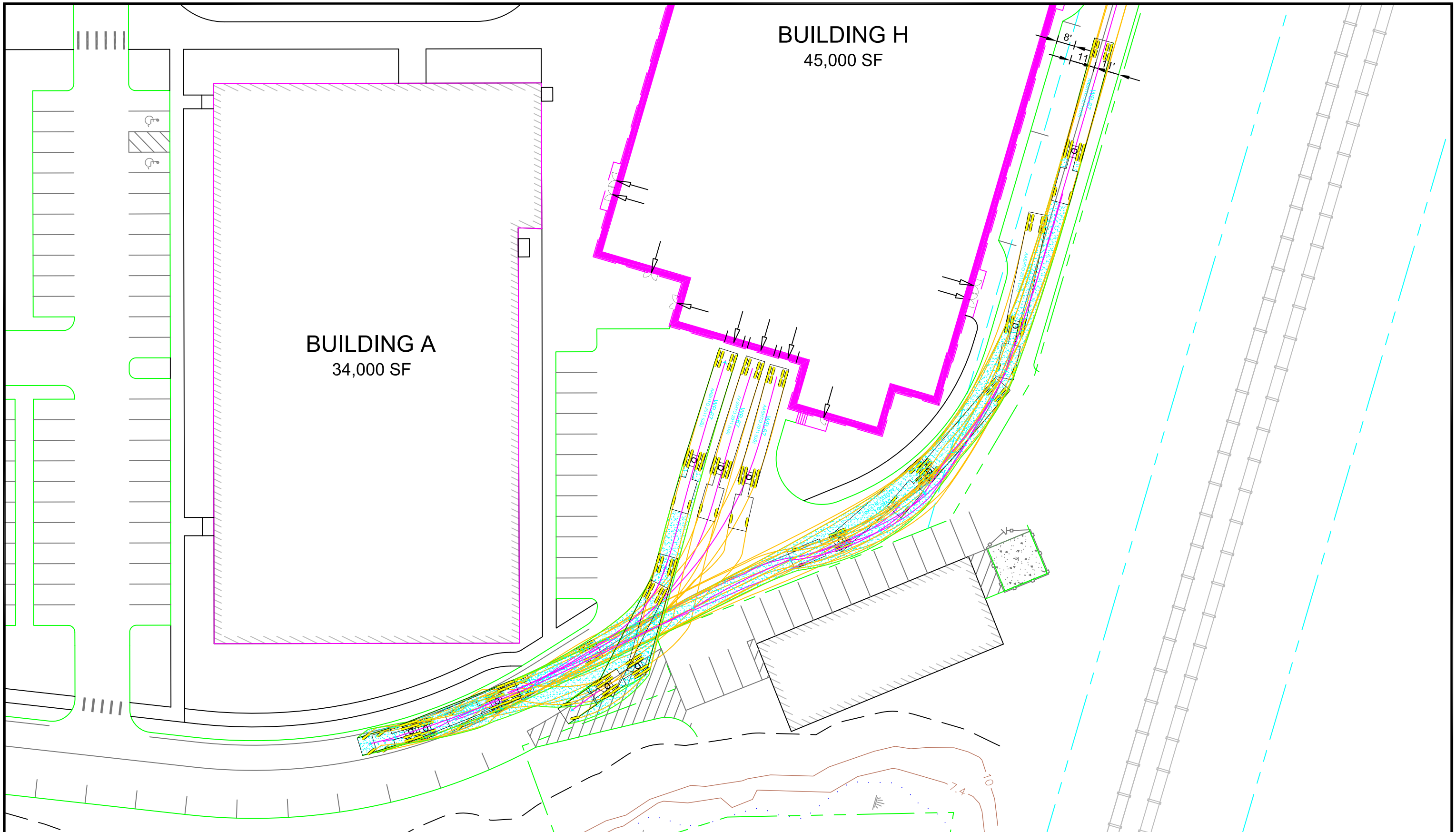
FAY, SPOFFORD & THORNDIKE
ENGINEERS · PLANNERS · SCIENTISTS
778 MAIN ST, SUITE 8, SOUTH PORTLAND, ME 04106


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FILE NAME:	2982.05-SUB AUTOTURN		

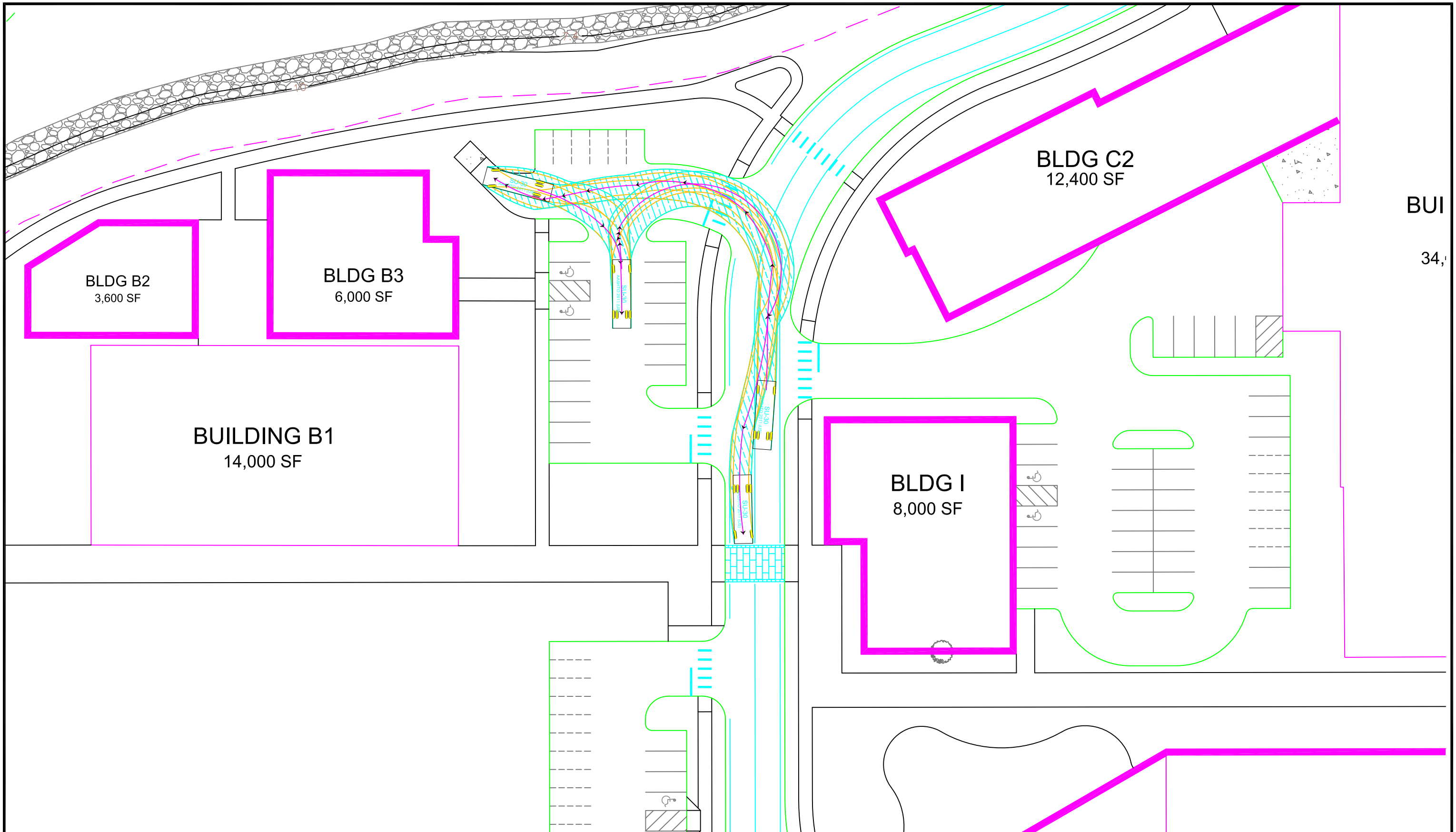
**THE FOREFRONT AT THOMPSON'S
POINT**

**WB-67 BUILDING G LOADING
DOCK AUTOTURN SIMULATION**

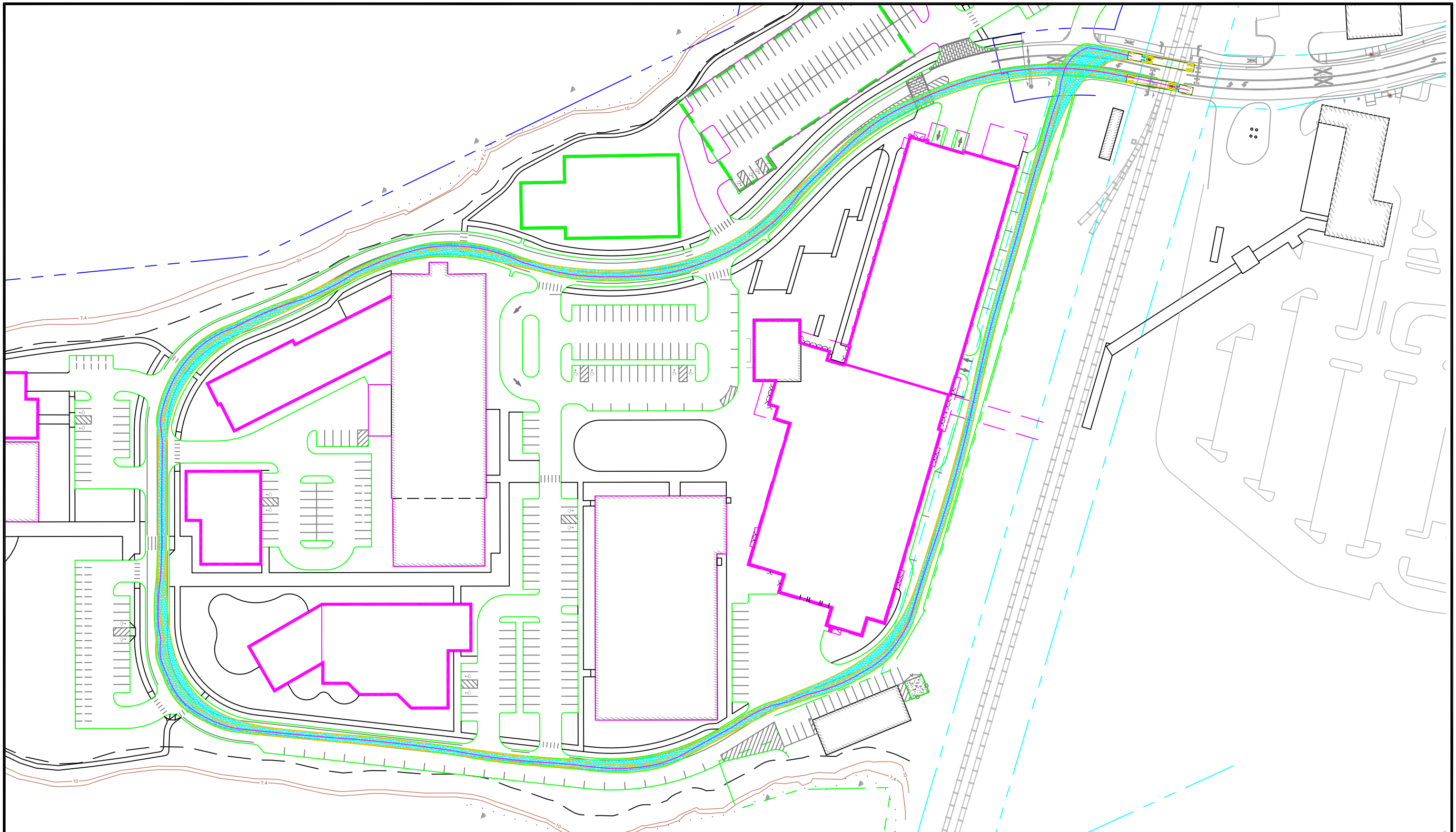
FIGURE
4



 FAY, SPOFFORD & THORNDIKE ENGINEERS · PLANNERS · SCIENTISTS 778 MAIN ST, SUITE 8, SOUTH PORTLAND, ME 04106	DRAWN:	JRP	DATE:	SEPTEMBER 2014	THE FOREFRONT AT THOMPSON'S POINT	WB-67 BUILDING H LOADING DOCK AUTO TURN SIMULATION	FIGURE
	DESIGNED:	JRP	SCALE:	1"=100'			5
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FAY, SPOFFORD & THORNDIKE ENGINEERS · PLANNERS · SCIENTISTS 778 MAIN ST, SUITE 8, SOUTH PORTLAND, ME 04106	DRAWN: JRP DATE: SEPTEMBER 2014	THE FOREFRONT AT THOMPSON'S POINT	SU-30 BUILDING B AUTO TURN SIMULATION	FIGURE 6
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FAY, SPOFFORD & THORNDIKE
ENGINEERS · PLANNERS · SCIENTISTS
778 MAIN ST, SUITE 8, SOUTH PORTLAND, ME 04106

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FILE NAME:	2982.05-SUB AUTOTURN		

**THE FOREFRONT AT THOMPSON'S
POINT**

**WB-67 OVERALL ACCESS
ROUTE AUTO TURN
SIMULATION**

FIGURE
1

ATTACHMENT C

Traffic Study Information

MEMORANDUM
Forefront at Thompson's Point
Trip Generation Summary / Methodology

Date: December 11, 2014
Subject: Trip Generation Summary
 Forefront at Thompson's Point
 Portland, Maine
To: City of Portland
From: Randy Dunton, Gorrill-Palmer (JN 2419)

The following is a comparison between previously permitted uses, previous Master Plan, and current Master Plan, as well as a summary of the trip generation methodology for the current Master Plan of the Forefront at Thompson's Point. The previous Master Plan is as it was described in the Memo to the City dated March 4, 2014.

Trip Generation Summary:

The following is a summary table comparing the uses and trip generation between what was previously permitted, the previous Master Plan, and the current Master Plan. The "Permitted" information is as provided and approved by MaineDOT in a letter to them dated November 3, 2011 (attached).

Use	Permitted			Previous Master Plan			Current Master Plan		
	Size	AM	PM	Size	AM	PM	Size	AM	PM
Office	378,000 sf	543	502	207,000 sf	366	343	192,180 sf	365	349
Circus Conservatory /Event Ctr	2,866 occup.	115	224	2,500 occup.	100	195	2,500 occup.	100	195
Concert / Live Theater*	4,800 seats	----	250	4,800 seats	----	96	4,800 seats	----	96
Medical Office	4,000 sf	10	15	2,000 sf	5	7	2,000 sf	5	7
Gym	20,000 sf	24	81	9,000 sf	11	36	6,000 sf	7	24
Hotel	125 rooms	54	74	125 rooms	54	74	125 rooms	54	74
Restaurant	6,000 sf	69	66	12,600 sf	145	138	13,600 sf	156	149
Condos	----	----	----	344 units	151	178	344 units	151	178
Cultural Center	----	----	----	25,000 sf	29	29	40,000 sf	46	46
Specialty Retail	----	----	----	4,000 sf	3	11	24,100 sf	18	66
Circus Conservatory	----	----	----	120 students / 15 staff	25	21	---	---	---
Circus Performing Area	---	---	---	---	---	---	300 seats	---	86
Light Industrial	---	---	---	---	---	---	7,600 sf	7	7
Food Prep	---	---	---	---	---	---	1,200	10	10
Subtotal		815	1212		889	1128		919	1287
Reduction (10%)		(-81)	(-121)		(-89)	(-113)		(-92)	(-129)
Total		734	1,091		800	1,015		827	1,158

*The permitted uses are based on a building that allowed for an overlapping convention and Red Claws Games, as well as an outdoor amphitheater area for 4,800 attendees. For the previous and current Master Plans, the building size does not allow for overlapping events such as convention and Red Claws game. In addition, the Master Plan now has the "Depot" building (Building B1) on the point for live theater, which is considered separately. This is reflected in the trip generation resulting in less trip ends in the Master Plan. (See attached letter to MaineDOT dated November 3, 2011).

As can be seen from the previous summary table, the Master Plan is forecast to exceed the permitted trips by 93 trip ends in the AM peak hour condition and 67 trip ends in the PM peak hour condition. The MaineDOT requires any development that exceeds their permitted trips by more than 99 trip ends in any peak hour to receive a permit modification. Since the proposed Master Plan will not exceed the 99 trip end threshold during the AM peak hour, a MaineDOT permit modification is not required.

Methodology:

A more detailed explanation of the methodology for determining the trip generation as summarized in the previous section (Current Master Plan) is presented in this section. Where applicable, the trip generation is based on the ITE Trip Generation, 7th Edition, which is the edition required to be used by MaineDOT. The ITE Trip Generation is the National Standard for determining trip generation. The only new use introduced is Light Industrial in Building C1, otherwise, there are no other new uses from the previous Master Plan. The supporting calculations are attached.

Building A includes:

- | | | |
|----------------------|-----------|---------------------------------|
| • Office | 10,000 sf | AM Trip Gen 30, PM Trip Gen 29 |
| • Café | 4,000 sf | AM Trip Gen 46, PM Trip Gen 44 |
| • Specialty Retail | 4,000 sf | AM Trip Gen 3, PM Trip Gen 11 |
| • Specialty Retail | 14,000 sf | AM Trip Gen 10, PM Trip Gen 38 |
| • Circus (300 seats) | 8,000 sf | AM Trip Gen ---, PM Trip Gen 86 |

Office space – Trip generation is based on ITE for Land Use Code (LUC) 710 – General Office. This is the same LUC used for similar uses for the previous approval.

Café – Trip generation is based on ITE for Land Use Code (LUC) 932 – High Turnover Sit Down Restaurant. This is the same LUC used for similar uses for the previous approvals.

Specialty Retail - Trip generation is based on ITE for Land Use Code (LUC) 814 – Specialty Retail.

Circus Area – This trip generation is based on an occupancy rate of 3.5 persons per vehicle. No AM peak hour events are anticipated.

Building B1 includes:

- Multi-Purpose 4,800 Seats AM Trip Gen ---, PM Trip Gen 96
 (Assume Live Theater)

Trip generation is based on ITE for Land Use Code (LUC) 441 – Live Theater. This is the same LUC used for the previous approvals.

Building B2 includes:

- Restaurant 3,600 sf AM Trip Gen 41, PM Trip Gen 39

Restaurant – Trip generation is based on ITE for Land Use Code (LUC) 932 – High Turnover Sit Down Restaurant. This is the same LUC used for similar uses for the previous approvals.

Building B3 includes:

This building is ancillary to the Depot building and will not generate additional traffic.

Building C1 includes:

- Light Industrial 7,600 sf AM Trip Gen 7, PM Trip Gen 7
- Food Prep 1,200 sf AM Trip Gen 10, PM Trip Gen 10
- Specialty Retail 5,000 sf AM Trip Gen 4, PM Trip Gen 14
- Specialty Retail 1,100 sf AM Trip Gen 1, PM Trip Gen 3
- Hotel Support Space 19,700 sf AM Trip Gen ---, PM Trip Gen ---

Light Industrial – Trip generation is based on ITE for Land Use Code (LUC) 110 – Light Industrial. This LUC is used to approximate a facility that is open to the public to use a variety of equipment and tools to work on individual personal projects. Much of the space is used to accommodate equipment and work space.

Food Prep – Trip generation is based on an assumption of 10 employees working in a food preparation facility for an off-site eating establishment. It is assumed that all the employees will enter or exit during the peak hours, which is most likely a high estimate.

Specialty Retail - Trip generation is based on ITE for Land Use Code (LUC) 814 – Specialty Retail.

Hotel Support Space – This area is supporting space for the Hotel (Lobby, conference rooms etc...) and is included in the trip generation for a 125 room hotel identified in Building C2.

Building C2 includes:

- Hotel 125 rooms AM Trip Gen 54, PM Trip Gen 74
- Condos 24 Units AM Trip Gen 11, PM Trip Gen 12

Hotel – Trip generation is based on ITE for Land Use Code (LUC) 310 – Hotel. This is the same LUC used for similar uses in the previous approvals.

Condos – Trip generation is based on ITE for Land Use Code (LUC) 230 – Residential Condominium / Townhouse.

Building D1 includes:

- Office 32,180 sf AM Trip Gen 76, PM Trip Gen 73
- Restaurant 6,000 sf AM Trip Gen 69, PM Trip Gen 66

Office Space – Trip generation is based on ITE for Land Use Code (LUC) 710 – General Office. This is the same LUC used for similar uses for the previous approvals.

Restaurant – Trip generation is based on ITE for Land Use Code (LUC) 932 – High Turnover Sit Down Restaurant. This is the same LUC used for similar uses for the previous approvals.

Building D2 includes:

This is a potential future Parking Garage / Deck and will not generate traffic to the site.

Building E includes:

- Cultural Center 40,000 sf AM Trip Gen 46, PM Trip Gen 46

Trip generation is based on rates from a “Los Angeles Entertainment District - Base Trip Generation” study. This building is anticipated to be a museum style building.

Building F1/F2 includes:

This building is the Parking Garage and will not generate traffic to the site.

Building G includes:

- Office 150,000 sf AM Trip Gen 259, PM Trip Gen 247

Office Space – Trip generation is based on ITE for Land Use Code (LUC) 710 – General Office. This is the same LUC used for similar uses for the previous approvals.

Building H includes:

- Circus Conservatory 120 Students / 15 Staff OR
Event Center (2,500 occupants) Max Trip Gen AM Trip Gen 100, PM Trip Gen 195

Trip generation is based on City and MaineDOT reviewed and approved rates used in the original approved study. They originate from a study from the Bayside Expo and Executive Conference Center in Boston, Massachusetts.

Building I includes:

- Gym 6,000 sf AM Trip Gen 7, PM Trip Gen 24
- Medical Office 2,000 sf AM Trip Gen 5, PM Trip Gen 7

Gym – Trip generation is based on ITE for Land Use Code (LUC) 492 – Health / Fitness Club. This is the same LUC used for similar uses in the previous approvals. This most likely over estimates the trip generation, since the gym will focus on rehabilitation associated with the Medical Office.

Medical Office – Trip generation is based on ITE for Land Use Code (LUC) 720 – Medical / Dental Office Building. This is the same LUC used for similar uses for the previous approvals.

Building J1 includes:

- Condos 160 Units AM Trip Gen 70, PM Trip Gen 83

Condos – Trip generation is based on ITE for Land Use Code (LUC) 230 – Residential Condominium / Townhouse.

Building J1 includes:

- Condos 160 Units AM Trip Gen 70, PM Trip Gen 83

Condos – Trip generation is based on ITE for Land Use Code (LUC) 230 – Residential Condominium / Townhouse.

November 3, 2011

Mr. Steve Landry, P.E.
MaineDOT, Assistant State Traffic Engineer
16 State House Station
Augusta, Maine 04330

RE: Thompson Point Master Plan - Addendum
Updated Trip Generation Discussion: Phases I and II

Dear Steve:

Gorrill-Palmer Consulting Engineers, Inc. has completed an updated trip generation total for Thompson's Point, Phases I and II. This letter provides discussion on the updated trips, as well as a comparison to what was originally permitted.

Master Plan as Provided in the Traffic Impact Study, July, 2011

The traffic impact study submitted to the City of Portland and MaineDOT in July of 2011 anticipated the following uses:

- 43,000 square foot event/convention hall
- 34,000 square foot exhibition hall
- 60,000 square foot, 2,500 seat concert hall
- 235,000 square feet of office space
- 10,500 square feet of medical office space
- 10,500 square foot gym
- 125 room hotel
- 6,000 square foot restaurant

For special large concert events, the concert hall and the arena can be combined to a larger concert arena configuration that would seat 4,500 people.

Revised Plan as Currently Anticipated

Phase I:

- 97,697 square foot event center/convention hall/exhibit hall
- 32,000 square foot concert hall plus outdoor venue for a total of 4,800 attendees
- 180,000 square feet of office space
- 4,000 square feet of medical office space
- 20,000 square foot gym and rehabilitation area
- 125-room hotel
- 6,000 square foot restaurant (100 seats)

Mr. Chris Thompson
November 3, 2011
Page 2 of 3

Phase II:

- 198,000 square feet of office space (for an overall total of ^{378,000}~~372,000~~ square feet)

Sources and Assumptions for Trip Generation

Gorrill-Palmer Consulting Engineers Inc. utilized the following sources to determine trip generation for the site:

- The Institute of Transportation Engineers publication, *Trip Generation*, 7th Edition.
- Parking accumulation information from the Urban Land Institute publication, *Shared Parking*, 2nd Edition.
- Parking accumulation and trip generation information for Bayside Expo & Conference Center in Boston, Massachusetts.
- Game information from the Maine Red Claws 2010/2011 season

The primary generators of traffic are the arena/convention hall and the concert hall. For the purposes of this study, the following assumptions have been made:

- 1.) During the day, the arena/conference hall is hosting a convention, which also requires the use of the exhibition hall; the convention would end by 6:00 to allow for game preparation that night.
- 2.) The convention/exhibition hall, when combined, will accommodate a maximum of 2,866 occupants.
- 3.) In the evening, the concert hall is having a concert with an 8:00 PM start time (this may be conservative, as many concerts start at 9:00 PM).
- 4.) In the evening, the arena/conference hall hosts a 7:00 PM Maine Red Claws game with maximum capacity of 3,500 people (all local games during weekdays were scheduled at this time for the 2010-2011 season) – it should be noted that a game and a concert cannot coincide.

Based on parking accumulation data from *Shared Parking*, as well as the count information from Bayside Expo, the convention center will experience its peak trip generation in the late morning, between 10:00 and 11:00 AM. Based on shared parking and ITE data, it is anticipated that about seven percent of attendees for the concert will arrive during the PM peak hour, and that about 25 percent of the attendees for the Maine Red Claws game; both assumptions anticipate a trip generation equivalent of one vehicle for every 3.5 seats.

It should be noted that these general assumptions have been carried through from the Traffic Impact Study, as they have not changed.

The trip generation calculations are included with this letter and are summarized in the following table:

Mr. Chris Thompson
November 3, 2011
Page 3 of 3

Trip Generation Summary for the Forefront at Thompsons Point: Revised November 2011

Use (Land Use Code)	AM Pk of Adj Street	PM Pk of Adj Street
Arena* (N/A)	0	250
Exhibition Hall/Convention Hall** (N/A)	115	224
Office (710)	300	280
Medical Office (720)	10	15
Gym (492)	24	81
Hotel (310)	54	74
Restaurant	69	66
Phase I Bus / Train Use + Shared (10%)	-57	-99
Total Trip Ends for Phase I	515	891
Office (710)	243	222
Phase II Bus / Train Use + Shared (10%)	-24	-22
Total Trip Ends for Phase II	219	200
Total Trip Ends for Site (I+II)	734	1,091
Total Trip Ends as Submitted in August TIS	568	955
Change in Trips	+166	+136

(XX) = These are the original Traffic Impact Study Trip Generation as submitted August 2011.

*Based on Bayside Expo Center data and 3.5 people per vehicle for Red Claws games on Saturday; PM peak hour assumes 25 percent of Red Claws attendees arriving during PM peak hour in addition to traffic associated with end of convention.

**Based on Bayside Expo rates of 0.04 trips per person AM peak, 0.078 trip per person PM peak

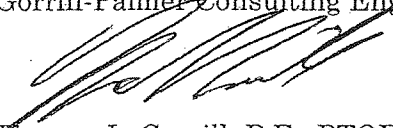
The attached Figure 1 shows the increase in traffic volumes, due to refining Phase I and including Phase II, from that included in the original Traffic Impact Study (August 2011). As Figure 1 shows, the increase in traffic on the adjacent roadway network is relatively minor.

As with the previous traffic impact study, there is a 10% reduction that was taken for a combination of anticipated reductions of traffic impact on the adjacent street traffic. This includes use of local bus, regional bus, train, pedestrians, and bicyclists. This also includes shared trips between the uses. However, the actual reduction in trips due to shared use and implementation of the TDM is anticipated to reduce the impact even further than the table indicates.

If you have any questions, please contact our office.

Sincerely,

Gorrill-Palmer Consulting Engineers, Inc.


Thomas L. Gorrill, P.E., PTOE
President

C: Chris Thompson, The Forefront at Thompsons Point

JN: 2419
 Project Description: TP
 Project Location: Portland, Maine
 Date: December 11, 2014

Gorrill-Palmer Consulting Engineers, Inc.
 P.O. Box 1237
 15 Shaker Road
 Gray, Maine 04039

**General Office Building
 Land Use Code (LUC) 710**

Square Feet 10,000

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	$\ln(T) = 0.77 \ln(X) + 3.65$	227	78	50%	50%	114	113	0.80
AM Peak Hour	$\ln(T) = 0.80 \ln(X) + 1.55$	30	217	90%	10%	27	3	0.83
PM Peak Hour	$T = 1.12(X) + 78.81$	90	235	15%	85%	14	76	0.82
Saturday	$T = 2.14(X) + 18.47$	40	17	50%	50%	20	20	0.66
Peak Hour of Generator	$\ln(T) = 0.81 \ln(X) - 0.12$	6	10	55%	45%	3	3	0.59

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	$T = 11.01(X)$	110	78	50%	50%	55	55	---
AM Peak Hour	$T = 1.55(X)$	16	217	90%	10%	14	2	---
PM Peak Hour	$T = 1.49(X)$	15	235	15%	85%	2	13	---
Saturday	$T = 2.37(X)$	24	17	50%	50%	12	12	---
Saturday Peak Hour of Gen.	$T = 0.41(X)$	4	10	50%	50%	2	2	---

* Percentages rounded to nearest 5%

PM Peak Hour:	$T = 1.49/1.55$ (AM Peak)	29	15%	85%	4	25	0.82
---------------	---------------------------	----	-----	-----	---	----	------

JN: 2419
 Project Description: TP
 Project Location: Portland, Maine
 Date: December 10, 2014

Gorrill-Palmer Consulting Engineers, Inc.
 P.O. Box 1237
 15 Shaker Road
 Gray, Maine 04039

**High Turnover (Sit Down) Restaurant
 Land Use Code (LUC) 932**

Gross Floor Area (ft²): 4,000

Time Period	ITE Trip Rate (Average Rate)	# of Sources	Trip Ends	Directional Split		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 127.15 (X)	14	509	50%	50%	255	254	N/A
AM Peak Adjacent Street	T = 11.52 (X)	18	46	50%	50%	23	23	N/A
PM Peak Adjacent Street	T = 10.92 (X)	38	44	60%	40%	26	18	N/A
AM Peak of Generator	T = 13.53 (X)	21	54	50%	50%	27	27	N/A
PM Peak of Generator	T = 18.80 (X)	27	75	55%	45%	41	34	N/A
Saturday	T = 158.37 (X)	2	633	50%	50%	317	316	N/A
Saturday Peak Hour of Gen.	T = 20.00 (X)	3	80	65%	35%	52	28	N/A

JN:
 Project Description:
 Project Location:
 Date:

2419
 TP
 Portland, Maine
 12/10/2014

Gorill-Palmer Consulting Engineers, Inc.
 P.O. Box 1237
 15 Shaker Road
 Gray, Maine 04039

**Specialty Retail Center
 Land Use Code (LUC) 814**

Gross Floor Area (ft²): 4,000

Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split * IN | OUT	Directional Distribution IN | OUT	R ²
Weekday Peak Hour of Adjacent Street Traffic 7-9 AM** Peak Hour of Adjacent Street Traffic 4-6 PM AM Peak Hour of Generator PM Peak Hour of Generator	T = 44.32 (X) --- T = 2.71 (X) T = 6.84 (X) T = 5.02 (X)	177 11 27 20	4 5 4 3	50% | 50% --- | --- 45% | 55% 50% | 50% 55% | 45%	89 | 88 5 | 6 14 | 13 11 | 9	--- --- --- ---
Saturday Saturday Peak Hour of Gen.***	T = 42.04 (X) ---	168	3	50% | 50% --- | ---	84 | 84	--- ---

AM Peak of Adjacent Street 7-9 AM***
 Saturday Peak Hour***

T = 0.275 (PM Peak Hour)
 T = 1.325 (PM Peak Hour)

3
15

**Based on ratio of AM/PM traffic for LUC 820, Shopping Center

***Saturday Peak Hour comes from a ratio of PM to Saturday trip rates from LUC 820 - Shopping Center

* Percentages rounded to nearest 5%

Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split * IN | OUT	Directional Distribution IN | OUT	R ²
Weekday Peak Hour of Adjacent Street Traffic 7-9 AM Peak Hour of Adjacent Street Traffic 4-6 PM AM Peak Hour of Generator PM Peak Hour of Generator	T = 42.78 (X) + 37.66 --- T = 2.40 (X) + 21.48 T = 4.91 (X) + 115.59	209 31 135	4 5 4	50% | 50% --- | --- 45% | 55% 50% | 50%	105 | 104 14 | 17 68 | 67	0.69 --- 0.98 0.90 ---
Saturday Saturday Peak Hour of Gen.	--- ---	---	---	--- | --- --- | ---	--- | ---	--- ---

AM Peak of Adjacent Street 7-9 AM***
 Saturday Peak Hour***

T = 0.275 (PM Peak Hour)
 T = 1.325 (PM Peak Hour)

9
41

**Based on ratio of AM/PM traffic for LUC 820, Shopping Center

***Saturday Peak Hour comes from a ratio of PM to Saturday trip rates from LUC 820 - Shopping Center

* Percentages rounded to nearest 5%
 (---) Not Given

JN:
 Project Description:
 Project Location:
 Date:

2419
 TP
 Portland, Maine
 12/10/2014

Gorill-Palmer Consulting Engineers, Inc.
 P.O. Box 1237
 15 Shaker Road
 Gray, Maine 04039

**Specialty Retail Center
 Land Use Code (LUC) 814**

Gross Floor Area (ft²): 14,000

Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split * IN | OUT	Directional Distribution IN | OUT	R ²
Weekday	T = 44.32 (X)	620	4	50% | 50%	310 | 310	---
Peak Hour of Adjacent Street Traffic 7-9 AM**	---	---	---	---	---	---
Peak Hour of Adjacent Street Traffic 4-6 PM	T = 2.71 (X)	38	5	45% | 55%	17 | 21	---
AM Peak Hour of Generator	T = 6.84 (X)	96	4	50% | 50%	48 | 48	---
PM Peak Hour of Generator	T = 5.02 (X)	70	3	55% | 45%	39 | 31	---
Saturday	T = 42.04 (X)	589	3	50% | 50%	295 | 294	---
Saturday Peak Hour of Gen.***	---	---	---	---	---	---

AM Peak of Adjacent Street 7-9 AM***
 Saturday Peak Hour***

T = 0.275 (PM Peak Hour)
 T = 1.325 (PM Peak Hour)

10
 50

**Based on ratio of AM/PM traffic for LUC 820, Shopping Center

***Saturday Peak Hour comes from a ratio of PM to Saturday trip rates from LUC 820 - Shopping Center

* Percentages rounded to nearest 5%

Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split * IN | OUT	Directional Distribution IN | OUT	R ²
Weekday	T = 42.78 (X) + 37.66	637	4	50% | 50%	319 | 318	0.69
Peak Hour of Adjacent Street Traffic 7-9 AM	---	---	---	---	---	---
Peak Hour of Adjacent Street Traffic 4-6 PM	T = 2.40 (X) + 21.48	55	5	45% | 55%	25 | 30	0.98
AM Peak Hour of Generator	T = 4.91 (X) + 115.59	184	4	50% | 50%	92 | 92	0.90
PM Peak Hour of Generator	---	---	---	---	---	---
Saturday	---	---	---	---	---	---
Saturday Peak Hour of Gen.	---	---	---	---	---	---

AM Peak of Adjacent Street 7-9 AM***
 Saturday Peak Hour***

T = 0.275 (PM Peak Hour)
 T = 1.325 (PM Peak Hour)

15
 73

**Based on ratio of AM/PM traffic for LUC 820, Shopping Center

***Saturday Peak Hour comes from a ratio of PM to Saturday trip rates from LUC 820 - Shopping Center

* Percentages rounded to nearest 5%
 (---) Not Given

JN: 2419
 Project Description: Thompson's Point
 Project Location: Portland
 Date: December 11, 2014

Gorrill-Palmer Consulting Engineers, Inc.
 P.O. Box 1237
 15 Shaker Road
 Gray, Maine 04039

**Live Theater
 Land Use Code (LUC) 441**

Seats 4,800

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split		Directional Distribution		R ²
				IN	OUT	IN	OUT	
PM Peak Hour	T = 0.02 (X)	96	1	50%	50%	48	48	---

JN: 2419
 Project Description: TP
 Project Location: Portland, Maine
 Date: December 11, 2014

Gorrill-Palmer Consulting Engineers, Inc.
 P.O. Box 1237
 15 Shaker Road
 Gray, Maine 04039

**High Turnover (Sit Down) Restaurant
 Land Use Code (LUC) 932**

Gross Floor Area (ft²): 3,600

Time Period	ITE Trip Rate (Average Rate)	# of Sources	Trip Ends	Directional Split		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 127.15 (X)	14	458	50%	50%	229	229	N/A
AM Peak Adjacent Street	T = 11.52 (X)	18	41	50%	50%	21	20	N/A
PM Peak Adjacent Street	T = 10.92 (X)	38	39	60%	40%	23	16	N/A
AM Peak of Generator	T = 13.53 (X)	21	49	50%	50%	25	24	N/A
PM Peak of Generator	T = 18.80 (X)	27	68	55%	45%	37	31	N/A
Saturday	T = 158.37 (X)	2	570	50%	50%	285	285	N/A
Saturday Peak Hour of Gen.	T = 20.00 (X)	3	72	65%	35%	47	25	N/A

JN: 2419
 Project Description: Thompsons Point
 Project Location: Portland, Maine
 Date: 12/11/14

Gorill-Palmer Consulting Engineers, Inc.
 P.O. Box 1237
 15 Shaker Road
 Gray, Maine 04039

**General Light Industrial
 Land Use Code (LUC) 110**

Gross Floor Area (ft²): 7,600

Fitted Curve Equation:

Time Period	ITE Trip Rate	Trip Ends	# of Studies	Directional Split		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 7.47(X) - 101.92	-45	18	50%	50%	-23	-23	0.81
AM Peak of Adjacent	T = 1.18(X) - 89.28	-80	29	85%	15%	-68	-12	0.92
PM Peak of Adjacent	T = 1.43(X) - 163.42	-153	26	15%	85%	-23	-130	0.88
AM Peak of Generator	T = 1.18(X) - 60.80	-52	27	90%	10%	-47	-5	0.92
PM Peak of Generator	T = 1.42(X) - 125.20	-114	27	15%	85%	-17	-97	0.89
Saturday	T = 0.85(X) + 163.06	170	6	50%	50%	85	85	0.60
Saturday Peak of Generator	N/A	N/A	5	N/A	N/A	N/A	N/A	N/A

Average Rate:

Time Period	ITE Trip Rate	Trip Ends	# of Studies	Directional Split		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 6.97(X)	53	18	50%	50%	26	26	N/A
AM Peak of Adjacent	T = 0.92(X)	7	29	85%	15%	6	1	N/A
PM Peak of Adjacent	T = 0.98(X)	7	26	15%	85%	1	6	N/A
AM Peak of Generator	T = 1.01(X)	8	27	90%	10%	7	1	N/A
PM Peak of Generator	T = 1.08(X)	8	27	15%	85%	1	7	N/A
Saturday	T = 1.32(X)	10	6	50%	50%	5	5	N/A
Saturday Peak of Generator	T = 0.14(X)	1	5	50%	50%	1	1	N/A

JN:
 Project Description:
 Project Location:
 Date:

2419
 TP
 Portland, Maine
 12/10/2014

Gorill-Palmer Consulting Engineers, Inc.
 P.O. Box 1237
 15 Shaker Road
 Gray, Maine 04039

**Specialty Retail Center
 Land Use Code (LUC) 814**

Gross Floor Area (ft²): 5,000

Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split * IN | OUT	Directional Distribution IN | OUT	R ²
Weekday Peak Hour of Adjacent Street Traffic 7-9 AM** Peak Hour of Adjacent Street Traffic 4-6 PM AM Peak Hour of Generator PM Peak Hour of Generator	T = 44.32 (X) --- T = 2.71 (X) T = 6.84 (X) T = 5.02 (X)	222 14 34 25	4 5 4 3	50% | 50% --- | --- 45% | 55% 50% | 50% 55% | 45%	111 | 111 --- | --- 6 | 8 17 | 17 14 | 11	--- --- --- ---
Saturday Saturday Peak Hour of Gen.***	T = 42.04 (X) ---	210 ---	3 ---	50% | 50% --- | ---	105 | 105 --- | ---	--- ---

AM Peak of Adjacent Street 7-9 AM***
 Saturday Peak Hour***

T = 0.275 (PM Peak Hour)
 T = 1.325 (PM Peak Hour)

4
19

60% | 40%
50% | 50%

2 | 2
10 | 9

* Percentages rounded to nearest 5%

**Based on ratio of AM/PM traffic for LUC 820, Shopping Center

***Saturday Peak Hour comes from a ratio of PM to Saturday trip rates from LUC 820 - Shopping Center

Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split * IN | OUT	Directional Distribution IN | OUT	R ²
Weekday Peak Hour of Adjacent Street Traffic 7-9 AM Peak Hour of Adjacent Street Traffic 4-6 PM AM Peak Hour of Generator PM Peak Hour of Generator	T = 42.78 (X) + 37.66 --- T = 2.40 (X) + 21.48 T = 4.91 (X) + 115.59	252 33 140 ---	4 5 4 ---	50% | 50% --- | --- 45% | 55% 50% | 50%	126 | 126 --- | --- 15 | 18 70 | 70	0.69 --- 0.98 0.90 ---
Saturday Saturday Peak Hour of Gen.	--- ---	--- ---	--- ---	--- | --- --- | ---	--- | --- --- | ---	--- ---

* Percentages rounded to nearest 5%
 (---) Not Given

AM Peak of Adjacent Street 7-9 AM***
 Saturday Peak Hour***

T = 0.275 (PM Peak Hour)
 T = 1.325 (PM Peak Hour)

9
44

60% | 40%
50% | 50%

5 | 4
22 | 22

**Based on ratio of AM/PM traffic for LUC 820, Shopping Center

***Saturday Peak Hour comes from a ratio of PM to Saturday trip rates from LUC 820 - Shopping Center

JN:
 Project Description:
 Project Location:
 Date:

2419
 TP
 Portland, Maine
 12/10/2014

Gorriil-Palmer Consulting Engineers, Inc.
 P. O. Box 1237
 15 Shaker Road
 Gray, Maine 04039

**Specialty Retail Center
 Land Use Code (LUC) 814**

Gross Floor Area (ft²): 1,100

Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *	Directional Distribution	R ²
				IN OUT	IN OUT	
Weekday	T = 44.32 (X)	49	4	50% 50%	25 24	---
Peak Hour of Adjacent Street Traffic 7-9 AM**	---	---	---	---	---	---
Peak Hour of Adjacent Street Traffic 4-6 PM	T = 2.71 (X)	3 ✓	5	45% 55%	1 2	---
AM Peak Hour of Generator	T = 6.84 (X)	8	4	50% 50%	4 4	---
PM Peak Hour of Generator	T = 5.02 (X)	6	3	55% 45%	3 3	---
Saturday	T = 42.04 (X)	46	3	50% 50%	23 23	---
Saturday Peak Hour of Gen.***	---	---	---	---	---	---

AM Peak of Adjacent Street 7-9 AM**
 Saturday Peak Hour***

T = 0.275 (PM Peak Hour)
 T = 1.325 (PM Peak Hour)

1 ✓
 4

60% 40% | 1 0
 50% 50% | 2 2

* Percentages rounded to nearest 5%

**Based on ratio of AM/PM traffic for LUC 820, Shopping Center
 ***Saturday Peak Hour comes from a ratio of PM to Saturday trip rates from LUC 820 - Shopping Center

Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *	Directional Distribution	R ²
				IN OUT	IN OUT	
Weekday	T = 42.78 (X) + 37.66	85	4	50% 50%	43 42	0.69
Peak Hour of Adjacent Street Traffic 7-9 AM	---	---	---	---	---	---
Peak Hour of Adjacent Street Traffic 4-6 PM	T = 2.40 (X) + 21.48	24	5	45% 55%	11 13	0.98
AM Peak Hour of Generator	T = 4.91 (X) + 115.59	121	4	50% 50%	61 60	0.90
PM Peak Hour of Generator	---	---	---	---	---	---
Saturday	---	---	---	---	---	---
Saturday Peak Hour of Gen.	---	---	---	---	---	---

AM Peak of Adjacent Street 7-9 AM**
 Saturday Peak Hour***

T = 0.275 (PM Peak Hour)
 T = 1.325 (PM Peak Hour)

7
 32

60% 40% | 4 3
 50% 50% | 16 16

* Percentages rounded to nearest 5%

**Based on ratio of AM/PM traffic for LUC 820, Shopping Center
 ***Saturday Peak Hour comes from a ratio of PM to Saturday trip rates from LUC 820 - Shopping Center

JN:
 Project Description:
 Project Location:
 Date:

2419
 TP
 Portland, Maine
 December 11, 2014

Gorrill-Palmer Consulting Engineers, Inc.
 P.O. Box 1237
 15 Shaker Road
 Gray, Maine 04039

**Residential Condominium/Townhouse
 Land Use Code (LUC) 230**

Dwelling Units: 24

Average Rate

Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split * IN OUT	Directional Distribution IN OUT	R ²
Weekday						
Peak Hour of Adjacent Street Traffic 7-9 AM	T = 5.86 (X)	54	141	50% 50%	71 70	N/A
Peak Hour of Adjacent Street Traffic 4-6 PM	T = 0.44 (X)	59	11	15% 85%	2 9	N/A
AM Peak Hour of Generator	T = 0.52 (X)	62	12	65% 35%	8 4	N/A
PM Peak Hour of Generator	T = 0.44 (X)	52	11	20% 80%	2 9	N/A
	T = 0.52 (X)	50	12	65% 35%	8 4	N/A
Saturday	T = 5.67 (X)	30	136	50% 50%	68 68	N/A
Saturday Peak Hour of Gen.	T = 0.47 (X)	27	11	45% 55%	6 5	N/A

* Percentages rounded to nearest 5%

Fitted Curve Equation

Time Period	ITE Trip Rate	Sample Size	Trip Ends	Directional Split * IN OUT	Directional Distribution IN OUT	R ²
Weekday						
Peak Hour of Adjacent Street Traffic 7-9 AM	$\ln(T) = 0.85 \ln(X) + 2.55$	54	191	50% 50%	96 95	0.83
Peak Hour of Adjacent Street Traffic 4-6 PM	$\ln(T) = 0.80 \ln(X) + 0.26$	59	16	15% 85%	2 14	0.76
AM Peak Hour of Generator	$\ln(T) = 0.82 \ln(X) + 0.32$	62	19	65% 35%	12 7	0.80
PM Peak Hour of Generator	$\ln(T) = 0.82 \ln(X) + 0.17$	52	16	20% 80%	3 13	0.80
	T = 0.34 (X) + 38.31	50	46	65% 35%	30 16	0.83
Saturday	T = 3.62 (X) + 427.93	30	515	50% 50%	258 257	0.84
Saturday Peak Hour of Gen.	T = 0.29 (X) + 42.63	27	50	45% 55%	28 22	0.84

* Percentages rounded to nearest 5%

JN: 2419
 Project Description: Portland, Maine
 Project Location: TP
 Date: December 10, 2014

Gorrill-Palmer Consulting Engineers, Inc.
 P.O. Box 1237
 15 Shaker Road
 Gray, Maine 04039

**Hotel
 Land Use Code (LUC) 310**

Numer of Rooms: 125

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Directional Split *		Directional Distribution	
			IN	OUT	IN	OUT
Weekday	$T = 8.95 (X) - 373.16$	746	50%	50%	373	373
AM Peak Adjacent Street	$\ln(T) = 1.24 \ln(X) - 2.00$	54	60%	40%	32	22
PM Peak Adjacent Street	---	---	55%	45%	---	---
AM Peak hour of Generator	$\ln(T) = 0.87 \ln(X) + 0.02$	68	55%	45%	37	31
PM Peak Hour of Generator	$\ln(T) = 1.00 \ln(X) - 0.58$	70	60%	40%	42	28
Saturday	$T = 9.62 (X) - 294.56$	908	50%	50%	454	454
Saturday Peak Hour of Gen.	$T = 0.69 (X) + 4.32$	91	55%	45%	50	41

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	Directional Split *		Directional Distribution	
			IN	OUT	IN	OUT
Weekday	$T = 8.17 (X)$	1021	50%	50%	511	510
AM Peak Adjacent Street	$T = 0.56 (X)$	70	60%	40%	42	28
PM Peak Adjacent Street	$T = 0.59 (X)$	74	55%	45%	41	33
AM Peak Hour of Generator	$T = 0.52 (X)$	65	55%	45%	36	29
PM Peak Hour of Generator	$T = 0.61 (X)$	76	60%	40%	46	30
Saturday	$T = 8.19 (X)$	1024	50%	50%	512	512
Saturday Peak Hour of Gen.	$T = 0.72 (X)$	90	55%	45%	50	40

* Percentages rounded to nearest 5%

JN: 2419
 Project Description: TP
 Project Location: Portland, Maine
 Date: December 11, 2014

Gorrill-Palmer Consulting Engineers, Inc.
 P.O. Box 1237
 15 Shaker Road
 Gray, Maine 04039

**General Office Building
 Land Use Code (LUC) 710**

Square Feet 32,180

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	$\ln(T) = 0.77 \ln(X) + 3.65$	557	78	50%	50%	279	278	0.80
AM Peak Hour	$\ln(T) = 0.80 \ln(X) + 1.55$	76	217	90%	10%	68	8	0.83
PM Peak Hour	$T = 1.12(X) + 78.81$	115	235	15%	85%	17	98	0.82
Saturday	$T = 2.14(X) + 18.47$	87	17	50%	50%	44	43	0.66
Peak Hour of Generator	$\ln(T) = 0.81 \ln(X) - 0.12$	15	10	55%	45%	8	7	0.59

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	$T = 11.01(X)$	354	78	50%	50%	177	177	---
AM Peak Hour	$T = 1.55(X)$	50	217	90%	10%	45	5	---
PM Peak Hour	$T = 1.49(X)$	48	235	15%	85%	7	41	---
Saturday	$T = 2.37(X)$	76	17	50%	50%	38	38	---
Saturday Peak Hour of Gen.	$T = 0.41(X)$	13	10	50%	50%	7	6	---

* Percentages rounded to nearest 5%

PM Peak Hour: $T = 1.49/1.55$ (AM Peak) 73 15% 85% | 11 62 0.82

JN: 2419
 Project Description: TP
 Project Location: Portland, Maine
 Date: December 10, 2014

Gorrill-Palmer Consulting Engineers, Inc.
 P.O. Box 1237
 15 Shaker Road
 Gray, Maine 04039

**High Turnover (Sit Down) Restaurant
 Land Use Code (LUC) 932**

Gross Floor Area (ft²): 6,000

Time Period	ITE Trip Rate (Average Rate)	# of Sources	Trip Ends	Directional Split		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	T = 127.15 (X)	14	763	50%	50%	382	381	N/A
AM Peak Adjacent Street	T = 11.52 (X)	18	69	50%	50%	35	34	N/A
PM Peak Adjacent Street	T = 10.92 (X)	38	66	60%	40%	40	26	N/A
AM Peak of Generator	T = 13.53 (X)	21	81	50%	50%	41	40	N/A
PM Peak of Generator	T = 18.80 (X)	27	113	55%	45%	62	51	N/A
Saturday	T = 158.37 (X)	2	950	50%	50%	475	475	N/A
Saturday Peak Hour of Gen.	T = 20.00 (X)	3	120	65%	35%	78	42	N/A

JN: 2419
 Project Description: TP
 Project Location: Portland, Maine
 Date: December 10, 2014

Gorrill-Palmer Consulting Engineers, Inc.
 P.O. Box 1237
 15 Shaker Road
 Gray, Maine 04039

**General Office Building
 Land Use Code (LUC) 710**

Square Feet 150,000

Trip Ends Based on Fitted Curve Equation

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	$\ln(T) = 0.77 \ln(X) + 3.65$	1823	78	50%	50%	912	911	0.80
AM Peak Hour	$\ln(T) = 0.80 \ln(X) + 1.55$	259	217	90%	10%	233	26	0.83
PM Peak Hour	$T = 1.12(X) + 78.81$	247	235	15%	85%	37	210	0.82
Saturday	$T = 2.14(X) + 18.47$	339	17	50%	50%	170	169	0.66
Peak Hour of Generator	$\ln(T) = 0.81 \ln(X) - 0.12$	51	10	55%	45%	28	23	0.59

* Percentages rounded to nearest 5%

Trip Ends Based on Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split *		Directional Distribution		R ²
				IN	OUT	IN	OUT	
Weekday	$T = 11.01(X)$	1652	78	50%	50%	826	826	---
AM Peak Hour	$T = 1.55(X)$	233	217	90%	10%	210	23	---
PM Peak Hour	$T = 1.49(X)$	224	235	15%	85%	34	190	---
Saturday	$T = 2.37(X)$	356	17	50%	50%	178	178	---
Saturday Peak Hour of Gen.	$T = 0.41(X)$	62	10	50%	50%	31	31	---

* Percentages rounded to nearest 5%

PM Peak Hour: $T = 1.49/1.55$ (AM Peak) 249 15% 85% | 37 212 0.82

JN:
 Project Description:
 Project Location:
 Date:

2419
 TP
 Portland, Maine
 12/11/2014

Gorrill-Palmer Consulting Engineers, Inc.
 P.O. Box 1237
 15 Shaker Road
 Gray, Maine 04039

**Health/Fitness Club
 Land Use Code (LUC) 492**

Gross Floor Area (ft²): 6,000

Average Rate

Time Period	ITE Trip Rate	Trip Ends	Number of Studies	Directional Split * IN OUT	Directional Distribution IN OUT	R ²
Weekday	T = 32.93 (X)	198	1	50% 50%	99 99	---
Peak Hour of Adjacent Street Traffic 7-9 AM**	T = 1.21 (X)	7 ✓	3	40% 60%	3 4	---
Peak Hour of Adjacent Street Traffic 4-6 PM	T = 4.05 (X)	24 ✓	3	50% 50%	12 12	---
AM Peak Hour of Generator	T = 1.41 (X)	8	3	40% 60%	3 5	---
PM Peak Hour of Generator	T = 4.06 (X)	24	3	50% 50%	12 12	---
Saturday	T = 20.87 (X)	125	3	50% 50%	63 62	---
Saturday Peak Hour of Gen.***	T = 2.60 (X)	16	3	50% 50%	8 8	---

* Percentages rounded to nearest 5%

JN: 2419
 Project Description: TP
 Project Location: Portland, Maine
 Date: December 11, 2014

Gorrill-Palmer Consulting Engineers, Inc.
 P.O. Box 1237
 15 Shaker Road
 Gray, Maine 04039

**Medical/Dental Office Building
 Land Use Code (LUC) 720**

Gross Floor Area (ft²): 2,000

Fitted Curve:

Time Period	ITE Trip Rate	Trip Ends	Directional Split*		Directional Distribution		Sample Size
			IN	OUT	IN	OUT	
Weekday	$T = 40.89 (X) - 214.97$	-133	50%	50%	-67	-66	10
AM Peak Adjacent Street	Not given	-	80%	20%	-	-	21
PM Peak Adjacent Street	$\ln(T) = 0.93 \ln(X) + 1.47$	8	25%	75%	2	6	41
AM Peak of Generator	$T = 3.49 (X) + 5.25$	12	65%	35%	8	4	16
PM Peak of Generator	$T = 4.43 (X) + 0.48$	9	40%	60%	4	5	21
Saturday	Not given	-	50%	50%	-	-	5
Saturday Peak of Generator	Not given	-	60%	40%	-	-	3

* Percentages rounded to nearest 5%

Average Rate:

Time Period	ITE Trip Rate	Trip Ends	Directional Split*		Directional Distribution		Sample Size
			IN	OUT	IN	OUT	
Weekday	$T = 36.13 (X)$	72	50%	50%	36	36	10
AM Peak Adjacent Street	$T = 2.48 (X)$	5 ✓	80%	20%	4	1	21
PM Peak Adjacent Street	$T = 3.72 (X)$	7 ✓	25%	75%	2	5	41
AM Peak of Generator	$T = 3.62 (X)$	7	65%	35%	5	2	16
PM Peak of Generator	$T = 4.45 (X)$	9	40%	60%	4	5	21
Saturday	$T = 8.96 (X)$	18	50%	50%	9	9	5
Saturday Peak of Generator	$T = 3.63 (X)$	7	60%	40%	4	3	3

* Percentages rounded to nearest 5%

**GORRILL-PALMER
CONSULTING ENGINEERS, INC.**

P.O. Box 1237
GRAY, MAINE 04039
(207) 657-6910
FAX (207) 657-6912

JOB 2419
SHEET NO. _____ OF _____
CALCULATED BY RED DATE 2/21/14
CHECKED BY _____ DATE _____
SCALE Revised 12/12/14

Task: Determine Trip Generation For Cultural Center

Source: "Appendix A - Project Trip Generation"
"Los Angeles Entertainment District -
Base Trip Generation"
(The .pdf was "secured" so it was not
able to be printed)

Museum Trip Rate 1.14 / 1,000 SF

- Source Assumed - 300,000 annual visitors &
typically 1,000 visitors per day, 2.5 persons
per vehicle and 10% in peak hour

$$1.14 \frac{\text{Trips}}{1,000 \text{ SF}} \times 40,000 \text{ SF} = 46 \text{ TE}$$

Assume both AM & PM Peak Hours

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JOB 2419

SHEET NO. _____

OF _____

CALCULATED BY RET

DATE 2/19/14

CHECKED BY _____

DATE _____

SCALE _____

Task: Forecast trip generation For the Circus Conservatory.

Based On: 120 students / 15 staff

Source: ITE Trip Generation 7th Edition
LUC - 540 Junior/Community College

Based on Students:

AM Adj. avg. rate = 0.12 → 14 TE

PM Adj. avg. rate = 0.12 → 14 TE

Based on Staff:

AM Adj. avg. rate 1.64 → 25 TE

PM Adj. avg. rate 1.39 → 21 TE

- Use the higher of the two.

Note: The trip generation was not based on square feet because given the type of facility, equipment was considered to take up considerably more room than would be typical for this use.

Task: Calculate the trip generation for the Event Center for a typical convention.

Source: Rates reviewed and approved as part of original study. Rates are based on Bayside Expo Center as described and identified in both the Traffic Impact Study August 2011 and Supplemental letter to Steve Landry dated Nov 3, 2011

Assumptions: 2,500 Occupants

AM Peak Hour

$$0.04 \frac{\text{TRIPS}}{\text{PERSON}} \times 2,500 = 100 \text{ TRIPS}$$

PM Peak Hour

$$0.078 \frac{\text{TRIPS}}{\text{PERSON}} \times 2,500 = 195 \text{ TRIPS}$$

The Forefront at Thompson's Point | Transportation Demand Management (TDM) Plan

September 13, 2011



Project Description

The Forefront at Thompson's Point is a unique project proposed for the City of Portland. It consists of a transit-oriented mixed-use development whose program elements range from Class A office space, a 125-room hotel, an event center that will be the new home of the Portland Red Claws NBA D-League team, a concert hall, a restaurant, a sports medicine facility, a parking garage, and various public amenities such as pedestrian/bike trails and access to the Fore River. The Forefront will pursue a minimum of LEED-Silver certification, and is intended to be a gateway development that will bring life to an under-utilized part of the City—a place as well as a project.

As part of its approvals for this project, the City of Portland will require the creation and issuance of a Transportation Demand Management (TDM) Plan; given the pivotal role that efficient public access to and from the Forefront will play in its commercial success, a thoughtful approach to TDM is crucial. What follows is a Transportation Demand Management Plan that addresses and the City's sustainability goals by outlining and committing to a series of measures that encourage and promote bicycling, walking, carpooling, and use of public transit.

Given both the scope of this mixed-use project, and the necessity of having buy-in from our prospective tenants, the proposal that follows contemplates a two-tiered approach to the TDM, consisting of:

- (a) Macro TDM: an overall approach to TDM for the Forefront, consisting of TDM goals, the proposed methodologies for undertaking them, including steps for implementation, approaches to staffing, modes of monitoring and assessing successes and areas for improvement, and proposed frameworks for more tenant-specific plans, and:
- (b) Micro TDM(s): tenant-specific plans, the “DNA” of which is articulated in the Macro TDM but which are to be more fully elaborated in dialogue with the Forefront’s respective tenants (namely, office users, hotel operator, restaurant operator, sports medicine facility operators, event center operator, concert hall operator, parking garage operator), each of whom will have different constituencies with varying travel patterns and habits, and who will thus require different approaches which must nevertheless be well orchestrated. Although it is not practicable to outline these plans in substantive detail until more formal agreements with tenants are in place, it is important to stress that tenants are expected to be active participants in the overall TDM goals and measures elaborated here, and to take active roles in defining their own mechanisms for participating in these goals; this expectation will be outlined in lease arrangements with tenants.

In its utilization of this tiered approach (“macro” and “micro”), the proposed framework effectively functions as a project-wide Transportation Management Association, linking the various operating businesses in a set of shared strategies, and ultimately coordinated by the TDM Coordinator, of which more below.

The Forefront will be a major employer as well as a major draw for visitors, from Portland and beyond. Thus its approach to TDM represents a significant opportunity to reduce the number of Single Occupant Vehicles (SOVs).

Proximity to Transit

The Forefront is a unique project in the City of Portland, and for that matter, the state of Maine. Thompson’s Point lies adjacent to the Portland Transportation Center, which hosts the following transit services:

- *Downeaster (AMTRAK)*: This intercity passenger rail service provides connections from Portland to Saco, Old Orchard Beach, and other southerly stops including Boston’s North Station. The service will connect northerly to Freeport and Brunswick, providing a direct link to the Maine Eastern Railroad, which provides seasonal service as far as Rockland in 2012. The service currently runs five round trips to and from North Station, with an additional trip anticipated following the opening of the extension to Brunswick.
- *Concord Coach (Formerly Concord Trailways)*: This intercity bus service provides non-stop service to South Station in Boston, and northerly both to Augusta and Bangor, Maine, as well as the mid coast region. During the day, buses arrive and depart about once per hour. This service allows for connections to various intercity buses, Amtrak and MBTA commuter rail services at South Station, as well as direct connections to all terminals at Boston’s Logan International Airport. In addition, the Bangor bus allows for a connection to the Cyr Bus service, providing a once-daily connection to several destinations in Aroostook County.
- *Metro Route #5, Maine Mall*: Portland METRO provides twice an hour service to the Portland Transportation Center with other major stops including the Maine Mall and

UNUM. It also allows for access to the Portland International Jetport and the Elm Street METRO facility. A limited service combining Routes 1 and 5 is provided on Sundays.

Given its adjacency to these amenities, the Forefront is uniquely suited to take advantage of non-motorized vehicle trips, especially transit trips.

Further, the Forefront has the opportunity to pursue water shuttle and water taxi service from the site to downtown Portland and other locations in Casco Bay. The Forefront will partner with Portland Trails to upgrade the existing public trail around the Thompson's Point peninsula; working collaboratively with the City, the PTC, Portland Trails, MDOT and others this trail may be able to be better linked with the larger trails network. The use of bicycles and other non-motorized modes of conveyance by employees and visitors is something the Forefront will encourage (of which more below).

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. The Forefront at Thompson's Point meets both of these criteria. However, in the case of this project, the TDM Plan serves a series of important needs. Given the designation of the Forefront as a Transit Oriented Development (TOD), a TDM plan is key to maximizing the synergies between the project and the transit modes (existing and not yet existing) adjacent to it. "Transit Oriented Development," as the Federal Transit Administration defines it, is "compact, mixed-use development within walking distance of public transportation," and TOD is "a key element of livable and sustainable communities." As the TFA notes, there is a well-documented symbiotic relationship between economic development and transit, and a convergence of public and private interests around TOD, which "increases transit ridership and reduces automobile congestion, providing value for both the public and private sectors."

To this end, the objectives of the Forefront's TDM plan are:


- Make maximum use of existing transit infrastructure adjacent to the project
- Propose partnerships with the City, MDOT and others aimed at increasing transit opportunities and, in the words of MDOT, contribute to providing "a safe, efficient and reliable transportation system that supports economic opportunity and quality of life."
- Reduce peak hour trip impacts to, and the effects of traffic congestion upon, adjacent roadway infrastructure
- Reduce the amount of needed parking on-site, and thus the amount of land that could have a higher and better use than surface parking
- Encourage healthy activities such as biking, kayaking, and walking among Forefront employees and visitors

It is important to note that this Plan should not be viewed as a series of fixed strategies. Rather it is a living document intended to be reviewed and updated on a regular basis as the Forefront works with its tenants to address changes in local transportation patterns, preferences, and prices; by means of effective coordination, goal-setting, and goal-monitoring measures the Forefront will endeavor to reach the goals articulated in this Plan in a way that is not financially or operationally burdensome to the tenants who ultimately must support the Plan. Ultimately, the goal will be to make significant reductions in peak hour single-occupancy vehicle (SOV)

activity on the local street network as well as the need for on-site parking in a way that is financially and operationally sustainable for all concerned.

Employee Transportation Coordinator (TDM Coordinator)

The Forefront at Thompson's Point will employ a TDM Coordinator, charged with coordinating the TDM plan. The TDM coordinator will liaise with the chief operating officers of each of the Forefront's tenant organizations in order to create an effective overall approach to the following goals:

- Coordinate and promote rideshare opportunities
- Coordinate and promote the use of the following alternatives to SOV travel:
 - AMTRAK
 - Concord Coach and other bus lines as may be applicable
 - METRO
 - U Car Share
 - Car rental companies
- Monitoring parking usage in conjunction with parking facility management
- **Overseeing event scheduling** 
- Encouraging the greater use of bicycling, walking, and bus-based transit
- Overseeing ongoing monitoring and updating of the plan
- Convening a committee, ideally comprised of decision-makers representing each of the tenants/users at the Forefront, who will assist the coordinator in TDM planning and assessment
- Filing annual reports with the City

Given the centrality of the event center to the overall success and vitality of the project; given that the majority of traffic demand will be attributable to this and the adjacent concert hall; and given that the success of the event center depends upon efficient management of traffic and parking use by all the various uses (including parking use by visitors to the Portland Transportation Center), it is anticipated that the TDM Coordinator for the project will be a staff member of the event center's operating company.

The TDM Coordinator will work with tenants at the MICRO TDM level to explore how to create effective partnerships and incentive packages with AMTRAK, Concord Coach, and METRO; the Coordinator will liaise with tenants and help them identify strategies such as incentives (free or subsidized bus passes for employees, gift coupons or periodic prize drawings to foster use of alternative modes) and how to establish subsidies and payroll deductions for employee transit passes where this is appropriate for a tenant.

Surveys - Employees

Six months after initial occupancy of the Forefront facilities, and annually thereafter, Forefront employees will be surveyed regarding their transportation choices such as automobile/bicycle/

motorcycle-scooter ownership, parking demand, and the frequency of trips using bicycling, walking, U Car Share, carpool/vanpool, and the bus. The survey will follow the format of the “TDM2go Employee Survey”, a copy of which is attached hereto, but may be expanded from time to time by the TDM Coordinator. The surveys will be conducted to determine:

- Mode of travel to and from work (car/carpool/biking/walking/bus)
- Preferences or concerns with model of travel
- The flexibility and receptivity of employees to utilizing various travel modes to access Thompson’s Point (and, crucially, to ascertain whether individual employees make use of multiple modes during the course of a given year, or a given season)

Various questions will be created in the survey to determine which measures to encourage increased use of transit, for example, either via costs for parking or stronger subsidies of METRO passes, etc. The TDM Coordinator may seek to partner with the academic and/or the public sector, and public funding, to increase the efficacy of these surveys and mine the information contained therein.

Surveys - Visitors

For visitors to the Forefront, surveys will also be included. These will be provided in the following manner:

- Conference packet for convention employees
- With ticket receipt for concert goers
- Inside game pamphlet for Red Claws fans

The surveys will be conducted to determine:

- Mode of travel to and from a conference, concert or game (car/carpool/biking/walking/bus)
- Preferences or concerns with model of travel
- The flexibility and receptivity of visitors to utilizing various travel modes to access Thompson’s Point.

Surveys will need to be simple and convenient; they could be filled out at a Red Claws game, or completed with a link on-line (such as Survey Monkey) to do it afterward. Hotel guests may represent an important source of survey information. Various questions will be created in the survey to determine measures to encourage increased use of transit, for example, either via costs for parking or greater promotion of transit uses. The TDM Coordinator will work with the tenants at the MICRO TDM level to determine what kinds of incentives could elicit consistent and engaged participation in these surveys.

Car Pooling and Sharing

Through various promotional strategies (flyers, email blasts, web updates, social media, and occasional gatherings) the Forefront TDM Coordinator will make visitors, workers and guests aware of and encourage use of these services,

U Car Share/Rental Cars

Portland is one of 20 cities in the United States served by U Car Share. In Portland, the service currently provides a total of four vehicles. These vehicles are available on an hourly or daily basis. It is recommended that the Forefront negotiate the use of two additional vehicles with U Car Share for visitors to use on an as-needed basis, as well as traditional rental cars. This will allow for the use of a car for certain trips, which can aid in a traveler to or from the Forefront to choose transit for a mode. Information will be provided to hotel guests, office workers, and convention attendees. Following the first survey, additions to U Car Share may be made if employees desire their use in significant numbers; U-Car share may be an attractive option for local residents who are employed by one of the various tenants at the Forefront.

- Primary User: Visitors, Employees (if found desirable)
- Responsibility: Forefront, U Car Share, Rental agencies

Carpooling/Vanpooling

The TDM coordinator, working in conjunction with the GO MAINE Commuter Services Program, will work with the employers located at the Forefront to locate employees with similar schedules and home addresses to create a carpooling or GO MAINE vanpooling plan. Working with the employers, the TDM coordinator will serve as a resource in devising incentives for those employees who participate. A reasonable portion of the preferred parking spaces to be established shall be dedicated to U-Car Share/carpool/vanpool parking in order to incentivize these alternatives, and shall be designated as such by means of signage.

- Primary User: Employees
- Responsibility: Forefront

Education for Visitors

As discussed, the Forefront's TDM coordinator will provide transit route maps, schedules, and ticket information in packets for visitors. There will also be a travel kiosk in the event center offering interactive Google-based travel planning with various vehicular modes; in addition, maps, routes, and ticket information will be posted clearly in the entry areas at the event center and the office buildings. The TDM coordinator will be available, in person and/or virtually, to assist visitors and employees who have questions about travel tips and ideas.

- Primary User: Visitors
- Responsibility: Forefront

Submission of Monitoring Information/Updated TDM Plan

Based upon the results of the monitoring, the Forefront will update the TDM Plan and submit a draft plan to the City's TDM Manager for review and comments.

The primary goal would be to reduce employee and visitor SOV trips to 80 percent of the total trips, at a minimum, within the first five years of the project.

The secondary goal for the initial year will be to reduce the parking demand five percent from the calculated demand, with additional annual reductions of five percent, until parking demand is reduced by a minimum of twenty percent (e.g. 290 vehicles out of an original 1,450). This aggregate targeted reduction shall also include individual targets for the following alternative modes: increase use of transit by employees and visitors by 5% annually; increase carpooling and vanpooling by employees and event attendees by 5% annually; increase bicycle and pedestrian trips by employees and visitors by 5-7% annually; until the overall goal of a 20% reduction is reached. The goal will be to achieve this overall 20% reduction by the end of the fifth operating year. At this point, it would be appropriate to reassess the ways in which the TDM plan should be recast in order to set additional goals for the sixth operating year and beyond. Each monitoring period will be accompanied by a parking count of the Forefront's facilities, in accordance with the methodology discussed in the parking count section.

In our amended Traffic Impact Study, with an addendum dated 30 August 2011, we have noted this reduction goal of 20%, which we feel is an ambitious albeit achievable goal.

An important responsibility for the TDM Coordinator will discuss future options as they become available with the City of Portland and GO MAINE, an organization charged with finding transportation options for the state.

Transit TIF Opportunities for Single Occupancy Reduction

The City of Portland designated the Thompson's Point Transit-Oriented Development and Tax Increment Financing District and adopted a development program therefor pursuant to Chapter 206 of Title 30-A of the Maine Revised Statutes, as amended, by action of the Portland City Council on June 20, 2011; the City submitted the resultant Credit Enhancement Agreement to the Department of Economic and Community Development for its review and ultimate approval, creating the Thompson's Point Transit-Oriented Development and Tax Increment Financing District and Development Program. The City designated the Thompson's Point Transit-Oriented Development and Tax Increment Financing District, adopted the related Development Program, and entered into the related Credit Enhancement Agreement in order to induce the Developer to redevelop Thompson's Point into a gateway destination in a manner that includes a substantial investment in infrastructure, including a large above-ground parking structure, transportation improvements, creation of an at-grade public rail crossing, extensions of public roads, utility investments and expanded walking and biking trails, and to support the Developer's investment into the Project by enabling the City to contribute toward the capital cost of the Project in the amounts contemplated by the Development Program and the Credit Enhancement Agreement; and the City Council voted unanimously to capture one hundred percent of the net new tax revenue generated by the Forefront and to dedicate its share of said revenue to funding alternative transportation.

The City may wish to consider utilizing its portion of net new tax revenue generated by the Forefront, and captured by means of the Transit TIF, to fund the following initiative:

Funding of METRO Route 5E

Forefront will explore with METRO and the City of Portland the feasibility of an additional bus service running mainly on the Route 5 route. Potentially called Route 5E, this bus would serve as

an express service and would run seven days a week. It would stop at the Portland Jetport, Portland Transportation Center, the Forefront, the Greyhound Terminal at the intersection of St. John and Congress Street (inbound only), and the Metro Pulse Center on Elm Street. It would be clearly marked as an express bus to major transit hubs. The provision of a single bus would allow for hourly service, and would be in addition to the existing Route 5. Those visitors arriving at the Portland Jetport will be given passes for two rides on the 5E service (or the 5). The Forefront will work with METRO to explore the potential for a stop at the Forefront for the 5 line.

- Primary User: Visitors
- Responsibility: City of Portland (Transit TIF)

Additional Transit Opportunities

The Forefront will generate substantial tax revenue that will be used by the City for transit funding. The City has requested that the Forefront play an integral role in working with the City to define and establish “Transit TIF”-funded programs.

Program Elements

The following components are to be incorporated into the Forefront’s development program:

Bicycle Parking

In addition to the standard bicycle racks provided outside of the buildings at the Forefront (anticipated to include 88 bicycle spaces in racks distributed around the site per site plan requirements), the developer will endeavor to incorporate secure storage for up to 150 bicycles inside the facilities for tenants who wish to have them. These spaces are envisioned to be wall-mounted lockable racks within controlled-access rooms. This configuration will provide for bicycle security, convenience, and protection from the weather. Similarly to carpoolers, bicyclists will be given stickers for their bicycles that would have matching numbers with a specific bicycle locker, which would come with a locker-specific bicycle lock. The space would either be in the office component or the convention facility component, depending upon the work location of the employees.

- Primary User: Employees
- Responsibility: Forefront

Scooter/Motorcycle Parking

50 spaces are recommended for this use, with the potential for more in the future. Those using scooters or motorcycles will also obtain a ticket to be matched with a specific space in the Forefront garage. These spaces may be subject to random compliance checks.

- Primary User: Employees
- Responsibility: Forefront

Bus Shelter

The Forefront is willing to locate a bus shelter on site, for those coming on and off the 5E bus (discussed above), which will further encourage use of buses by visitors and employees alike.

- Primary User: Visitors, Employees
- Responsibility: Forefront

Peninsula Shuttle

On days with conventions, should attendee demand warrant it, the Forefront may operate a van-based shuttle that will take visitors to major points of interest on the Portland Peninsula, including Congress Square, Monument Square, and Commercial Street. This shuttle will run regularly as may be warranted by demand, and shall be free of charge for conference attendees. Following an initial survey, if it is determined that employees at the Forefront would strongly desire to have access to a shuttle, a reduced service during lunch hours may also be provided.

- Primary User: Visitors, Employees (if found desirable)
- Responsibility: Forefront

Parking Demand and Supply

As discussed in the parking calculations, based on shared parking calculations, and without accounting for access to transit, the Forefront will typically incur a peak weekday parking demand of approximately 1,450 spaces, and up to 1,900 spaces during special concert events. Proposed for the facility will be a 700-space parking garage and surface parking, potentially for a total of 1,450 spaces.

The Forefront proposes to provide:

- 1,400 automobile parking spaces (a portion, to be determined, will be dedicated for the preferred use of hybrid/electric vehicles)
- 150 bicycle parking spaces (with secure facilities, contingent upon tenant interest)
- 50 motorcycle/scooter parking spaces

Parking for Special Events

The concert hall / event center can support seating for 4,500 to 4,800 people. In the event of a full concert, the demand may exceed supply by approximately 450 spaces, or possibly less depending upon the success of the TDM measures. Indeed, to the degree that the TDM measures do succeed, it may be determined that the existing surface and structured parking spaces are adequate to support the demand created by these concerts. However, these events will be in the evening. Significant parking exists in lots for Norway Savings Bank, Rheumatology Associates, and others off of Sewall Street and the drive connecting Sewall Street to Massachusetts Avenue and Congress Street, as well as along the Fore River Parkway and other locations in proximity to Thompson's Point which may be suitable. It is understood that the existence of leases, or other satisfactory arrangements that reliably provide for off-site parking during these larger concerts, shall be a requirement of site plan approval.

It is recommended that the Forefront explore agreements for utilizing these lots for overflow during events, providing that it does not open doors to concerts until after 6:00, when the employee and customer demand at adjacent facilities has greatly diminished. Forefront can employ individuals to control traffic and collect parking fees for use of these lots based on a revenue-sharing agreement. In addition, the peninsula shuttle will be repurposed for these evening events to travel through these lots and to the concert hall.

The Forefront has developed an Event Management Plan, submitted together with this TDM Plan, which more fully discusses the proposed approach to handling traffic flow in and out of the site during mid-sized events (upwards of 2,500 attendees).

Monitoring

Parking Counts

As part of its TDM Plan monitoring program, the Forefront TDM Coordinator will oversee assessment of the use of its various operational components, starting one month after the opening of the event center and annually thereafter. As one critical component of the TDM program will be to reduce parking demand, the first part of each monitoring effort will include an hourly parking count of the facility from 11:00 AM to 11:00 PM on a weekday and a Saturday (this will require evening events, preferably concerts, as this will generate the greatest parking demand).

Timetable for Action Items

Action Item	Timeframe for Implementation
Finalize TDM Funding Package based upon City of Portland’s priorities for funding from its share of Transit TIF revenues generated by the Forefront	Fall 2011
Provide update to City regarding progress on TDM plan implementation and status of TMA (“macro TDM”)	Fall 2012
Appoint/Confirm TDM Coordinator	6 months prior to opening of the Forefront Event Center, anticipated to be spring 2013
Assemble “Micro TDM” plans with tenants and create TDM Packets; share complete TDM plan, including Micro-TDM targets and proposed monitoring, with City	Summer 2013
TDM Plan Implementation / On-site Parking Monitoring	Anticipated for Spring 2014, assuming final occupancy Summer/Fall 2013
Assess success of first six months of TDM Program and Report to City on initial effectiveness	Fall 2014

Submit Year Two TDM Program with needed modifications (and annually thereafter)	Spring 2015
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**The Forefront at Thompsons Point
 Trip Generation and Parking Summary for
 Master Plan – November 26, 2013
 Completed by Gorrill-Palmer**

The following is a summary of forecast trip generation and parking summary for the proposed Master Plan for the Forefront at Thompson's Point. The following corresponds to the "Revised Master Plan" provided by FST and Carroll Associates.

Trip Generation:

<u>Building</u>	<u>Description</u>	<u>Size</u>	<u>AM Peak Hr</u>	<u>PM Peak Hr</u>
A	Office + Studio	27,000 sf	66	63
	Café	3,000 sf	35	33
	Specialty Retail	4,000 sf	3	11
B1	Multi-Purpose (Assume Live Theater)	4,800 Seats	---	96
B2	Rest. (Assumed)	3,600 sf	41	39
B3	Rest. (Assumed)	6,000 sf	69	66
C1	Educational (Assume Circus Conservatory)	41,000 sf	123	104
D	Gym	9,000 sf	11	36
	Medical Office	2,000 sf	5	7
E1	Hotel	125 Rooms	70	74
	Condos	24 Units	11	12
E2	Rest. (Assumed)	6,000 sf	69	66
F1/F2	Parking Garage		----	----
G	Office	180,000 sf	300	280
H	Event Center (Incl. Arena & Convention)	45,000 sf	115	224
I	Cultural Center	25,000 sf	29	29
J1	Office	160,000 sf	273	258
J2	Condos (Assumed)	120 Units	53	62
Subtotal			1,273	1,460
Reduction (10%) for Bus / Train / Shared Use			(-127)	(-146)
Total Master Plan Trip Generation			1,146	1,314
Permitted Trip Ends			734	1,091
Diff. Between Permitted and Master Plan			412	223

Meeting Permitted Trip Generation Thresholds:

The buildings are NOT planned to be constructed and occupied in alphabetical order. The following is a summary of the planned phasing of the project followed by the forecast cumulative trip generation after the completion and occupancy of that phase shown in parenthesis (). This cumulative trip generation does NOT reflect the 10% shared use / transit reduction.

<u>Phase</u>	<u>Building</u>	<u>Description</u>	<u>AM Peak Hr</u>	<u>PM Peak Hr</u>
1A	A	Office + Studio	66	63
		Café	35 (101)	33 (96)
		Specialty Retail	3 (104)	11 (107)
1B	B1	Live Theater	---	96 (203)
1C	C	Educational	123 (227)	104 (307)
1D	D	Gym	11 (238)	36 (343)
		Medical Office	5 (243)	7 (350)
	B2	Restaurant (Assumed)	41 (284)	39 (389)
1E	E1	Hotel	70 (354)	74 (463)
		Condos	11 (365)	12 (475)
	E2	Rest. (Assumed)	69 (434)	66 (541)
1F	F1/F2	Parking Garage	----	----
1G	G	Office	300 (734)	280 (821)
1H	H	Event Center	115 (849)	224 (1045)
2A	I	Cultural Center	29 (878)	29 (1074)
2B	J1	Office	273 (1151)	258 (1332)
	J2	Condos (Assumed)	53 (1204)	62 (1394)
2C	B3	Rest. (Assumed)	69 (1273)	66 (1460)

As can be seen from the summary in the previous section, the proposed master plan trip generation would exceed the trip ends as currently permitted. In reviewing the cumulative trip generation for the AM peak hour as summarized above, everything up to and including Phase 1G (734 trip ends – 10% = 661 trip ends) could be constructed without exceeding the permitted trip generation of 734 trip ends. Since MaineDOT typically allows a buffer of 100 trips ends beyond that permitted before requiring re-permitting, it would be anticipated that up to and including Phase 2A could also be constructed and occupied. This should be verified with MaineDOT.

In the PM peak hour, everything up to and including Phase 2A (1074 trip ends – 10% = 967 trip ends) could be constructed without exceeding the permitted trip generation of 1,091 trip ends.

Based on this review, we recommend a follow up trip generation study be conducted after the construction and occupancy of Phase 1H to quantify the actual trip generation.

Individual Parking Demand:

Based on the phasing of the project as identified previously, the following forecast the peak parking demand for each phase. Please note that the peak parking demand for each of the phases does NOT occur concurrently, so they cannot simply be added to arrive at the overall parking demand for the site. See the following section for site peak parking demand.

<u>Phase</u>	<u>Building</u>	<u>Description</u>	<u>Peak Parking Demand</u>
1A	A	Office + Studio	77
		Café	30
		Specialty Retail	8
1B	B1	Live Theater	1371
1C	C	Educational	49
1D	D	Gym	41
		Medical Office	9
	B2	Restaurant (Assumed)	36
1E	E1	Hotel	125
		Condos	22
	E2	Rest. (Assumed)	60
1F	F1/F2	Parking Garage	-----
1G	G	Office	513
1H	H	Event Center:	
		Convention OR	113
		Arena	1167
2A	I	Cultural Center	98
2B	J1	Office	456
	J2	Condos (Assumed)	110
2C	B3	Rest. (Assumed)	60

Cumulative Parking Demand:

Since the peak parking demand for each individual use does not occur concurrently, the overall peak parking demand for the site was also reviewed. For the purpose of the Overall Peak Parking Demand, the site was reviewed for two time periods; 5 PM or before and, after 5 PM. Before 5 PM the vehicles would be expected to park on-site and after 5 PM, when events would be anticipated, parking in nearby lots may also become available. The following summarizes the overall peak parking demand.

<u>Scenario</u>	Peak Parking Demand (Spaces)	
	<u>5 PM or prior</u>	<u>After 5 PM</u>
Average Day without Theater / Arena / Convention	1,397	574
Average Day With Live Theater after 5 PM	1,699	1,877
Average Day With Arena activity after 5 PM	1,449	1,651
Average Day With Convention during the day	1,510	630

Event Management Plan for The Forefront at Thompson's Point Portland, Maine January 13, 2014

The traffic management plan for special events is an important component of making this project work. For the purposes of implementation, we propose that a “special event” be considered any event, or combination of events, that equals or exceeds 2500 people. An “event”, as it is intended in the context of this Event Management Plan, would not include those typical modes of gathering and circulation related to the customary visitation and enjoyment of the site and its various commercial uses and public amenities. For example, a gathering of visitors in an outdoor dining area would not be considered an “event”, but a gathering of visitors in the outdoor seating area adjacent to the Mixed-Use “Depot” Building for the purposes of attending a musical performance would be considered an “event”. “Events” generally relate to those occurrences that are planned as part of the programming associated with the Event Center (including, from time to time, its adjacent plaza) and Mixed-Use “Depot” Building (and its outdoor seating area). To accomplish the special event implementation, the applicant is approaching this from different aspects. The first aspect is timing of the special events. If the event is on a weekday, the special events are anticipated to start later (7 or 8 PM) in the evening after the PM rush hour of the adjacent street traffic. When the special weekday events conclude, it will be later in the evening and traffic on the adjacent roadway network is anticipated to be minimal compared to during a typical commuter hour. If the event is on a Saturday or Sunday, the commuter traffic will not be on the roads.

The second angle to the special event approach is to provide accommodations for large numbers of vehicles to enter or exit the site. To accomplish this, the applicant proposes the following:

- I. Signing – This includes not only signing for drivers on which lanes are for what purpose, but also to direct drivers to points of interest; such as event parking. Additional signs should also be erected to identify to the drivers destined for the bus and train facilities where they should be going such that they do not get intertwined in the traffic destined for the events. These signs can be both permanent and temporary and may be positioned both onsite and offsite.
- II. Reversible Lane – This would be an additional lane in the center of Thompsons Point Road that would be used for incoming traffic at the beginning of an event and then reversed and used as an exit lane when the event(s) conclude. This layout is depicted on Sheets C-9.1, C-9.2 and C-9.3 of the Site Plan submission drawings.
- III. Traffic Control Devices – This would include devices such as traffic cones to regulate access to the lower lots on the site during special events. The use of cones would be useful in directing drivers to where you want them to be as well as restricting them from areas where access is prohibited. These would be especially useful to assist in the functionality of the reversible lane used to enter and exit the Forefront at Thompsons Point.
- IV. Police Officers – The use of a police officer is recommended at the signalized intersection of Thompsons Point / Fore River Parkway. A uniformed police officer is the only person allowed to direct traffic at a signalized intersection. We anticipate at least one police officer (for events between 2500 and 3500, which is the upper limit of the attendance for a Red Claws basketball game) and potentially two (for events such as larger concerts with attendance upwards of 4,800) stationed at or near the intersection during special events.

- V. Traffic Control Personnel (TCP) – These personnel do not need to be police and are allowed to assist traffic on-site. This would include persons at each of the entrances / exits for both the train and bus to assist both customers and the buses themselves in entering and exiting. There would also be TCP at the crosswalk to Sewall Street assisting pedestrians with crossing. In addition, TCP will be positioned on either side of the RR crossing to ensure that vehicles do not stop on the RR tracks. We anticipate a minimum of 5 or 6 TCP per special event.
- VI. Monitoring – Special events will be monitored for the first year by a dedicated observer. That observer will report after each event what works, what is not working, and provide recommendations for improvement. This monitoring should also include meeting with representatives of the bus and train station to receive their input. **Special Event monitoring shall also be coordinated with and/or by the Transportation Demand Management Coordinator to insure that the development’s TDM opportunities are well integrated with respect to special events.**
- VII. Parking garage – The parking garage is designed with three lanes on the west end, with the center of the three lanes being reversible and two reversible lanes on the north side. It is anticipated that that during normal business hours, only two lanes (one in and one out) at each end of the garage will be needed. However, the third lane is available to process traffic should it become necessary.

During an event, when the Event Management Plan is in place the parking garage is anticipated to be operated with all five lanes used. At the beginning of an event two enter lanes and a single exit lane will be available at the west end (total of 3 entering lanes and 2 exit lanes). The gates will be up and attendants will be accepting money on a fixed fee basis to process the traffic quicker. For certain events, visitors will have pre-purchased event tickets that include event parking, so they would simply need to show their ticket to gain entrance to the garage. During special events, each lane would process 300 vehicles per hour with a non-gated, pay on entry flat-fee, with attendants taking money at the entry and directing vehicles to the parking spaces. This would theoretically fill the garage in 37 minutes for a special event, which relates to a ‘good’ Level-of-Service of “B”.

In addition, attendants will be positioned within the garage to assist directing incoming cars such that parking levels are filled one at a time with no empty spaces. This will improve efficiency and get the most capacity from the garage. These attendants will also be able to convey when the garage is near capacity so that they can make the proper call and appropriate signs can be put up both onsite and offsite identifying the garage is full. The parking garage has also been designed as a double helix such that entering and exiting vehicles can turn either way exiting their parking space to go up or down. This means that you do not have to go up to the top level of the garage in order to come down to the lower levels.

When an event concludes, there will be two exit lanes at each end (for a total of four exit lanes) such that vehicles will be able to flow freely from the garage without stopping at a gate, thus considerably reducing the amount of time it takes to exit the vehicles from the garage.

MEMORANDUM
Forefront at Thompson's Point
Parking Summary

Date: March 5, 2014
Subject: Parking Summary
 Forefront at Thompson's Point
 Portland, Maine
To: City of Portland
From: Randy Dunton, Gorrill-Palmer (JN 2419)

The following is a summary of the forecasted peak parking demand using two scenarios; Ordinance and Master Plan. The Ordinance results reflect the peak parking demand if the City parking requirements were used. The Master Plan results reflect a combination of the City parking requirements, ITE Parking Generation Manual (4th Edition), and published data / engineering judgement. For the purpose of the overall peak parking demand, the site was reviewed for two time periods; 5 PM or prior and after 5 PM. Before 5 PM the vehicles would be expected to park on-site and after 5 PM, when events would be anticipated, parking in nearby lots may also become available. The supporting calculations are attached.

<u>Scenario</u>	<u>5 PM or prior</u>		<u>After 5 PM</u>	
	Ordinance	Master Plan	Ordinance	Master Plan
Average Day without Theater / Arena / Convention	778	826	468	505
Average Day With Live Theater after 5 PM	1283	1587	1383	1822
Average Day With Arena Activity after 5 PM	1187	1450	1383	1822
Average Day With Convention during the day	988	1036	572	609

As can be seen from the summary above, what the Master Plan is using for peak parking demand is greater than what would be required if the City Ordinance were used in all scenarios.

ATTACHMENT D

**Stormwater Management Report &
Supplemental Information**

**STORMWATER MANAGEMENT REPORT
(GENERAL STANDARDS)**

**THE FOREFRONT AT THOMPSON'S POINT
PORTLAND, ME**

PREPARED FOR:

**FOREFRONT PARTNERS I, LP
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LEWISTON, MAINE 04240
(207) 784-0335**

PREPARED BY:

**DELUCA-HOFFMAN ASSOCIATES, INC.
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**March 2012
Revised April 2012**

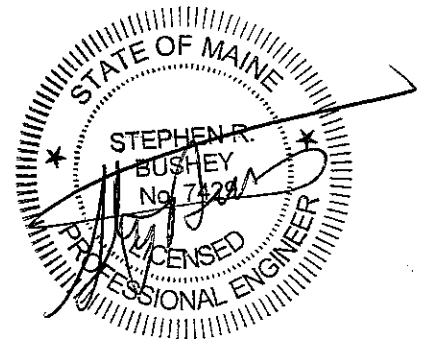


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Appendices

A – Figures

B – Existing Conditions Photographs

C – Water Quality Summary Chart and Computations

D – Rational Flow Computations

E – Subsurface Storage Pond Computations (1, 2, 10 and 25-year Storm Event HydroCAD Computations)

F – Orifice Drawdown Computations

G – Hydraulic Grade Line Computations (HydroFlow Storm Sewers)

H – Interim Guidelines for Stormwater Management StormFilter® System as an approved alternative BMP to the General Standard BMP

*** Please note: Revisions to report are shown in Red.**

STORMWATER MANAGEMENT REPORT

1.0 Introduction

DeLuca-Hoffman Associates, Inc. has been retained by Forefront Partners I, LP for the preparation of site design and site permitting for the proposed mixed-use development of Thompson's Point in Portland, Maine. The development will include an event center, concert hall with outside concert space, hotel, restaurant, office, sports medicine facility, surface parking and a multiple story parking structure.

Thompson's Point has been developed to current conditions over the course of more than 100 years. Originally, the site was filled, developed and used as a railroad maintenance yard. A majority of the existing buildings there today were constructed to serve the maintenance yard and are currently used for salvage yard operations, office space and storage. Currently, the site includes 2.33 acres of building and 14.56 acres of impervious surface consisting of pavement gravel or otherwise heavily compacted impervious surfaces. The overall site is crescent shaped with the southerly part of the crescent extending out as a peninsula into the Fore River. The northerly side is bounded by the Suburban Propane property and an active railroad.

This project will redevelop the structure area (building and other impervious surfaces) on the 27.56 acre site to **change** the total from 16.89 acres to **16.95** acres. Although the overall structure area will remain virtually the same, the makeup of land cover will shift significantly from a primarily gravel site to rooftop and pavement. The proposed project meets the redevelopment thresholds which require a MeDEP Site Location of Development permit. The stormwater management design presented herein will show that it meets the criterion of the City of Portland stormwater requirements and the adopted MeDEP Chapter 500 Regulations.

The site discharges to the mouth of the Fore River where it meets the ocean; therefore the applicant is requesting a waiver of the flooding standards.

The site has been broken down into 7 drainage areas based on water quality treatment measures. Two categories of the approved Maine Best Management Practices (BMPs) will be utilized to meet the stormwater quality standards required under the general standards as outlined in the adopted MeDEP Chapter 500 Stormwater Management Technical Manual. Underdrained subsurface sand filter and proprietary filters (StormTreat™, Filterra® (or approved equal), and StormFilter®) are proposed to provide water quality treatment for 89% of the proposed development.

USGS, aerial photographs, and related maps are appended to this report in Appendix A.

The applicant has prepared this report to show the proposed Stormwater Management Plan meets the City's General Stormwater Standards.

2.0 Existing Site Conditions

The site is comprised of about 27.56 acres and is currently developed with the following land cover:

Current Land Cover	Area (acre)
Woods/Unmaintained Pervious Area	6.53
Roof	2.33
Lawn	0
Pavement	3.40
Gravel	11.16
Mud flats	4.14
Total	27.56

Topography is relatively flat with a steep riprap slope around the perimeter from the edge of developed area down to the tidal mud flats. A majority of the tide water elevation fluctuates in this riprap slope zone with a mean low tide elevation of -4.18 and a mean high tide elevation of 4.95 ft. The highest annual tide elevation for the locus site is elevation 7.4 feet. The developed portion of the site ranges from elevation 12 to 26 with isolated earthen stockpiles upwards of elevation 40.

The soils on the site are shown on the USDA medium intensity soils map to be primarily Hollis fine sandy loam and Belgrade very fine sandy loam. The preliminary geotechnical explorations by Hailey and Aldrich in October 2011 show that the fill soils are predominantly silty SAND and some areas of SILT or CLAY with varying amounts of sand and gravel.

The site is in the B-5 Urban Commercial Mix Zone and will be required to meet the Division 26 Shoreland Zoning requirements within 25 ft of the mean high water mark (elevation 7.4).

The existing conditions are shown on Drawing C-2.6 and supplemented by photographs appended to the end of this narrative.

The site is located in a mapped 100-year floodplain Zone A2, Elevation 10 (NGVD 1929 Datum) based upon the 1986 FEMA mapping and depicted on Figure 7 provided by MGIS Firm Panel 230051 0013 B.

The drainage is primarily divided into two areas; the peninsula which is broken up into small subcatchments within the site draining to a deteriorated formal storm drainage system and discharging directly to the Fore River. The second area along the northern part of the site sheet flows down to the river.

Figures 8, 9, and 10 appended to the report provide the USDA medium intensity soils, sand and gravel aquifers, and surficial geology for the site.

3.0 Proposed Project

The proposed project is generally described below and is shown on Drawing C-3.0. The development rebuilds and repurposes about **16.95** acres of impervious area from the current condition.

The proposed project consists of two phases. The applicant anticipates a construction loan closing for the work described in Phase One by the summer 2012, and they expect to commence construction shortly thereafter, with a construction period of approximately 12-18 months. One entity may own some or all of the real estate and may enter into leases with tenants for each use. A Subdivision Plan is part of the plan set submission and this plan highlights the creation of multiple lots, common space, Public Road transfer and other site elements. A Draft Easements, Covenants, and Restrictions document accompanies this submission in Section 2 of the application. This document outlines the project's provisions for access, utilities, development requirements etc.

The following is a description of the phased project approach:

A. Phase One:

- **An Events Center and Concert Hall.** This 80,000 SF adaptable facility will be used as an athletics practice facility for basketball and other indoor sports, and as the home facility for the Maine Red Claws D-League Basketball Team (hosting approximately 3,500 seat basketball games). This facility can also accommodate up to 4,800 for indoor concerts. The approximately 32,000 SF Concert Hall portion of the facility can host smaller concerts of up to 2,500 indoors, and together with the outdoor amphitheater which seats up to 2,300 can also accommodate up to 4,800 attendees. The two attached facilities are designed to be able to be utilized together (112,000 SF) to accommodate trade shows and conferences.
- **An Outdoor Amphitheater** is proposed off the north side of the Concert Hall. This area will function for outside seating during concert events.
- **A Hotel** of approximately 80,000 SF will house 125 rooms and a meeting space.
- **A Sports Medicine and Athletic Performance Lab** of approximately 22,000 SF will offer rehabilitation and wellness training services. Additional office space of 60,000 SF will be developed over the two-story sports medicine space.
- **A Parking Structure** proposed near the entrance to the site south of the railroad crossing will be 6-stories and will contain 732 parking spaces. This includes 138 compact spaces, 582 standard spaces and 12 handicapped spaces, 4 of which will be van accessible. An additional 14 motorcycle/scooter parking spaces will also be available in the garage. This garage will serve both users of the Forefront and of the Portland Transportation Center (PTC).
- **Multiple Office Buildings** are proposed over multiple phases at the southerly and westerly ends of the site totaling up to 378,000 SF.
- **718 Surface Parking Spaces** dispersed throughout the site.
- **Trails.** The applicant intends to work with Portland Trails to maintain the presence of quality public walking/biking trails on the Thompson's Point property. Foremost among the public access provisions will be the connectivity, through the public rail crossing, of the Fore River trail to the Fore River Parkway Trail.

- **Public Space.** We intend to create significant public/civic/pedestrian space that links the trails with the rest of the site, and offers opportunities for public enjoyment of the property. These areas will be designed in a manner to promote comfort, safety and serve as an amenity that takes advantage of the site's proximity to the Fore River waterfront.
- **Small Boat/Kayak Access.** With 7' of water at low tide, Thompson's Point is an ideal place to offer handheld boat access to the Fore River. We anticipate a small launch area at a location to be determined, potentially either at the upper Northwesterly portion of the shoreline or at the end of the peninsula. This is intended to be meshed with the trail area and public space design.

B. Phase Two:

The site plans currently include a second project phase. At present, the uses are not fully defined but are anticipated to include one or two office buildings (currently sited in the Northwesterly (panhandle) portion of the site) and a smaller building of approximately 30,000-40,000 SF currently sited as part of the central portion of the project. An ancillary office building is also proposed at the far south end of the peninsula. These uses will share the parking that is constructed as part of Phase One; if necessary additional parking may be provided in the form of a Phase Two parking deck or potential expansion of the Phase One parking structure (in either case, the number of spaces would be determined as part of the Phase Two planning process).

The proposed land use for the site after development will be as follows:

Proposed Land Cover	Area (acre)	Change from Current (acre)
Woods/Unmaintained Pervious area	3.77	-2.76
Roof	6.24	+3.91
Lawn/Landscaped Planting Areas	2.70	+2.70
Pavement	10.71	+7.31
Gravel	0	-11.16
Mudflats	4.14	0
Total	27.56	0

The Erosion Control Plan contained in Appendix C of this section outlines the erosion control measures which will be required for the project (Basic Stormwater Standards).

4.0 Watershed Delineation Method

The following resources were used for watershed delineation:

- City of Portland G.I.S. Topographic Mapping
- Field Reconnaissance

Bo Kennedy P.E., Project Engineer, DeLuca-Hoffman Associates, Inc.

Reviewed by Stephen Bushey, P.E., DeLuca-Hoffman Associates, Inc.

- Site Topographic Survey
Sebago Technics, dated November 23, 2011.
- Hydrologic Soil Group Information
USDA SCS Medium Intensity Mapping with interpretation of geotechnical information.

5.0 **References**

- Urban Hydrology for Small Watersheds from the USDA SCC Technical Release SS, dated 1986
- Erosion and Sediment *Maine Erosion and Sediment Control BMPs”, published by the MeDEP in 2003 <http://www.maine.gov/dep/blwg/docstand/escbmps/index.htm>*
- City of Portland –Code of ordinances, Section 32 Rev. 9-17-09
- Portland Stormwater Management –Section 5 Adopted 7-19-10.
- Stormwater Management for Maine Volume III – BMP Technical Design Manual
- Chapter 500 DEP Rules, revision October 2010.

6.0 **Modeling Software**

- HydroCAD Stormwater Modeling System, version 8.5, Applied Microcomputer Systems – used for modeling underground storage facilities.
- Microsoft Excel 2007, Microsoft Corporation – used for spreadsheet computations.
- Hydroflow Stormsewers Extension for AutoCAD Civil 3D 2011

7.0 **Design Storms**

Rainfall Intensity (inches/hour @ 5 min Tc)	
1-Year Storm	2.8
2-Year Storm	4.8
10-Year Storm	5.42
25-Year Storm	6.25
100-Year Storm	7.56

Rational Method Assumptions: Intensity based on IDF curve for Cumberland County.

Rainfall Amount (inches)	
1-Year Storm	2.5
2-Year Storm	3.0
10-Year Storm	4.7
25-Year Storm	5.5
100-Year Storm	6.7

Hydrologic Parameters: Cumberland County SE Type III Distribution: Antecedent Moisture Condition 2, SCS 24 Hour Distribution as per MeDEP Stormwater Best Management Practices (page 25).

8.0 Presentation of Analysis

The stormwater analysis has been performed for the project to determine the requirements of the City of Portland, Section 5 and adopted MeDEP Chapter 500 Stormwater Rules and to show a plan which will generally meet the requirements with the exceptions noted herein. The analysis is documented with supporting HydroCAD and Storm Sewer models appended to this narrative.

9.0 Modeling Assumptions

- Inlets modeled as ponds with cylindrical storage based on invert to rim depth and structure diameter. It is assumed that all stormwater can enter at inlets.
- Analysis was run with pipe lengths (modeled as culvert outlets). Pipe sizes were generated using the rational method and confirmed to be adequately sized by the HydroCAD modeling or Hydroflow Stormsewers.
- Analysis was run assuming that detention was not required to reduce the peak flow rate or meet the flooding standards.

10.0 Predevelopment Analysis

Runoff from the site is collected in catch basin inlets and conveyed in storm drain piping to the mud flats around the perimeter of the site. The existing drainage system is comprised of approximately 7 small discharges which have deteriorated beyond a point which could be reused by the proposed project. They will be abandoned in place unless construction means and methods require that they are removed. The existing site discharges runoff to the ocean at the mouth of the Fore River. As permitted in Section E Part 2.a of the MeDEP Chapter 500 Stormwater Rules, the applicant is requesting a waiver from the Flooding Standard under the provision that the proposed project discharges to the ocean. This waiver eliminates the need to evaluate predevelopment peak flows and therefore a predevelopment runoff analysis was not completed for this project. The proposed discharge locations have been analyzed and designed to prevent erosion and scour.

11.0 Postdevelopment Analysis

The postdevelopment model employs 7 stormwater management zones to model the postdevelopment conditions. Each stormwater management zone has several small sub-catchments tributary to catch basin inlets and combined into a centralized conveyance system with subsurface storage sized to hold the water quality volume.

Three of the seven zones are broken into separate low flow and overflow discharge locations for a total of ten new discharge locations around the perimeter of the site.

The hydrologic time of concentration, the area, and weighted runoff coefficient (C) for the seven zones from the site are summarized in the table below:

PROPOSED WATERSHED HYDROLOGIC INFORMATION				
Stormwater Management Zone	Description	Area (ac.)	C	Hydrologic Time of Concentration (min.)
A	Buildings L and K	3.99	0.86	5.0
B	Central Portion of the Site	4.92	0.79	5.0
C	Buildings A and B	2.55	0.70	5.0
D	Buildings F, G and I	2.41	0.81	5.0
E	Buildings E and H	2.38	0.81	5.0
F	Building D service area	0.12	0.88	5.0
G	Building G	1.62	0.90	5.0

The stormwater management zones range from 0.12 to 4.92 acres in size, with weighted coefficients varying from 0.69 to 0.90 and times of concentration less than 5 minutes. The short times of concentration occur in the paved areas and small grass areas surrounding the proposed buildings. The model assumes a minimum Tc of 5.0 min.

PROPOSED WATERSHED PEAK FLOW RATES		
Stormwater Management Zone	Description	25-Year Peak Flow (cfs)
A	Buildings L and K	24.96
B	Central Portion of the Site	38.39
C	Buildings A and B	12.97
D	Buildings F, G and I	12.53
E	Buildings E and H	12.68
F	Building D service area	0.64
G	Building D	9.12

12.0 Stormwater Management Objectives

The goal of the Stormwater Management Plan is to design, operate, and maintain the development to avoid downstream erosion or significant water quality impairment.

This goal will be achieved by:

- Designing the project to meet the Portland Stormwater Management Standards adopted 7/19/10 and General Storm Water Standards of MeDEP (revised October 2010).
- Designing water quality measures to provide long-term removal of non-point contaminants.

- Implementing a plan to control erosion, sedimentation, or fugitive dust emissions during construction.
- Maintenance of the Stormwater Management System in accordance with the Stormwater O&M Manual (provided as a separate document).

The plan has been designed in accordance with the City of Portland Stormwater Rules.

13.0 **Stormwater Management Quality Summary**

Approach

To meet the General Standards, our office has reviewed the implementation of the 4 approved treatment strategies listed below. Our findings are as follows:

- **Wetpond** – Wetponds were considered for part of the project’s stormwater management strategy; however, due to physical site constraints and the required limits of proposed development, there is insufficient space to utilize this method of water quality treatment without eliminating proposed parking or building area. Generally speaking, the approximately 17.5 acres of treated development area would require a wet pond of approximately 0.75 acres in size; thus this option is not feasible.
- **Filter** – Filters cover a broad range of techniques including pre-approved proprietary stormwater treatment devices. The preliminary stormwater management strategy presented herein focuses on filters to meet the General Standard requirements.
- **Infiltration** – Our office has reviewed historical documents about the site and the USDA medium intensity soil survey. The medium intensity soil survey maps the site as predominantly Hollis fine sandy loam and Belgrade very fine sandy loam. These soils are commonly found to be somewhat excessively drained to moderately well drained. The limiting factor to effective infiltration is the restrictive layer (i.e. bedrock, depth to groundwater, and infiltration rates of receiving soils). Despite the favorable drainage category as classified by the USDA soils mapping, the presence of a restrictive layer (high groundwater table) and possibly existing hazardous soils will make infiltration very difficult to incorporate into this site. Preliminary geotechnical and environmental explorations show that groundwater table is present around 3 ft below existing grade. Due to the proximity to the groundwater table, our office is proposing the use of an impermeable liner around all of the subsurface storage areas.
- **Buffers** – Buffers were not considered as part of the site’s stormwater management due to insufficient space. As an example, a minimum forested or meadow buffer width needs to be 75 ft, 100 ft or 150 ft with a slope of 0% - 8%, none of which is attainable on the site. Additionally, buffers are required to be encumbered by a conservation easement and deed restrictions.

Implementation

Our office has laid out a plan which utilizes four types of water quality treatment filters as described in Chapter 7.0 Filtration BMPs of the MeDEP Volume III BMPs Technical Design Manual to meet the minimum treatment standards as required by the General Standards. The plan shown on Sheets C-4.0, C-4.1 and C-4.2 incorporates a variety of BMPs to best utilize the site conditions in each drainage zone. This plan’s sheets are enclosed in the full plan set.

The stormwater layout incorporates the following four treatment measures:

- Underdrained Subsurface Sand filter,
- Filterra® Bioretention Cell (tree box) or approved equal subject to City of Portland approval,
- StormTreat™ Proprietary Systems, and
- StormFilter® cartridges by CONTECH.

A water quality summary chart of the project is appended with this application in Appendix C and on the Overall Grading and Drainage Plan C-4.0. The basis of design of the four treatment methods are as follows:

Underdrained Subsurface Sand Filter:

The underdrained subsurface sand filter has been designed to treat Zone A.

To meet Chapter 500, Channel Protection Volume provided must be equal to or greater than the following:

1" x impervious area plus 0.4" x landscaped area

Tributary Impervious Area = 3.75 ac.
 Tributary Pervious Area = 0.24 ac.

1" x 3.75 ac =	13,612 cf
0.4" x 0.24 =	348 cf
Total	13,960 cf

The channel protection volume provided at a depth of 22" is 13,967 cf.

Based on the revisions made to Chapter 7 of the MeDEP Best Stormwater Practices in April 2007, the surface area of the water quality filter must be no less than the sum of 5% of the impervious area and 2% of the landscaped area draining to the filter.

Surface Area Required:

5% of impervious area = 0.05 x 3.75 ac. = 8,167 s.f.
 2% of landscaped area = 0.02 x 0.24 ac. = 209 s.f.
 Total = 8,376 s.f.

Surface Area Provided:

9,580 s.f.

This criteria has been met.

The discharge must pass through a soil filter; the maximum outlet pipe shall be 8".

The channel protection zone of the filter is controlled by a 1.7-inch orifice in the outlet control structure. This orifice slows the release rate such that the pond is drained within

the 24 to 48 hours to drawdown (per MeDEP criteria). The computed drawdown time for the water quality volume is **25.6** hours.

Discharge from larger storm events is controlled over a broad crested weir set in an outlet control structure above the channel protection volume.

Pretreatment for flow entering from all inlet pipes to the filter will be provided via the installation of an ADS Stormwater Quality Unit by Advanced Drainage Systems, Inc. and the Stormtech Isolator Row. Additionally, the proposed catch basins will have sumps and oil absorbent pillow inserts for all catch basins tributary to the water quality filter.

Therefore, water quality goals for Water Quality Zone A meet the General stormwater standards of the November 2005 Chapter 500 Rules of MeDEP (Rev. October 2010).

Filtterra® Tree Box Filter and Stormtech Isolator Row:

The Filtterra® system has been designed to treat Zones B and G.

To meet Chapter 500, the tree box filter size is required to be sized based on the tributary area as stated in the following table:

Filtterra® Model Number	Area in Acres
4x6 or 6x4	0.32
4x8 or 8x4	0.42
6x6	0.47
6x8 or 8x6	0.64
6x10 or 10x6	0.79
6x12 or 12x6	0.95
7x13 or 13x7	1.20

Zone B uses six grated inlet Filtterra® boxes and four rooftop Filtterra® boxes to treat the 6.01 acres of tributary area as shown in the table below:

Filtterra® ID Number	Tributary Area (ac)	Filtterra® Model Number Selected
B15	0.58	6X8
B20	0.52	6X8
B24	0.26	4X6
B27	0.45	6X6
B30	0.36	4X8
B31	0.98	7X13 (Rooftop Runoff Box)
BUILD C	0.71	6X10 (Rooftop Runoff Box)
PLAZA	0.52	6X8
G2	1.62	4x8 and 7X13 (Rooftop Runoff Boxes)

StormTech® Isolator Row:

As part of the MeDEP Chapter 500 criteria for use as a standalone treatment device the Filterra® must be followed by a Stormtech Isolator Row sized to treat the flow from a 1 year-24 hour storm event. The Isolator Rows have been sized based on the SC-740 chamber which has been approved for 0.2 cfs /chamber.

The plan proposes the following Isolator Row Layout:

Filterra® ID Number	1-yr Storm Event Flow (CFS)	SC-740 Isolator Row Chambers Required (EA)	Filterra® Model Number Selected
B15	1.20	6	6
B20	1.00	5	5
B24	0.60	3	3
B27	0.90	4.5	5
B30	0.60	3	3
B31 Parking Garage (Roof)	2.50	12.5	0
BUILD C (Roof)	1.80	9	0
PLAZA	1.10	6	6
G2 (Roof)	4.10	20.5	0

The primary function of the Stormtech Isolator Row is to remove suspended solids from the 1-year storm event runoff which may otherwise bypass the Filterra® treatment unit. The proposed stormwater management strategy takes into account that the rooftop areas will not have the suspended solids typically seen in runoff from paved and landscape areas. The rooftop Filterra® differs from the standard inlet unit because it does not have an open inlet. The roof drain leader is piped directly to the Filterra® media surface and distributed to collect runoff with a perforated pipe. The unit has an internal bypass for larger flows that if directed to an isolator row would surcharge the entire unit. For these reasons the applicant is requesting a waiver from the standard. The Isolator Row is not provided for rooftop runoff Filterra® treatment units.

The Filterra® sizing criterion has been met.

Therefore, water quality goals for Water Quality Zone B and G meet the General Stormwater standards of the November 2005 Chapter 500 Rules of MeDEP (rev. October 2010).

StormTreat™ Treatment Units:

The StormTreat™ treatment units have been designed to treat Zones C, D, and E.

To meet Chapter 500, the Channel Protection Volume provided must be equal to or greater than the following:

1"/12 x impervious area plus 0.4"/12 x landscaped area = Water Quality Volume (cubic feet)

Computations of the water quality volume for Zones C, D, and E are appended in Appendix C.

The water quality volume is provided in a subsurface arched chambers storage system at a depth of 18", 21.72" and 21.96" respectively.

Based on the revisions made to Chapter 7 of the MeDEP Best Stormwater Practices in October 2010 the StormTreat™ treatment units shall be sized to treat the entire water quality volume in 24 to 72 hours at a discharge rate of approximately 2 gpm per tank. The system must have at least one StormTreat™ tank per 1155 cubic feet of water quality volume.

Zones C, D and E require 8 tanks per zone for a total of 24 tanks working in parallel to meet this criterion. The full computations are appended in Appendix C.

The discharge must pass through the StormTreat™ tanks at a rate less than 2.0 gallons per minute per tank. The discharge from the 8 tanks are piped to a common header and controlled with an orifice plate sized to meet the cumulative 16 gpm flow rate. The orifice drawdown computations are appended in Appendix F.

Discharge from larger storm events are controlled over a broad crested weir housed in a precast concrete outlet control structure set above the water quality volume. The overflow piping network is sized to handle runoff from a 25-year storm event. A rain event exceeding the storm drainage network would flood the catch basin inlet, into the parking lot and over the curb line to the river.

Pretreatment for flow entering from all inlet pipes to the storage area will be provided via the installation of a StormTech® Isolator row(s).

Therefore, water quality goals for the StormTreat™ Proprietary System meet the General Stormwater Standards of the November 2005 Chapter 500 Rules of MeDEP (rev. October 2010).

StormFilter® Treatment Units by CONTECH:

The StormFilter® treatment unit has been designed to treat Zone F.

The StormFilter® is a relatively new MeDEP approved device and the interim guidelines are appended in Appendix H. To meet Chapter 500, the Channel Protection Volume provided must be equal to or greater than the following:

1"/12 x impervious area plus 0.4"/12 x landscaped area = Water Quality Volume (cubic feet)

Computations of the water quality volume for Zones F are appended in Appendix C.

The water quality volume is provided in a subsurface arched chambers storage system at a depth of 27.6"

Based on the revisions made to Chapter 7 of the MeDEP Best Stormwater Practices the StormFilter® treatment units shall be sized to treat the entire water quality volume in 24 to 72 hours at a discharge rate of approximately 0.27 gpm/ft² of media surface area. The system must have at least one StormFilter® cartridge per 303 cubic feet of water

quality volume. The StormFilter® media cartridge is required to be 50% fine zeolite and 50% fine alumina to meet the pre-approved requirements set by the MeDEP.

Zone F requires 2 cartridges working in parallel to meet this criterion. The full computations are appended in Appendix C.

The discharge must pass through the StormFilter tanks at a rate less than 2.0 gallons per minute per cartridge. The discharge from the 2 tanks are piped to a common header and controlled with an internal orifice plate sized to meet the permitted cumulative flow rate.

Discharge from larger storm events are controlled with an internal overflow pipe in a precast concrete manhole set above the water quality volume. The overflow piping network is sized to handle runoff from a 100-year storm event. Therefore, water quality goals for the StormFilter® Proprietary System meet the General Stormwater Standards of the November 2005 Chapter 500 Rules of MeDEP (rev. October 2010).

14.0 Chapter 500 Treatment Percent Compliance

The proposed redevelopment project creates 16.76 ac of newly constructed impervious area and 2.90 acres of pervious area for a total disturbed area of about 19.66 acres.

Of the 16.76 ac of impervious area the proposed stormwater management plan provides treatment for 15.93 acres or 95 percent. The disturbed area as part of this redevelopment is approximately 19.66 acres. Of the 19.66 acres the proposed stormwater management plan provides treatment for 17.46 acres or 89 percent. Hence, the strategies proposed herein meets the minimum requirements stated in the General Standards.

15.0 Erosion Control

An Erosion Control Narrative, Plan, and Details have been prepared for the project and accompany this submission.

16.0 Operations and Maintenance

An Operations & Maintenance Manual has been prepared and accompanies this application.

17.0 Permit Requirements

City of Portland review and permitting of the Stormwater Management Plan is required and will be completed with the review of the Site Plan Application submitted to the City of Portland Planning Authority.

18.0 Drainage Network Pipe Sizing

The drainage network has been sized using the rational formula with the intensity set based a minimum Tc path of 5 minutes. The pipe sizes are noted on the drawings and the computations are appended as Appendix G.

19.0 Appendices

- A – Figures
- B – Existing Conditions Photographs
- C – Water Quality Summary Chart and Computations
- D – Rational Flow Computations
- E – Subsurface Storage Pond Computations (1, 2, 10 and 25-year Storm Event HydroCAD Computations)
- F – Orifice Drawdown Computations
- G – Hydraulic Grade Line Computations (HydroFlow Storm Sewers)
- H – Interim Guidelines for Stormwater Management StormFilter® System as an approved alternative BMP to the General Standard BMP

APPENDIX A

Figures

(Refer to Figures in Section 1, Attachment A)

(No Change from Original March 21, 2012 Submission)

APPENDIX B

Existing Conditions Photographs

(No Change from Original March 21, 2012 Submission)

APPENDIX C

Water Quality Summary Chart and Computations

Summary of Water Quality Treatment

Storm Water Management Zone	Inlet Subcatchment	Treatment Approach	Total Disturbed Area (Redeveloped) (ac)	Impervious Area (ac)			Pervious Area (ac)	Required Water Quality Volume (cf)	Required Water Quality Filter Surface Area (sf) (When applicable)	1 Yr 24-hr Storm Event Peak Flow Rate (cfs)	Stormtech Isolator Row Chambers Required (EA)	Stormtreat Units Required (EA) or StormFilters (EA) (Where Applicable)	Stormtech Isolator Row Chambers (SC-740) Provided (EA)	Provided Water Quality Volume (cf)	Provided Filter Surface Area (sf) or Size of Proprietary Unit
				Roof (ac)	Pavement, Gravel, etc (ac)	Total Impervious Area (ac)									
Zone A - Panhandle	Inlet A5 through A11	Subsurface Sand Filter	2.66	0.34	2.18	2.52	0.14	9,362	5,617	7.05	35.3	N/A	50	13,967	9580
	Inlet A13 through A16	Subsurface Sand Filter	1.33	0.34	0.88	1.23	0.10	4,598	2,759	2.80	14.00	N/A			
	Sheet Flow Around Perimeter	None	0.24	0.00	0.00	0.00	0.24	N/A	N/A	N/A	N/A				
	Total Area Discharge A			4.23	0.69	3.06	3.75	0.48	13,960	8,376					
Zone B - Building C and J	Inlet B15 & B16	Filterra Tree Box ⁸	0.58	0.00	0.53	0.53	0.06	N/A	N/A	1.20	6.00	N/A	6	N/A	6'x8' Tree Box
	Inlet B20 & B21	Filterra Tree Box ⁸	0.52	0.00	0.46	0.46	0.06	N/A	N/A	1.00	5.00	N/A	5	N/A	6'x8' Tree Box
	Inlet B24	Filterra Tree Box ⁸	0.26	0.00	0.25	0.25	0.01	N/A	N/A	0.60	3.00	N/A	3	N/A	4'x6' Tree Box
	Inlet B27 & B28	Filterra Tree Box ⁸	0.45	0.00	0.34	0.34	0.11	N/A	N/A	0.90	4.50	N/A	5	N/A	6'x6' Tree Box
	Inlet B30	Filterra Tree Box ⁸	0.36	0.00	0.22	0.22	0.13	N/A	N/A	0.60	3.00	N/A	3	N/A	4'x8' Tree Box
	Inlet B31	Filterra Tree Box ⁸	0.98	0.98	0.00	0.98	0.00	N/A	N/A	2.50	12.50	N/A	0	N/A	7'x13' Tree Box
	Outdoor Amphitheater	None	0.54	0.00	0.54	0.54	0.00	N/A	N/A	1.40	N/A	N/A	N/A	N/A	N/A
	Building C	Filterra Tree Box ⁸	0.71	0.71	0.00	0.71	0.00	N/A	N/A	1.80	9.00	N/A	0	N/A	6'x10' Tree Box
	Plaza	Filterra Tree Box ⁸	0.52	0.00	0.43	0.43	0.09	N/A	N/A	1.10	5.50	N/A	6	N/A	6'x8' Tree Box
	Sheet Flow Around Perimeter	None	0.41	0.00	0.09	0.09	0.32	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Area Discharge B			5.34	1.69	2.87	4.56	0.78	0	0						
Zone C - Building A and B	Inlet C4 through C7	Stormtreat	0.63	0.53	0.05	0.58	0.05	2,168	N/A	1.33	6.65	1.88	14	8,834	(8) Stormtreat Units
	Inlet C8 through C16	Stormtreat	1.92	0.55	1.14	1.69	0.22	6,477	N/A	3.85	19.25	5.61	28		
	Sheet Flow Around Perimeter	None	0.29	0.09	0.07	0.16	0.13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total Area Discharge C			2.84	1.18	1.26	2.43	0.41	8645	0					
Zone D - Building I, G and F	Inlet D4 through D7	Stormtreat	1.14	0.00	1.04	1.04	0.10	3,921	N/A	2.35	11.75	3.39	14	8,301	(8) Stormtreat Units
	Inlet D8 through D10	Stormtreat	1.27	0.51	0.64	1.16	0.12	4,366	N/A	2.65	13.25	3.78	14		
	Sheet Flow Around Perimeter	None	0.27	0.00	0.00	0.00	0.27	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total Area Discharge D			2.68	0.51	1.68	2.20	0.49	8286	0					
Zone E - Building H and E	Inlet E5 through E11	Stormtreat	2.05	0.37	1.55	1.92	0.13	7,148	N/A	4.34	21.70	6.19	28	8,378	(8) Stormtreat Units
	Inlet E12 through E15	Stormtreat	0.33	0.18	0.14	0.33	0.01	1,198	N/A	0.72	3.60	1.04	14		
	Sheet Flow Around Perimeter	None	0.44	0.00	0.03	0.03	0.41	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Total Area Discharge E			2.82	0.56	1.72	2.28	0.54	8346	0					
Zone F - Service Loading Dock	Inlet F2	StormFilter Cartridges by Contech	0.12	0.00	0.11	0.11	0.00	418	N/A	0.30	N/A	1.36	7	N/A	(2) Stormfilter Cartridges by Contech
	Total Area Discharge F		0.12	0.00	0.11	0.11	0.00	418	0						
Zone G - Building D	Building D	Filterra Tree Box ⁸	1.62	1.62	0.00	1.62	0.00	N/A	N/A	4.10	N/A	N/A	0.00	N/A	7'x13' & 4'x8' Tree Box
	Total Area Discharge G		1.62	1.62	0.00	1.62	0.00	0	0						
TOTAL DISTURBED AREA			19.66	6.24	10.71	16.95	2.71								

NOTES AND ASSUMPTIONS:

	Required	Provided
Percent of Redeveloped Area which is Impervious	N/A	86%
Percent of Impervious Area which is Rooftop	N/A	37%
Percent of Total Disturbed Area Treated	80%	89%
Percent of Redeveloped Impervious Area Treated	95%	95%

- All areas are based on the Deluca Hoffman Associates Permit drawings dated March 5 2012
- The required water quality volumes have been computed based on Sections 7.3, 7.4, and 7.5 of the Maine DEP Volume III BMP's Technical Design Manual. The volume is computed to be 1" times the subcatchments impervious area and 0.4" times the subcatchments vegetated area.
- The required filter surface area has been computed based on Sections 7.1, and 7.3 of the Maine DEP Volume III BMP's Technical Design Manual. The filter area is computed to be 5% of the subcatchments impervious area and 2% times the subcatchments vegetated area.
- The 1 year peak flow rates have been computed using the rational method. The rainfall intensities are derived from the Cumberland County IDF curve.
- Subsurface storage system sizing is based on a Stormtech SC-740 chamber system. All isolator rows have been computed per section 7.3.3 Pretreatment Isolator Row of the Maine DEP Volume III BMP's Technical Manual. One chamber is required for each 0.2 cfs of the computed tributary 1 year peak flow rate.
- The required number of Stormtreat treatment units have been computed based on Section 7.4 of the Maine DEP Volume III BMP's Technical Design Manual. The number of units is computed to be the water quality volume divided by 1155 cubic feet and always rounded up.
- The required number of StormFilter Cartridges by Contech is computed to be 12 Cartridges per impervious acre.
- The owner reserves the right to use an alternate tree box filter device provided it has been approved by the Maine DEP Chapter 500 delegated review authority of the City of Portland.

APPENDIX D

Rational Flow Computations

RATIONAL FLOW COMPUTATIONS-REV 4-10-2012

STRUCTURE	TOTAL TRIBUTARY AREA (SF)	TOTAL TRIBUTARY AREA (ACRES)	IMPERVIOUS TRIBUTARY AREA (ACRES)	PERVIOUS TRIBUTARY AREA (ACRES)	1-year Rainfall Intensity (in/hr)	25-year Rainfall Intensity (in/hr)	100-year Rainfall Intensity (in/hr)	1-year Flow cfs	25-year Flow cfs	100-year Flow cfs
A5	3,805	0.087	0.087	0.000	2.8	6.25	7.6	0.22	0.49	0.59
A6	12,452	0.286	0.275	0.011	2.8	6.25	7.6	0.70	1.56	1.89
A7	20,766	0.477	0.451	0.026	2.8	6.25	7.6	1.15	2.57	3.11
A8	26,770	0.615	0.561	0.054	2.8	6.25	7.6	1.44	3.22	3.90
A8R (BUILD K)	15,000	0.344	0.344	0.000	2.8	6.25	7.6	0.87	1.94	2.34
A9	16,044	0.368	0.359	0.009	2.8	6.25	7.6	0.91	2.03	2.46
A10	13,537	0.311	0.276	0.035	2.8	6.25	7.6	0.72	1.60	1.93
A11	7,999	0.177	0.168	0.009	2.8	6.25	7.6	0.43	0.96	1.16
A14	13,870	0.318	0.291	0.028	2.8	6.25	7.6	0.75	1.67	2.02
A15	20,234	0.465	0.428	0.037	2.8	6.25	7.6	1.10	2.45	2.97
A15R (BUILD L)	15,000	0.344	0.344	0.000	2.8	6.25	7.6	0.87	1.94	2.34
A16	8,669	0.199	0.164	0.035	2.8	6.25	7.6	0.43	0.97	1.17
TOTAL A SYSTEM	173,846	3.991	3.749	0.242				9.58	21.39	25.87
B10-OFFSITE*	N/A	N/A	N/A	N/A	2.8	6.25	7.6		3.00	
B11-OFFSITE	18,170	0.417	0.417	0.000	2.8	6.25	7.6	1.1	2.35	2.84
B13-OFFSITE	58,550	1.344	1.344	0.000	2.8	6.25	7.6	3.4	7.56	9.15
B15	10,522	0.242	0.204	0.037	2.8	6.25	7.6	0.5	1.20	1.45
B16	14,887	0.342	0.322	0.019	2.8	6.25	7.6	0.8	1.84	2.22
B20	15,075	0.346	0.262	0.084	2.8	6.25	7.6	0.7	1.58	1.91
B21	7,760	0.178	0.155	0.023	2.8	6.25	7.6	0.4	0.90	1.09
B24	11,415	0.262	0.253	0.009	2.8	6.25	7.6	0.6	1.43	1.73
B27	7,405	0.170	0.123	0.047	2.8	6.25	7.6	0.3	0.75	0.91
B28	12,348	0.283	0.220	0.063	2.8	6.25	7.6	0.6	1.32	1.60
B30	15,481	0.355	0.225	0.130	2.8	6.25	7.6	0.6	1.43	1.73
B31R	42,681	0.980	0.980	0.000	2.8	6.25	7.6	2.5	5.51	6.67
OUTDOOR AMP	23,338	0.536	0.536	0.000	2.8	6.25	7.6	1.4	3.01	3.65
BUILD C	30,877	0.709	0.709	0.000	2.8	6.25	7.6	1.8	3.99	4.82
PLAZA	22,631	0.520	0.428	0.092	2.8	6.25	7.6	1.1	2.52	3.05
TOTAL B SYSTEM	291,140	6.684	6.179	0.505				15.85	38.39	42.80
*B10 FLOW FROM RAILROAD CROSSING -REFER TO TEC ASSOCIATES EMAIL - 3 CFS										
C4	513	0.012	0.000	0.012	2.8	6.25	7.6	0.0	0.01	0.02
C5R (BUILD B)	23,104	0.530	0.530	0.000	2.8	6.25	7.6	1.3	2.98	3.61
C6	2,008	0.046	0.046	0.000	2.8	6.25	7.6	0.1	0.26	0.31
C7	1,749	0.040	0.000	0.040	2.8	6.25	7.6	0.0	0.05	0.06
C8	1,824	0.042	0.042	0.000	2.8	6.25	7.6	0.1	0.24	0.28
C9	5,615	0.129	0.087	0.041	2.8	6.25	7.6	0.2	0.54	0.66
C10	450	0.010	0.000	0.010	2.8	6.25	7.6	0.0	0.01	0.02
C10R (BUILD A)	24,023	0.551	0.551	0.000	2.8	6.25	7.6	1.4	3.10	3.75
C11	2,517	0.058	0.058	0.000	2.8	6.25	7.6	0.1	0.33	0.39
C12	2,177	0.050	0.050	0.000	2.8	6.25	7.6	0.1	0.28	0.34
C13	15,872	0.364	0.352	0.012	2.8	6.25	7.6	0.9	2.00	2.42
C14	16,765	0.385	0.321	0.064	2.8	6.25	7.6	0.8	1.88	2.28
C15	10,733	0.246	0.139	0.108	2.8	6.25	7.6	0.4	0.91	1.11
C16	4,691	0.108	0.095	0.013	2.8	6.25	7.6	0.2	0.55	0.66
TOTAL C SYSTEM	112,041	2.572	2.272	0.301				5.89	13.15	15.91
D4	11,016	0.253	0.253	0.000	2.8	6.25	7.6	0.6	1.42	1.72
D5	22,645	0.520	0.498	0.021	2.8	6.25	7.6	1.3	2.83	3.42
D6	10,524	0.242	0.190	0.051	2.8	6.25	7.6	0.5	1.13	1.37
D7	5,467	0.126	0.082	0.044	2.8	6.25	7.6	0.2	0.51	0.62
D8	9,602	0.220	0.211	0.010	2.8	6.25	7.6	0.5	1.20	1.45
D8R (BUILD I,F,G)	22,343	0.513	0.513	0.000	2.8	6.25	7.6	1.3	2.89	3.49
D9	18,471	0.424	0.337	0.087	2.8	6.25	7.6	0.9	2.00	2.42
D10	5,011	0.115	0.096	0.019	2.8	6.25	7.6	0.3	0.56	0.68
TOTAL D SYSTEM	105,079	2.412	2.179	0.233				5.62	12.55	15.18
E5	9,777	0.224	0.224	0.000	2.8	6.25	7.6	0.6	1.26	1.53
E5R (BUILD E)	16,193	0.372	0.372	0.000	2.8	6.25	7.6	0.9	2.09	2.53
E6	5,342	0.123	0.123	0.000	2.8	6.25	7.6	0.3	0.69	0.83
E8	7,325	0.168	0.142	0.027	2.8	6.25	7.6	0.4	0.83	1.00
E9	15,147	0.348	0.309	0.038	2.8	6.25	7.6	0.8	1.79	2.16
E10	11,370	0.261	0.218	0.043	2.8	6.25	7.6	0.6	1.28	1.55
E11	24,005	0.551	0.530	0.021	2.8	6.25	7.6	1.3	3.01	3.64
E12R (BUILD H)	8,000	0.184	0.184	0.000	2.8	6.25	7.6	0.5	1.03	1.25
E13	287	0.007	0.000	0.007	2.8	6.25	7.6	0.0	0.01	0.01
E14	2,355	0.054	0.054	0.000	2.8	6.25	7.6	0.1	0.30	0.37
E15	3,902	0.090	0.090	0.000	2.8	6.25	7.6	0.2	0.50	0.61
TOTAL E SYSTEM	103,703	2.381	2.245	0.136				5.73	12.80	15.48
F2	5,129	0.118	0.114	0.004	2.8	6.25	7.6	0.3	0.64	0.78
TOTAL F SYSTEM	5,129	0.118	0.114	0.004				0.29	0.64	0.78
BUILD D	70,610	1.621	1.621	0.000	2.8	6.25	7.6	4.1	9.12	11.03
TOTAL G SYSTEM	70,610	1.621	1.621	0.000				4.08	9.12	11.03
TOTALS	861,548	19.78	18.36	1.42						

FLOW INTENSITIES BASED ON CUMBERLAND COUNTY, ME IDF CURVE

Bo Kennedy

From: Randy Pike [randy@tecassoc.com]
Sent: Monday, April 16, 2012 9:44 AM
To: Bo Kennedy
Cc: jerry@tecassoc.com
Subject: RE: TP - realignment of RR xing

Bo,

The storm water from the railroad ditch line along the north side of the track will be directed toward an existing inlet at the toe of slope near the AMTRAK station platform. The storm water on this side of the track currently flows in this direction. The existing culvert is being lengthened and replaced

The storm water on the south side of the track will be picked up by two catch basins, one on each side of the new access road to Thompsons Point. These two structures will be tied together and flow toward your development. I would assume an inlet capacity of 1.5 cfs for each grate yielding a total flow toward your site of around 3.0 cfs.

I would let PanAm Rail know that you have permission to retire the Suburban Propane switch and that Deluca Hoffman is planning to realign the road easterly about 8 feet. PanAm Rail may request that field inlet/relief culverts be installed on each catch basin to capture surface water coming from the east and the west of the crossing. No drainage currently exists to pick up this minimal amount of water. Providing these relief culverts will certainly improve drainage around the crossing.

Randy Pike

From: Bo Kennedy [mailto:bkennedy@DelucaHoffman.com]
Sent: Monday, April 16, 2012 9:14 AM
To: randy@tecassoc.com; Steve Bushey
Subject: TP - realignment of RR xing

Randy,

I have attached an ACAD file for your use with our latest TP connector road alignment. Please provide a letter/memo with your anticipated flow coming from the crossing area. Our office is looking to submit a package by 12 tomorrow. If you can provide it by then that would be very helpful. We are not planning on including any updated TEC plans at this time.

Thank you,

Bo Kennedy, P.E., C.P.E.S.C

Deluca Hoffman Associates
PH (207) 775-1121 Ex. 108
www.delucahoffman.com

This message and any attachments are intended for the individual or entity named above and may contain privileged or confidential information. If you are not the intended recipient, please do not forward, copy, print, use or disclose this communication to others; please notify the sender by replying to this message and then delete it from your system.

4/17/2012

APPENDIX E

**Subsurface Storage Pond Computations
(2, 10 and 25 Year Storm Event HydroCAD Computations)**

(No Change from Original March 21, 2012 Submission)

APPENDIX F

Orifice Drawdown Computations

**(Replace only Zone A. No Change to other Zones
from Original March 21, 2012 Submission)**

ORIFICE DIAMETER FOR SUBSURFACE SAND FILTER OUTLET DISCHARGE-ZONE A

Description of Elevation	Elevation	Depth (ft)	Incremental Stage Volume (c.f)	Cumulative Volume (c.f.)	Head (ft)	Orifice Flow (cfs)	**Orifice Flow (gal/min)	Drawdown Time (secs)	Drawdown Time (hours)	Cumulative *Drawdown Time (hours)
Elevation of Overflow Weir	14.84	1.84	2264.00	13967.00	4.76	0.1655	74.285	13678.20	3.8	25.6
	14.50	1.50	3662.00	11703.00	4.42	0.1595	71.583	22959.54	6.4	21.8
	14.00	1.00	3932.00	8041.00	3.92	0.1502	67.412	26177.40	7.3	15.4
	13.50	0.50	4109.00	4109.00	3.42	0.1403	62.967	29287.28	8.1	8.1
Bottom of Storage	13.00	0.00	0.00	0.00	2.92	0.1296	58.182	0.00	0.0	0.0
Invert of Orifice	10.08									

*TARGET IS 48 HOURS OR LESS AT FOR THE FULL WATER QUALITY VOLUME

$Q=CA(2gh)^{1/2}$

Orifice Diameter	1.7	inch
Area	0.0158	sq.ft
Head		feet
g	32.174	ft/s ²
C	0.6	Orifice/Grate

APPENDIX G

**Hydraulic Grade Line Computations
(HydroFlow Storm Sewers)**

**(No Change from Original March 21, 2012 Submission
Additional Zone B Computations Provided)**

25 Year Hydraulic Grade Line Analysis The Forefront At Thompson's Point Based on Full Flowing Pipe Assumption - Profile B

Pipe Area	Hydraulic Elevation	Flow (cfs)	Equivalent Pipe Diameter (inches)	Velocity (ft./sec.)	Velocity Head	Hydraulic Slope (ft./ft.)	Pipe Length (ft.)	Friction Loss (ft.)	A loss (minor in/out)	B loss (change in VH)	C Loss (direction)	D Loss (side flow)	Total Loss (feet)	D LOSS VARIABLES				
														Q1	Q2	Q3	Q3/Q1	V1
12.57	13.40 13.43 13.51 13.51	38.39 B1	48	3.06	0.11	0.00061	47	0.029	0.1	-0.017	0	0	0.029 0.083	35.35	38.39	3.04	8.60%	2.81
12.57	13.56 13.82 13.82	35.35 B2	48	2.81	0.09	0.00052	93	0.048	0.1	0.158	0	0	0.048 0.258	28.36	35.35	6.99	24.65%	4.01
7.07	13.96 13.96 13.96	28.36 B3	36	4.01	0.25	0.00154	91	0.140	0.1	-0.101	0	0	0.140 -0.001	21.93	28.36	6.43	29.32%	3.10
7.07	13.99 14.12 14.12	21.93 B4	36	3.10	0.15	0.00092	36	0.033	0.1	0.024	0	0	0.033 0.124	16.42	21.93	5.51	33.56%	3.35
4.91	14.15 14.31 14.31	16.42 B5	30	3.35	0.17	0.00137	26	0.036	0.1	0.060	0	0	0.036 0.160	14.07	16.42	2.35	16.70%	4.48
3.14	14.48 14.65 14.65	14.07 B6	24	4.48	0.23	0.00330	50	0.165	0.1	0.078	0	0	0.165 0.178	14.07	14.07	0	0.00%	4.48
3.14	14.96 14.82 14.82	14.07 B7	24	4.48	0.31	0.00330	93	0.307	0.1	-0.238	0	0 0	0.307 -0.138	4.44	14.07	9.63	216.89%	2.51
1.77	15.10 15.17 15.17	4.44 B8	18	2.51	0.07	0.00152	183	0.279	0.1	-0.028	0	0	0.279 0.072	3.01	4.44	1.43	47.51%	1.70
1.77	15.21 15.30 15.30	3.01 B9	18	1.70	0.05	0.00070	59	0.041	0.1	-0.011	0 0	0	0.041 0.089	3.01	3.01	0	0.00%	1.70
1.77	15.40 15.47 15.47	3.01 B10	18	1.70	0.03	0.00070	142	0.099	0.1	-0.034	0	0	0.099 0.066	0	3.01	3.01	#DIV/0!	0.00

APPENDIX H

**Interim Guidelines for Stormwater Management StormFilter® System
as an approved alternative BMP to the General Standard BMP**

(No Change from Original March 21, 2012 Submission)

**INSPECTION AND MAINTENANCE MANUAL
FOR STORMWATER MANAGEMENT AND
RELATED STORMWATER FACILITIES**

**THE FOREFRONT AT THOMPSON'S POINT
PORTLAND, MAINE**

PREPARED FOR:

**FOREFRONT PARTNERS I, LP
55 LISBON STREET
LEWISTON, MAINE 04240
(207) 784-0335**

PREPARED BY:

**DELUCA-HOFFMAN ASSOCIATES, INC.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, MAINE 04106
(207) 775-1121**

**MARCH 2012
REVISED APRIL 2012**

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Appendix C – Summary Checklist for Inspection and Maintenance

I. INTRODUCTION

Relatively complex stormwater management facilities are commonly installed in development projects including, commercial facilities, and many other developments. The complexity and goals of these systems vary with the nature of the receiving water, as well as the type of development. Runoff from developed areas of the project, including rooftops, paved or lawn areas, typically contain materials that can impact the receiving waters. Source control and the installation of wet ponds, infiltration galleries, and water quality units, often combined with pretreatment measures or followed by vegetated buffer strips and other best management practices, can significantly reduce the non-point pollution discharge from the developed area. These measures are particularly important to projects in the watersheds of sensitive water bodies, or projects with potential impacts to groundwater. With the increased cost of land and development, there is an increased tendency to construct portions of the stormwater management systems underground.

The effectiveness of water quality management provisions and other components of the stormwater management system are dependent on their design, upkeep, and maintenance to assure they meet their intended function over an extended period of years. It is critical that the stormwater management facilities are regularly inspected, and that maintenance is performed on an as-needed basis. It must also be recognized that the effectiveness of these facilities, and their maintenance requirements, are related to the stormwater drainage facilities that collect and transport the flow to the ponds, infiltration galleries, and other treatment measures. Thus, maintenance should be directed to the total system, not just the pond or primary stormwater management facility.

The purpose of this document is to define, in detail, the inspection and maintenance requirements deemed necessary to assure that the stormwater management facilities function as intended when they were designed. Subsequent sections identify individual maintenance items, give a brief commentary of the function and need for the item, a description of the work required, and a suggested frequency of accomplishment. While the



While the suggested programs and schedules must be adapted to specific projects, the material presented should provide guidance for a successful long-term program for operation and maintenance. A supplemental section provides guidance for construction monitoring of the facilities during their installation and more detailed checklists. Certain facilities, specifically the groundwater recharge and infiltration beds are not intended to be placed in service until the tributary catchment area has the permanent cover in place and any contributing turf areas have achieved a 90% catch of vegetation (i.e. established).

A. **GUIDELINES OVERVIEW**

A summary of the individual components of stormwater management facilities has been prepared. The format used in the summary is as follows:

Preface: A general description of what function/benefit the element is intended to provide. This is a short summary and not intended to provide the design basis which can be found in other sources.

Inspection: This section provides the inspection requirements for the individual component.

Maintenance: The section provides general information on the routine maintenance requirements of this element.

Frequency: This section outlines the best judgment of the designer on the system to the frequency of maintenance.

Comments: This section provides any particular comment on the site-specific features of this element. This is a summary only. The owner/operator should review the design drawings and documents carefully to understand the particular elements of the project. The end of this section should allow for the owner/operator to make notes on the specific program. This may include the selected maintenance procedure, cross-references to applicable design drawings, etc.

A list of the individual inspection/maintenance elements is provided in the table of contents. The guidelines are proposed for initial use with adjustments made as appropriate based upon specific project experience.

II. **PROJECT OVERVIEW**

Key permits issued (or applied for) on the project include:

- MeDEP Site Location of Development (City of Portland Delegated Review Authority)
- City of Portland Site Plan Review

The permit applications pending for the project include the design information for the stormwater system.

A copy of the permits and Stormwater Management Report should be appended to this manual as Appendix B. The Owner/Operator of the stormwater management system should review these permits for a general description and background of the project, as well as any specific permit conditions or requirements of the project.

The applicant has retained DeLuca-Hoffman Associates, Inc. for civil engineering for The Forefront at Thompson's Point mixed-use commercial project in Portland, Maine. DeLuca-Hoffman Associates, Inc. has prepared the design for the stormwater management facilities and may be contacted at:

DeLuca-Hoffman Associates, Inc.
778 Main Street, Suite 8
South Portland, Maine 04106
(207) 775-1121

It is recommended the preparer of the plan be contacted with any particular questions on the design intent or similar issues.

The applicable plans/design documents which apply to the project are:

1. Civil Site Plans/Permit Applications Prepared by DeLuca-Hoffman Associates, Inc.
2. The Erosion Control/Sedimentation Control Plan for the project.
3. The Stormwater Management Plan for the project.

A copy of these documents should be retained with the manual.

The site is tributary to the Fore River watershed.

The proposed design will include deep sump catch basins, oil absorbent sorbent booms, underground detention including the use of an arched chamber system, subsurface sand filter, StormTreat™ system tank, Filtterra® tree box filters (or approved equal), and collection, conveyance, and discharge systems.

The project is subject to the requirements of the City of Portland Code of Ordinances, Chapter 32. Specifically the post construction stormwater management plan. The City requirements have been reiterated for ease of reference; however, the owner shall be responsible to meet the current City code.

“Any person owning, operating or otherwise having control over a BMP required by a post construction stormwater management plan shall maintain the BMP’s in accordance with the approved plan and shall demonstrate compliance with that plan as follows:

- (a) Inspections. The owner or operator of a BMP shall hire a qualified post-construction stormwater inspector to at least annually, inspect the BMP’s, including but not limited to any parking areas, catch basins, drainage swales, detention basins and ponds, pipes and related structures, in accordance with all municipal and state inspection, cleaning and maintenance requirements of the approved post-construction stormwater management plan.*
- (b) Maintenance and repair. If the BMP requires maintenance, repair or replacement to function as intended by the approved post-construction stormwater management plan, the owner or operator of the BMP shall take corrective action (s) to address the deficiency or deficiencies as soon as possible after the deficiency is discovered and shall provide a record of the deficiency and corrective action (s) to the department of public services (“DPS”) in the annual report.*
- (c) Annual report. The owner or operator of a BMP or a qualified post-construction stormwater inspector hired by that person, shall, on or by June 30 of each year, provide a completed and signed certification to DPS in a form provided by DPS, certifying that the person has inspected the BMP (s) and that they are adequately maintained and functioning as intended by the approved post-construction stormwater management plan, or that they require maintenance or repair, including the record of the deficiency and corrective action (s) taken.*

- (d) *Filing fee.* Any persons required to file an annual certification under this section shall include with the annual certification a filing fee established by DPS to pay the administrative and technical costs of review of the annual certification.
- (e) *Right of entry.* In order to determine compliance with this article and with the post-construction stormwater management plan, DPS may enter upon property at reasonable hours with the consent of the owner, occupant or agent to inspect the BMP's."

III. **STANDARD INSPECTION/MAINTENANCE DESCRIPTIONS**

The following narratives describe the inspection/maintenance provisions for the Stormwater Management area. These O&M procedures will complement scheduled sweeping of the pavement areas anticipated to occur at least twice per year. The MeDEP will require the stormwater system be certified to meet the basis of design at five year increments. Proper O&M is necessary to make sure the system can be certified.

A. **POND OVERFLOW**

Preface: The stormwater detention facilities proposed for the project includes underground detention systems under the paved parking areas. The underground units are a proprietary system called StormTech® SC-740 Chambers. The storage portion of the 30-inch high chambers will travel to the StormTreat™ units or down through a sand filter. The upper storage portion will bypass the treatment system for major storm events. If the detention storage volume were exceeded, water would spill over the overflows of the underground systems and flow to the next inlet or sheet flow over the curb line and down the perimeter slope to the Fore River.

Inspection: There are inspection ports that should be checked semiannually to make sure that water is not ponded due to blockage.

Maintenance: The upstream measures are intended to reduce and presumably eliminate maintenance cleanings. Major cleaning would likely require excavation of the system although some success has been reported with fire flow flushing.

B. **CONTROL STRUCTURES**

Preface: The proposed underground storage systems (4) will serve as a detention pond controlled by the hydraulic outlet control structure. The outlet control structure will be designed to detain the water quality volume with a slow release through the treatment measure (StormTreat™ or Sand Filter) and discharge runoff for storm events larger than 1". Therefore, flow is anticipated to be released during and after every major storm event. Minor events will likely filter through the sand filter or pass through the StormTreat™ units. The StormTreat™ units have a controlled discharge of 2 gpm per unit. The control structure will be designed to be inspected by removing the manhole covers and inspection of the valve, orifice, weir, and channels. Debris should be removed whenever observed and reported to key maintenance personnel since any debris would indicate lack of proper system O&M in the collection and conveyance system. Entry may require CONFINED SPACE ENTRY procedures and appropriately trained personnel.

Inspection: The outlet control structures must be inspected to assure it maintains its intended hydraulic characteristics. The inspection would note any debris or sediment which may accumulate in the structure and in the inlet and outlet pipes. It is noted that it does not take much debris or silt to alter the hydraulic characteristics of the discharge. The inlet should be inspected to assure it is not blocked or restricted or there is sediment to the extent that its flow characteristics may be altered.

Maintenance: Maintenance of the control structure will consist primarily of removing debris which may accumulate and sealing the bulkhead if leakage occurs.

Frequency: The control structure should be inspected quarterly, and after a high intensity rainfall event (in excess of 3 inches in a 24-hour period).

Maintenance/Inspection Responsibility:

Inspection Personnel: The maintenance personnel will be an outside agent hired by Forefront Partners I, LP and will perform the scheduled maintenance/inspection.

Dates of inspections, maintenance performed, and any observed problems should be noted in the logs/records maintained by the outside agent.

Outside Contract Services: The outlet structure should be opened/inspected by the outside agent of Forefront Partners I, LP on a quarterly basis. The logs and records of inspections and maintenance of the control structures should be maintained during each 5-year re-certification interval.

Replacement Parts/Repairs: No normal replacement parts are required. Inspection personnel should have a bucket to remove debris from the structure. If leakage of the bulkhead occurs, it is recommended that repairs be made by a professional contractor familiar with hydraulic grouts.

C. STORMWATER INLETS

Preface: The success of any stormwater facility relies on the ability to intercept stormwater runoff at the design locations. Stormwater inlets may include catch basins, open culverts, culverts with bar screens, and field inlets. Inlets exist throughout the system at the points of collection as well as at the outlet of many ponds. Bar racks are common on many inlet locations which intercept an open channel. This section is directed at maintenance of the actual inlet point. A later section addresses more substantive maintenance of the structures and conveyance facilities. The inlets contain oil absorbent sorbent booms to retain oils and avoid discharge to downgradient areas. These will become saturated with oil over time and require replacement.

Inspection: The inspection of inlet points will need to be coordinated with other maintenance items, these include:

- Roadway/parking lot maintenance areas
- Building maintenance areas
- Grounds maintenance

The key elements of the inspection are to assure the inlet entry point is clear of debris and will allow the intended water entry.

Maintenance: The key maintenance is the removal of any blockage which restricts the entry of stormwater to the inlet. The removed material should be taken out of the area of the inlet and placed where it will not reenter the runoff collection system. Snow should be removed from inlets in parking lots/roadway areas. Grass clippings and leaves should be bagged and removed particularly near the yard inlets near the building.

Frequency: All inlets should be inspected on a monthly basis, and after/during significant storm events. A windshield survey is suitable for most inlets but off road inlets and pond structures require more rigorous inspection.

Maintenance/Inspection Responsibility:

Maintenance Personnel: The outside agent will perform the normal maintenance/inspections of the inlets and culvert crossings.

Comments: Maintenance of inlets is critical on this project.



POORLY STABILIZED INLET ALLOWS ENTRANCE OF DEBRIS AND REDUCED CAPACITY



STABILIZED INLETS REDUCE DEBRIS ACCUMULATION AND MAINTAIN DESIGN CAPACITY

D. TRIBUTARY DRAINAGE SYSTEM

Preface: Stormwater from most of the project will be directed through a conveyance system which transports the flow to water quality units, underground sand filter, Filterra® units, or a manhole retrofit with CONTECH StormFilters®. This conveyance system will be principally overland flow discharging to piped drain systems. Most of the sediment carried by the drainage system is intended to be trapped in the catch basin isolator rows or water quality units. Maintenance of this system can play a major role in the long-term maintenance costs and the effectiveness of the treatment systems.

Inspection: The tributary drainage system should be periodically inspected to assure that it is operating as intended, and that its carrying capacity has not been diminished by accumulations of debris and sediment or other hydraulic impediments. On piped systems the inlets must be inspected to ensure the rims are set at the proper elevation to optimize flow entry and are not clogged with leaves or other debris. The inlet basins are normally equipped with sumps which will remove large sediment particles from the flow stream with hooded outlets. The inlet basins may be equipped with oil absorbent sorbent booms which should be inspected for saturation. Once the boom becomes saturated it will appear brown or black in color and will be ineffective at removing oils.

The level of sediment in the sumps should be checked to assure their effectiveness. Pipelines connecting the inlets should be checked to determine if siltation is occurring. This will be most critical on drain lines laid at minimal slopes. This can usually be accomplished by a light and mirror procedure.

In some projects most of the stormwater is carried in open swales, channels, or ditches. These conveyance channels may be rip rapped or vegetated, depending on the gradient and expected flow velocities. These facilities must be inspected to insure debris or sedimentation does not reduce their carrying capacity. Excess vegetative growth must also be noted. The surface protection

for the channels, either stone or vegetation, must be inspected to insure its integrity. Any areas subject to erosion should be noted.

Maintenance: Maintenance of the storm drainage system must assure that it continues to serve its design function on a long term basis, and that its operation does not transport excessive sedimentation to any downstream detention pond, or the receiving waters. Elevations on the rim of catch basins should be adjusted as needed to assure optimal water entry. Depending on the frost susceptibility of the soil, the rims may become elevated over time causing flow to circumvent the inlet. When the sump in an inlet restricts capacity and is half full with silt or other deleterious materials, the catch basin cleaning would normally be accomplished with vacuum trucks contracted as a maintenance service for the development center. The removed material must be disposed of at an approved site for such materials. The removed and replaced sorbent boom shall be disposed of in accordance with local and state regulations.

If sediment in the pipeline exceeds 20% of the diameter of the pipe, it should be removed. This may be accomplished by hydraulic flushing, or by mechanical means. If hydraulic flushing is used the downstream conditions should be analyzed. In general a sump or sediment trap should be used where it can be flushed into the underground detention pond, since it will reduce pond volume and hasten the time when it must be cleaned.

Frequency: The piped drainage system should be inspected on an annual basis. Adjustment of inlet rim elevations should be on an as needed basis. Cleaning catch basin sumps and pipelines will depend on the rate of accumulation.

Maintenance/Inspection Responsibility:

Maintenance Personnel: Outside agent appointed by Forefront Partners I, LP.

Special Services: The owner will elect to contract with an independent agent for cleaning catch basins, sumps, pipelines, and replacement of sorbent booms. Remedial source control measures may be performed by the owner or an outside service depending upon the nature of the particular situation.

Comments: Maintenance of inlets is critical on this project.



A WELL STABILIZED VEGETATED SWALE SHOWS LITTLE SIGNS OF EROSION VELOCITIES OR FLOWS. THIS SWALE ALSO FUNCTIONS AS A POND SPILLWAY

E. STORMTREAT™ UNITS

During the first year, the basin should be inspected semi-annually and following major storm events. Recommended maintenance procedures for the first year are as follows:

- Watering may be necessary to aid plant establishment if rainfall intervals are longer than one week;
- Debris and weeds shall be removed from the bio-filter area as needed;
- Tank lids should be removed and sediment depth checked and recorded;
- Maintenance schedule should be designed based on the sediment loading of the first maintenance visits;
- Sediment should be removed at or before reaching a depth of 5 inches;
- Outflow rate should be checked and reset if necessary;
- Biofilter plants should be trimmed or harvested periodically to a minimum height of 6 inches.

The operation and maintenance of the StormTreat™ System, after the first year, is limited to annual inspections and solids removal on an as-needed basis.

The annual inspections should include the following steps:

1. Check the discharge flow rate: The outlet is designed to discharge at a rate of 2.0 gallons/minute per tank. This provides for a retention time of approximately three days for the full tank to empty following a runoff event. The discharge rate can be checked by directly measuring a timed-discharge volume if the outlet is “daylighted” or through “falling-level” measurements inside the central sedimentation chambers (the total static volume of each tank is 1,390 gallons and the height of the tank is 4 feet, therefore a 2.0 gallons/minute discharge rate can be observed as the water level in the tank falling at a rate of one inch per hour). If the falling level test is used, the inlet pipe must be temporarily plugged to avoid filling the underground storage chambers.
2. Change the inlet grit filter inside the sedimentation chamber.
3. Measure sediment depth inside the sedimentation chamber and schedule a pump-out if depth reaches 6 inches in depth. A future pump-out date can be estimated by projecting based upon sediment accumulation rates since the last measurement or since original installation. On average, StormTreat™ Systems need to have sediment removed once every three years. This can be done using a standard septic system suction pumper or with a vacuum-pumping unit.
4. Observe wetland plant conditions and height (during growing season). Wetland plants may need to be supplemented during the first three growing seasons depending upon local site conditions.

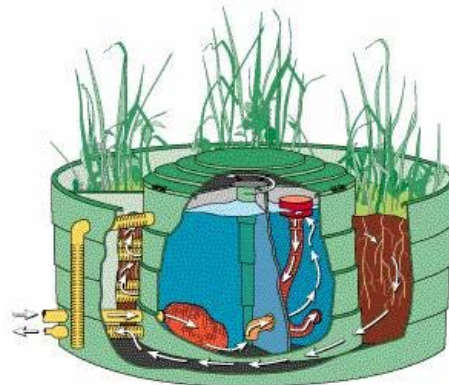
5. Perform (maintenance of) pretreatment devices as required in this manual.

A contract for third party maintenance needs to be established before occupancy.

Frequency: Once per year or as outlined above.

Applicability: StormTreat™ units are proposed for this project.

Special Note: 1.) These units are designed for a specific flow and catchment area. If the contributing watershed is increased, the need for design modifications or additional StormTreat™ units should be examined. 2.) Fertilization of the planting on the structure must be avoided.



F. PRETREATMENT SOLIDS REMOVAL (WATER QUALITY UNITS)

Preface: Certain vendors provide pre-manufactured systems which are effective in removal of suspended sediment particularly sand used for winter maintenance. Some of the units operate on a vortex principal with the sediment being swept from the stormwater stream and stored in the base of the unit. Other units are long linear units designed in accordance with Stokes Law. The units are constructed of durable materials requiring little maintenance of the physical component and typically are accessible via an at grade manhole cover.

The vendor of the unit should provide information on suggested maintenance which should be appended to this manual.

These units typically do not remove nutrients, metals, and dissolved materials.

Inspection: Most water quality units have an access manhole cover for inspection. The sediment storage zone is the bottom of the system and lies below the vortex in this type of unit or along the bottom. Because of the depth, a pole staff, or sludge judge is helpful in determining the depth of the sediment. Inspection should comply with applicable confined space regulations and vendor recommendations. Oil and floatables are also trapped in certain devices and should be removed.

Maintenance: The typical unit maintenance is the removal of sediment. DeLuca Hoffman Associates, Inc. typically recommends the units be inspected in the spring and late fall with adjustments based on historic operating experience.

The vendor may have specific scheduled maintenance schedules which should be followed.

The structural components of the system are principally stainless steel, concrete, and or climate resistant plastics.

Frequency: Twice per year or as outlined above.

Applicability: This system has three water quality units. The three linear units are in Zone A upstream of the underground sand filter.

Special Notes: These units are designed for a specific flow and catchment area. If the contributing watershed is increased, the need for design modifications or supplements to the water quality units should be examined.

G. IN-LINE STORAGE (UNDERGROUND DETENTION)

Preface: In-line storage may be used for storage of water ahead of treatment systems, or for buried underdrained filters. Because of the difficulty in access for inspection and maintenance, the units will be preceded with pretreatment to remove sediment.

The underground storage systems for this project include StormTech® chamber system for detention ahead of water quality treatment units or underground sand filter.

In-line storage systems typically have a restrictive outlet when used for detention. This outlet is a separate downstream appurtenance with orifices, weirs, and overflows.

Specific design cautions should be considered if in-line storage is used as part of a stormwater management system. In-line storage systems have multiple inspection ports. The locations should consider the need for confined space entry.

Inspection: Inspection of in-line storage systems should follow all protocols for confined space entry. Inspections should include:

- Observations of standing water and monitoring drainage to make sure drainage is achieved 72 hours after a rainfall of 1 inches or greater (annually) for StormTreat™ systems and 48 hours for underground sand filters.
- Sedimentation
- Outlet Controls
- Inlets
- Inspection of each isolated tank series, run of pipe, distribution of manhole, and header pipe

Maintenance: Maintenance of in-line storage systems will vary depending upon the extent of pretreatment, the nature of the receiving bodies, and the design. Leakage, accumulated sediment, and repairs of any damaged portion of the system should be performed immediately upon discovery.

Maintaining Responsibility: A contract for third party maintenance needs to be established before occupancy.

Frequency: After successful operation of the in-line storage system for one year or two major storms (whichever is longer), quarterly inspections are recommended except the drawdown test after a one-inch rain may be annually only. Maintenance repairs should be performed as soon as possible. The Site Location of Development Permit will require recertification on a periodic basis as stipulated by the permit conditions.

Applicability: Underground detention will be employed on this project

H. FILTERRA® TREE BOX FILTERS AND STORMTECH® ISOLATOR ROW

Preface: The Filterra® units consist of a concrete container with an underdrain at the base, proprietary filtration media, a top layer of mulch and plants specifically selected for nutrient transformation and uptake. Access is provided through a surficial tree grate. Water enters through a curb inlet and discharges through the underdrain at the base of the tank. The Filterra® tree box type soil filter is installed upstream of a StormTech® Isolator Row to filter pollutants from runoff

Inspection:

Inspection of the Filterra® unit should include review of the health and condition of the plant material, the surficial mulch for degradation and accumulation of debris and litter, and the curb inlet for clogging and debris. The isolator row will have inspection ports that should be inspected for sediment accumulation.



Maintenance: Prune plant material during the spring and fall and replace top layer of mulch annually. The first year's maintenance shall be provided by the Manufacturer to ensure the systems are operating as intended. Ongoing inspection and maintenance shall be performed by a professional with knowledge of erosion and stormwater control, including a working knowledge of the Filterra® and StormTech® products. The isolator row may require a cleaning by using a jet flow and suction truck.

Frequency: Inspect quarterly and at any time when sustained ponding is observed near the inlet.

Maintenance/Inspection Responsibility: A third party inspection company with knowledge of stormwater controls, including a working knowledge of the Filterra® system.

Maintenance Personnel: An outside agent of Forefront Partners I, LP.

Comments: Maintenance of units are critical on this project to prevent short term clogging and replacement.

Applicability: There are several Filterra® units for the project.

I. STORMFILTER®

Preface: The CONTECH StormFilter® is a water quality treatment device which relies on a proprietary filter cartridge to remove pollutants. The filter must be inspected and maintained annually to prevent sediment accumulation from blocking the flow through the device.

Inspection: At least one scheduled inspection activity should take place per year with maintenance following as warranted.

First, inspection should be done before the winter season. During which, the need for maintenance should be determined and, if disposal during maintenance will be required, samples of the accumulated sediments and media should be obtained.

Second, if warranted, maintenance should be performed during periods of dry weather.

In addition, you should check the condition of the StormFilter® unit after major storms for potential damage caused by high flows and for high sediment accumulation. It may be necessary to adjust the inspection/maintenance activity schedule depending on the actual operating conditions encountered by the system.

Generally, inspection activities can be conducted at any time, and maintenance should occur when flows into the system are unlikely.

It is desirable to inspect during a storm to observe the relative flow through the filter cartridges. If the submerged cartridges are severely plugged, then typically large amounts of sediments will be present and very little flow will be discharged from the drainage pipes. If this is the case, then maintenance is warranted and the cartridges need to be replaced.

Warning: In the case of a spill, the worker should abort inspection activities until the proper guidance is obtained. Notify the local hazard control agency and CONTECH immediately.

To conduct an inspection:

1. If applicable, set up safety equipment to protect and notify surrounding vehicle and pedestrian traffic.
2. Visually inspect the external condition of the unit and take notes concerning defects/problems.
3. Open the access portals to the vault and allow the system vent.
4. Without entering the vault, visually inspect the inside of the unit, and note accumulations of liquids and solids.
5. Be sure to record the level of sediment build-up on the floor of the vault, in the forebay, and on top of the cartridges. If flow is occurring, note the flow of water per drainage pipe. Record all observations. Digital pictures are valuable for historical documentation.
6. Close and fasten the access portals.
7. Remove safety equipment.
8. If appropriate, make notes about the local drainage area relative to ongoing construction, erosion problems, or high loading of other materials to the system.
9. Discuss conditions that suggest maintenance and make decision as to whether or not maintenance is needed.

Maintenance: The need for maintenance is typically based on results of the inspection. Use the following as a general guide. (Other factors, such as regulatory requirements, may need to be considered).

1. Sediment loading on the vault floor. If >4" of accumulated sediment, then go to maintenance.
2. Sediment loading on top of the cartridge. If > 1/4" of accumulation, then go to maintenance.
3. Submerged cartridges. If >4" of static water in the cartridge bay for more than 24 hrs after end of rain event, then go to maintenance.
4. Plugged media. If pore space between media granules is absent, then go to maintenance.
5. Bypass condition. If inspection is conducted during an average rain fall event and StormFilter® remains in bypass condition (water over the internal outlet baffle wall or submerged cartridges), then go to maintenance.
6. Hazardous material release. If hazardous material release (automotive fluids or other) is reported, then go to maintenance.
7. Pronounced scum line. If pronounced scum line (say \geq 1/4" thick) is present above top cap, then go to maintenance.
8. Calendar lifecycle. If system has not been maintained for 3 years, then go to maintenance.

Assumptions:

- No rainfall for 24 hours or more.
- No upstream detention (at least not draining into StormFilter®).
- Structure is online. Outlet pipe is clear of obstruction. Construction bypass is plugged.

Depending on the configuration of the particular system, workers will be required to enter the vault to perform the maintenance.

Important: If vault entry is required, OSHA rules for confined space entry must be followed.

Filter cartridge replacement should occur during dry weather. It may be necessary to plug the filter inlet pipe if base flow is occurring.

Replacement cartridges can be delivered to the site or customers' facility. Contact CONTECH for more information.

Warning: In the case of a spill, the worker should abort maintenance activities until the proper guidance is obtained. Notify the local hazard control agency and CONTECH immediately.

To conduct cartridge replacement and sediment removal:

1. If applicable, set up safety equipment to protect workers and pedestrians from site hazards.
2. Visually inspect the external conditions of the unit and take notes concerning defects/problems.
3. Open the doors (access portals) to the vault and allow the system to vent.
4. Without entering the vault, give the inside of the unit, including components, a general condition inspection.
5. Make notes about the external and internal condition of the vault. Give particular attention to recording the level of sediment build-up on the floor of the vault, in the forebay, and on top of the internal components.
6. Using appropriate equipment offload the replacement cartridges (up to 150 lbs each) and set aside.
7. Remove used cartridges from the vault using of the following methods:

Method 1:

- A. This activity will require that workers enter the vault to remove the cartridges from the under drain manifold and place them underdrain manifold and place them under the vault opening for lifting (removal). Unscrew (counterclockwise rotations) each filter cartridge from the underdrain connector. Roll the loose cartridge, on edge, to a convenient spot beneath the vault access.

Using appropriate hoisting equipment, attach a cable from the boom, crane, or tripod to the loose cartridge. Contact CONTECH for suggested attachment devices.

Important: Cartridges contain leaf media (CSF) do not require unscrewing from their connectors. Do not damage the manifold connectors. They should remain installed in the manifold and can be capped during the maintenance activity to prevent sediments from entering the underdrain manifold.

- B. Removed the used cartridges (up to 250 lbs) from the vault.

Important: Avoid damaging the cartridges during removal and installation.

- C. Set the used cartridge aside or load onto the hauling truck.
- D. Continue Steps A through C until all cartridges have been removed.

Method 2:

- A. Enter the vault using appropriate confined space protocols.
- B. Unscrew the cartridge cap.
- C. Remove the cartridge hood screws (3) hood and float.
- D. At location under structure access, tip the cartridge on its side.

Important: Note that cartridges containing media other than the leaf media require unscrewing from their threaded connectors. Take care not to damage the manifold connectors. This connector should remain installed in the manifold and capped if necessary.

- E. Empty the cartridge onto the vault floor. Reassemble the empty cartridge.
 - F. Set the empty, used cartridge aside or load onto the hauling truck.
 - G. Continue steps A through E until all cartridges have been removed.
- 8. Remove accumulated sediment from the floor of the vault and from the forebay. Use vacuum truck for highest effectiveness.
 - 9. Once the sediments are removed, assess the condition of the vault and the connectors. The connectors are short sections of 2-inch schedule 40 PVC, or threaded schedule 80 PVC that should protrude about 1" above the floor of the vault. Lightly wash down the vault interior.
 - a. If desired, apply a light coating of FDA approved silicon lube to the outside of the exposed portion of the connectors. This ensures a watertight connection between the cartridge and the drainage pipe.

- b. Replace any damaged connectors.
10. Using a vacuum truck boom, crane, or tripod, lower and install the new cartridges. Take care not to damage connections.
11. Close and fasten the door.
12. Remove safety equipment.
13. Finally, dispose of the accumulated materials in accordance with applicable regulations. Make arrangements to return the used empty cartridges to CONTECH.

Material Disposal: The accumulated sediment must be handled and disposed of in accordance with regulatory protocols. It is possible for sediments to contain measurable concentrations of heavy metals and organic chemicals. Areas with the greatest potential for high pollutant loading include industrial areas and heavily traveled roads.

Sediments and water must be disposed of in accordance with applicable waste disposal regulations. Coordinate disposal of solids and liquids as part of your maintenance procedure. Contact the local public works department to inquire how they dispose of their street waste residuals.

J. SORBENT BOOMS

Preface: During construction, sorbent booms will be installed in the catch basins which have pavement areas. The intent of these is to absorb oil and runoff from new pavement surfaces. These will be removed and replaced when construction of the project is complete and should be inspected quarterly for the first year and annually thereafter.

Inspection: The sorbent boom should be raised out of the inlet, inspected, and replaced if necessary. Inspection should occur for the first year and annually thereafter concurrent with the catch basin cleaning.

Recommendation: It is recommended this project have additional sorbent booms or pillows onsite in the event of an unexpected spill or if oil sheen is observed frequently on any inlet.

Maintenance: The inspection and replacement should be conducted as part of a third party O&M contract and require disposal of used sorbent booms as "special wastes".

K. PARKING LOT CLEANING

To protect the catch basin sediment sumps, underground storage, Filterra® tree box, and StormTreat™ water quality filter, it is recommended the parking lot be swept at mid winter and spring and that power washing with an appropriate vacuum/power wash vehicle be done once a year.

Maintenance: It is recommended this service be contract with the firm that maintains lawns and landscaping.

L. LITTER

Litter should be removed as a matter of course by workers and a part of the grounds maintenance contract.

M. SUMMARY CHECKLIST

The above described inspection and maintenance items have been summarized on a checklist appended hereto as Appendix C.

IV. PROGRAM ADMINISTRATION

A. GENERAL

A reliable administrative structure must be established to assure implementation of the maintenance programs described in the foregoing section. Key factors that must be considered in establishing a responsive administrative structure include:

1. Administrative body must be responsible for long-term operation and maintenance of the facilities.
2. Administrative body must have the financial resources to accomplish the inspection and maintenance program over the life of the facility.
3. The administrative body must have a responsible administrator to manage the inspection and maintenance programs.
4. The administrative body must have the staff to accomplish the inspection and maintenance programs, or must have authority to contract for the required services.
5. The administrative body must have a management information system sufficient to file, retain, and retrieve all inspection and maintenance records associated with the inspection and maintenance programs.

If any of the above criteria cannot be met by the entity assigned inspection and maintenance responsibilities, it is likely that the system will fail to meet its water quality objectives at some point during its life. While each of the above criteria may be met by a variety of formats, it is critical to clearly establish the assigned administrative body in a responsible and sustainable manner.

B. RECORD KEEPING

Records of all inspections and maintenance work accomplished must be kept and maintained to document facility operations. These records should be filed and retained for a minimum 5-year time span. The filing system should be capable of ready retrieval of data for periodic reviews by appropriate regulatory bodies. Where possible, copies of such records should also be filed with the designated primary regulatory agency for their review for compliance with permit conditions. Typical inspection and maintenance record forms are attached hereto as Appendix B.

C. CONTRACT SERVICES

In some instances or at specific times, the Maintenance Personnel may not have the staff to conduct the required inspection and/or maintenance programs as outlined in this document. In such cases the work should be accomplished on a contractual basis with a firm or organization that has the staff and equipment to accomplish the required work.

The service contract for inspection and maintenance should be formal, well written legal document which clearly defines the services to be provided, the contractual conditions that will apply, and detailed payment schedules. Liability insurance should be required in all contracts.

APPENDIX A

Sample Inspection Logs

**THE FORERONT AT THOMPSON'S POINT
PORTLAND, MAINE**

**STORMWATER MANAGEMENT
IN-LINE STORAGE
ANNUAL INSPECTION & MAINTENANCE LOG**

FACILITY:		YEAR:	
LOCATION:		CONTRACTOR:	
FUNCTION:		INSPECTOR:	
DATE OF INSPECTION:			
ITEM IDENTIFICATION	DESCRIPTION OF CONDITIONS	MAINTENANCE ACCOMPLISHED	DATE OF MAINTENANCE
GENERAL COMMENTS:			

**THE FOREFRONT AT THOMPSON'S POINT
PORTLAND, MAINE**

**STORMWATER MANAGEMENT
IN-LINE STORAGE
MONTHLY INSPECTION & MAINTENANCE LOG**

FACILITY:			YEAR:			
LOCATION:			CONTRACTOR:			
FUNCTION:						
MONTH	DAY	INSPECTOR	WATER DEPTH	OVERFLOW WEIR		WEIR CONDITION
				CLEAR	DEBRIS	
JANUARY						
FEBRUARY						
MARCH						
APRIL						
MAY						
JUNE						
JULY						
AUGUST						
SEPTEMBER						
OCTOBER						
NOVEMBER						
DECEMBER						
LIST SPECIAL MAINTENANCE UNDERTAKEN:						

**THE FOREFRONT AT THOMPSON'S POINT
PORTLAND, MAINE**

STORMWATER MANAGEMENT
IN-LINE STORAGE
SEMI-ANNUAL INSPECTION & MAINTENANCE LOG

SEMI-ANNUAL INSPECT 1.2	FACILITY:
DATE:	LOCATION:
INSPECTOR:	FUNCTION:
WEIR CONDITION:	
OUTLET CONDITION	

FORE BAY SUMP	EST. DEPTH SED.	REMOVED? Y/N	EST. VOL. CY	WHERE DISPOSED OF	STRUCTURAL CONDITION

CONTROL STRUCTURE:
DESCRIBE CONDITIONS FOUND & MAINTENANCE ACCOMPLISHED:

APPENDIX B

Permits for Project

(To be Added at a Subsequent Time)

APPENDIX C

Summary Checklist Inspection and Maintenance

**Stormwater Management System
Maintenance Program
Summary Checklist**

Item	Commentary	Frequency				
		Monthly	Quarterly	Semi-Annual	Annual	Long Term
Control Structure	Inspect outlet control to assure it maintains its hydraulic characteristics. Inspect inlets for blockage.		X			
Stormwater Inlets in Series	Stormwater inlets allow flow entry from a surface swale to a piped system. Entry may or may not be equipped with a bar rack. Inspect entry for debris accumulation. Remove debris to allow unimpeded entry. Lawn clippings and leaves should be removed from yard areas.	X			X Clearing	
Tributary Drainage	Inspect to assure that the carrying capacity has not been diminished by debris, sediment or other hydraulic impediments.				X	
StormTreat™ Units	The operation and maintenance of the StormTreat™ System is limited to annual inspections and solids removal on an as-needed basis. Sediment removal once every three years or as needed			X (First year only)	X	X
In-Line Storage (Underground detention)	Inspect for standing water not anticipated, sedimentation, outlet control, inlets. Jet Stream sediment removal from Isolator Row				X	X
Filterra® Units (or approved equal)	The Filterra® units should be inspected for sedimentation accumulation in the sump and mulch area. Replace mulch, prune plant(s), clean Isolator Row.				X	
StormFilter® by CONTECH	The StormFilter® should be inspected to ensure the stored volume is draining within 72 hours. Clean sediment accumulation, replace filter.			X	X	
Sorbent Booms	Sorbent boom should be raised out of the inlet, inspected, and replaced if necessary.		X For first 12 months		X After first year	
Parking Lot Cleaning	Parking lot be swept at mid winter and spring. Power washing with an appropriate vacuum/power wash vehicle be done once a year.			X	X	
Litter	Litter should be removed daily.					

**SUPPLEMENTAL STORMWATER MANAGEMENT REPORT
(GENERAL STANDARDS)**

**THE FOREFRONT AT THOMPSON'S POINT
PORTLAND, ME**

PREPARED FOR:

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May 2013

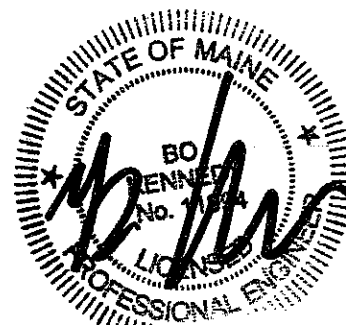


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B – Figure 1 – Overall Grading and Drainage Summary

SUPPLEMENTAL STORMWATER MANAGEMENT REPORT

1.0 Introduction

DeLuca-Hoffman Associates, Inc. was retained by Forefront Partners I, LP for preparation of the June 5, 2012 approved site design and site permitting for the proposed mixed-use development of Thompson's Point in Portland, Maine. Forefront Partners I, LP is presenting an amended site plan to the City of Portland that incorporates changes to the program which are based on the further development of building footprints and specific tenant requirements. The development will still include an event center with outside concert space, hotel, restaurant, office, sports medicine facility, surface parking and a multiple story parking structure. The area previously designated as a concert hall has been changed to an office building. Additionally, one of the existing buildings will be renovated and repurposed as a mixed use/office space building rather than be razed.

This supplemental report is intended to describe the changes from the June 5, 2012 approved site plans and show that the project is still in compliance with the Portland Stormwater Management Standards adopted 7/19/10 and General Stormwater Standards of MeDEP (revised October 2010). The intent of the stormwater management design, erosion and sediment control, and Inspection and Maintenance Manual have remained the same as approved in June 5, 2012. The overall developed area has increased to 20.33 acres of which 16.37 acres are impervious. Revisions to the site plan and how it relates to each Stormwater Management Discharge Zone is outlined below and tabulated in the attached spreadsheet.

2.0 Stormwater Management Revisions

Zone A (Panhandle):

Buildings K and L have been combined to create one larger office building with a footprint of approximately 45,000 SF. This is an increase in the building footprint of 15,000 SF. Consequently, the parking configuration has been modified to accommodate the larger building and reduced in size by approximately 15,000 SF.

Zone A water quality treatment will remain as a subsurface sand filter. The filter area will be shifted to the Northeast as shown on the revised Sheet C-4.4 Stormwater Management Plan-West. Subsurface soil conditions are expected to be very similar to the previously designed location and changes to the design details are not required. Discharge A will be relocated westerly to the northwest corner of the development and include the previously designed riprap plunge pool and small wetland fill.

Zone B (Building C and J):

Building J (Parking Garage) remains unchanged while the Building C footprint has been reduced by approximately 13,900 SF and is now designated as an office space instead of a concert hall. Zone B treatment area also includes a segment of the Thompson's Point Loop Road and open plaza space.

Zone B water quality treatment will remain a collection of Filterra® (or approved equal) tree box filters sized for the specific tributary area to each filter. The approved systems remain unchanged and meet the Chapter 500 Standards as previously designed. As further described in Zone C below, we are proposing that rooftop runoff from Building C will discharge untreated in addition to the previously approved untreated plaza area.

Zone C (Building A and B):

Building B has reduced in size by approximately 4,200 SF to accommodate a reconfigured parking lot and an increase of 8,739 SF to Building A. Building A, previously scheduled for demolition, will remain and undergo renovation for use as an office. Building A was constructed prior to 1975 and therefore not subject to the MeDEP Chapter 500 regulations. However, the nature of the stormwater management design would make runoff from the existing roof of Building A difficult to separate from the runoff adjacent to the building and thus it is included in the treatment area and volume computations for Water Quality Zone C. This will result in “over treating” the required amount of impervious area on the site. The current plan shows Building C discharging directly to the storm drain system without treatment; however, it is noted the overall treatment of impervious area is computed to be 95.3% without taking any “credits” for the treatment of Building A.

The net increase of tributary area and impervious area to the Zone C treatment facility are 0.25 ac and 0.16 ac respectively. The increase of treatment area is still within the design capabilities of the original proposed 8 StormTreat™ treatment tank configuration. The subsurface water quality volume storage is located further to the south and rotated 90° as shown on the revised Sheet C4.3 Stormwater Management Plan-East. The StormTreat™ treatment tanks and overflow structures will remain in the same location as the approved plans.

Zones D and E (Buildings I, G, F, H, and E):

Buildings in Zones D and E have remained the same size and with the exception of some minor adjustments to curbed islands the treatment area and associated impervious percentage has remained the same as the approved plans.

The StormTreat™ treatment systems are considered adequate to meet the Chapter 500 General Standards.

Zone F (Service Loading Area):

The configuration of the Building D service area has changed to conform to an updated Building footprint. The size has decreased by 0.04 ac and considered negligible. The StormFilter® Cartridge System has remained the same as the approved plans.

Zone G (Building D):

The Building D footprint has been replaced with a more detailed and efficient design than previously approved. The footprint has decreased in size by 6,500 SF. The reduced footprint will warrant a reduction in rooftop tree box filter sizes from 7'x13' and 4'x8' units to 7'x13' and 4'x6' units.

3.0 Conclusion

The stormwater management strategy for the amended site plan presented herein has remained the same as the June 5, 2012 approved strategy. The amended site plan treats 89% of the redeveloped area and 95% of the redeveloped impervious area. The individual systems have been adjusted to accommodate layout revisions but ultimately the detailed design remains the same and meets or exceeds the City of Portland Stormwater Management Requirements.

4.0 Appendices

A – Tabulated Summary of Stormwater Management Changes

B – Figure 1 – Overall Grading and Drainage Summary

APPENDIX A

Tabulated Summary of Stormwater Management Changes

Summary of Water Quality Treatment

Storm Water Management Zone	Inlet Subcatchment	Treatment Approach	Total Disturbed Area (Redeveloped) (ac)	Treated Area					UnTreated Area					Percent Treatment of Impervious	Percent Treatment of Redeveloped Area
				Impervious Area (ac)			Pervious Area (ac)	Total Treated Area (ac)	Impervious Area (ac)			Pervious Area (ac)	Total Untreated Area (ac)		
				Roof (ac)	Pavement, Gravel, etc (ac)	Total Impervious Area (ac)			Roof (ac)	Pavement, Gravel, etc (ac)	Total Impervious Area (ac)				
Zone A - Panhandle	Summary of Approved Plan	Subsurface Sand Filter	4.23	0.69	3.06	3.75	0.24	3.99	0.00	0.00	0.00	0.24	0.24	100%	94%
	Summary of Amended Plan	Subsurface Sand Filter	4.39	1.03	2.71	3.74	0.35	4.09	0.00	0.04	0.04	0.26	0.30	99%	93%
	Net Change to Discharge A		0.16	0.34	-0.35	-0.01	0.11	0.10	0.00	0.04	0.04	0.02	0.06	-0.01	-0.01
Zone B - Building C and J	Summary of Approved Plan	Filterra Tree Box ⁹	5.33	1.69	2.07	3.76	0.62	4.38	0.00	0.63	0.63	0.32	0.95	86%	82%
	Summary of Amended Plan	Filterra Tree Box ⁹	5.58	1.06	1.99	3.05	0.85	3.90	0.36	0.82	1.18	0.50	1.68	72%	70%
	Net Change to Discharge B		0.25	-0.63	-0.08	-0.71	0.23	-0.48	0.36	0.19	0.55	0.18	0.73	-0.14	-0.12
Zone C - Building A and B	Summary of Approved Plan	StormTreat	2.84	1.08	1.16	2.25	0.30	2.55	0.09	0.07	0.16	0.13	0.29	93%	90%
	Summary of Amended Plan	StormTreat	3.09	1.13	1.28	2.41	0.40	2.81	0.00	0.07	0.07	0.21	0.28	97%	91%
	Net Change to Discharge C		0.25	0.05	0.12	0.16	0.10	0.26	-0.09	0.00	-0.09	0.08	-0.01	0.04	0.01
Zone D- Building I, G and F	Summary of Approved Plan	StormTreat	2.69	0.51	1.68	2.20	0.22	2.42	0.00	0.00	0.00	0.27	0.27	100%	90%
	Summary of Amended Plan	StormTreat	2.86	0.52	1.79	2.31	0.22	2.53	0.00	0.00	0.00	0.33	0.33	100%	88%
	Net Change to Discharge D		0.17	0.01	0.11	0.11	0.00	0.11	0.00	0.00	0.00	0.06	0.06	0.00	-0.02
Zone E- Building H and E	Summary of Approved Plan	StormTreat	2.83	0.56	1.69	2.25	0.14	2.39	0.00	0.03	0.03	0.41	0.44	99%	84%
	Summary of Amended Plan	StormTreat	2.94	0.53	1.53	2.07	0.32	2.39	0.00	0.03	0.03	0.52	0.55	99%	81%
	Net Change to Discharge E		0.11	-0.03	-0.16	-0.18	0.18	0.00	0.00	0.00	0.00	0.11	0.11	0.00	-0.03
Zone F- Service Loading Dock	Summary of Approved Plan	StormFilter Cartridges by Contech	0.12	0.00	0.12	0.12	0.00	0.12	0.00	0.00	0.00	0.00	0.00	100%	100%
	Summary of Amended Plan	StormFilter Cartridges by Contech	0.08	0.00	0.08	0.08	0.00	0.08	0.00	0.00	0.00	0.00	0.00	100%	100%
	Net Change to Discharge F		-0.04	0.00	-0.04	-0.04	0.00	-0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Zone G- Building D	Summary of Approved Plan	StormFilter Cartridges by Contech	1.62	1.62	0.00	1.62	0.00	1.62	0.00	0.00	0.00	0.00	0.00	100%	100%
	Summary of Amended Plan	StormFilter Cartridges by Contech	1.39	1.39	0.00	1.39	0.00	1.39	0.00	0.00	0.00	0.00	0.00	100%	100%
	Net Change to Discharge D		-0.23	-0.23	0.00	-0.23	0.00	-0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NET CHANGE TO DISTURBED AREA			0.67	-0.49	-0.40	-0.90	0.62	-0.28	0.27	0.23	0.50	0.45	0.95	-10.9%	-17.0%
TOTAL AMENDED DISTURBED AREA			20.33	5.66	9.38	15.05	2.14	17.19	0.36	0.96	1.32	1.82	3.14	95.3%	89.1%

NOTES AND ASSUMPTIONS:

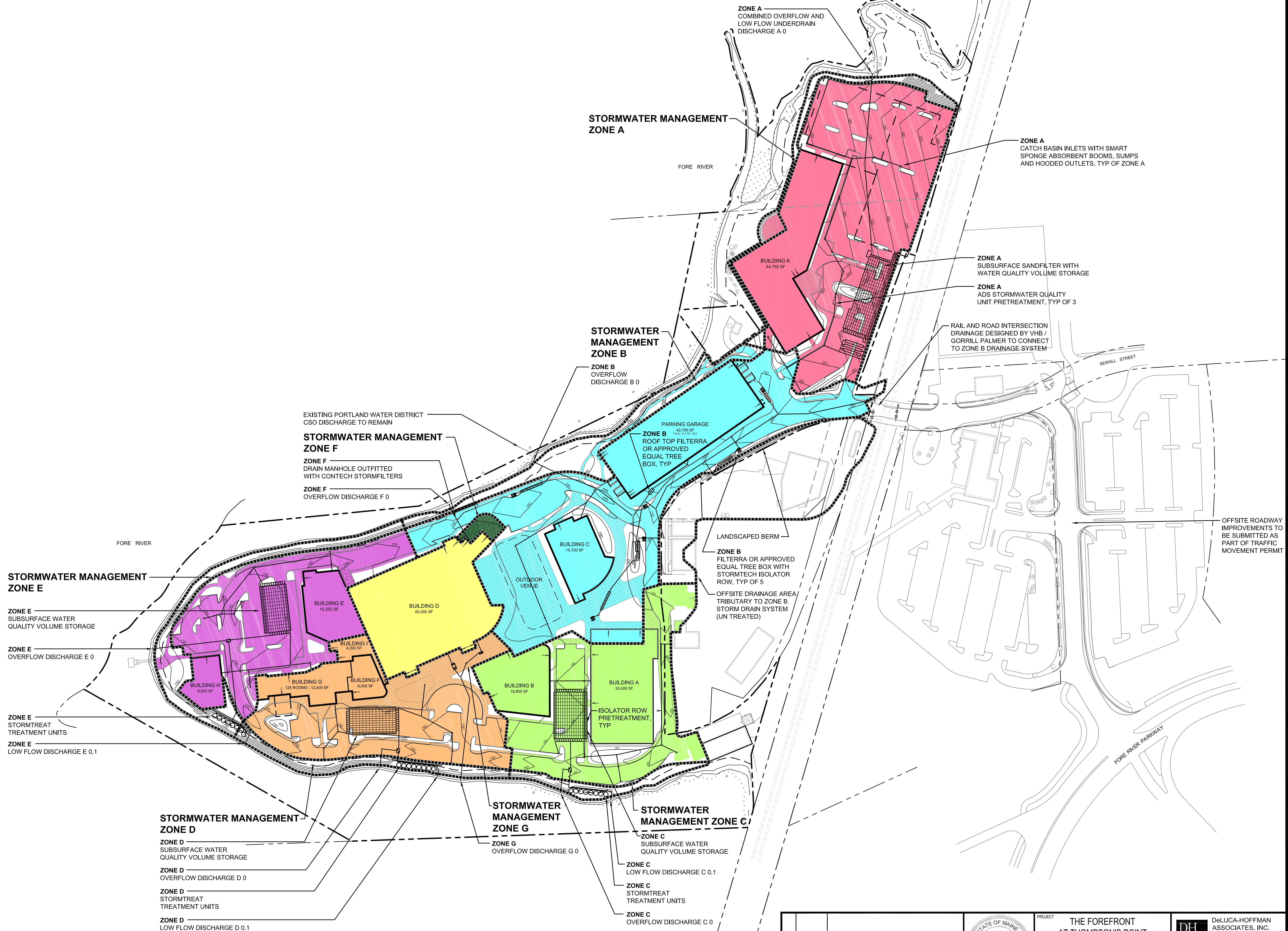
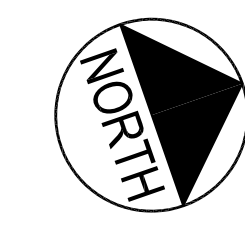
- All approved areas are based on the Deluca Hoffman Associates Permit drawings dated March 5 2012. All amended areas are based on the Deluca Hoffman Assoc. Permit Drawings Dated May 6th, 2013.
- The required water quality volumes have been computed based on Sections 7.3, 7.4, and 7.5 of the Maine DEP Volume III BMP's Technical Design Manual. The volume is computed to be 1" times the subcatchments impervious area and 0.4" times the subcatchments vegetated area.
- The required filter surface area has been computed based on Sections 7.1, and 7.3 of the Maine DEP Volume III BMP's Technical Design Manual. The filter area is computed to be 5% of the subcatchments impervious area and 2% times the subcatchments vegetated area.
- The 1 year peak flow rates have been computed using the rational method. The rainfall intensities are derived from the Cumberland County IDF curve.
- Subsurface storage system sizing is based on a Stormtech SC-740 chamber system. All isolator rows have been computed per section 7.3.3 Pretreatment Isolator Row of the Maine DEP Volume III BMP's Technical Manual. One chamber is required for each 0.2 cfs of the computed tributary 1 year peak flow rate.
- The required number of Stormtreat treatment units have been computed based on Section 7.4 of the Maine DEP Volume III BMP's Technical Design Manual. The number of units is computed to be the water quality volume divided by 1155 cubic feet and always rounded up.
- The required number of 18" Tall StormFilter Cartridges by Contech is computed to be 12 Cartridges per impervious acre.
- The owner reserves the right to use an alternate tree box filter device provided it has been approved by the Maine DEP Chapter 500 delegated review authority of the City of Portland.

	Required	Provided
Percent of Redeveloped Area which is Impervious	N/A	74%
Percent of Impervious Area which is Rooftop	N/A	38%
Percent of Total Disturbed Area Treated	80%	89%
Percent of Redeveloped Impervious Area Treated*	95%	95%

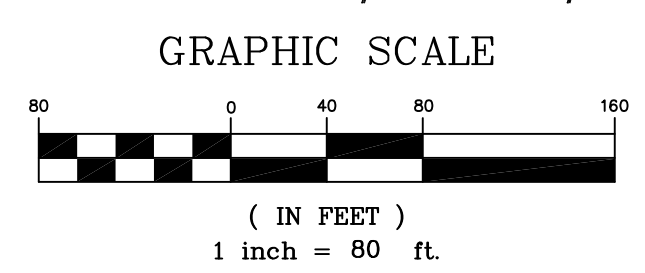
*Assumes Building C Rooftop is untreated and the exempt existing Building A is included with zero credit taken for treating an exempt impervious area. Similar to the approved plan; it is assumed that 0.73 ac of plaza area is untreated.

APPENDIX B

Figure 1 – Overall Grading and Drainage Summary



OFFSITE ROADWAY IMPROVEMENTS TO BE SUBMITTED AS PART OF TRAFFIC MOVEMENT PERMIT



PROJECT THE FOREFRONT AT THOMPSON'S POINT			CLIENT FOREFRONT PARTNERS I, LP	DRAWN: DED DATE: APRIL 2013 DESIGNED: BEK SCALE: 1" = 80' CHECKED: SRB JOB NO. 2982.04 FILE NAME: 2982-GRADING SHEET C-4.0
SHEET TITLE OVERALL GRADING AND DRAINAGE PLAN				
REVISIONS 2 05.10.13 AMENDED SITE PLAN SUBMISSION 1 03.20.12 FINAL SITE PLAN APPLICATION SUBMISSION		LIC. # 7429		

PRELIMINARY - NOT FOR CONSTRUCTION

R:\2982.04-TP Amended Site Plan\Cadd\Femil Set\dwg\2982.04-GRADING_WEX.dwg Iarthy 5/10/2013 4:25 PM

NOTES:

1. The development is required to comply with the City/Maine DEP water quality treatment standards. These standards will be met by the incorporation of the following, as was evidenced in the original permit documents:

- Multiple closed drainage systems that will capture and convey stormwater runoff through catch basin structures and underground piping.
- Water quality treatment measures including the use of proprietary devices; these may include subsurface sand filters, Filterra® tree boxes or equal, Stormtreat™ units, StormFilter® cartridges and grassed underdrained soil filter.

In addition to these measures, the applicant is considering the placement of so called Low Impact Development measures such as rain gardens, pervious surface treatments and related measures. The stormwater management plan will meet the water quality treatment goals whereas at least 95% of the site's impervious area is treated and at least 80% of the developed area will be treated.

2. The stormwater treatment measures depicted on this plan are approximate in size and location and subject to change during site plan design. This plan is intended to represent a potential treatment strategy to meet the City of Portland stormwater quality treatment standards.

MASTER PLAN DEVELOPMENT AREA SUMMARY

APPROXIMATE PROPOSED DEVELOPED AREA	24.87 AC
APPROXIMATE PROPOSED REDEVELOPED IMPERVIOUS AREA	16.2 AC
EXISTING BUILDING TO REMAIN AS RENNOVATED BUILDING AREA	1.28 AC
APPROXIMATE TOTAL PROPOSED IMPERVIOUS AREA	17.48 AC



**SUPPLEMENTAL STORMWATER MANAGEMENT REPORT
FOR PHASE 1A BRICK NORTH LEVEL III SITE PLAN
APPLICATION
(GENERAL STANDARDS)**

**THE FOREFRONT AT THOMPSON'S POINT
PORTLAND, ME**

PREPARED FOR:

**FOREFRONT PARTNERS I, LP
501 DANFORTH STREET
PORTLAND, MAINE 04102
(207) 784-0335**

PREPARED BY:

**FAY, SPOFFORD & THORNDIKE
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June 30, 2014

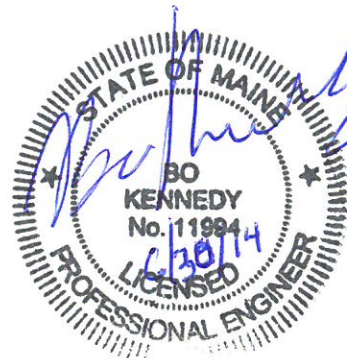


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Appendix 2 – Stormdrain Sizing Computations

Appendix 3 – StormTreat™ Treatment System Computations

SUPPLEMENTAL STORMWATER MANAGEMENT REPORT

1.0 Introduction

Fay, Spofford & Thorndike (FST) (formerly DeLuca-Hoffman Associates, Inc.) was retained by Forefront Partners I, LP for preparation of the June 5, 2012 approved site design and site permitting and for the proposed mixed-use development of Thompson's Point in Portland, Maine. The site plan was later amended in June 2013 for inclusion of the Brick North Building and again as part of a Master Development Plan application which was approved in March 2014. Forefront Partners I, LP is presenting an amended Phase 1A Stand Alone Brick North site plan to the City of Portland that incorporates the site changes presented as part of the approved Master Plan.

This supplemental report is intended to describe the improvements included with the renovated Brick North Building plan and demonstrate the integration of stormwater treatment and conveyance design with the approved Master Plan Stormwater Management Strategy. The enclosed computations show that this phase of the project has been designed to meet the Portland Stormwater Management Standards adopted 7/19/10 and General Stormwater Standards of MeDEP (revised October 2010) and are consistent with the overall goals presented in previous Stormwater Reports. The intent of the stormwater management design, erosion and sediment control, and Inspection and Maintenance Manual have remained the same as approved in June 5, 2012. This phase of the project will have a developed area 3.16 acres of which 2.29 acres are newly constructed impervious. Revisions to the site plan and how it relates to each Stormwater Management Discharge Zone is outlined below and tabulated in the attached spreadsheet.

2.0 Stormwater Management Revisions

Zone D (Access Road and Parking Lot):

Zone D water quality treatment will be comprised of two treatment measures:

- A collection of Filterra® (or approved equal) tree box filters sized for the specific tributary area to each filter. The approved systems remain unchanged and meet the Chapter 500 Standards as previously designed.
- A series of StormTreat™ treatment units.

Zone D includes a storm drainage trunk line sized to convey stormwater runoff from offsite sources (NNEPRA, Suburban Propane, and Thompson's Point Connector Road), treated and overflow discharge from the Filterra® units, and overflow discharge from the Stormtreat Treatment Units. The trunk line has been sized with consideration of potential flow from future phases of the project; however, the treatment measures themselves have been designed to treat the impervious area proposed as part of this phase only. It is anticipated that the StormTreat™ treatment systems can be expanded as future demand dictates the need.

The StormTreat™ treatment systems and Filterra® are considered adequate to meet the Chapter 500 General Standards.

Zone F (Brick North Building, Brick South Building and Parking Lot):

Building A (Brick North) will remain and undergo renovation for mixed-uses such as office, studio and other. The Brick North and Brick South Buildings were constructed prior to 1975 and therefore not subject to the MeDEP Chapter 500 treatment regulations. However, as stipulated in Section 6 of the Chapter 500 Stormwater manual the applicant is proposing the use of mitigation credit at a rate of 60% of the total rooftop area treated to offset an untreated parking lot to the south of the Brick North Building.

The applicant has elected to install a stone drip edge with gravel filter to treat the runoff from the existing roof. The roof is pitched down the center, splitting the building on its east-west axis; therefore, the drip edge treatment is proposed on the north and south sides of the building as shown on Sheet C-5.1 Stormwater Management Plan. The stone reservoir is 6 ft. wide by 2.48 ft. thick as shown in the attached computations. The stone reservoir has been sized to store the water quality volume computed to be 1" of runoff from the rooftop area.

The untreated parking lot will drain to a series of new catch basins which will be outfitted with sumps, hooded outlets and oil absorbent booms. Ultimately, as part of the Master Plan Stormwater Management Strategy, the parking area to the south of Brick North will be conveyed to a StormTreat™ treatment system; however, with the uncertainty of the exact development proposed for that portion of the site the applicant runs a relatively high risk of having to move or reconstruct the treatment system due to conflicts with future development.

3.0 Conclusion

The stormwater management strategy for this phase of the project presented herein has remained the same as the June 5, 2012 approved report and supplemental Master Plan Strategy. The amended site plan treats 70% of the redeveloped area and 78% of the redeveloped impervious area; however, when a 60% credit is taken for the treatment of the Brick North building the amended site plan treats 85% of the net developed area and 99% of the net developed impervious area. The individual systems have been adjusted to accommodate layout revisions but ultimately the detailed design remains the same and meets or exceeds the City of Portland Stormwater Management Requirements.

4.0 Appendices

Appendix 1 – Summary of Water Quality Treatment

Appendix 2 – Stormdrain Sizing Computations

Appendix 3 – StormTreat™ Treatment System Computations

APPENDIX 1

SUMMARY OF WATER QUALITY TREATMENT

Summary of Water Quality Treatment

Zone	Inlet ID	Impervious Area (sf)	Pervious Area (sf)	Total Area (sf)	Total Area (Acres) ¹	Required Water Quality Volume (CF) ²	Existing Developed Area Mitigation Credits (SF) ⁹	Treatment Approach ⁶	Filterra Size Required	StormTreats Required (EA) ⁵	StormTreats Provided (EA)	1 Yr 24-hr Storm Event Peak Flow Rate (cfs) ³	Required StormTech Isolator Row Chambers (SC-740) ⁴	Provided Water Quality Volume (CF) ⁷	StormTech Isolator Row Chambers (SC-740) Provided (EA)
Zone D	D-21	8,280.00	772.00	9,052.00	0.21	715.73	-	Filterra	6'x8'	-	-	0.52	6.63	-	7
	D-20	12,517.00	3,661.00	16,178.00	0.37	1165.12	-	Filterra		-	-	0.81		-	-
	D-18	5,763.00	3,841.00	9,604.00	0.22	608.28	-	Filterra	4'x6'	-	-	0.40	2.01	-	2
	D-19	6,430.00	1,673.00	8,103.00	0.19	591.60	-	Filterra	4'x6'	-	-	0.41	2.07	-	2
	D-11	16,740.00	1,948.00	18,688.00	0.43	1459.93	-	Storm Treats	-	1.26	4.00	1.05	5.24	4,052.00	11
	D-16	12,144.00	2,596.00	14,740.00	0.34	1098.53	-	Storm Treats	-	0.95		0.77	3.87		
	D-12	9,443.00	1,212.00	10,655.00	0.24	827.32	-	Storm Treats	-	0.72		0.59	2.96		
	D-13	7,020.00	1,161.00	8,181.00	0.19	623.70	-	Storm Treats	-	0.54		0.63	3.13		
	D-14	0.00	921.00	921.00	0.02	30.70	-	Storm Treats	-	0.03		0.01	0.06		
Disturbed Perimeter Area	4,445.00	5,559.00	10,004.00	0.23	-	-	None	-	-	-		-	-		-
Zone D Totals	-	82,782.00	23,344.00	106,126.00	2.44	7,120.92	-	-	-	-	-	-	-	-	-
Zone F Developed Area	F-8	2,515.00	808.00	3,323.00	0.08	236.52	-	None	-	-	-	-	-	-	-
	F-7	13,385.00	3,942.00	17,327.00	0.40	1246.82	-	None	-	-	-	-	-	-	-
	F-3	186.00	3,362.00	3,548.00	0.08	127.57	-	None	-	-	-	-	-	-	-
	F-4	256.00	783.00	1,039.00	0.02	47.43	-	None	-	-	-	-	-	-	-
	F-5	256.00	3,875.00	4,131.00	0.09	150.50	-	None	-	-	-	-	-	-	-
	F-6	348.00	1,754.00	2,102.00	0.05	87.47	-	None	-	-	-	-	-	-	-
	Disturbed Perimeter Area	0.00	0.00	0.00	0.00	0.00	-	None	-	-	-	-	-	-	-
Zone F Developed Area Subtotals	-	16,946.00	14,524.00	31,470.00	0.72	1,896.30	-	-	-	-	-	-	-	-	-
Zone F Existing Buildings	BNB-North Side	17,000.00	0.00	17,000.00	0.39	1416.67	10,200.00	Stone Drip Edge	-	-	-	-	-	1,460.00	-
	BNB-South Side	17,000.00	0.00	17,000.00	0.39	1416.67	10,200.00	Stone Drip Edge	-	-	-	-	-	1,460.00	-
Zone F Existing Building Subtotal	-	34,000.00	0.00	34,000.00	0.78	2,833.33	20,400.00	-	-	-	-	-	-	1,460.00	-
Zone F Totals	-	50,946.00	14,524.00	65,470.00	1.50	4,729.63	20,400.00	-	-	-	-	-	-	-	-

Developed Area Breakdown	
A.) Total New Developed Area Treated (SF)	96,122.00
B.) Total New Developed Area untreated (SF)	41,474.00
C.) Total New Developed Area (SF) = A+B	137,596.00
D.) Existing Developed Area Treated (SF)	34,000.00
E.) Adjusted Existing Developed Area Treated (SF)	20,400.00
F.) Total Net Developed Area Treated (SF) = A+E	116,522.00
Impervious Area Breakdown	
G.) Total New Impervious Area untreated (SF)	78,337.00
H.) Total New Impervious Area untreated (SF)	21,391.00
I.) Total New Impervious Area (SF) = G+H	99,728.00
J.) Existing Impervious Area Treated (SF)	34,000.00
K.) Adjusted Existing Impervious Area Treated (SF)	20,400.00
L.) Total Net Impervious Area Treated (SF) = G+K	98,737.00

Treatment Breakdown	Required	Provided
% of Net Developed Area Treated = F/C	80.00%	84.68%
% of Net Impervious Area Treated = L/I	95.00%	99.01%

NOTES AND ASSUMPTIONS:

1. All areas are based on the FST Permit drawings dated June 2014
2. The required water quality volumes have been computed based on Sections 7.4, 7.5 and 7.6 of the Maine DEP Volume III BMP's Technical Design Manual. The volume is computed to be 1" times the subcatchments impervious area and 0.4" times the subcatchments vegetated area. Existing buildings to remain are not required to be treated.
3. The 1 year peak flow rates have been computed using the rational method. The rainfall intensities are derived from the Cumberland County IDF curve.
4. Subsurface storage system sizing is based on a Stormtech SC-740 chamber system. All isolator rows have been computed per section 7.3.3 Pretreatment Isolator Row of the Maine DEP Volume III BMP's Technical Manual. One chamber is required for each 0.2 cfs of the computed tributary 1 year peak flow rate.
5. The required number of Stormtreat treatment units have been computed based on Section 7.4 of the Maine DEP Volume III BMP's Technical Design Manual. The number of units is computed to be the water quality volume divided by 1155 cubic feet and always rounded up.
6. The owner reserves the right to use an alternate tree box filter device provided it has been approved by the Maine DEP Chapter 500 delegated review authority of the City of Portland.
7. Provided Water Quality Volume for stormtreat storage system computed using 61.38 CF of storage per chamber based on Storm Tech Chamber Design Manual
8. The Stone Drip Edge was based on section 7.6 of the Maine DEP Volume III BMP's Technical Design Manual. The Width of stone is derived from a required WQV based off 1" of runoff and a desired stone reseed depth. See sizing computations on separate sheet.
9. According to Chapter 500 Maine DEP stormwater rules; the department allows applicants to take credit for the treatment of existing impervious areas on site. For existing roofs the credit can be calculated by multiplying the total treated area by 0.6.

APPENDIX 2

RATIONAL METHOD FLOW COMPUTATION

STORM DRAINAGE PIPE SIZING

STORMWATER DISCHARGE SUMMARY

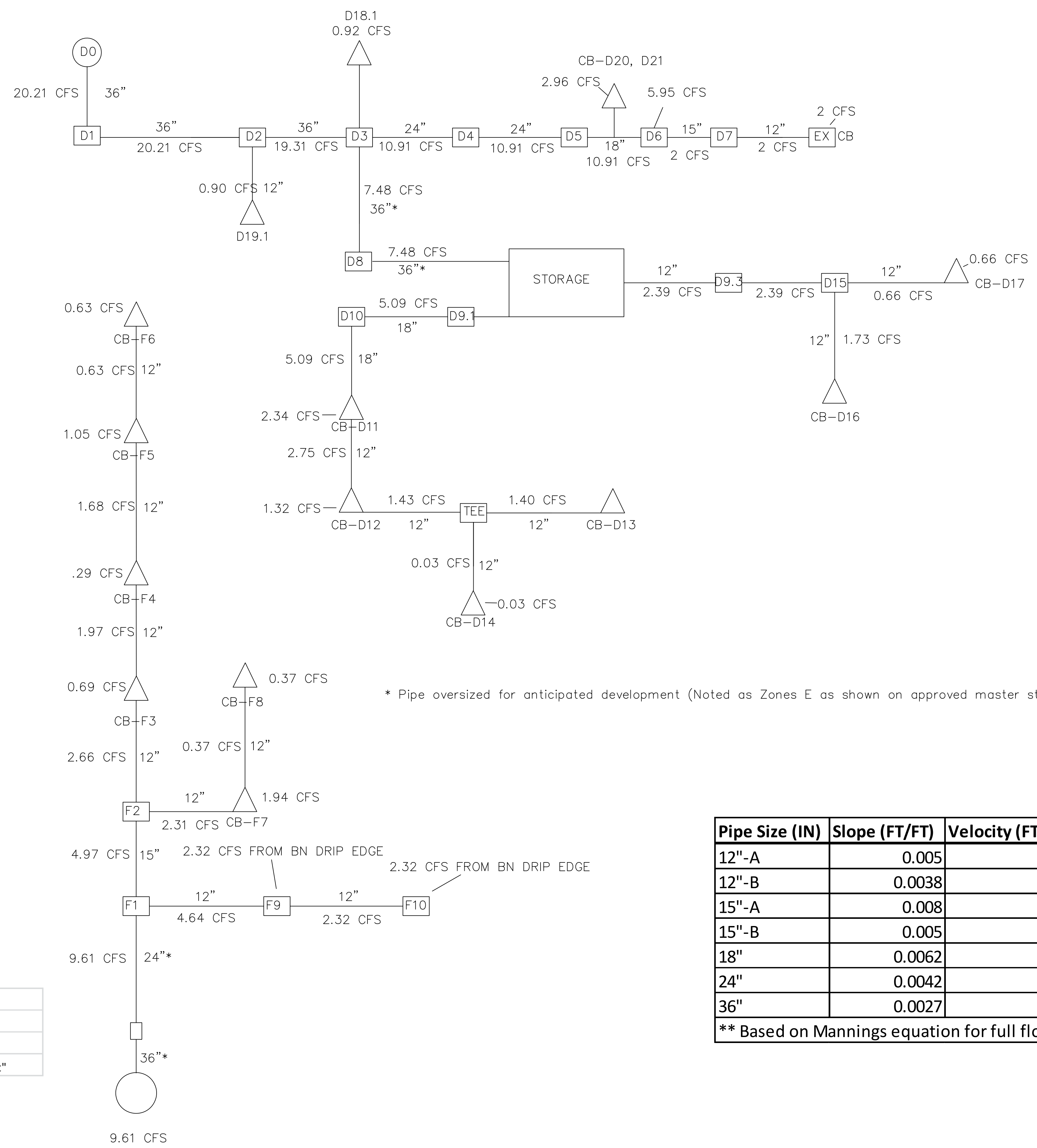
HGL CALCULATIONS ZONE D AND F

HYDROCAD DMH D3 PEAK FLOW ELEVATION CALCULATIONS

Rational Method Flow Computations										
ZONE	INLET ID	IMPERVIOUS (SF)	PERVIOUS (SF)	TOTAL AREA (SF)	TOTAL AREA (ACRES)	WEIGHTED C	25-YEAR FLOW	10-YEAR FLOW	2-YEAR FLOW	1-Year Flow
Zone D	D-21	8,280.00	772.00	9,052.00	0.21	0.89	1.15	1.01	0.74	0.52
	D-20	12,517.00	3,661.00	16,178.00	0.37	0.78	1.81	1.59	0.00	0.81
	D-18	5,763.00	3,841.00	9,604.00	0.22	0.65	0.90	0.79	0.00	0.40
	D-19	6,430.00	1,673.00	8,103.00	0.19	0.80	0.92	0.81	0.00	0.41
	D-11	16,740.00	1,948.00	18,688.00	0.43	0.87	2.34	2.06	0.00	1.05
	D-16	12,144.00	2,596.00	14,740.00	0.34	0.82	1.73	1.52	0.00	0.77
	D-17	4,871.00	0.00	4,871.00	0.11	0.95	0.66	0.58	0.00	0.30
	D-12	9,443.00	1,212.00	10,655.00	0.24	0.86	1.32	1.16	0.00	0.59
	D-13	10,005.00	1,161.00	11,166.00	0.26	0.87	1.40	1.23	0.00	0.63
	D-14	0.00	921.00	921.00	0.02	0.20	0.03	0.02	0.00	0.01
Zone D Sub-totals		86,193.00	17,785.00	103,978.00	2.39	-	12.26	10.79	0.74	5.49
Zone F	F-8	2,515.00	808.00	3,323.00	0.08	0.77	0.37	0.32	0.23	0.16
	F-7	13,385.00	3,942.00	17,327.00	0.40	0.78	1.94	1.71	1.24	0.87
	F-3	4,385.00	3,362.00	7,747.00	0.18	0.62	0.69	0.61	0.44	0.31
	F-4	1,979.00	783.00	2,762.00	0.06	0.74	0.29	0.26	0.19	0.13
	F-5	6,883.00	3,875.00	10,758.00	0.25	0.68	1.05	0.92	0.67	0.47
	F-6	4,232.00	1,754.00	5,986.00	0.14	0.73	0.63	0.55	0.40	0.28
	Brick North	34,000.00	0.00	34,000.00	0.78	0.95	4.63	4.08	2.97	2.08
Zone F Sub-totals		67,379.00	14,524.00	81,903.00	1.88	-	9.60	8.45	6.14	4.30

Assumptions	
Pervious C	0.2
Impervious C	0.95
I-1 Year	2.8 in/hr
I-2 Year Storm	4 in/hr
I-10 Year Storm	5.5 in/Hr
I-25 Year Storm	6.25 in/Hr
Notes:	
1. Rainfall intensity based on Cumberland County IDF curve using a TC of 5 min.	

STORMWATER FLOW SCHEMATIC



Pipe Size (IN)	Slope (FT/FT)	Velocity (FT/Sec)	Full Flow Capacity** (CFS)
12"-A	0.005	3.48	2.73
12"-B	0.0038	3	2.38
15"-A	0.008	5	6.26
15"-B	0.005	4	4.95
18"	0.0062	5	8.96
24"	0.0042	5	15.93
36"	0.0027	5	37.54

** Based on Mannings equation for full flowing pipes

- Notes:
- All flows are based on 25-year rational method computations.
 - Rainfall intensities based on Cumberland County IDF for 25 year storms.
 - Full list of computations can be found on "Rational Method Flow Computation sheet"

Summary of Storm Water Discharges					
Discharge ID	Approximate Drainage Area (Ac)	Full Build Out 25 Yr Peak Flow (CFS)	Outlet Pipe Size (In)	Description	*Minimum Required Riprap D₅₀ (IN)
F0	1.88	9.6	36	RCP Flared End W/ Bar Rack, Riprap Slope	12
D0	0.99	20.21	36	RCP Flared End W/ Bar Rack, Riprap Slope	12
D0.1	1.4	0.018	12	HDPE Flared End, Riprap Slope Apron	Existing

* D₅₀ is a median rock size. Riprap should be a well graded mix of angular rock from about 1.5 to 0.25 times the size of the D₅₀. The contractor shall protect existing riprap slope or replace rock to the meet the minimum required D₅₀ stone size.

HGL CALCULATIONS ZONE D

Storm Sewer Summary Report

Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	D3	4.85	24	Cir	90.940	10.87	11.23	0.396	13.57*	13.61*	0.02	13.62	End	Manhole
2	D4	4.97	24	Cir	114.140	11.33	11.79	0.403	13.62	13.66	0.03	13.70	1	Grate
3	D5	2.00	18	Cir	179.000	11.89	12.98	0.609	13.70	13.77	0.03	13.80	2	Manhole
4	D6	2.00	15	Cir	167.270	13.08	14.38	0.777	13.80	14.94	n/a	14.94 j	3	Manhole
5	D7	2.00	12	Cir	45.495	14.48	14.89	0.901	15.01	15.49	n/a	15.49	4	Grate
6	D10	5.71	18	Cir	35.389	10.52	10.61	0.254	13.57*	13.66*	0.16	13.82	End	Manhole
7	D11	2.87	18	Cir	23.818	10.71	10.75	0.168	13.82*	13.84*	0.02	13.86	6	Grate
8	D12	1.57	12	Cir	111.358	10.85	11.26	0.368	13.86*	14.04*	0.09	14.13	7	Grate
9	TEE	0.84	12	Cir	68.120	11.36	11.61	0.367	14.13*	14.17*	0.02	14.18	8	Manhole
10	D14	1.41	12	Cir	64.560	11.61	11.85	0.372	14.18*	14.27*	0.05	14.32	9	Grate
11	D13	0.02	12	Cir	28.915	11.61	11.75	0.484	14.18*	14.18*	0.00	14.18	9	Grate
12	D15	2.38	12	Cir	40.086	10.52	10.67	0.374	13.57*	13.72*	0.14	13.86	End	Manhole
13	D17	0.67	12	Cir	31.755	11.56	11.70	0.441	13.86*	13.87*	0.01	13.88	12	Grate
14	D16	1.74	12	Cir	47.338	10.84	11.06	0.465	13.86*	13.96*	0.08	14.03	12	Grate

Project File: 2014.06.20 2982.05 SD PROFILE A B C.stm

Number of lines: 14

Run Date: 6/27/2014

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.

HGL CALCULATIONS ZONE F

Storm Sewer Summary Report

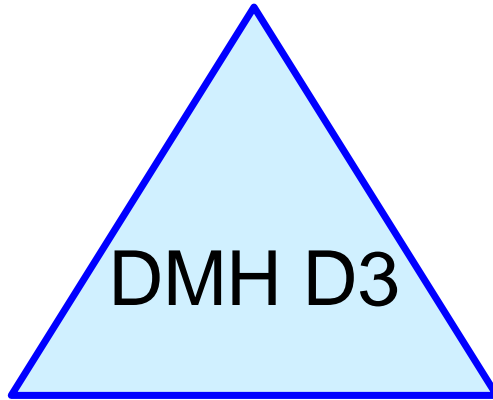
Line No.	Line ID	Flow rate (cfs)	Line Size (in)	Line shape	Line length (ft)	Invert EL Dn (ft)	Invert EL Up (ft)	Line Slope (%)	HGL Down (ft)	HGL Up (ft)	Minor loss (ft)	HGL Junct (ft)	Dns Line No.	Junction Type
1	F1	8.72	24	Cir	88.352	10.00	10.13	0.147	11.05	11.53	0.22	11.74	End	Manhole
2	F2	4.17	15	Cir	128.661	10.23	10.87	0.497	11.74*	12.20*	0.18	12.38	1	Manhole
3	F3	2.35	12	Cir	93.566	10.97	11.44	0.502	12.38*	12.73*	0.07	12.79	2	Grate
4	F4	1.77	12	Cir	51.855	11.54	11.80	0.501	12.79*	12.90*	0.04	12.94	3	Grate
5	F5	1.56	12	Cir	84.102	11.90	12.32	0.499	12.94	13.06	0.05	13.11	4	Grate
6	F6	0.64	12	Cir	83.865	12.42	12.84	0.501	13.11	13.17	n/a	13.17 j	5	Grate
7	F9	4.64	12	Cir	81.078	10.23	10.64	0.506	11.74*	12.91*	0.27	13.19	1	Grate
8	F7	1.96	12	Cir	38.286	10.97	11.16	0.496	12.38*	12.48*	0.14	12.62	2	Grate
9	F10	2.32	12	Cir	137.487	10.74	12.29	1.127	13.19*	13.68*	0.14	13.82	7	Grate
10	F8	0.38	12	Cir	113.484	11.26	11.83	0.502	12.62	12.63	0.01	12.64	8	Grate

Project File: 2014.06.20 2982.05 SD PROFILE D.stm

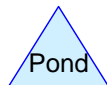
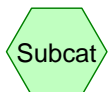
Number of lines: 10

Run Date: 6/27/2014

NOTES: Return period = 25 Yrs. ; *Surcharged (HGL above crown). ; j - Line contains hyd. jump.



DMH D3



2014.06.20 FLOW CALCS

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Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.000		TOTAL AREA

2014.06.20 FLOW CALCS

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Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
0.000		TOTAL AREA

2014.06.20 FLOW CALCS

Type III 24-hr 25-YEAR Rainfall=5.50"

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Time span=0.00-48.00 hrs, dt=0.01 hrs, 4801 points

Runoff by SCS TR-20 method, UH=SCS

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

Pond DMH D3: DMH D3

Peak Elev=13.57' Storage=4,400 cf Inflow=12.44 cfs 49.359 af

Outflow=12.44 cfs 49.258 af

2014.06.20 FLOW CALCS

Type III 24-hr 25-YEAR Rainfall=5.50"

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Summary for Pond DMH D3: DMH D3

Inflow = 12.44 cfs @ 0.00 hrs, Volume= 49.359 af, Incl. 12.44 cfs Base Flow
 Outflow = 12.44 cfs @ 0.25 hrs, Volume= 49.258 af, Atten= 0%, Lag= 15.0 min
 Primary = 12.44 cfs @ 0.25 hrs, Volume= 49.258 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.01 hrs
 Peak Elev= 13.57' @ 0.25 hrs Surf.Area= 2,115 sf Storage= 4,400 cf

Plug-Flow detention time= 6.2 min calculated for 49.243 af (100% of inflow)
 Center-of-Mass det. time= 2.9 min (1,442.9 - 1,440.0)

Volume	Invert	Avail.Storage	Storage Description
#1	10.52'	3,032 cf	44.6"W x 30.0"H x 7.12'L StormTech SC-740 x 66 Inside #2
#2	10.52'	1,748 cf	27.00"W x 78.32"L x 3.50"H Prismatic
			7,401 cf Overall - 3,032 cf Embedded = 4,369 cf x 40.0% Voids
		4,780 cf	Total Available Storage

Device	Routing	Invert	Outlet Devices
#1	Primary	13.02'	10.0' long x 0.5' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=12.44 cfs @ 0.25 hrs HW=13.57' (Free Discharge)
 ↳1=Broad-Crested Rectangular Weir (Weir Controls 12.44 cfs @ 2.26 fps)

APPENDIX 3

STORMTREAT™ SUBSURFACE STORAGE COMPUTATION

STORMTREAT™ ORIFICE DRAWDOWN CALCULATIONS

Zone D Required StormTech Chamber Storage Computation

Weir Wall Height	13.02	EL	
Bottom of Chamber Elevation	10.52	EL	
Total Chamber Height	30	Inches	30 (max chamber height)
Total Storage per chamber	61.38	CF	
Total WQV for Zone D	4,040.00	CF	
Total Chambers Required	65.8	#	
Total Chambers Provided	66	#	
Total Storage Provided	4051.08	CF	

Notes:

1. Height of weirwall based on rational method flow calculations. See sheet "rational method flow computations". Structure D3 in which weir wall is located was modeled using HydroCad. See attached comp

ORIFICE DIAMETER FOR STORMTREAT OUTLET DISCHARGE-ZONE D

Description of Elevation	Elevation	Depth (ft)	Incremental Stage Volume (c.f)	Cumulative Volume (c.f.)	Head (ft)	Orifice Flow (cfs)	**Orifice Flow (gal/min)	Drawdown Time (secs)	Drawdown Time (hours)	*Cumulative Drawdown Time (hours)
Elevation of Overflow Weir	13.02	2.50	564.00	3934.00	2.97	0.0178	8.007	31610.80	8.8	82.4
2.5 ft above the Bottom of Tank	12.50	1.98	663.00	3370.00	2.45	0.0162	7.273	40913.35	11.4	73.6
	12.00	1.48	910.00	2707.00	1.95	0.0145	6.488	62944.62	17.5	62.2
	11.50	0.98	897.00	1797.00	1.45	0.0125	5.595	71952.02	20.0	44.8
	11.00	0.48	900.00	900.00	0.95	0.0101	4.529	89189.81	24.8	24.8
Bottom of Storage	10.52	0.00	0.00	0.00	0.47	0.0071	3.185	0.00	0.0	0.0
Invert of Orifice	10.12									
Bottom of Stormtreat Tank	9.60									

**Target outflow is 2 gal/min per tank
StormTreat Tanks 4 EA
Target Flow at 2.5 FT above bottom of tank 8 GAL/MIN.

$$Q=CA(2gh)^{1/2}$$

Orifice Diameter	0.628	inch
Area	0.0022	sq.ft
Head		feet
g	32.174	ft/s ²
C	0.6	Orifice/Grate

**SUPPLEMENTAL STORMWATER MANAGEMENT REPORT
IN SUPPORT OF AMENDED SUBDIVISION PLAN
(GENERAL STANDARDS)**

**THE FOREFRONT AT THOMPSON'S POINT
PORTLAND, ME**

PREPARED FOR:

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501 DANFORTH STREET
PORTLAND, MAINE 04102
(207) 747-5288**

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OCTOBER 2014

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- Appendix A – Tabulated Summary of Stormwater Management Water Quality Treatment
- Appendix B – Rational Method 25 Year Storm Frequency Peak Flow Computations
- Appendix C – Stormwater Piping Sizing Flow Schematic

SUPPLEMENTAL STORMWATER MANAGEMENT REPORT

1.0 INTRODUCTION

FST was retained by Forefront Partners I, LP for preparation of a City of Portland Subdivision Application for the proposed mixed-use development of Thompson’s Point in Portland, Maine. The proposed Subdivision Plan dated October 10, 2014 is consistent with the March 2014 approved Master Plan; however, includes a few modifications to the overall site plan and consequently the stormwater management system.

Over the course of this project, FST has prepared multiple Stormwater Management Reports in support of the Forefront at Thompson’s Point project. They are summarized in the table below.

Table 1 – Summary of Stormwater Management Reports				
Title	Application Description	Date	Last Revision Date	Approved Date
Stormwater Management Report (General Standards)	Level III Site Plan/Subdivision	March 2012	April 2012	June 2012
Inspection and Maintenance Manual For Stormwater Management and Related Stormwater Facilities	Level III Site Plan/Subdivision	March 2012	April 2012	June 2012
Supplemental Stormwater Management Report (General Standards)	Amended Level III Site Plan/Subdivision	May, 10 2013	May, 10 2013	June 2013
Master Stormwater Management Strategy Schematic	Master Development Plan	October, 2013	January 23, 2014	March 2014
Supplemental Stormwater Management Report for Phase 1A Brick North Level III Site Plan Application (General Standards)	Amended Level III Site Plan/ Phase 1A Sectional Subdivision Plat	June 30, 2014	June 30, 2014	Dec. 4, 2014
Supplemental Stormwater Management Report In Support of Amended Subdivision Plan (General Standards)	Amended Subdivision	October 10, 2014	October 10, 2014	Pending

The development will still include an event center with outside concert space, hotel, restaurant, office, sports medicine facility, surface parking, and a multiple story parking structure. The most significant change from the May 2013 report is the inclusion of approximately 3.3 acres of land currently occupied by Suburban Propane and Northern New England Rail Authority (NNEPRA). The acquisition of this land provides greater flexibility to the site development and has added an element of open green space which reduces the overall amount of impervious area on the site from both the existing conditions and the previously permitted development. Additionally, the acquisition of this land will provide an opportunity to retain and renovate four existing buildings previously scheduled to be razed.

This supplemental report is intended to describe the changes from the May 2013 Site Plan approval and March 2014 approved Master Plan as well as show that the project is still in compliance with the Portland Stormwater Management Standards adopted 7/19/10 and General Stormwater Standards of MeDEP (revised October 2010). Since the original permit approval in 2012, the name of stormwater zones and treatment strategies have changed. This supplemental report will describe the treatment of each stormwater discharge zone and show that the project is still in compliance with the stormwater standards as mentioned above. The intent of the Stormwater Management design, Erosion & Sediment Control, and Inspection and Maintenance Manual have remained the same as approved in June 2012. The overall development area has increased to 23.27 acres of which 21.45 acres are redeveloped area. The development will have a total of 16.40 acres of impervious surfaces of which 14.56 acres are redeveloped impervious area. Revisions to the site plan and how it relates to each Stormwater Management Discharge Zone is outlined below and tabulated in the spreadsheet attached in Appendix A.

2.0 STORMWATER MANAGEMENT REVISIONS

Existing Building Mitigation Credit

As discussed in the April 2012 Stormwater Management Report the current conditions (which existed prior to 2005) consist of a nearly entirely impervious developed project area with a mixed land cover of gravel, pavement, and buildings. As part of the new Forefront site redevelopment shown on the project drawings dated October 2014, four of the existing buildings that were previously scheduled to be razed are now part of a building renovation plan.

This is a major shift from the previously approved stormwater management approach since the change affects the water quality treatment percentage compliance computations two-fold. First, the existing impervious surfaces remaining in place (that existed prior to 1975) which will not be redeveloped, do not need to be included in the total redeveloped area or redeveloped impervious area, thus reducing the total area requiring treatment. The stormwater management strategy presented herein has assumed that 95% of all redeveloped impervious area will need to be treated with a BMP included in the MaineDEP Technical Stormwater Manual. Secondly, MaineDEP Chapter 500 Permits a prorated credit to be applied to existing impervious areas which are treated to meet the water quality treatment standards.

All four of the existing buildings to remain will be tributary to a treatment system as shown on Sheet C-4.1 Overall Stormwater Management Plan. Because of uncertainties with the Suburban Propane Brick Building (Portion of Building H) Redevelopment Plan, only three of the four buildings have been used as credits in the stormwater management treatment computations. The small Suburban Propane Building has been considered redeveloped impervious area in the attached computations. The proposed treatment systems have been sized to treat the full area of existing rooftop.

According to Section 6 of the Maine DEP Chapter 500 Stormwater Rules, projects may claim onsite treatment credits for the treatment of existing impervious surfaces. The rule allows credit for 60 % of existing rooftops that become tributary to treatment. The following table is a breakdown of the rooftop credit applied to this project:

TABLE 2: EXISTING BUILDING ROOF TOP MITIGATION CREDIT					
Existing Building Name	Zone(s)	Treatment Approach	Mitigation Credit	Area (sf)	Total Credit (sf)
Depot Building (Building B1)	A/B	Grassed Soil Filter	0.6	11,120	6,672
Brick North (Building A)	F	Gravel Drip Edge	0.6	34,000	20,400
Brick South (Building C1)	C/F	Storm Treats	0.6	34,464	20,678
Total Credit of Building Treatment Area (SF)					47,750

See the attached water quality treatment summary table for computations incorporating the credits noted above. MaineDEP stipulates that credits can be counted towards total treated impervious area and the building area is not required to be included in the total new developed area.

Zone A – Treatment Approach: Grassed Under Drained Soil Filter

Zone A is comprised of a portion of the existing depot building (Building B1), Buildings B2 and B3, grass/landscaped open space and impervious walkways. The proposed developed area will be constructed in a previously developed area with a compacted gravel impervious surface. A portion of Zone A that will be redeveloped as primarily grass area for concert viewing will go untreated. The treated portion of Zone A includes buildings B2, B3 and part of the retrofitted depot building. The treatment approach for Zone A is the utilization of a grassed under drained soil filter:

Underdrained soil filters are required to treat 1” of the total impervious area and .4” of total pervious area tributary to the system.

For the area tributary to the treatment filter in this zone the required water quality volume is calculated to be:

Total Pervious Area = 12,295 sf
 Total Impervious Area = 18,518 sf
 Water Quality Volume = $(12,295 * 0.4 / 12) + (18,518 * 1 / 12) = 1,953$ CF

According to MaineDEP Best Management Practices Under Drained Soil Filters must have a minimum surface area of 5% of total impervious area + 2% of total pervious area.

Total Required Surface Filter Surface Area for Zone A = $12,295 * .02 + 18,518 * .05 = 1,172$ SF

MaineDEP rules state that soil filters shall have a maximum ponding depth of 1.5’. Based on this, the required surface for the filter must be at least the:

Water Quality Volume/Maximum Ponding Depth = $1,953 \text{ (cf)} / 1.5' = 1,302$ SF

The Total provided filter area for Zone A is 1,500 SF.

The Underdrain Soil Filter criterion has been met.

Therefore, water quality goals for Water Quality Zone A meet the General Stormwater Standards of the November 2005 Chapter 500 Rules of MeDEP (rev. October 2010).

Zones C, D and F- Treatment Approach: StormTreat™ Treatment Units

The StormTreat™ treatment units have been designed to treat Zones C, D, and F. For Zones D and F the StormTreat™ system is the primary method of treatment however; they have been supplemented with treatment measures such as Tree Box Filters, Stone Drip Edge with gravel filter and rain gardens, as discussed later in this report, to treat smaller isolated portions of the sub catchments.

To meet Chapter 500, the Water Quality Volume provided with-in a StormTreat™ System must be equal to or greater than the following:

$1''/12 \times \text{impervious area} + 0.4''/12 \times \text{landscaped area} = \text{Water Quality Volume (cubic feet)}$

Computations of the water quality volume for Zones C, D, and F are appended in Appendix A.

The water quality volume is provided in a subsurface arched chambers storage system.

Based on the revisions made to Chapter 7 of the MaineDEP Best Stormwater Practices in October 2010 the StormTreat™ treatment units shall be sized to treat the entire water quality volume in 24 to 72 hours at a discharge rate of approximately 2 gpm per tank. The system must have at least one StormTreat™ tank per 1,155 cubic feet of water quality volume.

Zone C required 5 tanks, Zone D requires 9 tanks and Zone F requires 7 tanks for a total of 21 tanks for the entire project working in parallel to meet this criterion. The full computations are appended in Appendix A.

Discharge from larger storm events are controlled over a broad crested weir housed in a precast concrete outlet control structure set above the water quality volume. The overflow piping network is sized to handle runoff from a 25-year storm event. A rain event exceeding the storm drainage network would flood the catch basin inlet, into the parking lot and over the curb line to the river.

Pretreatment for flow entering from all inlet pipes to the storage area will be provided via the installation of a StormTech® Isolator row(s).

Therefore, water quality goals for the StormTreat™ Proprietary Systems meet the General Stormwater Standards of the November 2005 Chapter 500 Rules of MeDEP (rev. October 2010).

Zone B and D Treatment Approach: Tree Box or Box less Filterra's

The Filterra® system has been designed to treat subcatchments in zone's B, D and H.

To meet Chapter 500, the tree box filter size is required to be sized based on the tributary area as stated in the following table:

Filtterra® Model Number	Area in Acres
4x6 or 6x4	0.32
4x8 or 8x4	0.42
6x6	0.47
6x8 or 8x6	0.64
6x10 or 10x6	0.79
6x12 or 12x6	0.95
7x13 or 13x7	1.20

Filtterra® ID Number	Tributary Area (ac)	Filtterra® Model Number Selected
H-202	0.39	4X8
B-401	1.15	13X7
B-402	0.17	4X6
B-403	0.61	6X8
D-601	0.48	6X8
D-602	0.31	4X6
D-603	0.07	4X6
D-604	0.13	4X6
D-20-21	0.58	6X8
D-18	0.22	4X6
D-19	0.19	4X6
D-12	0.26	4X6

Zone D Treatment Approach: Rain Garden (Bio Retention Cell)

Rain Gardens are required to treat 1” of the total impervious area and .4” of total pervious area tributary to the system.

For this zone, the required water quality volume is calculated to be:

Total Pervious Area = 10,428 sf
 Total Impervious Area = 10,264 sf
 Water quality volume = $(10,428 * 0.4 / 12) + (10,264 * 1 / 12) = 1,203$ CF

According to MaineDEP Best Management Practices Bio Retention Cells must have a minimum surface area of 7% of total impervious area + 3% of total pervious area.

Total Required Surface Filter Surface Area for Zone D = $10,428 * .03 + 10,264 * .07 = 1,031$ SF

The Total provided filter area for Zone D is 1,500 SF.

The Rain Garden criterion has been met.

Therefore, water quality goals for the Rain Garden Bio Retention Cells meet the General Stormwater Standards of the November 2005 Chapter 500 Rules of MeDEP (rev. October 2010).

Zone E Treatment Approach: StormFilter® Treatment Units by CONTECH

StormFilter® Treatment Units have been designed for treatment of Zone E which includes Building D1 and a large parking area.

Sizing guidelines for Storm Filter systems required 10 18” Tall cartridges per acre of tributary area.

Cartridges required for Zone E:

Total Trib. Area = 1.41 Acres * 10 Carts/acre= 14.1 Cartridges.

15 18” Tall Cartridges have been provided in the design to meet the Chapter 500 Standards.

Upstream water quality volume subsurface storage is also required to ensure that the entire water quality volume of 1” x impervious area + .4” of pervious area be treated by the system.

Zone F Treatment Approach: Gravel Drip Edge

Building A (Brick North) will remain and undergo renovation for mixed-uses such as office, studio and other. The Brick North and Brick South Buildings were constructed prior to 1975 and therefore not subject to the MeDEP Chapter 500 treatment regulations. However, as stipulated in Section 6 of the Chapter 500 Stormwater Manual the applicant is proposing the use of mitigation credit at a rate of 60% of the total rooftop area treated to offset an untreated parking lot to the south of the Brick North Building.

The applicant has elected to install a stone drip edge with gravel filter to treat the runoff from the existing roof. The roof is pitched down the center, splitting the building on its east-west axis; therefore, the drip edge treatment is proposed on the north and south sides of the building as shown on the Phase 1A Brick North Design drawings. The stone reservoir is 6 ft. wide by 2.48 ft. thick as shown in the attached computations. The stone reservoir has been sized to store the water quality volume computed to be 1” of runoff from the rooftop area.

Zone H Treatment Approach: Underdrained Subsurface Sand Filter:

The underdrained subsurface sand filter has been designed to treat Zone H.

To meet Chapter 500, Channel Protection Volume provided must be equal to or greater than the following:

1” x impervious area plus 0.4” x landscaped area

Tributary Impervious Area = 3.45 ac.
 Tributary Pervious Area = 0.40 ac.

1” x 3.45 ac =	12,511 cf
0.4” x 0.40 =	574 cf
Total	13,085 cf

Based on the revisions made to Chapter 7 of the MeDEP Best Stormwater Practices in April 2007, the surface area of the water quality filter must be no less than the sum of 5% of the impervious area and 2% of the landscaped area draining to the filter.

Surface Area Required:

5% of impervious area	= 0.05 x 3.45 ac.	= 7,514 s.f.
2% of landscaped area	= 0.02 x 0.40 ac.	= 349 s.f.
	Total	= 7,863 s.f.

Surface Area Provided:

7,930 s.f.

This criteria has been met.

The discharge must pass through a soil filter; the maximum outlet pipe shall be 8”.

3.0 CONCLUSION

The stormwater management strategy for the Subdivision Plan presented herein provides treatment for 18.14 acres of 21.45 acres of total redeveloped area, thus treating 84.5 % of redeveloped area.

The development will have a total of 16.40 acres of impervious surfaces of which 14.56 acres are redeveloped impervious area. The proposed strategy treats 12.88 acres of redeveloped impervious area plus 1.83 acres of existing buildings. After applying the treatment credit adjustment for treating existing impervious area, the overall storm water treatment strategy will treat 95.94% of redeveloped impervious area created by the project. The storm water management plan created for the subdivision application herein meets or exceeds the City of Portland Stormwater Management Requirements. See Appendix A for full water quality calculations.

4.0 APPENDICES

Appendix A – Tabulated Summary of Stormwater Management Water Quality Treatment

Appendix B – Rational Method 25 Year Storm Frequency Peak Flow Computations

Appendix C – Stormwater Piping Sizing Flow Schematic

APPENDIX A

**TABULATED SUMMARY OF
STORMWATER MANAGEMENT CHANGES**

Summary of Water Quality Treatment

Storm Water Management Zone	Inlet Subcatchment	Total Developed Area (sf)	Total Impervious Area (sf)	Total Pervious Area (sf)	Total New Developed Area (Acres)	Required Water Quality Volume (cf) ²	Existing Roof Mitigation Credit (sf) ⁹	Treatment Approach	Required Water Quality Filter Surface Area (sf) (When applicable) ¹⁰	Required Surface Area Volume controlled by Maximum Pond Depth	Tree Box Filter Size or Provided Filter Size	1 Yr 24-hr Storm Event Peak Flow Rate (cfs) ³	Stormtech Isolator Row Chambers Required (EA) ⁴	Stormtreat Units Required (EA) or StormFilters (EA) (Where Applicable) ^{5,11}	Stormtreat Units/Storm Filter Units Provided (EA)	Provided Water Quality Volume (cf) ^{4,7}	
Zone A	301	23,093.00	10,798.00	12,295.00	0.53	1,310	0	UD Grass Filter	786	873	900	-	-	-	-	1,350	
	Sub-Total Zone A New Treated Area	23,093.00	10,798.00	12,295.00	0.53	1309.67	0.00	-	785.80	873.11	-	-	-	-	-	-	
	Existing Depot Building*	7,720.00	7,720.00	0.00	0.18	643	4,632	UD Grass Filter	386	429	600	-	-	-	-	900	
	Sub-Total Zone A Existing Treated Roof Area	7,720.00	7,720.00	0.00	0.18	643.33	4632.00	-	386.00	428.89	-	-	-	-	-	-	
	302	27,818.00	5,591.00	22,227.00	0.64	-	-	Untreated	-	-	-	-	-	-	-	-	
	Zone A New Untreated Area-Perimeter Grades	14,729.00	0.00	14,729.00	0.34	-	-	Untreated	-	-	-	-	-	-	-	-	
	Sub-Total Zone A Untreated Areas	42,547.00	5,591.00	36,956.00	0.98	-	-	-	-	-	-	-	-	-	-	-	-
	Zone A Total Area Discharge	73,360.00	24,109.00	49,251.00	1.68	1953.00	4632.00	-	1171.80	1302.00	-	-	-	0	0.00	-	2,250
Zone B	401	46,664.00	17,081.00	29,583.00	1.07	2,410	0	Boxless Filtera	-	-	13x7'	1.17	-	-	-	-	
	402	7,588.00	6,241.00	1,347.00	0.17	565	0	Boxless Filtera	-	-	4x6'	0.42	-	-	-	-	
	403	26,630.00	9,865.00	16,765.00	0.61	1,381	0	Boxless Filtera	-	-	6x8	0.73	-	-	-	-	
	Sub-Total Zone B New Treated Area	80,882.00	33,187.00	47,695.00	1.86	4355.42	0.00	-	-	-	-	-	-	-	-	-	
	Existing Depot Building* (trib to 401)	3,400.00	3,400.00	0.00	0.08	283	2,040	Boxless Filtera	-	-	see 401	0.21	-	-	-	-	
	Sub-Total Zone B Existing Treated Roof Area	3,400.00	3,400.00	0.00	0.08	283.33	2040.00	-	-	-	-	0.21	-	-	-	-	
	Zone B New Untreated Area-Perimeter Grades	9,443.00	0.00	9,443.00	0.22	-	0	Untreated	-	-	-	-	-	-	-	-	
	Zone B Total Area Discharge	93,725.00	36,587.00	57,138.00	2.15	4638.75	2040.00	-	-	-	-	-	-	-	-	-	
Zone C	501	11,805.00	11,805.00	0.00	0.27	984	0	Stormtreat	-	-	-	0.72	3.60	0.85	5	5,738	
	502	7,523.00	7,523.00	0.00	0.17	627	0	Stormtreat	-	-	-	0.46	2.30	0.54			
	503	31,390.00	31,390.00	0.00	0.72	2,616	0	Stormtreat	-	-	-	1.92	9.58	2.26			
	Sub-Total Zone C New Treated Area	50,718.00	50,718.00	0.00	1.16	4226.50	0.00	-	-	-	-	-	15.49	3.66			
	South Side Brick South (C1)*	18,141.00	18,141.00	0.00	0.42	1,512	10,885	Storm Treat	-	-	-	1.11	5.54	1.31			
	Sub-Total Zone C Existing Treated Roof Area*	18,141.00	18,141.00	0.00	0.42	1511.75	10884.60	-	-	-	-	N/A	5.54	1.31			
	Zone C New Untreated Area-Perimeter Grades	0.00	0.00	0.00	0.00	0	0	Untreated	-	-	-	0.00	0.00	0.00	-	-	
	Zone C Total Treated Area Discharge	68,859.00	68,859.00	0.00	1.58	5738.25	10884.60	-	-	-	-	-	21.02	4.97	5	5,738	
Zone D	601	21,057.00	11,803.00	9,254.00	0.48	1,292	0	Filterra	48	48	6x8'	0.81	4.04	-	-	-	
	602	13,308.00	7,527.00	5,781.00	0.31	820	0	Boxless Filtera	24	24	4x6'	0.55	2.73	-	-	-	
	603	3,244.00	1,359.00	1,885.00	0.07	176	0	Filterra	24	24	4x6'	N/A	N/A	-	-	-	
	604	5,691.00	3,131.00	2,560.00	0.13	346	0	Filterra	24	24	4x6'	N/A	N/A	-	-	-	
	D-21	9,052.00	8,280.00	772.00	0.21	716	0	Filterra	60	60	6x8'	0.52	2.61	-	-	-	
	D-20	16,178.00	12,517.00	3,661.00	0.37	1,165	0	Filterra				0.81	4.05	-	-	-	
	D-18	9,604.00	5,763.00	3,841.00	0.22	608	0	Filterra	24	24	4x6'	0.43	2.16	-	-	-	
	D-19	8,103.00	6,430.00	1,673.00	0.19	592	0	Filterra	24	24	4x6'	0.43	2.17	-	-	-	
	D-11	18,614.00	13,989.00	4,625.00	0.43	1,320	0	StormTreat	-	-	-	0.90	4.52	1.14	-	-	
	D-16	14,498.00	12,267.00	2,231.00	0.33	1,097	0	StormTreat	-	-	-	0.78	3.90	0.95	-	-	
	D-12	11,149.00	4,926.00	6,223.00	0.26	618	0	Filterra	24	24	4x6'	0.41	0.00	0.00	-	-	
	D-13	8,299.00	2,563.00	5,736.00	0.19	405	0	StormTreat	-	-	-	0.29	1.47	0.35	-	-	
	606	77,903.00	77,903.00	0.00	1.79	6,492	0	Stormtreat	N/A	-	-	4.76	23.79	5.62	-	-	
	607	11,831.00	11,831.00	0.00	0.27	986	0	Stormtreat	N/A	-	-	0.72	3.61	0.85	-	-	
	608	20,692.00	10,264.00	10,428.00	0.48	1,203	0	Rain Garden	1,031	-	1,500	-	N/A	N/A	-	-	
	Sub-Total Zone D New Treated Area	249,223.00	190,553.00	58,670.00	5.72	17835.08	0.00	-	1283.32	-	-	-	55.06	8.92	9	10,300	
	Zone D New Untreated Area - Perimeter Grades	7,580.00	0.00	7,580.00	0.17	-	-	None	-	-	-	-	-	-	-	-	-
	605	7,186.00	4,988.00	2,198.00	0.16	-	-	None	-	-	-	-	-	-	-	-	-
	609	8,000.00	5,752.00	2,248.00	0.18	-	-	None	-	-	-	-	-	-	-	-	-
	Sub-Total Zone D Untreated Area	22,766.00	10,740.00	12,026.00	0.52	-	-	-	-	-	-	-	-	-	-	-	-
Zone D Total Treated Area Discharge	271,989.00	201,293.00	70,696.00	6.24	17835.08	0.00	-	-	-	-	-	-	55.06	8.92	9	-	

Zone E	801	47,912.00	33,272.00	14,640.00	1.10	3,261	-	Storm Filter	-	-	-	-	-	11.00	11	-	
	802	13,445.00	13,445.00	0.00	0.31	1,120	-	Storm Filter	-	-	-	-	-	3.09	4	-	
	Sub-Total Zone E New Treated Area	61,357.00	46,717.00	14,640.00	1.41	4381.08	-	-	-	-	-	-	-	14.09	15	-	
	Zone E New Untreated Area-Perimeter Grades	7,123.00	0.00	7,123.00	0.16	-	-	None	-	-	-	-	-	-	-	-	-
	Zone E Total Area Discharge	68,480.00	46,717.00	21,763.00	1.57	4,381	0	-	-	-	-	-	-	14.09	15	-	
Zone F	701	19,005.00	9,599.00	9,406.00	0.44	1,113	0	Storm Treats	-	-	-	0.69	3.43	0.96	6	6240	
	702	7,244.00	7,244.00	0.00	0.17	604	0	Storm Treats	-	-	-	0.44	2.21	0.52			
	CB F-8	3,323.00	2,515.00	808.00	0.08	237	0	Storm Treats	-	-	-	0.20	1.01	0.20			
	CB F-7	17,327.00	13,385.00	3,942.00	0.40	1,247	0	Storm Treats	-	-	-	0.86	4.31	1.08			
	CB F-3	3,548.00	186.00	3,362.00	0.08	128	0	Storm Treats	-	-	-	0.20	1.00	0.11			
	CB F-4	1,039.00	256.00	783.00	0.02	47	0	Storm Treats	-	-	-	0.17	0.83	0.04			
	CB F-5	4,131.00	256.00	3,875.00	0.09	151	0	Storm Treats	-	-	-	0.20	1.02	0.13			
	CB F-6	2,102.00	348.00	1,754.00	0.05	87	0	Storm Treats	-	-	-	0.19	0.94	0.08			
	703	9,136.00	6,623.00	2,513.00	0.21	636	0	Storm Treats	-	-	-	0.46	2.30	0.55			
	704	6,653.00	2,910.00	3,743.00	0.15	367	0	Storm Treats	-	-	-	0.29	1.45	0.32			
	705	19,473.00	19,473.00	0.00	0.45	1,623	0	Storm Treats	-	-	-	1.19	5.95	1.40			
	Sub-Total Zone F New Treated Area	92,981.00	62,795.00	30,186.00		6239.12	0.00	-	-	-	-	-	24.45	5.40	6	6240	
	Brick South North Side*	16,323.00	16,323.00	0.00	0.37	1,360	9,794	Storm Treats	-	-	-	1.00	4.98	1.18	1	1360	
	Brick North (Treated)*	34,000.00	34,000.00	0.00	0.78	2,833	20,400	Gravel Drip Strip	-	-	-	-	0.00	-	-	2,920	
	Sub-Total Zone F Existing Treated Roof Area	50,323.00	50,323.00	0.00	1.16	4193.58	30193.80	-	-	-	-	-	4.98	1.18	1	4,280.00	
Zone F New Untreated Area - Perimeter Grades	8,725.00	0.00	8,725.00	0.20	-	0	None	-	-	-	-	NA	NA	-	-		
Zone F Total Area Discharge	152,029.00	113,118.00	38,911.00	1.36	10,433	30,194	-	-	-	-	-	29.43	6.58	7	10,520		
Zone G	Sub-Total Zone G New Treated Area	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	0.00	0.00	0.00	-	-	
	901	2,025.00	2,025.00	0.00	0.05	-	0	Untreated	-	-	-	-	-	-	-	-	
	902	3,222.00	3,222.00	0.00	0.07	-	0	Untreated	-	-	-	-	-	-	-	-	
	903	9,906.00	9,906.00	0.00	0.23	-	0	Untreated	-	-	-	-	-	-	-	-	
	904	6,904.00	5,865.00	1,039.00	0.16	-	0	Untreated	-	-	-	-	-	-	-	-	
	905	42,624.00	34,000.00	8,624.00	0.98	-	0	Untreated	-	-	-	-	-	-	-	-	
	Sub-Total Zone G New Untreated Area	64,681.00	55,018.00	9,663.00	1.48	-	0	-	-	-	-	-	-	-	-	-	
Zone G Total Area Discharge	64,681.00	55,018.00	9,663.00	1.48	-	0.00	-	-	-	-	-	-	-	-	-		
Zone H (Panhandle)	200	94,355.00	81,191.00	13,164.00	2.17	7,205	0	Subsurface Sand Filter	4,323	-	4,400	4.99	24.9	-	-	-	
	201	72,966.00	68,924.00	4,042.00	1.68	5,878	0	Subsurface Sand Filter	3,527	-	3,530	4.22	21.1	-	-	-	
	202	16,863.00	16,013.00	850.00	0.39	1,363	0	Boxless Filtera	32	-	4'x8'	-	-	-	-	-	
	Sub-Total Zone H New Treated Area	184,184.00	166,128.00	18,056.00	4.23	14445.87	0.00	-	7881.87	-	-	-	46.0	-	-	-	
	Zone H New Untreated Area - Perimeter Grades	36,487.00	2,174.00	34,313.00	0.84	1,325	0	Untreated	-	-	-	-	N/A	-	-	-	
Zone H Total Area Discharge	220,671.00	168,302.00	52,369.00	5.07	14445.87	0.00	-	-	-	-	-	46.0	-	-	-		

Developed Area Breakdown	
A.) Total New Developed Area Treated (SF)	742,438.00
B.) Total New Developed Area untreated (SF)	191,772.00
C.) Total New Developed Area (SF) = A+B	934,210.00
D.) Existing Developed Roof Area Treated (SF)	79,584.00
E.) Adjusted Existing Developed Area Treated (SF)	47,750.4
F.) Total Net Developed Area Treated (SF) = A+E	790,188.40
Impervious Area Breakdown	
G.) Total New Impervious Area Treated (SF)	560,896.00
H.) Total New Impervious Area untreated (SF)	73,523.00
I.) Total New Impervious Area (SF) = G+H	634,419.00
J.) Existing Impervious Roof Area Treated (SF)	79,584.00
K.) Adjusted Existing Impervious Area Treated (SF)	47,750.40
L.) Total Net Impervious Area Treated (SF) = G+K	608,646.40

Treatment Breakdown	Required	Provided
% of Net Developed Area Treated = F/C	80.00%	84.58%
% of Net Impervious Area Treated = L/I	95.00%	95.94%

- All areas are based on the FST sub division drawings dated September 2014
- The required water quality volumes have been computed based on Sections 7.4, 7.5 and 7.6 of the Maine DEP Volume III BMP's Technical Design Manual. The volume is computed to be 1" times the subcatchments impervious area and 0.4" times the subcatchments vegetated area. Existing buildings to remain are not required to be treated.
- The 1 year peak flow rates have been computed using the rational method. The rainfall intensities are derived from the Cumberland County IDF curve.
- Subsurface storage system sizing is based on a Stormtech SC-740 chamber system. All isolator rows have been computed per section 7.3.3 Pretreatment Isolator Row of the Maine DEP Volume III BMP's Technical Manual. One chamber is required for each 0.2 cfs of the computed tributary 1 year peak flow rate.
- The required number of Stormtreat treatment units have been computed based on Section 7.4 of the Maine DEP Volume III BMP's Technical Design Manual. The number of units is computed to be the water quality volume divided by 1155 cubic feet and always rounded up.
- The owner reserves the right to use an alternate tree box filter device provided it has been approved by the Maine DEP Chapter 500 delegated review authority of the City of Portland.
- Provided Water Quality Volume for stormtreat storage system computed using 61.38 CF of storage per chamber based on Storm Tech Chamber Design Manual
- The Stone Drip Edge was based on section 7.6 of the Maine DEP Volume III BMP's Technical Design Manual. The Width of stone is derived from a required WQV based off 1" of runoff and a desired stone resevoir depth. See sizing computations on separate sheet.
- According to Chapter 500 Maine DEP stormwater rules; the department allows applicants to take credit for the treatment of existing impervious areas on site. For existing roofs the credit can be calculated by multiplying the total treated area by 0.6.
- The required surface area for filter treatment system has been sized based on Sections, 7.1, 7.2 and 7.3 of the Maine DEP Volume III BMP's Technical Design Manual. Surface area for Grassed Underdrain Soil Filters and sub-surface sand filters can be computer by taking .05 of the impervious area + .02 of the pervious area, while Bio Retention Cells (Rain Garden can be computer by taking .07 of the impervious area + .03 of the pervious area.
- The MEDEP will now accept a Filterra tree box filter as a stand alone treatment unit and does not require an Isolator Row for eligible projects. This project meets the eligibility criteria noted in a letter dated June 27th, 2014 from the MEDEP

APPENDIX B

**RATIONAL METHOD 25 YEAR STORM
FREQUENCY PEAK FLOW COMPUTATIONS**

THE FOREFRONT AT THOMPSON'S POINT
 RATIONAL METHOD 25 YEAR FLOW CALCULATIONS

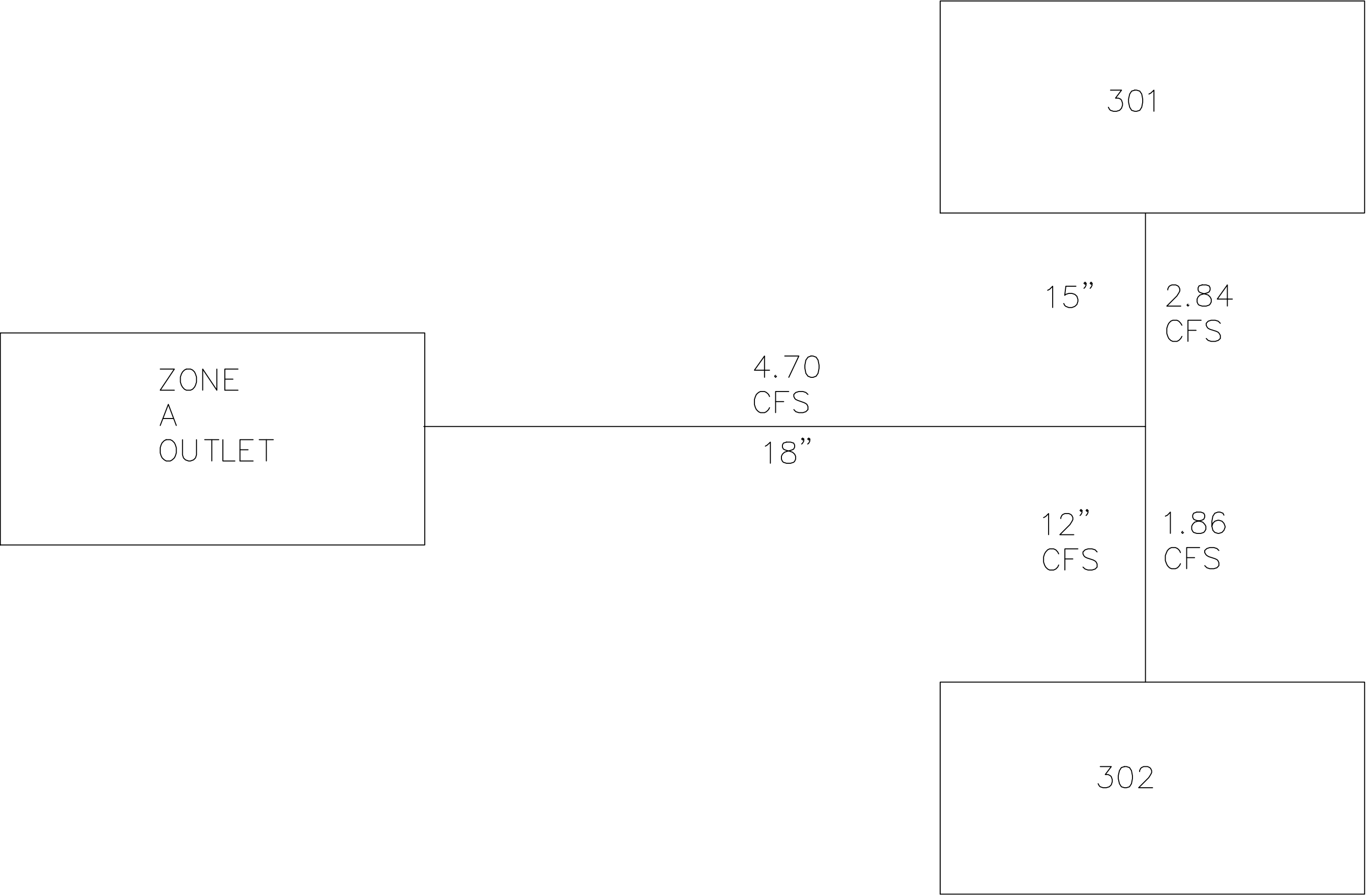
Storm Water Management Zone	Area Trib To Discharge	Total Developed Area (sf)	Total Impervious Area (sf)	Total Pervious Area (sf)	Total Area (acres)	Weighted C	25 Year Flow (CFS)
Zone A	301	23,093.00	10,798.00	12,295.00	0.53	0.55	1.82
	302	27,818.00	5,591.00	22,227.00	0.64	0.35	1.40
	Existing Depot Building*	10,860.00	10,860.00	0.00	0.25	0.95	1.48
	Totals	61,771.00	27,249.00	34,522.00	1.42	1.85	4.70
Zone B	401	46,664.00	17,081.00	29,583.00	1.07	0.47	3.18
	402	7,588.00	6,241.00	1,347.00	0.17	0.82	0.89
	403	26,630.00	9,865.00	16,765.00	0.61	0.48	1.83
	Existing Depot Building* (trib to 401)	3,400.00	3,400.00	0.00	0.08	0.95	0.46
Totals	84,282.00	36,587.00	47,695.00	1.93	2.72	6.36	
Zone C	501	11,805.00	11,805.00	0.00	0.27	0.95	1.61
	502	7,523.00	7,523.00	0.00	0.17	0.95	1.03
	503	31,390.00	31,390.00	0.00	0.72	0.95	4.28
	South Side Brick South (C1)*	18,141.00	18,141.00	0.00	0.42	0.95	2.47
Totals	68,859.00	68,859.00	0.00	1.58	3.80	9.39	
Zone D	601	21,057.00	11,803.00	9,254.00	0.48	0.62	1.87
	602	13,308.00	7,527.00	5,781.00	0.31	0.62	1.19
	603	3,244.00	1,359.00	1,885.00	0.07	0.51	0.24
	604	5,691.00	3,131.00	2,560.00	0.13	0.61	0.50
	605	7,186.00	4,988.00	2,198.00	0.16	0.72	0.74
	D-21	9,052.00	8,280.00	772.00	0.21	0.89	1.15
	D-20	16,178.00	12,517.00	3,661.00	0.37	0.78	1.81
	D-18	9,604.00	5,763.00	3,841.00	0.22	0.65	0.90
	D-19	8,103.00	6,430.00	1,673.00	0.19	0.80	0.92
	D-11	18,614.00	13,989.00	4,625.00	0.43	0.76	2.04
	D-16	14,498.00	12,267.00	2,231.00	0.33	0.83	1.74
	D-12	11,149.00	4,926.00	6,223.00	0.26	0.53	0.85
	D-13	8,299.00	2,563.00	5,736.00	0.19	0.43	0.51
	606	77,903.00	77,903.00	0.00	1.79	0.95	10.62
607	11,831.00	11,831.00	0.00	0.27	0.95	1.61	
608	20,692.00	10,264.00	10,428.00	0.48	0.57	1.70	
609	8,000.00	5,752.00	2,248.00	0.18	0.74	0.85	
Totals	256,409.00	195,541.00	60,868.00	5.89	11.24	29.25	
Zone E	801	47,912.00	33,272.00	14,640.00	1.10	0.72	4.96
	802	13,445.00	13,445.00	0.00	0.31	0.95	1.83
	Totals	61,357.00	46,717.00	14,640.00	1.41	1.67	6.79
Zone F	701	19,005.00	9,599.00	9,406.00	0.44	0.58	1.58
	702	7,244.00	7,244.00	0.00	0.17	0.95	0.99
	CB F-8	3,323.00	2,515.00	808.00	0.08	0.77	0.37
	CB F-7	17,327.00	13,385.00	3,942.00	0.40	0.78	1.94
	CB F-3	3,548.00	186.00	3,362.00	0.08	0.24	0.12
	CB F-4	1,039.00	256.00	783.00	0.02	0.38	0.06
	CB F-5	4,131.00	256.00	3,875.00	0.09	0.25	0.15
	CB F-6	2,102.00	348.00	1,754.00	0.05	0.32	0.10
	703	9,136.00	6,623.00	2,513.00	0.21	0.74	0.97
	704	6,653.00	2,910.00	3,743.00	0.15	0.53	0.50
	705	19,473.00	19,473.00	0.00	0.45	0.95	2.65
	Brick South North Side*	16,323.00	16,323.00	0.00	0.37	0.95	2.22
	Brick North (Treated)*	34,000.00	34,000.00	0.00	0.78	0.95	4.63
Totals	143,304.00	113,118.00	30,186.00	3.29	8.39	16.28	
Zone G	901	2,025.00	2,025.00	0.00	0.05	0.95	0.28
	902	3,222.00	3,222.00	0.00	0.07	0.95	0.44
	903	9,906.00	9,906.00	0.00	0.23	0.95	1.35
	904	6,904.00	5,865.00	1,039.00	0.16	0.84	0.83
	905	42,624.00	34,000.00	8,624.00	0.98	0.80	4.88
Totals	64,681.00	55,018.00	9,663.00	1.48	4.49	7.78	
Zone H	200	94,355.00	81,191.00	13,164.00	2.17	0.85	11.44
	201	72,966.00	68,924.00	4,042.00	1.68	0.91	9.51
	202	16,863.00	16,013.00	850.00	0.39	0.91	2.21
	Totals	184,184.00	166,128.00	18,056.00	4.23	2.67	23.16

Assumptions	
Pervious C	0.2
Impervious C	0.95
I-25 Year Storm	6.25 In/Hr
RATIONAL FLOW = I*C*A	
Notes:	
1. Rainfall intensity based on Cumberland County IDF curve using a TC of 5 min.	

APPENDIX C

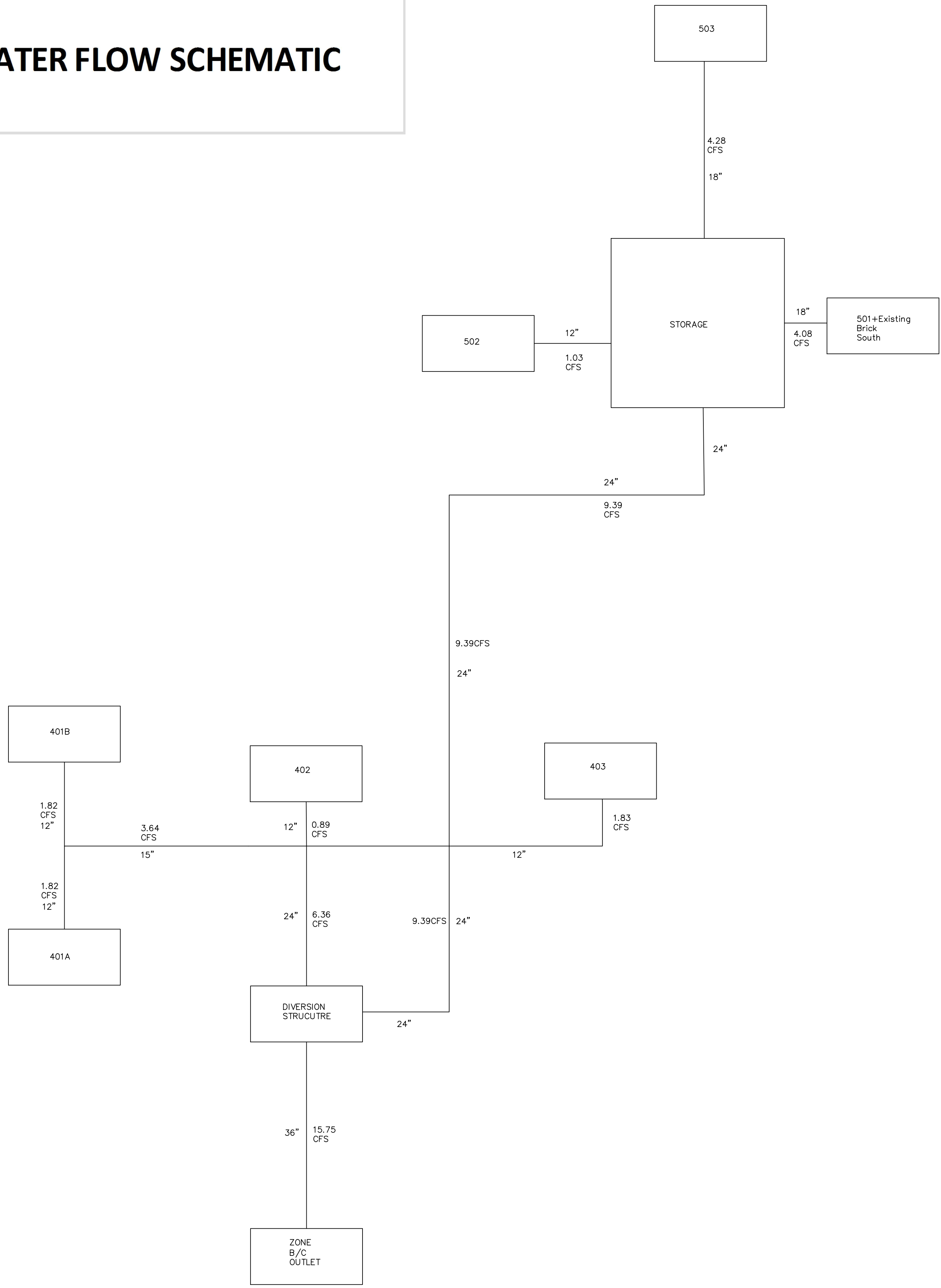
STORMWATER PIPING SIZING FLOW SCHEMATIC

ZONE A STORM WATER FLOW SCHEMATIC



Pipe Size (IN)	Slope (FT/FT)	Velocity (FT/Sec)	Full Flow Capacity** (CFS)
12"	0.0038	3	2.38
15"	0.0028	3	3.7
18"	0.0022	3	5.33
24"	0.0015	3	9.49
36"	0.0009	3	21.67
** Based on Mannings equation for full flowing pipes			
Pipe Sizes in Zone A Sized based on min. slope			

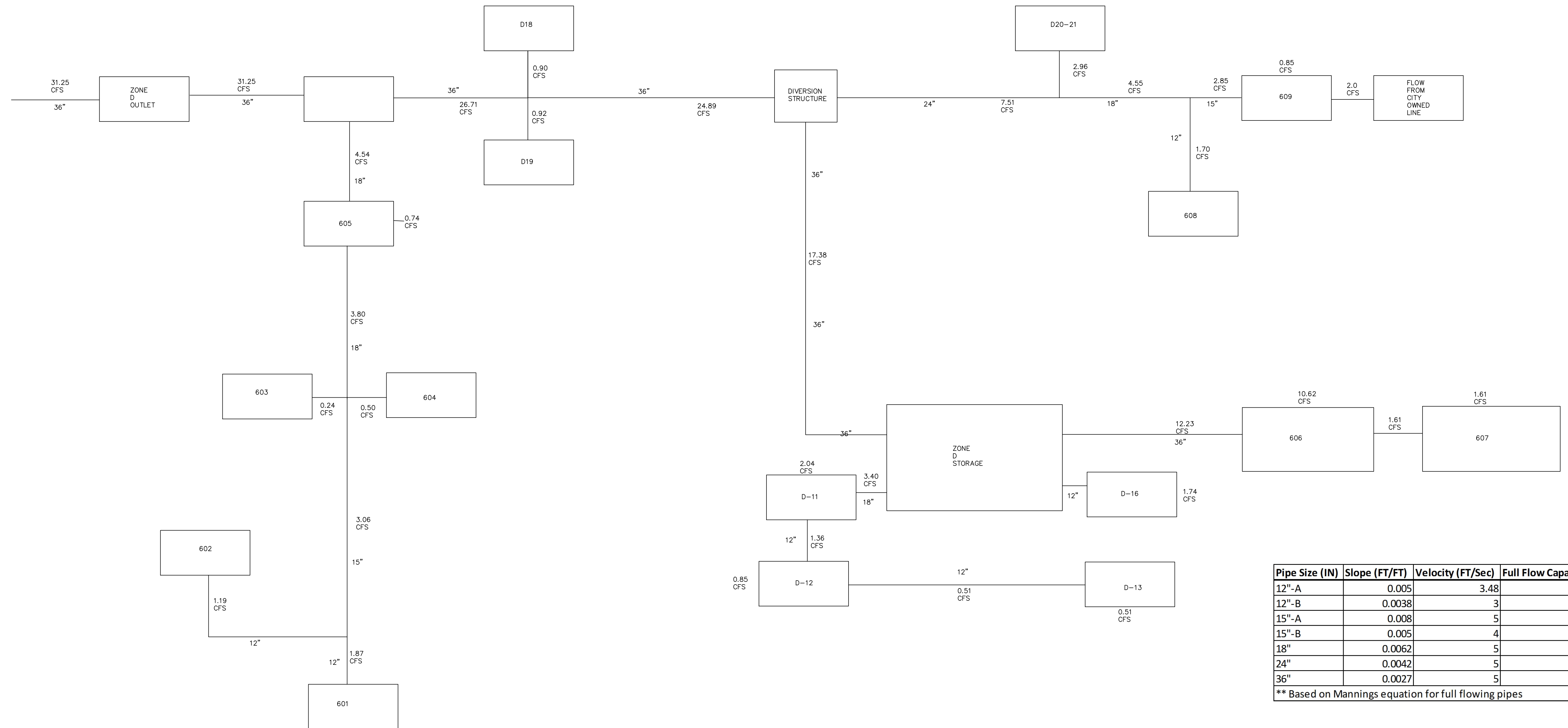
ZONE B/C STORM WATER FLOW SCHEMATIC



Pipe Size (IN)	Slope (FT/FT)	Velocity (FT/Sec)	Full Flow Capacity** (CFS)
12"-	0.0038	3	2.38
15"-	0.0028	3	3.7
18"	0.0022	3	5.33
24"	0.0015	3	9.49
36"	0.0009	3	21.67

** Based on Mannings equation for full flowing pipes
Pipe Sizes in Zones B/C Sized based on min. slope

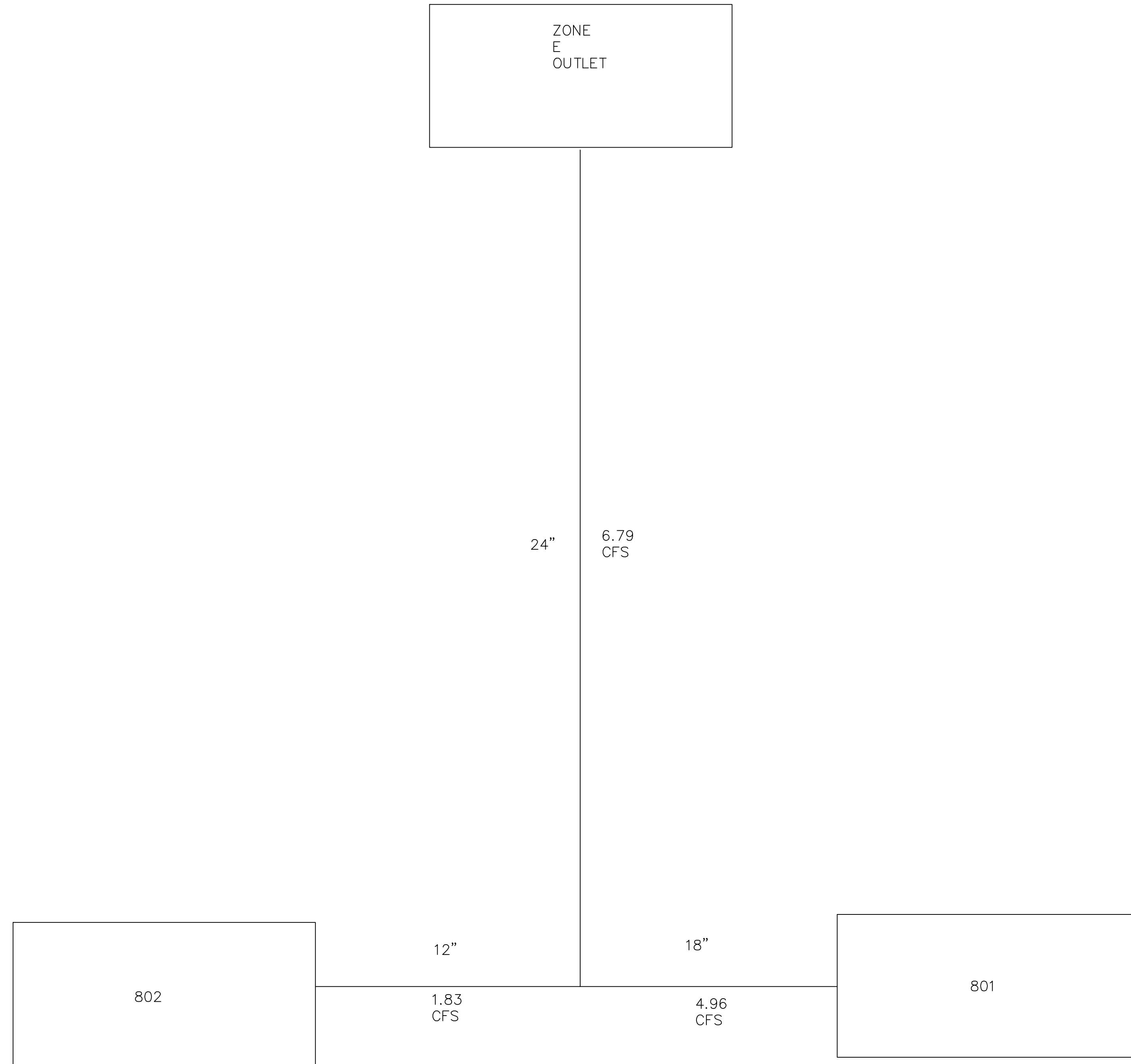
ZONE D STORM WATER FLOW SCHEMATIC



Pipe Size (IN)	Slope (FT/FT)	Velocity (FT/Sec)	Full Flow Capacity** (CFS)
12"-A	0.005	3.48	2.73
12"-B	0.0038	3	2.38
15"-A	0.008	5	6.26
15"-B	0.005	4	4.95
18"	0.0062	5	8.96
24"	0.0042	5	15.93
36"	0.0027	5	37.54

** Based on Mannings equation for full flowing pipes

ZONE E STORM WATER FLOW SCHEMATIC

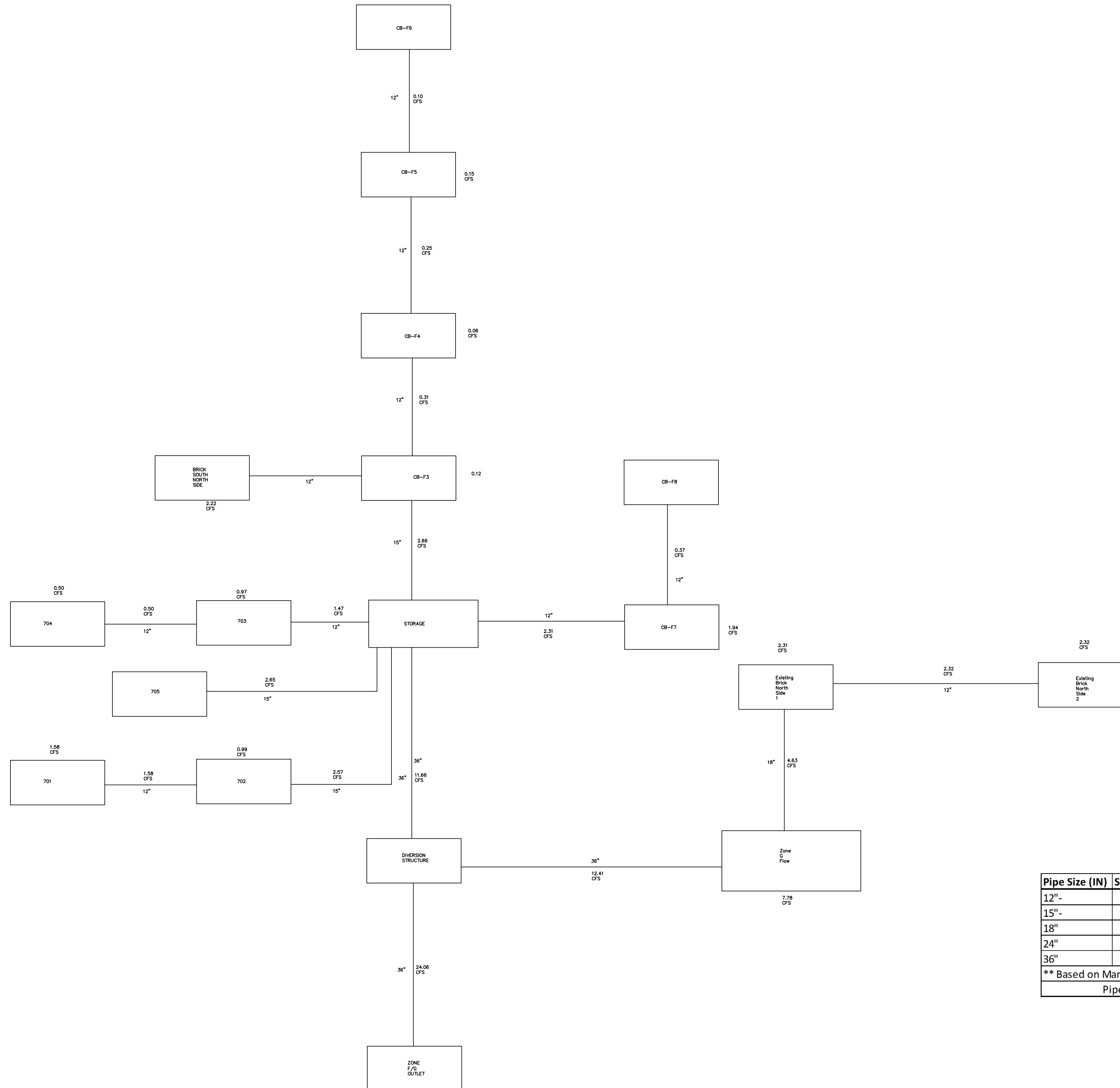


Pipe Size (IN)	Slope (FT/FT)	Velocity (FT/Sec)	Full Flow Capacity** (CFS)
12"	0.0038	3	2.38
15"	0.0028	3	3.7
18"	0.0022	3	5.33
24"	0.0015	3	9.49
36"	0.0009	3	21.67

** Based on Mannings equation for full flowing pipes

Pipe Sizes in Zones E Sized based on min. slope

ZONE F/G STORM WATER FLOW SCHEMATIC



Pipe Size (IN)	Slope (FT/FT)	Velocity (FT/Sec)	Full Flow Capacity** (CFS)
12"	0.0038	3	2.38
15"	0.0028	3	3.7
18"	0.0022	3	5.33
24"	0.0015	3	9.49
36"	0.0009	3	21.67

** Based on Mannings equation for full flowing pipes
Pipe Sizes in Zones F/G Sized based on min. slope

Summary of Storm Water Discharges					
Discharge ID	Approximate Drainage Area (Ac)	Full Build Out 25 Yr Peak Flow (CFS)	Outlet Pipe Size (In)	Description	*Minimum Required Riprap D₅₀ (IN)
Zone A	1.42	4.7	18	RCP Flared End W/ Bar Rack, Riprap Plunge Pool	12
Zone B/C	3.51	15.75	36	RCP Flared End W/ Bar Rack, Riprap Slope	12
Zone D	5.89	31.25	36	RCP Flared End W/ Bar Rack, Riprap Slope	12
Zone E	1.41	6.79	24	RCP Flared End, Riprap Slope Apron	12
Zone F/G	4.77	24.06	36	RCP Flared End W/ Bar Rack, Riprap Slope	12
Zone H	4.23	23.16	48	RCP Flared End W/ Bar Rack, Riprap Plunge Pool	12

* D₅₀ is a median rock size. Riprap should be a well graded mix of angular rock from about 1.5 to 0.25 times the size of the D₅₀. The contractor shall protect existing riprap slope or replace rock to the meet the minimum required D₅₀ stone size.

ATTACHMENT E

Life Safety Plan



FIRE RISK MANAGEMENT, INC

1 Front St., Bath, ME 04530
207/442-7200 [221-1295 (fax)]
www.fireriskmgt.com

Date: 29 January, 2014

Memo Report

From: W. Mark Cummings, P.E.

To: Mr. Steve Bushey, Fay, Spofford, & Thorndike

CC:

Subject: Updated Fire Protection Review of Site Plans, ICW The Forefront at Thompson's Point

As requested, Fire Risk Management, Inc. (FRM) reviewed the information you provided with regards to the updated site plans for the new development at Thompson's Point in Portland, ME. The focus for this review was to further evaluate the fire protection features of the general layout for the proposed development to ensure that all State and Municipal codes, regulations, and ordinances are adequately addressed.

The primary codes and regulations used as reference for this review included;

1. The City of Portland Code of Ordinances; primarily Chapter 10, *Fire Prevention and Protection*, (Rev. 1-20-11),
2. City of Portland Technical Manual, Section 3 – Public Safety, (Rev. 6/17/11),
3. City of Portland Fire Department Rules and Regulations, and
4. National Fire Protection Association (NFPA) 1, the Fire Code[®] (2012 ed.).

For this review, the primary areas of interest are to ensure that an adequate water supply is available; including location and spacing of the new fire hydrants along the proposed private fire service main and that proper access to the various structures by firefighting equipment and personnel is available. The primary documentation reviewed in support of this evaluation included;

1. The Forefront at Thompson's Point Master Fire Protection Plan; Dwg C-6.00,
2. The Forefront at Thompson's Point Master Plan; Dwg C3.00, and
3. The Forefront at Thompson's Point Master Plan Application submittal package.

Although no updated fire water supply system data have been requested from the Portland Water District (PWD), the data provided for the previous review of this development indicated that the water supply to the site for the new development should be more than adequate to support the requirements outlined by NFPA 1, Ch. 18. Based on the most recent building construction data provided, it is understood that the new buildings being constructed will generally consist of Type IB or IIA construction and will comply with the requirements of the Maine Uniform Building and Energy Code (MUBEC), which mostly follows the requirements outlined in the International Building Code (IBC). The existing buildings that are identified to remain will generally meet a Type IIIB construction classification, as defined by the IBC. Equally, it was discussed that the construction plans call for all new buildings to be fully protected with automatic fire sprinkler systems and most, if not all, existing structures are likely to be retrofitted with a fire sprinkler system as part of their renovations. Some discussion indicated that since building B1 was planned to be an "open air" structure, this facility might not be provided with a fire sprinkler system. Given the type of occupancy classifications, along with the size and construction classifications for all buildings that are proposed for this development, the overall fire flow (firefighting water supply) requirements for each of the buildings, as defined by the requirements in NFPA 1, have been estimated. It is estimated that the "worst-case" demand will likely be that for both the Garage (building F1) and the Office building (building J1). Based strictly on the fire flow areas for these structures, along with a likely requirement that they will consist of Type I or II construction, a minimum fire flow demand of 4250 gpm

for four (4) hours would be required for each. However, given that these structures are planned to be fully sprinklered, this flow value can be reduced by 75%; to less than 1100 gpm. If building B1 is not to be provided with a fire sprinkler system, this building would then represent the worst case demand for the water supply system; 2500 gpm for two (2) hours. The hydrant flow test data previously provided by the PWD indicated that the 12" supply main serving this site can support more than 6000 gpm at the minimum of 20 psig residual pressure, which is used as that needed to be defined as "fire flow." No restriction was listed with regards to the duration for which this flow could be provided. As such, the existing water supply system for the City of Portland should have no problem acting as the primary source of fire water supply for this new development.

Based on the total fire flow demand, NFPA 1 (Annex E) would allow for a minimum spacing of either 450 ft or 500 ft between each hydrant, as measured along the fire department access road(s)¹. Ultimately, this will depend on whether or not all buildings are provided with sprinkler systems. If, for example, building B1 is not provided with a fire sprinkler system and the requisite fire flow demand is 2500 gpm, the hydrant spacing should be no more than 450 ft along the various access roads; otherwise, the 1100 gpm demand would allow for a 500 ft spacing. Although the current Master Fire Protection Plan was developed using a maximum spacing of 500 ft between hydrants, most are already shown on the plan as not being greater than 450 ft apart and where those that may be slightly more than this distance, the final hydrant locations can easily be adjusted, if/as necessary, to meet this requirement without the need for additional hydrants. Equally, for any hydrant that is considered to be located along a "dead-end" street/access roadway/etc., the distance from any point measured along that street/roadway to a hydrant should not exceed 200 ft. Using these requirements and the information provided on the Master Plan drawings, it appears that the proposed hydrant locations that are adjacent to buildings J1 and J2 (northwest corner of the development) may need to be adjusted slightly to fully comply with this requirement. However, since this can easily be accomplished within the design of the final site plan, it would not be recommended that changes to this current layout occur until the overall site plan is finalized; including building sizes and locations and a definite determination of whether any buildings will not receive a fire sprinkler system.

The Portland Fire Department Rules and Regulations include additional requirements regarding the placement of hydrants. This includes a requirement that the Fire Department Connection(s) (FDCs) for each building must be within 100 ft of a hydrant. Additionally, NFPA 24 (along with the City) has a requirement that no hydrant should be located within 40 ft of a structure. Since the level of detail for the individual buildings provided at this point in the design process is such that it is not known where the FDCs will be located for each building, it cannot be determined as part of this review whether or not this requirement will be met. However, in other recent projects, the City has agreed to "waive" the requirement for a hydrant to be within 100 ft of the FDC; primarily since the genesis of this requirement isn't fully understood and this is not a "typical" requirement for most other municipal Fire Departments. It is understood that the hydrant that is currently depicted as being located adjacent to building H is within 40 ft of this structure. However, as discussed in a number of teleconferences between FST and FRM, it is recommended that this current location be retained. It is understood that the proximity of the access road along these buildings is so close to the property line that a hydrant cannot be installed on the other side of the access road. However, installation of the hydrant at this location has a greater advantage in meeting the overall water supply requirements for the site than the disadvantage of its close proximity to building H. Its removal would then result in the inability to meet the maximum spacing between hydrants. Given that if a fire is within building H, other hydrants are readily available to support firefighting operations, it is considered that the plan to install this hydrant in this location represents the best option for providing the overall site with adequate fire protection. Where it may be in the best interests of the overall firefighting plan for a building/site, the codes do allow for the Authority Having Jurisdiction (AHJ) to accept hydrant locations within the 40-foot limit.

NFPA 1 also requires that any portion of a building, or the exterior walls of the building, can be no more than 450 ft from an access road when the facility is fully protected by an automatic sprinkler system; it cannot be more than 150 ft if not sprinklered. Based on a review of the site plan, it appears that this requirement will easily be met. In addition to this requirement, NFPA 1 also requires that at least one exterior door for each building is within 50 ft. of an access

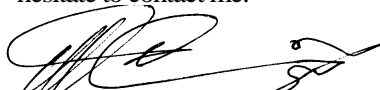
¹ Although FRM used the most recent edition of NFPA 1 for this review, no changes occurred from the previous edition that would alter the calculations/requirements used for this review.

roadway. The drawings provided for this review did not provide a level of detail for the individual buildings that would include locations for all available exterior doorways; albeit based on the locations of the roadways, driveways, and parking lots depicted on the Master Plan, it appears that this requirement too will easily met. However, it will still be necessary to ensure that during the design process for the individual buildings, that this requirement is accommodated.

Chapter 10 of the Portland City Ordinances has a requirement that, where available, the fire department vehicles should have access to at least two (2) sides of each building. Based on the current site plan provided, it will be possible for all buildings to be accessed from at least two sides. Both NFPA 1 and the City's regulations also include requirements for any "dead-end" access road greater than 150 ft to provide a means for fire department apparatus to turn-around. The only portion of the site access roads where this restriction applies is that section that provides access to building J2. The current Master Plan includes a general turn-around area on the west side of building J2. It will be necessary to verify that the final design for this turn-around will be compliant with the City's requirements. The City of Portland's Technical Manual includes a figure that generally depicts the recommended layout for this turn-around (Figure I-5).

Although this development is provided with only a single access point, the design of this roadway will far exceed the minimum requirements outlined by the City's Ordinances (20 ft minimum width where ladder truck may be needed). Unfortunately, the topography and the presence of a railway that isolate Thompson's Point from the remainder of the land mass restrict the ability to provide a second access point to this site. However, given the current plans for the access roadway design, having a single access is not considered to provide any significant increase in risk.

Should there be any questions regarding this assessment and the recommendations contained herein, please do not hesitate to contact me.



W. Mark Cummings, P.E.
Principal Engineer

ATTACHMENT F

Photometric Cut Sheets & Specifications



Consistent with LEED® goals & Green Globes™ criteria for light pollution reduction

Autobahn Series ATBS

Roadway & Security Lighting

PRODUCT OVERVIEW



Applications:

- Residential streets
- Parking lots
- General security lighting

Features:

OPTICAL

Same Light: Performance is comparable to 50W – 150W HPS and up to 175W Mercury Vapor roadway and security lighting luminaires.

White Light: Correlated color temperature - standard 4000K, 70 CRI minimum or optional 5000K, 70 CRI minimum.

IP66 rated borosilicate glass optics ensure longevity and minimize dirt depreciation. Unique IP66 rated LED light engines provide 0% uplight and restrict backlight to within sidewalk depth, providing optimal application coverage and optimal pole spacing.

Available distributions are Type II, III, and V roadway distributions. When used with the optional acrylic refractor the unit provides approximately 10% uplight and increased vertical foot-candles

ELECTRICAL

Expected Life: LED light engines are rated >100,000 hours at 25°C, L70. Electronic driver has an expected life of 100,000 hours at a 25°C ambient.

Lower Energy: Saves an expected 40-60% over comparable HID luminaires.

Robust Surge Protection: Three different surge protection options provide a minimum of IEEE/ANSI C62.41 Category C (10kV/5kA) protection.

MECHANICAL

Includes standard AEL lineman-friendly features such as tool-less entry, 3 station terminal block and quick disconnects. Bubble level located inside the electrical compartment for easy leveling at installation.

Rugged die-cast aluminum housing and door are polyester powder-coated for durability and corrosion resistance. Rigorous five-stage pre-treating and painting process yields a finish that achieves a scribe creepage rating of 8 (per ASTM D1654) after over 5000 hours exposure to salt fog chamber (operated per ASTM B117).

Mast arm mount is adjustable for arms from 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) diameter. The 2 – bolt clamping mechanism provides 3G vibration rating per ANSI C136.

The Wildlife shield is cast into the housing (not a separate piece).

CONTROLS

NEMA 3 pin photocontrol receptacle is standard, with the Acuity designed ANSI standard 5 pin and 7 pin receptacles optionally available.

Premium solid state locking-style photocontrol – PCSS (10 year rated life)
Extreme long life solid state locking-style photocontrol – PCL1 (20 year rated life)

Optional onboard Adjustable Output module allows the light output and input wattage to be modified to meet site specific requirements, and also can allow a single fixture to be flexibly applied in many different applications.

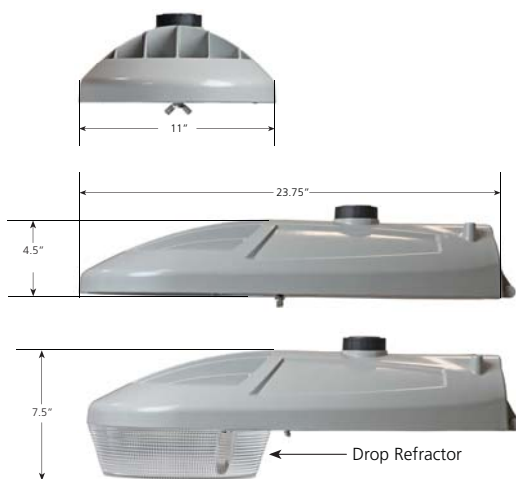
WARRANTY & STANDARDS

5 year limited warranty. Full warranty terms located at http://www.acuity-brands.com/Libraries/Terms_and_Conds/ABL_LED_Commercial_Outdoor.sflb.ashx

Rated for -40°C to 40°C ambient

CSA Certified to U.S. and Canadian standards
Complies with ANSI: C136.2, C136.10, C136.14, C136.31, C136.15, C136.37

DIMENSIONS



Effective Projected Area (EPA) The EPA for the ATBS is 0.6 sq. ft., Approx. Wt. = 12 lbs. (5 kg)

Note: Specifications subject to change without notice. Actual performance may differ as a result of end-user environment and application.

Autobahn Series ATBS

Roadway & Security Lighting

ORDERING INFORMATION

Example: ATBS A MVOLT R2

Series	Performance Packages	Voltage	Optics
ATBS Autobahn LED Roadway & Security	A 1,800 lumens B 2,400 lumens E 4,000 lumens F 4,600 lumens G 5,600 lumens H 6,300 lumens	MVOLT Multi-volt, 120-277V	R2 Roadway Type II R3 Roadway Type III R5 Roadway Type V D2 Type II, Drop Refractor included D3 Type III, Drop Refractor included D5 Type V, Drop Refractor included

Options		
<p><u>Color Temperature (CCT)</u></p> <p>(Blank) 4000K CCT, 70 CRI Min. (standard) 5K 5000K CCT, 70 CRI Min.</p> <p><u>Paint</u></p> <p>Blank Gray (Standard) BK Black WH White BZ Bronze</p> <p><u>Surge Protection</u></p> <p>Blank Acuity SPD-10kV/5kA with inductive filter (Standard) MP MOV Pack IL SPD with Indicator Light</p> <p><u>Misc.</u></p> <p>HSS House Side Shield NL NEMA Label XL Not CSA Certified</p>	<p><u>Controls</u></p> <p>(Blank) 3 Pin NEMA Photocontrol Receptacle NR¹ No Photocontrol Receptacle DM 0V-10V Dimmable Driver P5 5 Pin Photocontrol Receptacle (dimmmable driver included) P7 7 Pin Photocontrol Receptacle (dimmmable driver included)</p> <p>PCSS¹ DTL DSS Photocontrol PCL1¹ DTL DLL Photocontrol 120-277V A0 Field Adjustable Output SH Shorting Cap</p> <p><u>Install Packages</u></p> <p>PKGS DTL DSS Photocontrol PKGL DTL DLL Photocontrol Packages ship with selected photocontrol, 24", 1 1/4" diameter arm, 5' of prewire and mounting hardware</p>	<p><u>Accessories</u></p> <p>ATBSREF Drop Refractor for field installation ATBSHSS House Side Shield for field installation ATBSLTS Light Trespass Shield for field installation</p>

Notes

1. Not available with Install Packages.

Note: Specifications subject to change without notice. Actual performance may differ as a result of end-user environment and application.

Autobahn Series ATBS

Roadway & Security Lighting

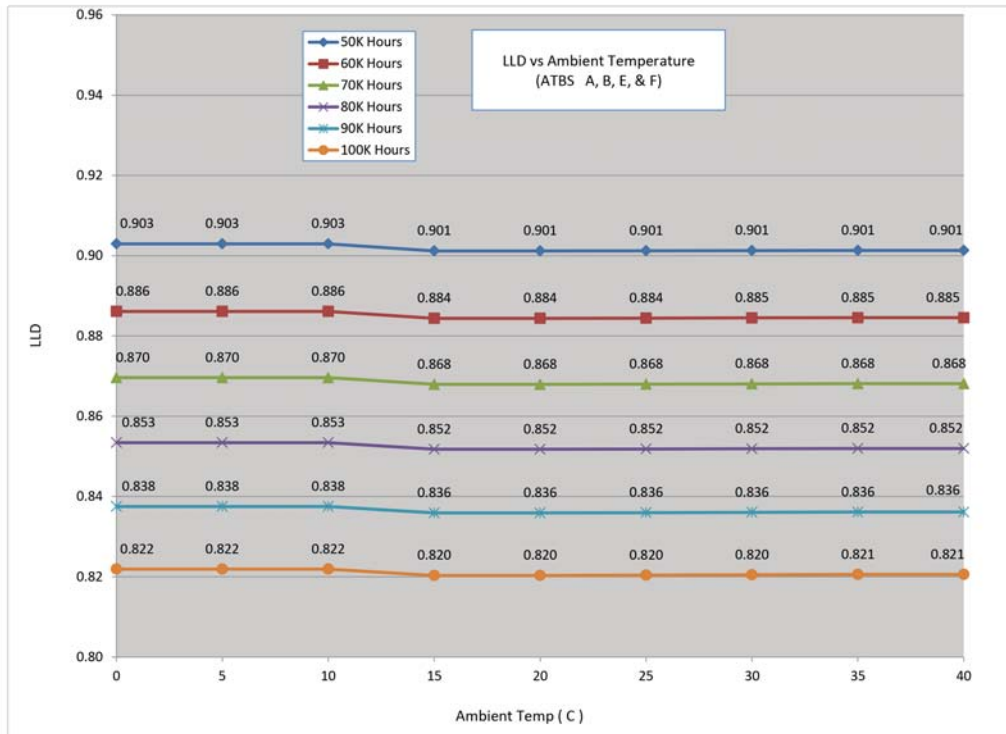
PERFORMANCE PACKAGE

Performance Package	Distribution	Lumens	LPW	Input Watts
A	R2	1,761	98	18
	R3	1,755	98	
	R5	1,838	102	
	D2	1,685	94	
	D3	1,658	92	
	D5	1,767	98	
B	R2	2,302	96	24
	R3	2,309	96	
	R5	2,411	100	
	D2	2,203	92	
	D3	2,182	91	
	D5	2,318	97	
E	R2	3,962	102	39
	R3	3,979	102	
	R5	4,246	109	
	D2	3,791	97	
	D3	3,760	96	
	D5	4,089	105	
F	R2	4,563	93	49
	R3	4,477	91	
	R5	4,795	98	
	D2	4,366	89	
	D3	4,231	86	
	D5	4,612	94	
G	R2	5,629	88	64
	R3	5,416	85	
	R5	5,837	91	
	D2	5,386	84	
	D3	5,118	80	
	D5	5,590	87	
H	R2	6,249	87	72
	R3	6,321	88	
	R5	6,739	94	
	D2	5,979	83	
	D3	5,973	83	
	D5	6,436	89	

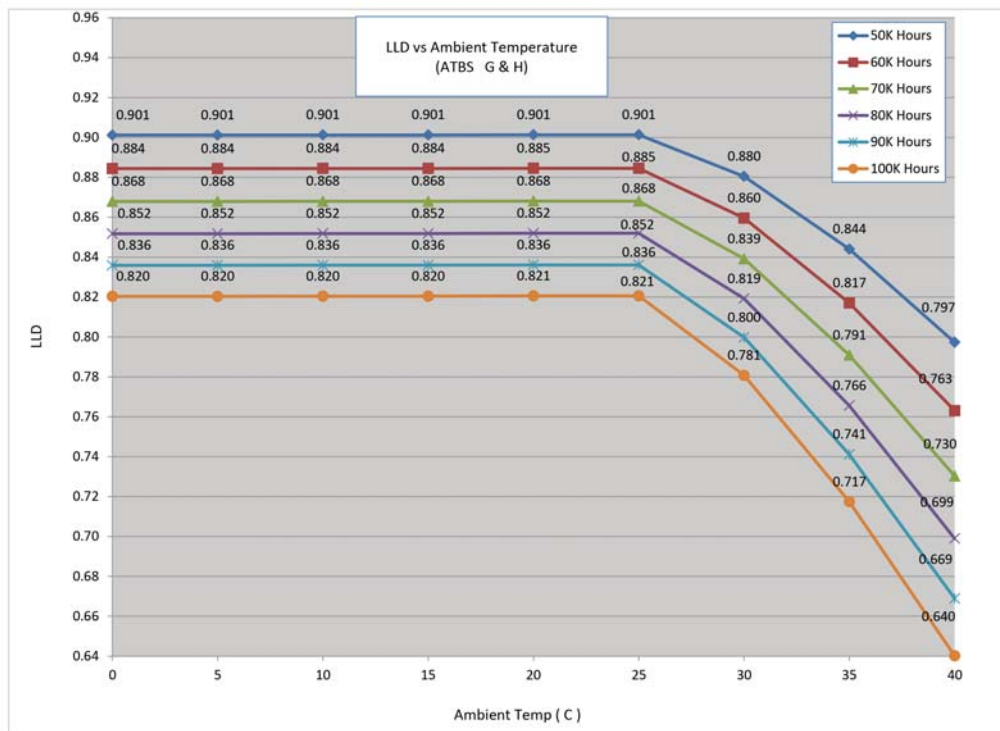
Note: Information shown above is based on nominal system data. Individual fixture performance may vary. Specifications subject to change without notice.

Autobahn Series ATBS Roadway & Security Lighting

PERFORMANCE PACKAGE



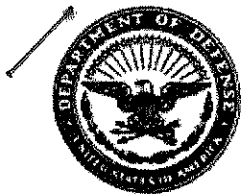
* LLD vs. temperature charts are based on LM-80 chip data and in-situ thermal test testing per IES TM-21



* LLD vs. temperature charts are based on LM-80 chip data and in-situ thermal test testing per IES TM-21

ATTACHMENT G

State and Federal Permits



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

**MAINE GENERAL PERMIT (GP)
AUTHORIZATION LETTER AND SCREENING SUMMARY**

Forefront Partners I, LP
55 Lisbon Street, Suite 2400
Lewiston, Maine 04240

CORPS PERMIT #: NAE-2012-00992 amendment
CORPS PGP ID#: 12-154
STATE ID#: L-25672-2G-A-N

DESCRIPTION OF WORK:

Department of the Army permit NAE-2012-00992 authorized you to construct and maintain an 8' x 9' landing with an attached 4.33' x 40' aluminum ramp leading to a 10' x 10' intermediate float with a 12' x 20' float attached perpendicular extending southwest in Fore River off Thompson's Point. As requested your permit is hereby amended to shift the pier location slightly west and construct a 6' x 16' pile and timber pier with an attached 4' x 50' ramp leading to an 12'X24' intermediate float cut at an angle with a 10' x 60' line of bottom moored floats attached at an angle extending southwest in Fore River off lot 13 at Thompson's Point at Portland, Maine as shown on the attached plans entitled " the Forefront at Thompson's Point Seasonal Dock System by FST" in 3 sheets

LAT/LONG COORDINATES : 43.64897 N 70.29191 W USGS QUAD: ME-Portland West

I. CORPS DETERMINATION:

Based on our review of the information you provided, we have determined that your project will have only minimal individual and cumulative impacts on waters and wetlands of the United States. Your work is therefore authorized by the U.S. Army Corps of Engineers under the enclosed Federal Permit, the Maine General Permit (GP). Accordingly, we do not plan to take any further action on this project.

You must perform the activity authorized herein in compliance with all the terms and conditions of the GP [including any attached Additional Conditions and any conditions placed on the State 401 Water Quality Certification including any required mitigation]. Please review the enclosed GP carefully, including the GP conditions beginning on page 5, to familiarize yourself with its contents. You are responsible for complying with all of the GP requirements; therefore you should be certain that whoever does the work fully understands all of the conditions. You may wish to discuss the conditions of this authorization with your contractor to ensure the contractor can accomplish the work in a manner that conforms to all requirements.

If you change the plans or construction methods for work within our jurisdiction, please contact us immediately to discuss modification of this authorization. This office must approve any changes before you undertake them.

Condition 41 of the GP (page 18) provides one year for completion of work that has commenced or is under contract to commence prior to the expiration of the GP on October 12, 2015. You will need to apply for reauthorization for any work within Corps jurisdiction that is not completed by October 12, 2016.

This authorization presumes the work shown on your plans noted above is in waters of the U.S. Should you desire to appeal our jurisdiction, please submit a request for an approved jurisdictional determination in writing to the undersigned.

No work may be started unless and until all other required local, State and Federal licenses and permits have been obtained. **This includes but is not limited to a Flood Hazard Development Permit issued by the town if necessary.**

II. STATE ACTIONS: PENDING [], ISSUED [], DENIED [] DATE _____

APPLICATION TYPE: PBR: _____ TIER 1: _____ TIER 2: _____ TIER 3: X LURC: _____ DMR LEASE: _____ NA: _____

III. FEDERAL ACTIONS:

JOINT PROCESSING MEETING: 5-17-12 LEVEL OF REVIEW: CATEGORY 1: _____ CATEGORY 2: X

AUTHORITY (Based on a review of plans and/or State/Federal applications): SEC 10 X , 404 _____ 10/404 _____, 103 _____

EXCLUSIONS: The exclusionary criteria identified in the general permit do not apply to this project.

FEDERAL RESOURCE AGENCY OBJECTIONS: EPA_NO _____, USF&WS_NO _____, NMFS_NO _____

If you have any questions on this matter, please contact my staff at 207-623-8367 at our Manchester, Maine Project Office. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at <http://per2.nwp.usace.army.mil/survey.html>

RODNEY A. HOWE
RODNEY A. HOWE
SENIOR PROJECT MANAGER
MAINE PROJECT OFFICE

FRANK J. DEL GIUDICE 4-16-2014
FRANK J. DEL GIUDICE DATE
CHIEF, PERMITS & ENFORCEMENT BRANCH
REGULATORY DIVISION

MEMORANDUM FOR FILE

SUBJECT: Forefront Partners I,LP NAE-2012-00992 amendment

1. PRELIMINARY JURISDICTIONAL DETERMINATION:

- The State of Maine has performed a **preliminary jurisdictional determination** with which the Corps concurs. (OR)
- Our preliminary determination of jurisdiction is that the aquatic resources within the review area are waters of the United States due to the presence of: (Check all that apply)
- TNWs, including territorial seas
- Wetlands adjacent to TNWs
- Relatively permanent waters (RPWs) that flow directly or indirectly into TNWs
- Non-RPWs that flow directly or indirectly into TNWs
- Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- Impoundments of jurisdictional waters
- Isolated (interstate or intrastate) waters, including isolated wetlands

2. SECTION 106 COORDINATION

Coordination with the State Historic Preservation Officer Yes/ N/A (circle one). Determination & date:
 No effect by 10 day default; 8/10/12 No effect; May effect; No Adverse effect

Coordination with the Tribal Historic Preservation Officer(s) Yes/ N/A (circle one).
Determination & date: 5/27/12 No effect by default; No effect; May effect; No Adverse effect

3. ENDANGERED SPECIES CONSULTATION: USFWS/NMFS (circle one or both).

Determination & date: 6/7/12 No effect; Not likely to adversely effect

4. ESSENTIAL FISH HABITAT (EFH): EFH PRESENT Y / N (circle one).

IF YES: Based on the terms and conditions of the PGP, which are intended to ensure that authorized projects cause no more than minimal environmental impacts, the Corps of Engineers has preliminary determined that this project will not cause more than minimal adverse effects to **EFH** identified under the Magnuson-Stevens Fisheries Conservation and Management Act.

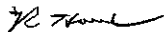
Determination & date: No recommendations received; No effect; 6/7/12 May Adversely effect.

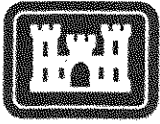
EFH recommendations: Normal TOYR construction window and Cat 2 Standards for installation.

IMPACTS: 0.0 Short-term; Long-term; 0.0 Cumulative. (Brief description)

Environmental impacts are minimal both individually and cumulatively Y / N (circle one).

The original permit authorized an 8' x 9' landing with an attached 4.33' x 40' aluminum ramp leading to a 10' x 10' intermediate float with a 12' x 20' float attached perpendicular extending southwest in Fore River off Thompson's Point. This amendment authorizes the permittee to shift the pier location slightly west and construct a 6' x 16' pile and timber pier with an attached 4' x 50' ramp leading to an 12'X24' intermediate float cut at an angle with a 10' x 60' line of bottom moored floats attached at an angle extending southwest in Fore River off lot 13 at Thompson's Point at Portland. The structure meets Corps guidelines for structures placed in navigable waters and there are no FNP's in the vicinity. Impacts to navigation in the immediate vicinity are considered minimal. The federal resource agencies have reviewed the original project and recommended normal TOYR restriction for construction. They determined the project is eligible for a Cat 2 GP as proposed. The permit is conditioned accordingly.


Rodney Howe
Senior Project Manager
Maine Project Office



**US Army Corps
of Engineers** ®
New England District

WORK-START NOTIFICATION FORM
(Minimum Notice: Two weeks before work begins)

 * MAIL TO: U.S. Army Corps of Engineers, New England District *
 *
 * Policy Analysis/Technical Support Branch *
 * Regulatory Division *
 * 696 Virginia Road *
 * Concord, Massachusetts 01742-2751 *

Corps of Engineers Permit No. NAE-2012-00992 was issued Forefront Partners I, LP. The permit authorized the permittee to construct a 6' x 16' pile and timber pier with an attached 4' x 50' ramp leading to an 12'X24' intermediate float cut at an angle with a 10' x 60' line of bottom moored floats attached at an angle extending southwest in Fore River off lot 13 at Thompson's Point at Portland, Maine. The people (e.g., contractor) listed below will do the work, and they understand the permit's conditions and limitations.

PLEASE PRINT OR TYPE

Name of Person/Firm: _____

Business Address: _____

Telephone Numbers: () _____ () _____

Proposed Work Dates: Start _____ Finish _____

Permittee's Signature: _____ **Date:** _____

Printed Name: _____ **Title:** _____

FOR USE BY THE CORPS OF ENGINEERS

PM: Howe _____ **Submittals Required:** _____

Inspection Recommendation: _____



**US Army Corps
of Engineers**®
New England District

(Minimum Notice: Permittee must sign and return notification
within one month of the completion of work.)

COMPLIANCE CERTIFICATION FORM

Corps of Engineers Permit No: NAE-2012-00992

Name of Permittee: Forefront Partners I, LP

Permit Issuance Date: _____

Please sign this certification and return it to the following address upon completion of the activity and any mitigation required by the permit. You must submit this after the mitigation is complete, but not the mitigation monitoring, which requires separate submittals.

* MAIL TO: U.S. Army Corps of Engineers, New England District *
* Policy Analysis/Technical Support Branch, ATTN: PAS*
* Regulatory Division *
* 696 Virginia Road *
* Concord, Massachusetts 01742-2751 *

Please note that your permitted activity is subject to a compliance inspection by an U.S. Army Corps of Engineers representative. If you fail to comply with this permit you are subject to permit suspension, modification, or revocation.

I hereby certify that the work authorized by the above referenced permit was completed in accordance with the terms and conditions of the above referenced permit, and any required mitigation was completed in accordance with the permit conditions.

Signature of Permittee

Date

Printed Name

Date of Work Completion

() ()

Telephone Number Telephone Number



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

**MAINE GENERAL PERMIT (GP)
AUTHORIZATION LETTER AND SCREENING SUMMARY**

Forefront Partners I, LP
55 Lisbon Street, Suite 2400
Lewiston, Maine 04240

CORPS PERMIT # NAE-2012-00992
CORPS PGP ID# 12-154
STATE ID# L-25672-2G-A-N

DESCRIPTION OF WORK:

To construct and maintain an 8' x 9' landing with an attached 4.33' x 40' aluminum ramp leading to a 10' x 10' intermediate float with a 12' x 20' float attached perpendicular extending southwest in Fore River off Thompson's Point. The work also includes placing fill in approximately 420 SF of intertidal area in conjunction with the construction of a 25' x 20' granite block stairway and in 386 SF of intertidal area to construct a riprap plunge pool for a storm drainage outfall for a total of 806 SF (0.018 acres) off Thompson's Point at Portland, Maine as shown on the attached plans entitled "Forefront Partners I,LP, Commercial Redevelopment, City of Portland, Thompson's Point, Maine" in 4 sheets dated April 2012. SEE ATTACHED CONDITIONS:

LAT/LONG COORDINATES : 43.64897 N 70.29191 W USGS QUAD: ME-Portland West

I. CORPS DETERMINATION:

Based on our review of the information you provided, we have determined that your project will have only minimal individual and cumulative impacts on waters and wetlands of the United States. **Your work is therefore authorized by the U.S. Army Corps of Engineers under the enclosed Federal Permit, the Maine General Permit (GP).** Accordingly, we do not plan to take any further action on this project.

You must perform the activity authorized herein in compliance with all the terms and conditions of the GP [including any attached Additional Conditions and any conditions placed on the State 401 Water Quality Certification including any required mitigation]. Please review the enclosed GP carefully, including the GP conditions beginning on page 5, to familiarize yourself with its contents. You are responsible for complying with all of the GP requirements; therefore you should be certain that whoever does the work fully understands all of the conditions. You may wish to discuss the conditions of this authorization with your contractor to ensure the contractor can accomplish the work in a manner that conforms to all requirements.

If you change the plans or construction methods for work within our jurisdiction, please contact us immediately to discuss modification of this authorization. This office must approve any changes before you undertake them.

Condition 41 of the GP (page 18) provides one year for completion of work that has commenced or is under contract to commence prior to the expiration of the GP on October 12, 2015. You will need to apply for reauthorization for any work within Corps jurisdiction that is not completed by October 12, 2016.

This authorization presumes the work shown on your plans noted above is in waters of the U.S. Should you desire to appeal our jurisdiction, please submit a request for an approved jurisdictional determination in writing to the undersigned.

No work may be started unless and until all other required local, State and Federal licenses and permits have been obtained. **This includes but is not limited to a Flood Hazard Development Permit issued by the town if necessary.**

II. STATE ACTIONS: PENDING [], ISSUED [], DENIED [] DATE _____

APPLICATION TYPE: PBR: , TIER 1: , TIER 2: , TIER 3: , LURC: DMR LEASE: NA:

III. FEDERAL ACTIONS:

JOINT PROCESSING MEETING: 5-17-12 LEVEL OF REVIEW: CATEGORY 1: CATEGORY 2:

AUTHORITY (Based on a review of plans and/or State/Federal applications): SEC 10 , 404 10/404 , 103

EXCLUSIONS: The exclusionary criteria identified in the general permit do not apply to this project.

FEDERAL RESOURCE AGENCY OBJECTIONS: EPA NO , USF&WS NO , NMFS NO

If you have any questions on this matter, please contact my staff at 207-623-8367 at our Manchester, Maine Project Office. In order for us to better serve you, we would appreciate your completing our Customer Service Survey located at <http://per2.nwp.usace.army.mil/survey.html>

Rodney A. Howe
RODNEY A. HOWE
SENIOR PROJECT MANAGER
MAINE PROJECT OFFICE

Frank J. Del Giudice
FRANK J. DEL GIUDICE
CHIEF, PERMITS & ENFORCEMENT BRANCH
REGULATORY DIVISION
DATE 8-24-12



**US Army Corps
of Engineers** ®
New England District

**PLEASE NOTE THE FOLLOWING GENERAL CONDITIONS FOR
DEPARTMENT OF THE ARMY
GENERAL PERMIT
NO. NAE-2012-00992**

1. The following condition applies to the construction of the granite block stairway and the rip rapped stormwater plunge pool. Please note appendix A, II. Navigable Waters of the United States, Category 1, (a) Fill, 2. Work conducted in the intertidal zone must be conducted in-the dry during low water, or between Nov. 8 – Apr. 9.
2. The following condition applies to the construction of the ramp and float system. Please note appendix A, II. Navigable Waters of the United States Category 2 and (f) Structures and Floats Category 2 of the attached Programmatic General Permit.

APPLICATION FOR A NATURAL RESOURCES PROTECTION ACT PERMIT

→ PLEASE TYPE OR PRINT IN BLACK INK ONLY

1. Name of Applicant: Forefront Partners I, LP		5. Name of Agent: DeLuca-Hoffman Associates, Inc.						
2. Applicant's Mailing Address: 55 Lisbon Street, Suite 2400 Lewiston, ME 04240		6. Agent's Mailing Address: 778 Main Street, Suite 8 South Portland, ME 04106						
3. Applicant's Daytime Phone #: (207) 347-1614		7. Agent's Daytime Phone #: (207) 775-1121						
4. Applicant's Email Address (Required from either applicant or agent): parallaxpartners@gmail.com		8. Agent's Email Address: sbushey@delucahoffman.com						
9. Location of Activity: (Nearest Road, Street, Rt.#) 1 Thompson's Point		10. Town: Portland	11. County: Cumberland					
12. Type of Resource: (Check all that apply)	<input type="checkbox"/> River, stream or brook <input type="checkbox"/> Great Pond <input type="checkbox"/> Coastal Wetland <input type="checkbox"/> Freshwater Wetland <input type="checkbox"/> Wetland Special Significance <input checked="" type="checkbox"/> Significant Wildlife Habitat <input type="checkbox"/> Fragile Mountain		13. Name of Resource: adjacent tidal flats of the Fore River					
			14. Amount of Impact: (Sq.Ft.) Fill: N/A Dredging/Veg Removal/Other:					
15. Type of Wetland: (Check all that apply)	<input type="checkbox"/> Forested <input type="checkbox"/> Scrub Shrub <input type="checkbox"/> Emergent <input type="checkbox"/> Wet Meadow <input type="checkbox"/> Peatland <input type="checkbox"/> Open Water <input type="checkbox"/> Other coastal wetland							
	FOR FRESHWATER WETLANDS <table border="0" style="width:100%"> <tr> <td style="text-align:center"><i>Tier 1</i></td> <td style="text-align:center"><i>Tier 2</i></td> <td style="text-align:center"><i>Tier 3</i></td> </tr> <tr> <td> <input type="checkbox"/> 0 - 4,999 sq ft. <input type="checkbox"/> 5,000-9,999 sq ft <input type="checkbox"/> 10,000-14,999 sq ft </td> <td> <input type="checkbox"/> 15,000 – 43,560 sq. ft. </td> <td> <input type="checkbox"/> > 43,560 sq. ft. or smaller than 43,560 sq. ft., not eligible for Tier 1 </td> </tr> </table>			<i>Tier 1</i>	<i>Tier 2</i>	<i>Tier 3</i>	<input type="checkbox"/> 0 - 4,999 sq ft. <input type="checkbox"/> 5,000-9,999 sq ft <input type="checkbox"/> 10,000-14,999 sq ft	<input type="checkbox"/> 15,000 – 43,560 sq. ft.
<i>Tier 1</i>	<i>Tier 2</i>	<i>Tier 3</i>						
<input type="checkbox"/> 0 - 4,999 sq ft. <input type="checkbox"/> 5,000-9,999 sq ft <input type="checkbox"/> 10,000-14,999 sq ft	<input type="checkbox"/> 15,000 – 43,560 sq. ft.	<input type="checkbox"/> > 43,560 sq. ft. or smaller than 43,560 sq. ft., not eligible for Tier 1						
16. Brief Activity Description:	The applicant proposes a transit oriented development over the previously developed Thompson's Point site in Portland. See Attachment 1 for additional information.							
17. Size of Lot or Parcel & UTM Locations:	<input type="checkbox"/> _____ square feet, or <input checked="" type="checkbox"/> 27.56 acres		UTM Northing: 4,833,933 UTM Easting: 395,870					
18. Title, Right or Interest:	<input type="checkbox"/> own <input type="checkbox"/> lease <input checked="" type="checkbox"/> purchase option <input type="checkbox"/> written agreement							
19. Deed Reference Numbers:	Book#: 6579/6676 Page: 30/287	20. Map and Lot Numbers:	Map #: 201/202 Lot #: A-5, A-8, A-10/A-1, A-4					
21. DEP Staff Previously Contacted:	Marybeth Richardson	22. Part of a larger project:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No After-the-Fact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
23. Resubmission of Application?:	<input type="checkbox"/> Yes → <input checked="" type="checkbox"/> No	If yes, previous application #	Previous project manager:					
24. Written Notice of Violation?:	<input type="checkbox"/> Yes → <input checked="" type="checkbox"/> No	If yes, name of DEP enforcement staff involved:	25. Previous Wetland Alteration: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
26. Detailed Directions to the Project Site:	Take Exit 5 off I-295 South and proceed onto Thompson's Point Connector Road, cross railroad tracks into site.							
27. TIER 1		TIER 2/3 AND INDIVIDUAL PERMITS						
<input type="checkbox"/> Title, right or interest documentation <input type="checkbox"/> Topographic Map <input type="checkbox"/> Narrative Project Description <input type="checkbox"/> Plan or Drawing (8 1/2" x 11") <input type="checkbox"/> Photos of Area <input type="checkbox"/> Statement of Avoidance & Minimization <input type="checkbox"/> Statement/Copy of cover letter to MHPC		<input checked="" type="checkbox"/> Title, right or interest documentation <input checked="" type="checkbox"/> Topographic Map <input checked="" type="checkbox"/> Copy of Public Notice/Public Information Meeting Documentation <input checked="" type="checkbox"/> Wetlands Delineation Report (Attachment 1) that contains the information listed under Site Conditions <input checked="" type="checkbox"/> Alternatives Analysis (Attachment 2) including description of how wetland impacts were Avoided/Minimized <input checked="" type="checkbox"/> Erosion Control/Construction Plan <input type="checkbox"/> Functional Assessment (Attachment 3), if required <input type="checkbox"/> Compensation Plan (Attachment 4), if required <input type="checkbox"/> Appendix A and others, if required <input checked="" type="checkbox"/> Statement/Copy of cover letter to MHPC <input type="checkbox"/> Description of Previously Mined Peatland, if required						
28. FEES Amount Enclosed:								

CERTIFICATIONS AND SIGNATURES LOCATED ON PAGE 2

IMPORTANT: IF THE SIGNATURE BELOW IS NOT THE APPLICANT'S SIGNATURE, ATTACH LETTER OF AGENT AUTHORIZATION SIGNED BY THE APPLICANT.

By signing below the applicant (or authorized agent), certifies that he or she has read and understood the following :

DEP SIGNATORY REQUIREMENT

PRIVACY ACT STATEMENT

Authority: 33 USC 401, Section 10; 1413, Section 404. Principal Purpose: These laws require permits authorizing activities in or affecting navigable waters of the United States, the discharge of dredged or fill material into waters of the United States, and the transportation of dredged material for the purpose of dumping it into ocean waters. Disclosure: Disclosure of requested information is voluntary. If information is not provided, however, the permit application cannot be processed nor a permit be issued.

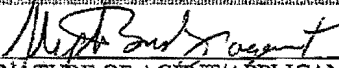
CORPS SIGNATORY REQUIREMENT

USC Section 1003 provides that: Whoever in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry shall be fined not more than \$10,000 or imprisoned not more than five years or both. I authorize the Corps to enter the property that is subject to this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein.

DEP SIGNATORY REQUIREMENT

I certify under penalty of law that I have personally examined the information submitted in this document and all attachments hereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Further, I hereby authorize the DEP to send me an electronically signed decision on the license I am applying for with this application by emailing the decision to the address located on the front page of this application (see #4 for the applicant and #8 for the agent).

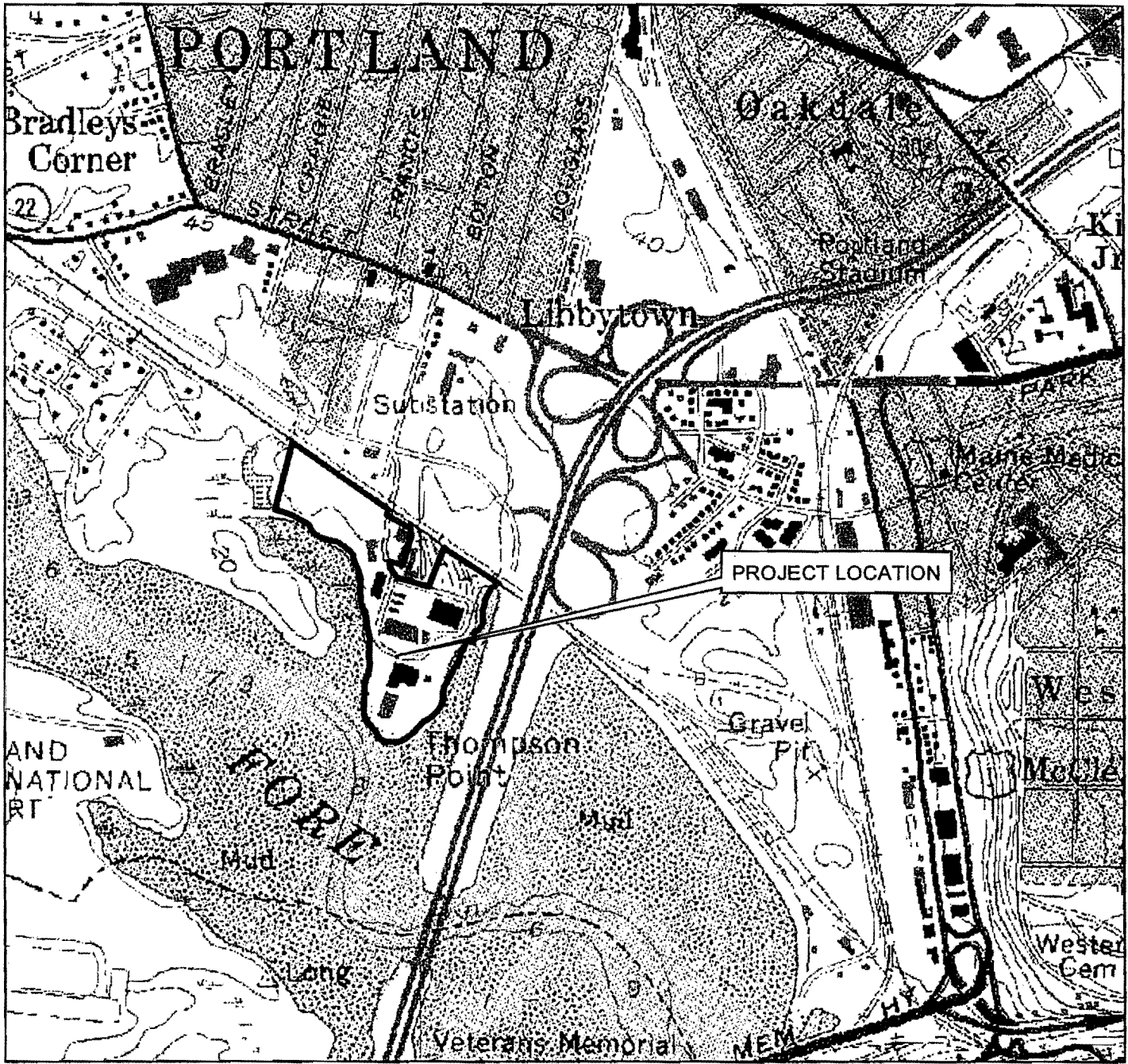


 SIGNATURE OF AGENT/APPLICANT

Date: 4/26/12

NOTE: Any changes in activity plans must be submitted to the DEP and the Corps in writing and must be approved by both agencies prior to implementation. Failure to do so may result in enforcement action and/or the removal of the unapproved changes to the activity.

(pink)



USGS LOCATION MAP
 THOMPSON'S POINT
 PORTLAND, MAINE

SOURCE: MAINE OFFICE OF GIS - MAPS

DeLuca-Hoffman Associates, Inc.
 778 MAIN STREET, SUITE 8
 SOUTH PORTLAND, ME 04106
 207-775-1121
 www.delucahoffman.com

DRAWN: DED
 CHECKED: SRB
 DATE: SEPTEMBER 2010
 FILENAME: 2982-USGS
 SCALE: 1 inch = 1,000 feet

FIGURE
 2

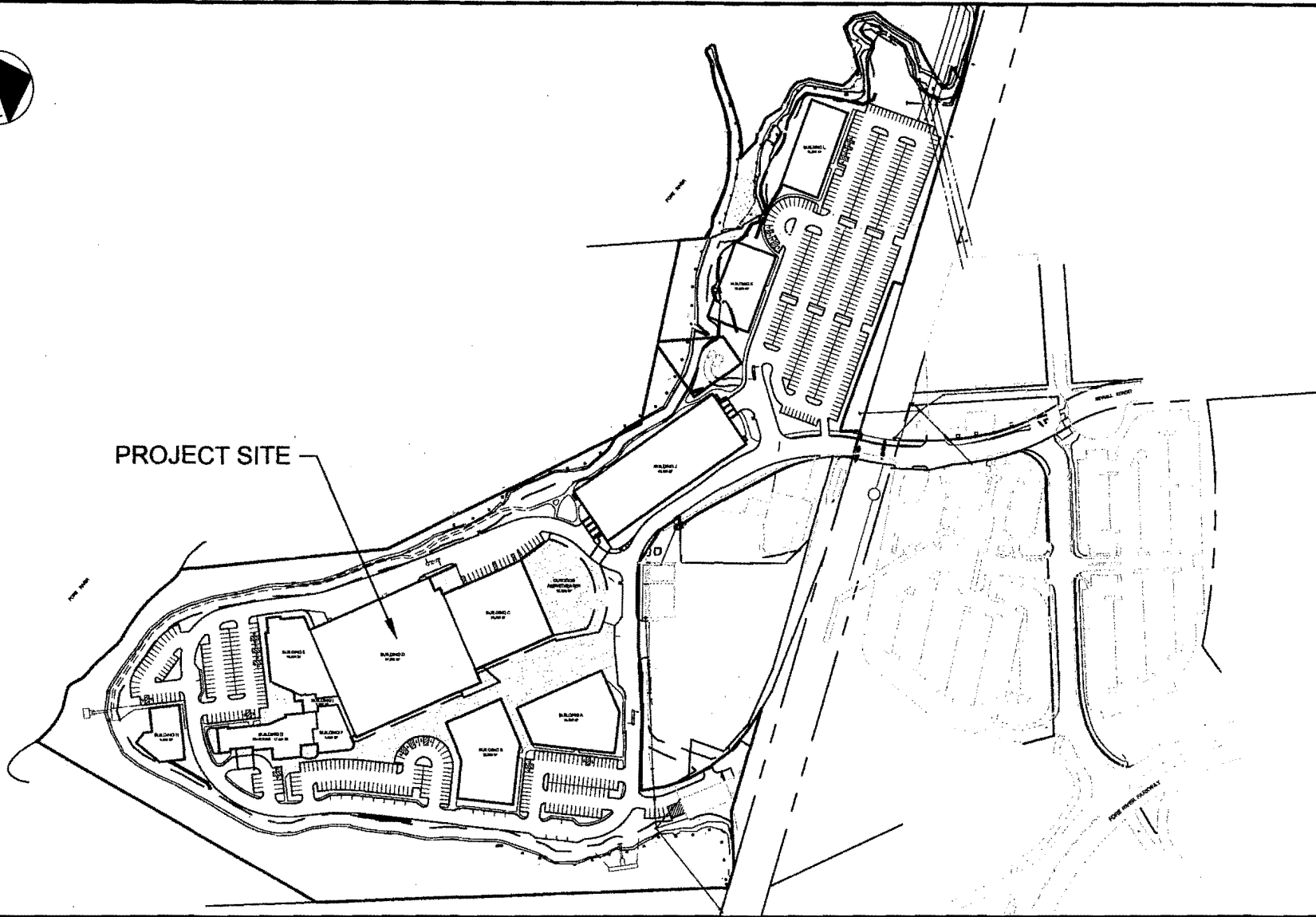
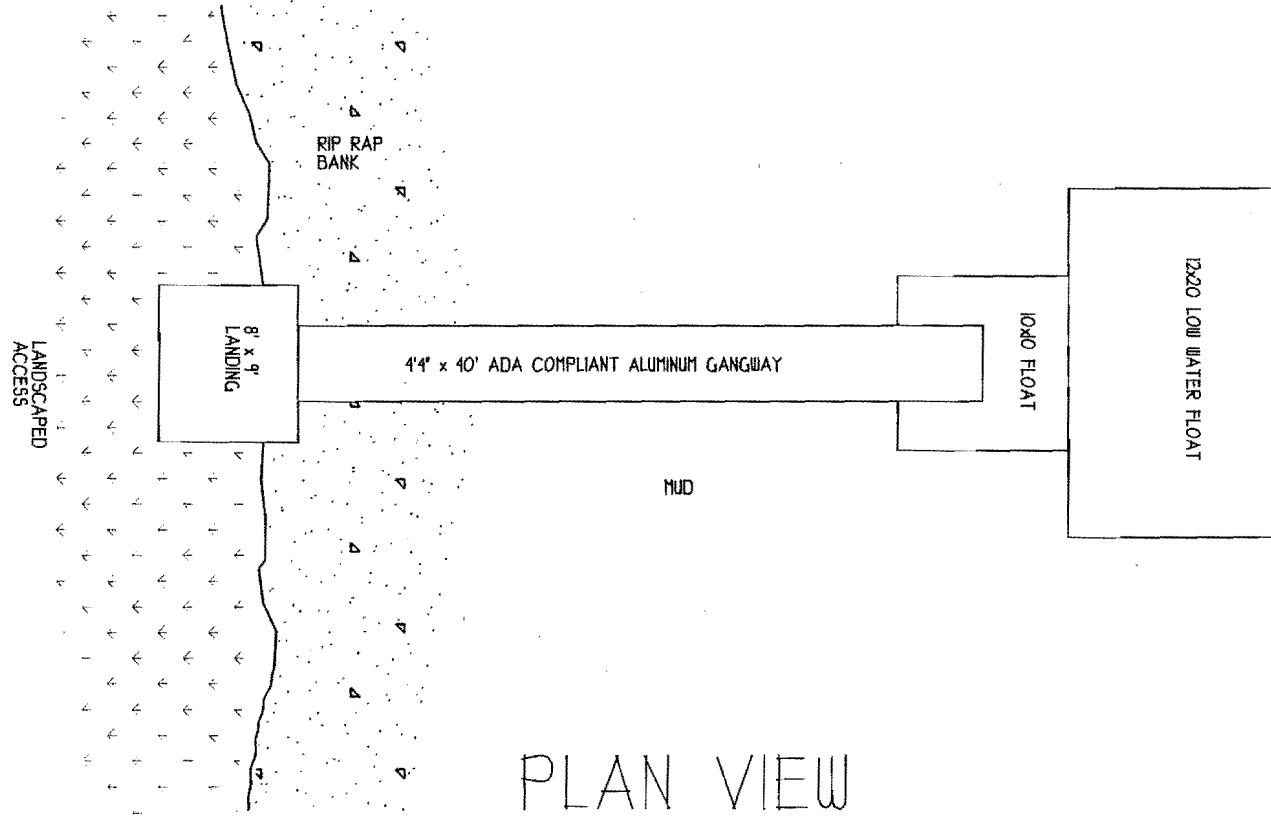
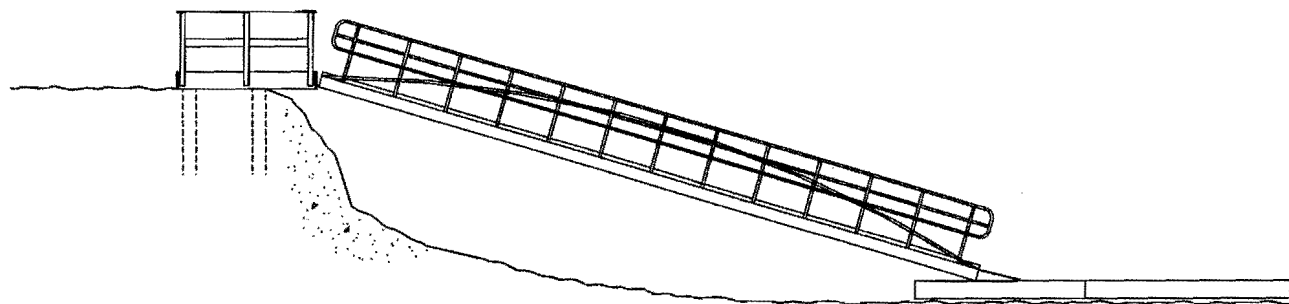


FIGURE: 1	BOOK: 6579 6875	PAGE: 30 287	LOCATION: CITY OF PORTLAND THOMPSON'S POINT	PROPOSED ACTIVITY: COMMERCIAL REDEVELOPMENT	PROJECT APPLICANT: FOREFRONT PARTNERS I, LP
	LEGAL DESCRIPTION: SEE ALTA SURVEY BY SEBAGO TECHNICS INC	WATER BODY: FORE RIVER	ABUTTERS: SEE ATTACHMENT 10	SCALE: 1" = 300' DATUM: -	DELUCA-HOFFMAN ASSOCIATES, INC.



PLAN VIEW



SIDE ELEVATION

FIGURE:
5

THE FOREFRONT AT THOMPSON'S POINT PLAN #1		REV
FOR: CHRIS THOMPSON / JON JENNINGS	DATE: 11/21/11	
DRAWN BY: MPD	SCALE: NOT TO SCALE	
DESIGNED BY:		
 <small>By Design Ship Craftsmen, Inc.</small>		

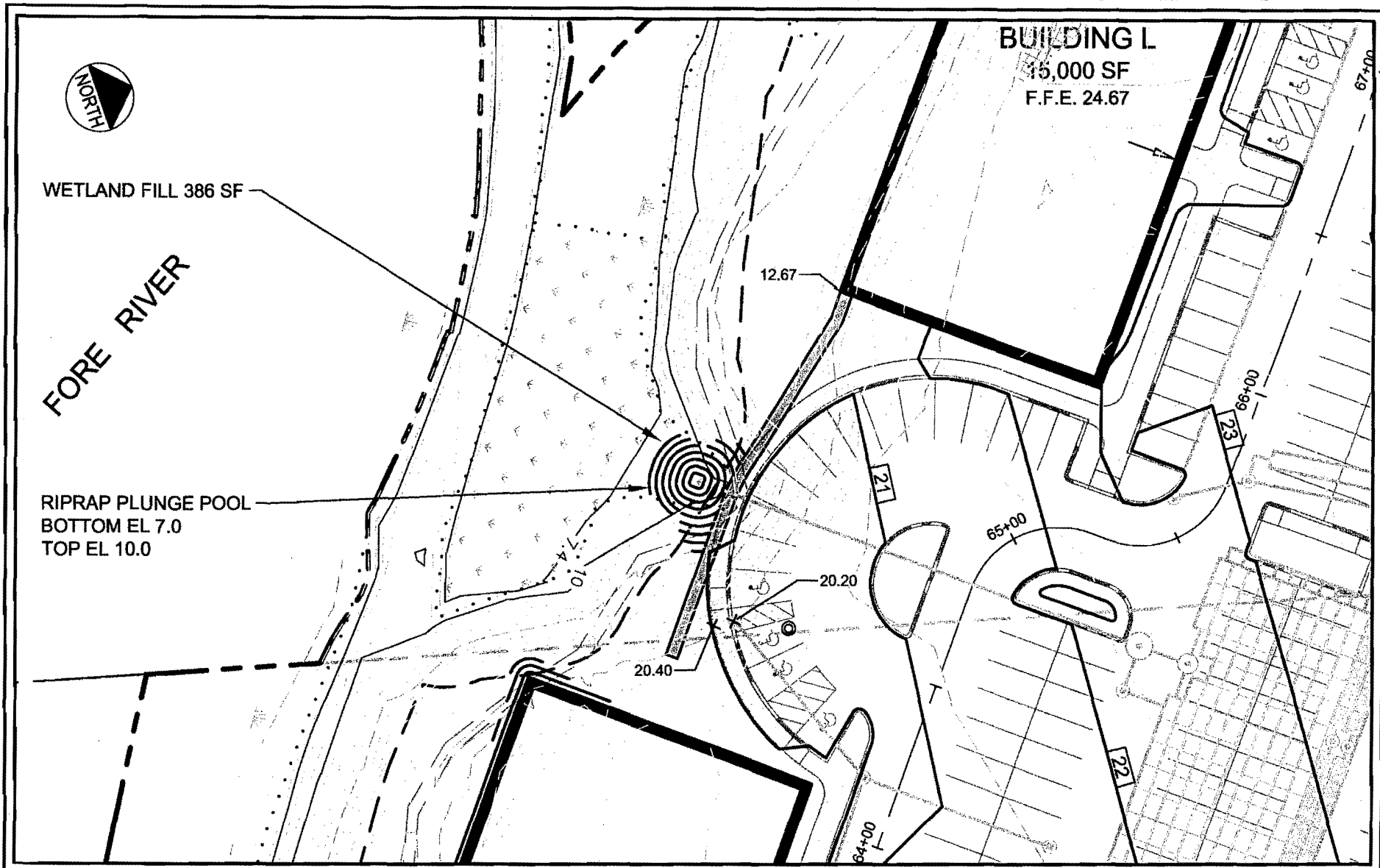


FIGURE: 6	BOOK: 6579 6875	PAGE: 30 287	LOCATION: CITY OF PORTLAND THOMPSON'S POINT	PROPOSED ACTIVITY: COMMERCIAL REDEVELOPMENT	PROJECT APPLICANT: FOREFRONT PARTNERS I, LP
	LEGAL DESCRIPTION: SEE ALTA SURVEY BY SEBAGO TECHNICS INC	WATER BODY: FORE RIVER	ABUTTERS: SEE ATTACHMENT 10	SCALE: 1" = 40' DATUM: -	DATE: APR 2012	DELUCA-HOFFMAN ASSOCIATES, INC.

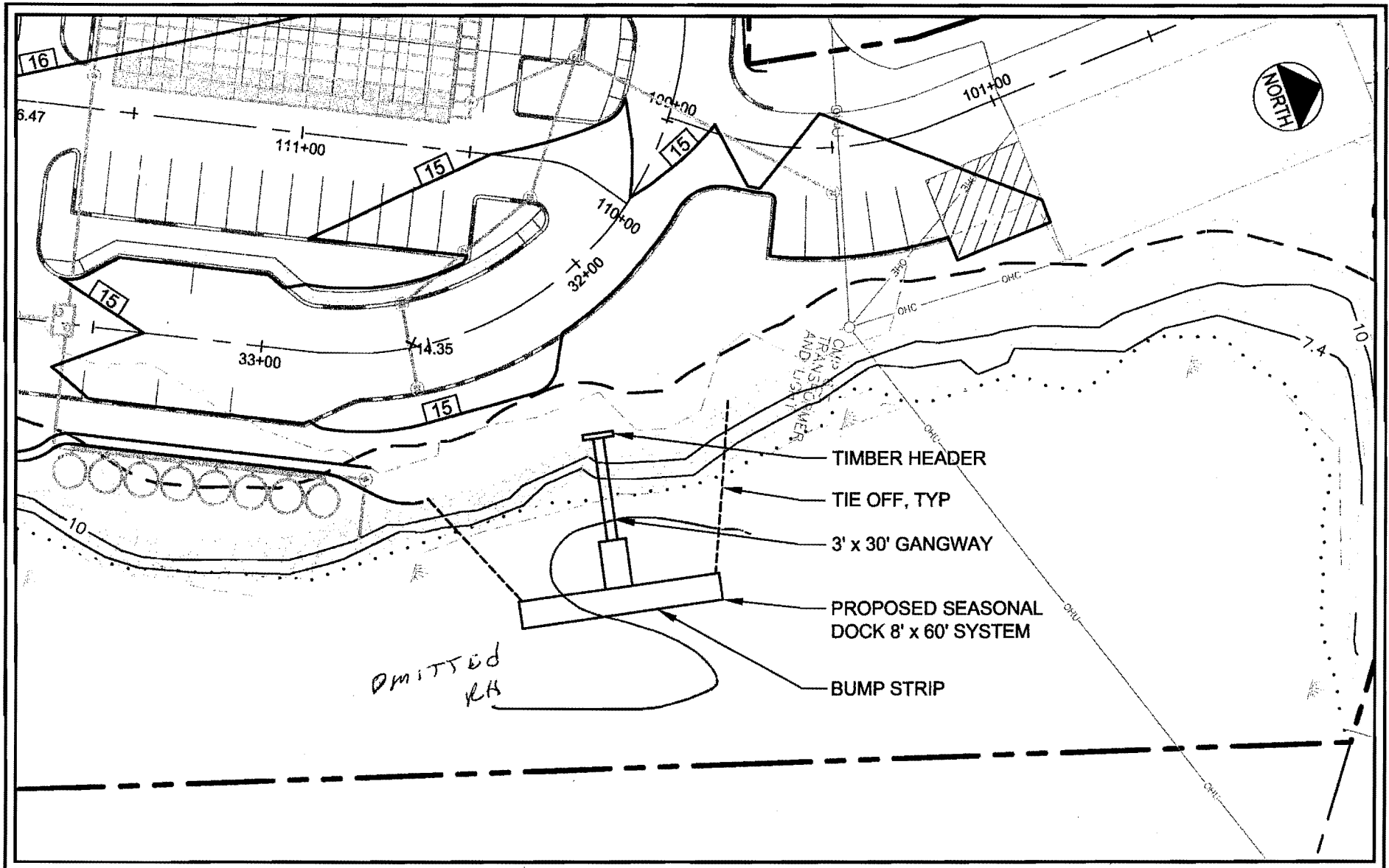


FIGURE: 3	BOOK: 6579 6875	PAGE: 30 287	LOCATION: CITY OF PORTLAND THOMPSON'S POINT	PROPOSED ACTIVITY: COMMERCIAL REDEVELOPMENT	PROJECT APPLICANT: FOREFRONT PARTNERS I, LP
	LEGAL DESCRIPTION: SEE ALTA SURVEY BY SEBAGO TECHNICS INC	WATER BODY: FORE RIVER	ABUTTERS: SEE ATTACHMENT 10	SCALE: 1" = 40' DATUM: -	DATE: APR 2012	DELUCA-HOFFMAN ASSOCIATES, INC.



PAUL R. LEPAGE
GOVERNOR

MAINE HISTORIC PRESERVATION COMMISSION
55 CAPITOL STREET
65 STATE HOUSE STATION
AUGUSTA, MAINE
04333

EARLE G. SHETTLEWORTH, JR.
DIRECTOR

March 29, 2013

RECEIVED APR - 2 2013

Greg A. Mitchell, Director
Economic Development Department
City of Portland
389 Congress Street
Portland, Maine 04101

Project: MHPC #0812-11; Forefront at Thompson's Point, proposed commercial development;
Maine Historic Building Record documentation
Location: Portland, ME

Dear Mr. Mitchell:

The Commission is in receipt of the final Maine Historic Building Record narrative history and description from Sutherland Conservation & Consulting for the subject project. This narrative meets the requirements of the Schedule of Documentation for the former Maine Central Railroad Machine Shop and Car Repair Shop/Planing Mill at Thompson's Point, Portland, Maine.

Under separate cover from Todd Caverly, we have received the photographic documentation for the Thompson's Point facility. The photographic documentation meets the requirements of the Schedule of Documentation.

The submittals described above satisfy Stipulation A of the Memorandum of Agreement between the Economic Development Administration, the Maine State Historic Preservation Officer, the City of Portland, and Forefront Partners I, LP.

If you have any questions regarding this matter, please feel free to contact me.

Sincerely,

Kirk F. Mohney
Deputy State Historic Preservation Officer

cc: Amy Cole Ives, Sutherland Conservation & Consulting
Todd Caverly



Federal Aviation Administration
Air Traffic Airspace Branch, ASW-520
2601 Meacham Blvd.
Fort Worth, TX 76137-0520

Aeronautical Study No.
2010-ANE-904-OE

Issued Date: 12/21/2010

Steve Bushey
DeLuca-Hoffman Associates
778 Main Street
South Portland, ME 04106

**** FEASIBILITY REPORT ****

The Federal Aviation Administration has conducted a limited aeronautical review concerning the feasibility of a structure described as follows:

Structure:	Feasibility Study (commercial buildings)
Location:	Portland, ME
Latitude:	43-39-03.79N NAD 83
Longitude:	70-17-28.48W
Heights:	150 feet above ground level (AGL) 175 feet above mean sea level (AMSL)

The results of this review can be found on the attached page(s).

NOTE: THE RESULTS OF OUR LIMITED REVIEW IS NOT AN OFFICIAL DETERMINATION OF FINDINGS BUT ONLY A REPORT BASED ON THE GENERAL OR ESTIMATED INFORMATION SUPPLIED FOR THE STRUCTURE. ANY FUTURE, OFFICIAL AERONAUTICAL STUDY MAY REVEAL DIFFERENT RESULTS.

If we can be of further assistance, please contact our office at (847) 294-7575. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2010-ANE-904-OE.

Signature Control No: 131185695-134672885

(FSB)

Vivian Vilaro
Specialist

Attachment(s)
Additional Information

Additional information for ASN 2010-ANE-904-OE

Feasibility Study for Aeronautical Study No. 2010-ANE-904-OE

This informal feasibility report is based on the data submitted by the sponsor. This is not a formal determination but only a report based on the information furnished to this office. Please keep in mind that there is always a possibility that the final outcome of a formal aeronautical study might prove to be different from the results of this informal feasibility study.

1. The proposed site would be located approximately 3279 feet (0.53 nautical miles) northeast of the Runway 29 threshold of the Portland International J Airport (PWM) in Portland, ME.
2. Based on Part 77, notice to the FAA would be required and the structure does not exceed the obstruction standards. This information is based on airport information currently on file with the FAA.
3. This informal feasibility report does not supercede or override any state, county or local laws or ordinances.
4. Based on the unofficial nature of this study, the FAA shall not be held responsible for any type of commitment entered into by the sponsor based solely on this informal feasibility report.
5. If the location or overall AMSL height changes, the results of this feasibility study are will not apply.
6. Please refer to the ASN noted above on any future correspondence concerning this feasibility report or if you do file formal notice with the FAA concerning the structure.

BOARD OF HARBOR COMMISSIONERS

PORT OF PORTLAND, MAINE

Application for a Marine Construction Permit

DECISION

Date of public hearing:
August 14, 2014

Name and address of applicant:
Thompson's Point Development Company
501 Danforth Street
Portland, ME 04102

Location of project for which permit is requested:
Thompsons Point
Fore River

Description of project:
Construction of a seasonal dock system

For the Record:

Names and addresses of witnesses (proponents, opponents and others):
Bo Kennedy, FST

Exhibits admitted (e.g. renderings, reports, etc.):
Marine Construction permit application packet prepared by FST

Summary of testimony presented:
Applicant outlined the proposed project and answered questions from the board.

Findings of Fact and Conclusions of Law:

1) Waiver of 25ft rule as defined in Rule 16.2(b):

The Board of Harbor Commissioners may grant a waiver of the 25 foot rule if it finds that it would be unfair, inappropriate or unnecessary to apply the rule in a particular situation.

Granted ___ Not Granted ___

Reason: N/A

RECEIVED

AUG 20 14

F.S.&T.

Factors to be considered by the Board:

- a. Whether the particular marine structure or obstruction under consideration, even if allowed to be constructed or placed within 25 feet of a sideline, will permit a channel that will adequately allow the passage of vessels;
- b. Whether existing marine structures or obstructions make it impossible for a channel wide enough to allow the passage of vessels to exist, regardless of the placement or construction of the marine structure under consideration;
- c. The intended use of the marine structure of obstruction;
- d. Whether granting a waiver would significantly reduce an abutting property owner's use of that abutting property, including but not limited to the owner's ability in the future to attach a marine structure to that abutting property;
- e. Any boundary lines between properties that extend into the harbor as described in deeds, maps or plans; and
- f. Any other factor the Board believes is relevant to whether a waiver should be granted in a particular case.

2) The marine structure or obstruction will not substantially or unreasonably interfere with navigation, including its impact on convenient channels for the passage of vessels.

Satisfied Not Satisfied

Reason:

3) The marine structure or obstruction will not injure the rights of others.

Satisfied Not Satisfied

Reason:

4) The marine structure or obstruction will not threaten public safety.

Satisfied Not Satisfied

Reason:

Conclusion: (check one)


Option 1: The Board finds that the standards described above have been satisfied and therefore GRANTS the permit.

Option 2: The Board finds that while the standards described above have been satisfied, certain additional conditions must be imposed to minimize adverse effects on navigation and/or public safety, and therefore GRANTS the permit SUBJECT TO THE FOLLOWING CONDITIONS:

Option 3: The Board finds that the standards described have NOT all been satisfied and therefore DENIES the permit.

Dated:

8-18-14



Jeff C. Liick
Harbor Master
Port of Portland
By Direction

**BOARD OF HARBOR COMMISSIONERS
PORT OF PORTLAND**

PERMIT-A

TO BE POSTED IN A CONSPICUOUS PLACE AT THE CONSTRUCTION SITE

To: Thompsons Point Development Company
501 Danforth Street
Portland, ME 04102

The Board of Harbor Commissioners for the Port of Portland has carefully considered your application, dated the 22th day of July, 2014 for a permit authorizing:

Construction of a seasonal float system

Having given public notice of this pending application, as required by law, and therein designated the 8th day of May 2014, at 5:00 o'clock in the afternoon prevailing time as the time when they would meet at Portland City Hall, to examine this issue and hear all interested parties, and having met at the time and place mentioned and examined the location of this proposed construction project and having heard all interested parties, the Board of Harbor Commissioners for the Port of Portland hereby issues this permit which authorizes you to proceed under all applicable local and federal regulations hereinafter stated, and to maintain within the limits mentioned in the permit application.

In addition, the construction project described above must be surrounded by a containment boom unless the Board of Harbor Commissioners for the Port of Portland has waived this requirement in writing, either as part of the above-listed conditions, or in a separate statement.

This permit is limited authorization, which contains a stated set of conditions with which the permit holder must comply. If a contractor performs the work for you, both you and the contractor are responsible for assuring that the work is done in conformance with the conditions and limitations of this authorization. Please be sure that the person who will be performing the work has read and understands these conditions.

Performing any work not specifically authorized by this permit, or that fails to comply with its conditions, may subject you to the enforcement provisions of Harbor Commission regulations. If any change in plans or construction methods is found necessary, please contact the Harbor Commission immediately to discuss modifications to your authorization. Any change must be approved by the Harbor Commission before it is undertaken.

Nothing in this permit shall be construed to justify or authorize any invasion to the private rights of others. Moreover, nothing in this permit shall limit or modify the authority of the Board of Harbor Commissioners for the Harbor of Portland with its applicable statute. Attested copies will be submitted to the U. S. Army Corps of Engineers, the Department of Environmental protection, the City of Portland, and the City of South Portland.

In Witness Whereof, of the Board of Harbor Commissioners for the Port of Portland hereunto affix their corporate seal on this 14th day of August, 2014. The work authorized to this permit must be completed on or before the 14th day of August 2015.



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Paul R. LePage
GOVERNOR

David Bernhardt
COMMISSIONER

Applicant: Thompson's Point Development Company Inc.
Project Location: Thompson's Point Rd, Portland, ME
Portland Tax Map 201 Lot(s) 8, 9 and 10 and Map 202 Lots 2, 4 and 5
Project: Mixed use Development
Identification #: Reg. 01-00155-A-N
Permit Category: 200 Plus PCE
Traffic Engineer: Thomas Gorrill
Gorrill-Palmer Consulting Engineers
PO Box 1237
15 Shaker Rd.
Gray, ME 04039

Pursuant to the provision of 23 M.R.S.A. § 704-A and Chapter 305 of the Department's Regulations, the Maine Department of Transportation (MaineDOT) has considered the application of Thompson's Point Development Company Inc with supportive data, agency review and other related materials on file.

PROJECT DESCRIPTION

The applicant proposes to construct a 97,697 sf event center/convention hall/exhibit hall; 32,000 sf concert hall plus outdoor venue for up to 4,800 attendees; 378,000 sf of office space; 4,000 sf of medical office space; 20,000 sf gym and rehabilitation center; 125 room hotel; 6,000 sf of restaurant space (high-turnover sit down). The site is forecast to generate 734 AM and 1,091 PM weekday peak hour trip ends.

Findings

Based on a review of the files and related information, MaineDOT approves the Traffic Movement Permit Application of Thompson's Point Development Company Inc. subject to the following conditions:

MITIGATION

On-Site Mitigation

All Site Entrances

All entrances shall have overhead illumination provided, if not existing, to illuminate the intersections per MaineDOT standards at a minimum. Overhead lighting shall have an average of



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Portland Thompson's Point Mixed use development

Reg. 01-00155-A-N

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0.6 to 1.0 foot candles, with the maximum to minimum lighting ratio of not more than 10:1 and an average to minimum light level of not more than 4:1.

Thompson's Point Road

Thompson's Point Road shall be widened to accommodate an 8 foot shared bike/pedestrian path, a 3 foot wide grass esplanade, a 3 foot shoulder with granite curb, an 11 foot wide outbound lane, and 11 foot wide flush concrete median, an 11 foot wide inbound lane and a 3 foot shoulder with granite curb. This section will be constructed from the site driveway to the Fore River Parkway. The 250 feet of flush median closest to Fore River Parkway shall be designated as an exclusive left turn lane outbound. The shared bike/pedestrian path shall have a crossing built at the Sewall Street cul de sac and the path extended to the existing sidewalk on Sewall Street. Another pedestrian crossing shall be installed where the current pedestrian crossing is at the bus/train station. Both crossings shall have solar powered/radio interconnected pedestrian activated rectangular rapid flashing beacon lights installed.

Thompson's Point Development

No sporting events or concerts shall begin between 4 pm and 7pm Monday through Friday.

During large sporting and concert events, the applicant shall ensure that there are flaggers and uniformed police officers present to ensure that there will be two inbound lanes prior to the event and two exit lanes after the event. Flaggers/uniformed police officers shall be stationed to ensure that pedestrians are able to cross at either of the two crosswalks, at the Transportation Center Entrance to let busses in or out and also at the transportation center parking lot entrances to ensure that transportation center patrons leaving the parking lots are merged into the out-bound flow. Uniformed police officers shall be present after an event to direct traffic at the Thompson's Point Road/Fore River Parkway intersection. Retro-reflective traffic cones shall be used by the development to create the reversible lane. Flaggers will direct vehicles into the proper lanes.

Off-Site Mitigation

Fore River Parkway/Thompson's Point Road/I-295 Exit 5A off-ramp

The Southbound off ramp at Exit 5 A shall be reconstructed to have a separate 13 foot wide left turn lane and 13 foot wide through lane. The widths include the

required curb offset. The left lane shall extend back 200 feet. Install Queue detector at the ramp gore area to act as pre-emption for the signal should the queue spill back that far.

Modify traffic signal timing and phasing accordingly.

Fore River Parkway/Congress St/I-295 Exit 5 B off-ramp

Portland Thompson's Point Mixed use development

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Widen the southbound off-ramp to accommodate a 5 foot wide right shoulder, two 12 foot wide right turn lanes and a 2 foot curb offset for a distance of 125 feet with an appropriate taper. Install Queue detector at the ramp gore area to act as pre-emption for the signal should the queue spill back that far.

Re-stripe Congress Street Westbound to accommodate a longer westbound left turn lane, extend back to the end of the island (to the slip lane from Park Ave to Congress St).

Modify traffic signal timing and phasing accordingly.

Congress St/Stevens Ave

Restripe Steven's Avenue to an exclusive left and a shared left/thru/right and modify traffic signal timing and phasing accordingly.

The developer shall pay an impact fee in the amount of \$15,000 for inlaid thermoplastic paint skips, retro-reflective back plates and overhead lane usage signage. This money will be put towards improvements funded by PIN 19078.00.

Congress St/Westbrook St

The developer shall pay an impact fee in the amount of \$15,000 for inlaid thermoplastic paint skips, retro-reflective back plates and overhead lane usage signage. This money will be put towards improvements funded by PIN 19078.00.

Congress/Frost St

The developer shall pay an impact fee in the amount of \$15,000 for inlaid thermoplastic paint skips, retro-reflective back plates and overhead lane usage signage. This money will be put towards improvements funded by PIN 19078.00.

Transportation Demand Management

In lieu of additional mitigation, Transportation Demand Management shall be used to offset the traffic impacts on the roadway network. The City has implemented a Transportation Oriented Development Tax Increment Financing District for the Thompson's Point Development. This development would benefit from some increased transit connections to the airport and Old Port, funding for handicap accessible taxis or for increase in parking at the Transportation Center.

Overall

A. Provide all necessary auxiliary signs, striping and pavement markings to implement the improvements described herein according to State of Maine and/or National standards.

Portland Thompson's Point Mixed use development

Reg. 01-00155-A-N

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B. All plantings and signs (existing and/or proposed; permanent and/or temporary) shall be placed and maintained such that they do not block available sight distances and do not violate the State's "Installations and Obstructions" law. No signage or plantings shall be allowed within the "clear zone" if they constitute a deadly fixed object as determined by MaineDOT. All signs shall meet MRSA Title 23, Chapter 21, Section 1914: "On-Premise Signs".

C. If any of the supporting data or representations for which this permit is based changes in any way or is found to be incorrect / inaccurate, the applicant shall request in writing from MaineDOT a decision of what impacts those changes will have on the permit. The applicant will then be required to submit those changes for review and approval and additional mitigation as a result of those changes may be required at the expense of the applicant.

D. Because the proposed project affects the state highway and drainage systems and requires improvement to that system, the applicant must obtain approval of the design plans and coordinate work through MaineDOT's State Traffic Engineer, who can be reached at (207)-624-3620 in Augusta.

By:



Stephen Landry, P.E.

Assistant State Traffic Engineer

Date: 6/13/12



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Paul R. LePage
GOVERNOR

David Bernhardt
COMMISSIONER

LEGAL SERVICES Tel: (207) 624-3020 Fax: (207) 624-3021
MDOT TTY TEL: 888-516-9364

April 3, 2012

Danielle P. West-Chuhta
Associate Corporation Counsel
389 Congress Street
Portland, ME 04101-3509

Re: Railroad Decision #364

Dear Ms. West-Chuhta:

I enclose Railroad Decision # 364, dated April 3, 2012, signed by David Bernhardt, P.E., Commissioner of the Maine Department of Transportation. Decision # 364 relates to the City of Portland's petition to establish a public highway crossing over railroad tracks at Sewall Street in Portland, Maine.

If you have any questions regarding the above, please contact me.

Very truly yours,

Richard N. Hewes
Richard N. Hewes
Attorney for MaineDOT

RNH/jas
Enclosure

- cc: Nathan Moulton, Manager, Rail Transportation, MaineDOT w/enc.
- David Fink, President, Pan Am Railways w/enc.
- Central Maine Power Co., Land Management Dept. w/enc.
- Cumberland County Commissioners w/enc.
- Langdon Street Real Estate w/enc.
- Mercy Hospital w/enc.
- Northern New England Rail Authority w/enc.
- Portland Water District w/enc.
- Thompson's Point Inc. w/enc.
- The Waynflete School w/enc.
- Kat Beaudoin w/enc.
- Robert Bremm, Ritter Project Management w/enc.
- Tony Donovan, Fishman Realty Group w/enc.
- James Howard, Esq. w/enc.

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MAINE DEPARTMENT OF TRANSPORTATION

RAIL DECISION - RR # 364

REGARDING:

Petition pursuant to 23 M.R.S.A. § 7202 by the City of Portland to Establish a Public Highway Crossing Over Railroad Tracks at Sewall Street in Portland, Maine.

ABSTRACT:

On September 7, 2011, the City of Portland petitioned the Maine Department of Transportation to establish a public grade crossing for highway traffic on Sewall Street in Portland, Maine at Railroad Mile Post 1.92 on the Mountain Division Branch Line. Portland Terminal Company has owned a private railroad crossing at that location for decades. Rail traffic is operated by Springfield Terminal Railway Company. The owner of the rails and the operator of rail traffic are owned by Pan Am Railways. This decision, RR # 364, establishes a public grade crossing on Sewall Street after the conditions outlined herein are satisfied.

Hearing was held February 27, 2012

Location of hearing: Portland City Hall

The petition is granted

Date of Decision: April 3, 2012

Commissioner: David Bernhardt, P.E.

Hearing Officer: Richard N. Hewes, Esq.

I. PROCEDURAL BACKGROUND

On September 7, 2011, pursuant to 23 M.R.S.A. § 7202, the City of Portland ("City") petitioned the Maine Department of Transportation ("Department") to establish a public highway crossing ("Crossing") over railroad tracks in Portland at Sewall Street. The tracks are owned by Portland Terminal Company, train traffic is operated by Springfield Terminal Railway Company and Pan Am Railways owns Portland Terminal Company and Springfield Terminal Railway Company (these three entities are separately and collectively referred to as the "Railroad"). Tracks currently cross over a private way immediately to the south of the terminus of Sewall Street at Mile Post 1.92 on the Mountain Division Branch Line. The City requests that a public crossing be established where the private crossing now exists.

Hearing on the aforementioned petition was ordered to be held at the City Hall in Portland at 6:00 o'clock in the evening on November 22, 2011. Asserting membership in a class that could be substantially and directly affected by Railroad Decision #364, Pan Am applied for intervenor status. At the November 22, 2011 hearing, Pan Am's motion for intervenor status was granted without objection. The City asked for a continuance. Representatives of the railroad were present and did not object. The City and Pan Am had not yet finalized an agreement on fundamental aspects of the Crossing, but felt they could reach agreement on those issues through further communications. The hearing was continued and rescheduled for January 12, 2012. The January hearing was cancelled because of a snow storm. The matter was rescheduled and a public hearing was held February 27, 2012 at Portland City Hall.

II. NOTICE

Exhibit 18 is a copy of the January 18, 2012 cover letter with attached notice of the February 27, 2012 hearing that was sent to the following interested parties, including abutters and stakeholders:

City of Portland
Nathan Moulton, Manager, Rail Transportation, MaineDOT.
George Thayer, Springfield Terminal Railway Company/Maine Central Railroad
David Fink, President, Pan Am Railways
Central Maine Power Co.
Cumberland County Commissioners
Langdon Street Real Estate
Mercy Hospital
Northern New England Rail Authority
Portland Terminal Co.
Portland Water District
Thompson's Point Inc.
The Waynflete School
Kat Beaudoin, Integrated Planning Solutions
Robert Bremm, Ritter Project Management
Tony Donovan, Maine Rail Transit Coalition

James Howard, Esq.

Exhibits 19 and 20 are pages from the February 7 and 13, 2012 editions of the Portland Press Herald, a newspaper that has general circulation in the area affected by the City's petition. These pages contain notices which state that the hearing would be held February 27, 2012 at 6:00 p. m. in the Portland City Hall. Notice was proved to have been given in the manner prescribed by 23 MRSA § 7202 and 5 MRSA § 8053. Hearing on the aforementioned petition was held at the time and place stated in the notice. The hearing officer viewed the crossings on the day of the hearing and his observations are part of the evidence.

III. EVIDENCE

A. Exhibits.

Exhibit

1. September 7, 2011 hearing request from Danielle P. West-Chuhta, Esq., Counsel for the City of Portland.
2. Sign-up sheet for November 22, 2011 hearing.
3. Maine Sunday Telegram's Classified Section's Tear Sheet of Notice of Hearing published October 30, 2011 which indicated the hearing would be held at the Portland Transportation Center on November 22, 2011 at 6:00 p.m.
4. Notice of Hearing which indicated that the hearing would be held at the Portland Transportation Center on November 22, 2011 at 6:00 p.m.
5. Copy of Letter to Danielle P. West-Chuhta, Esq. and Interested Parties dated October 27, 2011 enclosing the Notice of Hearing which indicated that the hearing would be held at the Portland Transportation Center.
6. Notice of Hearing indicating a new location for the hearing being held on November 22, 2011 to be the Portland City Hall.
7. Copy of Letter to Danielle P. West-Chuhta, Esq. and Interested Parties dated November 3, 2011 enclosing the Notice of Hearing indicating the new location for the hearing to be held on November 22, 2011 to be the Portland City Hall.
8. Undeliverable return envelope with hearing notice mailed to Northern New England Rail Authority.
9. Email to Patricia Quinn at NNEPRA dated November 15, 2011, enclosing a copy of the Notice of Hearing with the new location of Portland City Hall incorporated.
10. Portland Press Herald Newspaper Classified Section Tear Sheet with Notice of

Hearing published November 4, 2011 with the new location of Portland City Hall incorporated.

11. Maine Sunday Telegram Classified Section Tear Sheet with Notice of Hearing published November 6, 2011 with the new location of Portland City Hall incorporated.
12. Pan Am Railways Application for Intervenor Status.
13. Email from Danielle West-Chuhta, Esq. waiving the City of Portland's objections to the Application for Intervenor Status.
14. November 22, 2010 hearing transcript.
15. Portland Press Herald Newspaper's Classified Section's Tear Sheet of Notice of Hearing published December 22, 2011.
16. Portland Press Herald Newspaper's Classified Section's Tear Sheet of Notice of Hearing published December 29, 2011.
17. Letter to Danielle P. West-Chuhta, Esq. and Interested Parties dated December 12, 2011 with Notice of the January 12, 2012 Hearing.
18. Letter to Danielle P. West-Chuhta, Esq. and Interested Parties dated January 18, 2012 with Notice of the February 27, 2012 Hearing.
19. Portland Press Herald Newspaper Tear Sheet (p. D 6) published February 7, 2012 with Advertised Notice of February 27, 2012 Hearing.
20. Portland Press Herald Newspaper Tear Sheet (p. D 3) published February 13, 2012 with Advertised Notice of February 27, 2012 Hearing.
21. Sign-in Sheet for Attendees of the February 27, 2012 Public Hearing.
22. September 7, 2012 petition for hearing with margin notations.
23. Subdivision plat of the area of the proposed Sewall Street crossing.
24. Written testimony by Gregory Mitchell, City of Portland.
25. Public Hearing Submission by City of Portland with photos, plans and descriptions of proposed crossing and Thompson's Point development.
26. Email (two pages) confirming that Pan Am Railways and the developer of Forefront at Thompson's Point reached agreement relative to the Crossing.

A. Public Comments.

Danielle P. West-Chuhta, Esquire, Associate Corporation Counsel for the City, spoke in support of the petition to establish the Crossing. Ms. West offered Exhibit 22, the request for hearing, and Exhibit 23, a plat map showing the area surrounding the Crossing and the planned extension of Sewall Street. The Crossing is located at Mile Post 1.92 on the Mountain Division Branch Line. Trains travel at 10 miles per hour through the Crossing area. The Crossing will be at grade and the purpose of the Crossing will be to create a way for highway traffic to travel to and from Thompson's Point, which will be developed in the near future.

The terminus of Sewall Street, a town way, is at the northern boundary of the railroad corridor. A private way, also known as Sewall Street, continues through the Crossing and runs into Thompson's Point. The tracks currently run through that private way. The City plans to extend Sewall Street about 130 feet to the south of the existing crossing. When this piece of road is accepted as a public way, the tracks will be located within a public street. The City requests that a public crossing be established where the private crossing now exists.

Gregory Mitchell, Acting Director of the City's Department of Planning and Urban Development said that the Crossing is part of a larger plan to develop Thompson's Point, a peninsula to the south of the Crossing that extends into the Fore River. The planned development will be a world class destination that will provide access to cultural functions, athletic events and other entertainment activities. Officials from the Portland Fire Department have reviewed plans for the proposed Crossing and approve of the design.

Christopher Thompson, a representative of Forefront Partners I, LP, the company that plans to develop Thompson's Point, said that Thompson's Point will be converted into a 27 acre complex called the Forefront at Thompson's Point. The development will have an event center, a concert hall and amphitheater, a sports medicine facility, a hotel, a restaurant, office buildings and a parking garage. The event center will offer 3500 basketball fans the chance to view Portland's local professional team. Vendors and entrepreneurs will be able to display their wares at trade shows in a 44,000 foot facility. Music enthusiasts will have the opportunity to enjoy concerts at a 4500 seat auditorium and office space will be available as well. The Forefront at Thompson's Point will serve to connect walking trails to the Portland Transportation Center. Given the large number of people expected to use this facility, the existing crossing must be upgraded to facilitate the flow of public highway traffic to and from Thompson's Point.

Stephen Bushey, an engineer who works for Deluca Hoffman Associates, spoke in favor of the Crossing. He offered Exhibit 25, a brochure entitled Public Hearing Submission by City of Portland. Exhibit 25 contains photos, plans and descriptions of the Crossing area, including the planned development. Surface parking will be available for 712 vehicles and the parking garage will have space for 732 cars.

The Crossing will be constructed sometime between 2012 and 2014 at a cost of about \$500,000 - \$600,000. The two sets of tracks currently in place, a main line and a siding, will be in the proposed Crossing. The Crossing will be about 36 feet wide and will have three lanes for automobiles. Incoming and outgoing traffic will each have a dedicated lane. The middle lane

will be reversible to accommodate incoming or outgoing automobiles when traffic is heavy. A path on the west side of the inbound automobile lane will be available for pedestrians.

Flashing warning lights will be attached to a cantilevered structure over the Crossing to warn highway travelers about passing rail traffic. Pedestrian access will be controlled by automatic gates. Gates will not be installed over automobile lanes. The reversible middle lane will be used for heavy traffic during peak hours. Traffic control workers will direct traffic as needed. According to Exhibit 26, the developer has concluded an agreement with the Railroad that obligates the developer to reimburse the cost of improving the Crossing.

To access the planned development, highway traffic must enter the Thompson's Point Access Road from the Fore River Parkway. Once on the access road, travelers will move in an easterly direction until they turn onto Sewall Street at a 90 degree angle and travel south toward the Crossing. Southbound motorists travel down a slight decline that begins about 50 feet north of the Crossing. The tracks cross Sewall Street in an east-west direction at the bottom of that dip in the road. Sewall Street runs in a north-south direction and intersects the tracks at a ninety degree angle. The approach for motorists leaving Thompson's Point is level.

Automobile traffic is expected to pass through the proposed crossing during peak hours at the rate of 955 total trips. The highway speed limit at the crossing will be 25 miles per hour. After southbound motorists turn onto Sewall Street, they will have sight distance of about 500 feet to the Crossing. Highway traffic approaching from Thompson's Point can view the Crossing from a distance of 300 feet.

Two to four freight trains per week move through the Crossing. No passenger train traffic uses the Crossing at this time. Track speed is ten miles per hour. Randall Pike, P. E., a member of the firm that will design the Crossing, said that eastbound trains will have sight distance on their approach to the Crossing of several thousand feet and westbound trains will have sight distance of about 1000 feet to the Crossing.

The surrounding area is generally industrial. A parking lot and passenger loading area in the rear of the Portland Transportation Center are on the northeast quadrant of the Crossing. A power transmission facility and two story metal building are on the northwest quadrant. An Amtrak office resembling a mobile home is on the southeast quadrant. A fenced parking lot that holds dozens of trailers is on the southwest quadrant. An Amtrak passenger station is located about 600 feet to the east of the Crossing.

Nathan Moulton, Manager of Rail Transportation for the Department, said that the Department supports the proposed Crossing. Exhibit 26 states that the Department will be provided with plans of the Crossing for review and approval. Signage, pavement markings, gates, lights and other safety installations must be approved by the Department and will conform to the Manual on Uniform Traffic Control Devices.

Robert Burns, a lawyer for the Railroad, confirmed that the Railroad and the developer were close to reaching an agreement for the development of the Crossing. James Howard, a lawyer for the developer of Thompson's Point, said that the parties were close to finalizing

financial concerns and that safety and design issues were resolved. Robert Haines, a Portland resident, spoke in favor of the Crossing, but expressed doubt that the access road would accommodate inevitable congestion during big events. Dory Waxman, a former City Councilor and a resident of Portland, spoke in favor of the Crossing and stressed that traffic during big events would be manageable because designers would anticipate traffic congestion problems.

IV. FINDINGS AND CONCLUSIONS

Based on exhibits, hearing testimony and site visits, the following findings are made:

1. Parties. The City of Portland petitioned the Maine Department of Transportation to issue an order establishing a public crossing. Portland Terminal Company owns the railroad in the proposed crossing area and Springfield Terminal Railway Company operates rail traffic. Pan Am Railways owns these two entities.
2. Location of Proposed Crossing. The proposed Crossing will be located at Mile Post 1.92 on the Mountain Division Branch Line, the site of a private crossing.
3. Status of Existing Crossing. The existing crossing is private. The terminus of Sewall Street, a town way, ends on the northern edge of the rail corridor. A private way, also named Sewall Street, runs in a southerly direction over the tracks to Thompson's Point. The City plans to extend Sewall Street an additional 130 feet south of the existing crossing. When this road is accepted as a public way, the tracks will be located within a public street.
4. Crossing Geometry. Two sets of tracks, a mainline and a siding, run through Sewall Street to form a double-track crossing. The rails run in an east-west direction and intersect Sewall Street at a 90 degree angle. Sewall Street runs in a north-south direction.
5. Sight Distance. Eastbound trains will have sight distance on the approach to the Crossing of several thousand feet and westbound trains will have sight distance of about 1000 feet. Southbound motorists will approach on a decline and will have a clear view of the Crossing for about 500 feet. Motorists traveling north on Sewall Street from Thompson's Point will have sight distance of about 300 feet.
6. Railroad Traffic. Four trains pass through the Crossing each week. Timetable speed over the rails is 10 miles per hour.
7. Highway Traffic. Automobile traffic is expected to pass through the Crossing during peak hours at the rate of 955 total trips. The speed limit for automobiles will be 25 miles per hour. The highway in the Crossing will be 36 feet wide with three lanes for automobile traffic. One lane will be dedicated for incoming highway traffic and one lane will be dedicated to outgoing vehicles. The middle lane will be reversible to accommodate either incoming or outgoing vehicles when traffic is heavy. A paved path will facilitate the flow of pedestrian traffic.

8. Purpose. The Crossing will allow public highway traffic to pass through the railroad corridor and flow into the planned development at Thompson's Point.
9. Area Land Use. A parking lot and passenger loading area for the Portland Transportation Center are on the northeast quadrant of the Crossing. A power transmission facility and a two story metal building occupy the northwest quadrant. An Amtrak office resembling a mobile home is on the southeast quadrant. A parking lot that holds dozens of trailers is on the southwest quadrant. An Amtrak passenger station is located about 600 feet to the east of the crossing.
10. Construction and maintenance. The Crossing is expected to be constructed between 2012 and 2014. The estimated cost is \$500,000 to \$600,000.
11. Design. The Railroad and Forefront Partners I, LP have reached agreement on the design of the Crossing. The Department will be provided with the plans for review and approval to ensure that the design meets safety requirements. Officials from the Portland Fire Department approve of the proposed Crossing.

V. ORDER

Based upon the evidence and the applicable law, it is hereby ORDERED that the City of Portland's Application to Establish a public highway crossing along the planned extension of Sewall Street at Mile Post 1.92 on the Mountain Division Branch Line is granted upon the fulfillment of the following conditions:

1. The City shall lay out and accept a public way across the Mountain Division Branch Line at Railroad Mile 1.92 in Portland.
2. The following actions shall be taken and safety measures installed:
 - a) All safety measures including signalization, gates, bells, signage, lights and pavement shall be properly designed and constructed in accordance with the Department's Standard Specifications and Standard Details in effect at the time the Department approves the Crossing.
 - b) All safety measures that are required or recommended by the Manual on Uniform Traffic Control Devices (MUTCD) in effect when the Department approves the Crossing shall be properly located and installed.
 - c) Final design plans for traffic lanes at or near the Crossing shall be submitted to the Department for approval at least 30 days before construction of the Crossing commences. Construction shall not begin until the Department approves the plans.

- d) The Railroad and the City shall coordinate the planning, construction and testing of all signals and other safety devices to ensure that they are properly synchronized and in good working order before the Crossing is opened for use.
- e) All pedestrian access transitions at the Crossing shall be designed and installed in compliance with the Americans with Disabilities Act (ADA).
- f) Street lighting shall be installed at the crossing. Said lighting shall comply with all federal, state and local requirements.
- g) The City shall be responsible for the cost of constructing the Crossing. The Railroad shall be responsible for operating and maintaining the Crossing.
- h) If the Crossing has not been approved by the Department for public use by January 1, 2017, then the authority to establish the Crossing under this order shall expire unless the City or the Railroad petitions the Department before January 1, 2017 to modify this Decision for an extension of the deadline.

MAINE DEPARTMENT OF TRANSPORTATION



David Bernhardt, P. E.
Commissioner

VI. APPEAL RIGHTS

Pursuant to 23 M.R.S.A. § 7202, this decision shall be final and binding on all parties unless an appeal from this decision is taken. Any party wishing to appeal must, within 14 days from the date of the filing of this decision, file in the office of the Maine Department of Transportation its reasons for appeal and shall cause to be served on any other interested parties, a copy of the reasons for appeal certified by the department. The department must be made a party to the appeal.

Pursuant to the requirements of 5 M.R.S.A. § 11001 et seq. appellate procedures also apply to an appeal of this decision. Pursuant to 5 M.R.S.A. § 11002, a petition for review of this decision shall be filed within 30 days after receipt of notice of this decision if the appeal is taken by a party to the proceeding for this decision. Any other person aggrieved shall have 40 days from the date the decision was rendered to petition for review. If the review sought is from the Department's failure or refusal to act, the petition for review shall be filed within 6 months of the expiration of the time within which the action should reasonably have occurred.

Pursuant to 5 M.R.S.A. § 11002 (2), the petition shall specify the persons seeking review, the manner in which they are aggrieved and the final agency action which they wish reviewed. It shall also contain a concise statement as to the nature of the action or inaction to be reviewed, the grounds upon which relief is sought and a demand for relief which may be in the alternative. Copies of the petition for review shall be served by Certified Mail, Return Receipt Requested, upon the Maine Department of Transportation, all parties to the proceedings, and the Department of the Maine Attorney General.

NOTICE OF INTENT TO COMPLY WITH MAINE CONSTRUCTION GENERAL PERMIT

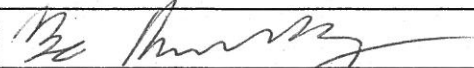
PLEASE TYPE OR PRINT IN **BLACK INK ONLY**

Name of Applicant (Owner):	Forefront Partners I, LP Attn: Chris Thompson	Applicant Mailing Address:	501 Danforth Street		
Town/City:	Portland	State:	Maine	Zip Code:	04102
Daytime phone: (with area code)	207-747-5288	Email if available:	parallaxpartners@gmail.com	Name of Agent:	Bo Kennedy, P.E. - FST bkennedy@fstinc.com
Project Location: (Town/City):	Portland	UTM Northing: (if known)	4,833,933	UTM Easting: (if known)	395,870
Map #:	201/202	Lot #:	A-5, A-8, A-10/ A-1, A-4	Size of disturbed area proposed:	5.0 ac.
Creating a common plan of development or sale?	Yes <input checked="" type="checkbox"/> No	Part of a larger project?	Yes <input checked="" type="checkbox"/> No		
Name of waterbody(ies) to which the disturbed area drains, or name municipality if drains to an MS4:	Fore River				
Does site drain to an Impaired Waterbody (C)? If so, give name:	No				
Detailed directions to site, including address if available:	1 Thompson's Point Road - Portland, Maine				
Description of project and its purpose:					
The construction is associated with an overall plan to develop Thompson's Point with a mixed use development.					
The development is subject to a Site Location of Development Permit as approved by the City of Portland through the delegated review authority.					

I am filing notice of my intent to carry out work which meets the requirements of the Construction General Permit (effective 3/10/03). I have a copy of the Construction General Permit. I have read and will comply with all of the standards. I have attached all the required submittals. *Notification forms cannot be accepted without the necessary attachments.*

- ALL: A check (non-refundable) made payable to: "Treasurer, State of Maine." **See DEP fee schedule for correct fee.** You must know # of acres being permitted to determine the fee.
- ALL: A U.S.G.S. topo map or Maine Atlas & Gazetteer map with the project site clearly marked. (previously submitted)
- ALL: Drawing of the proposed activity (site plan). (previously submitted)
- ALL: An ESC plan. (Interim Plan enclosed)
- IF this form is not being signed by the landowner or lessee of the property, attach documentation showing authorization to sign.
- IF any construction activity will occur in essential habitat, attach written approval from the Dept. of Inland Fisheries & Wildlife.

I authorize staff of the Departments of Environmental Protection to access the project site for the purpose of determining compliance with the general permit. I also understand that **this permit is not valid until approved by the Department or 14 days after receipt by the Department, whichever is less.**

Signature of Applicant:		Date:	6/18/14
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Keep the bottom copy as a record of permit. Send the form with attachments via certified mail to the Maine Dept. of Environmental Protection at the **appropriate regional office**. The DEP will send a copy to the Town Office as evidence of the DEP's receipt of notification. No further authorization by DEP will be issued after receipt of notice. Check with DEP Staff to determine the expiration date on this permit. **Work carried out in violation of any standard is subject to enforcement action.**

OFFICE USE ONLY	Ck.#	1190	Date	6/18/2014	Staff	MR	Staff	
NOI #	FP	58116	130.00	6-23-14	Acc. Date	6-23-14	Def. Date	After Photos

GJS ✓



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

June 2014

Forefront Partners I, LP
55 Lisbon St., Suite 2400
Lewiston, ME 04240

RE: Natural Resources Protection Act Application, Portland
DEP #L-25672-4P-F-N/L-25672-FS-G-N

Dear Applicant:

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) 592-1692 or at Marybeth.richardson@maine.gov.

Sincerely,

Marybeth Richardson
Division of Land Resource Regulation
Bureau of Land and Water Quality

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

FOREFRONT PARTNERS I, LP	) NATURAL RESOURCES PROTECTION ACT
Portland, Cumberland County	) COASTAL WETLAND ALTERATION
PIER SYSTEM	) SIGNIFICANT WILDLIFE HABITAT
L-25672-4P-F-N (approval)	) WATER QUALITY CERTIFICATION
L-25672-FS-G-N (approval)	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S.A. Sections 480-A et seq. and Section 401 of the Federal Water Pollution Control Act, the Department of Environmental Protection has considered the application of FOREFRONT PARTNERS I, LP with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

I. PROJECT DESCRIPTION:

A. History of Project: Thompson's Point is an approximately 27.5-acre peninsula of land extending into the Fore River that has a 150-year history of industrial development. In the early part of the twentieth century the site was used primarily as a railroad maintenance facility. It was later used by the federal government for war-related activities such as munitions production. Subsequent uses included the operation of a concrete products manufacturing facility and other commercial activities, and the staging and stockpiling of construction materials.

In Department Order #L-25672-2G-A-N/L-25672-FS-B-N, dated July 27, 2012, the Department approved a number of activities on the site that will occur within 75 feet of the highest annual tide (HAT) line, including: clean up and removal of existing debris, stockpiles, and solid waste; building demolition; clearing and grubbing in advance of new topsoil for soil stabilization, landscaping, and trails; access drive and parking area construction; new buildings; installation or replacement of stormwater outfalls; installation of utilities; installation of a pier system at the south end of the peninsula; and a public access ramp.

B. Summary: The applicant proposes to shift the location of the pier system to the west from its previously-approved location at the southerly tip of the Thompson's Point peninsula to align better with the proposed master plan pedestrian access. The proposed pier system will include a longer float than the previously-approved pier system that will be large enough to accommodate crew boats, or rowing shells, and will be positioned so that water access will be available during all-tide conditions. The system will consist of a permanent six-foot wide by 16-foot long timber pier located at the top of the bank, which will serve as the top/landing approach to a four-foot wide by 50-foot long seasonal gangway and a seasonal, 10-foot wide by 60-foot long float.

The proposed pier system is shown on two plans, the first titled "The Forefront at Thompson's Point Seasonal Dock System," prepared by Fay, Spofford & Thorndike and dated March 13, 2014, and the second titled "Layout Concept for Portland Rowing," prepared by Custom Float Services, Inc. and dated March 6, 2014.

C. Current Use of the Site: A realigned combined sewer overflow has been constructed along the westerly side of the peninsula. A walking trail along the "panhandle" area of the site has also been constructed. The majority of the approximately 4,100 linear feet of shoreline at the site was previously armored with riprap. Approximately five acres of the site lie below the HAT line. There are several buildings on the site that will be demolished.

2. EXISTING SCENIC, AESTHETIC, RECREATIONAL OR NAVIGATIONAL USES:

In accordance with Chapter 315, Assessing and Mitigating Impacts to Scenic and Aesthetic Uses, the applicant submitted a copy of the Department's Visual Evaluation Field Survey Checklist as Appendix A to the application along with a description of the property and the proposed project. The applicant also submitted several photographs of the proposed project site including aerial photographs. Department staff visited the project site in July 2011.

The proposed project is located adjacent to the Fore River, which is a scenic resource visited by the general public, in part, for the use, observation, enjoyment and appreciation of its natural and cultural visual qualities. The project site is currently almost completely developed with paved areas, gravel areas, and a number of buildings and foundations. Some of the buildings are functional and contain commercial space and others are in various stages of disrepair. The developed areas extend to the top of the slope down to the river, which is armored with riprap. Existing wooded areas are limited to the far northwest corner of the site.

Overall, the existing site is heavily developed with little visual appeal. Current uses include construction staging, a wood salvage operation, and semi-trailer box storage. Most of the existing structures appear to be marginally maintained and are in average to poor condition. The proposed project is not expected to significantly change the visual impact of the redeveloped site as approved in Department Order #L-25672-2G-A-N/L-25672-FS-B-N.

The proposed project was evaluated using the Department's Visual Impact Assessment Matrix and was found to have an acceptable potential visual impact rating. Based on the information submitted in the application, the visual impact rating, and the site visit, the Department determined that the location and scale of the proposed activity is compatible with the existing visual quality and landscape characteristics found within the viewshed of the scenic resource in the project area.

The Department did not identify any issues involving existing recreational and navigational uses.

The Department finds that the proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational or navigational uses of the protected natural resource.

3. SOIL EROSION:

Construction of the proposed project is expected to take several weeks. The float systems will be prefabricated and the permanent pier section will be constructed onsite and set into place. The permanent pier section will be supported on concrete foundations. Construction will be accomplished by excavating small holes that will be backfilled with concrete. The seasonal floats will be anchored with moorings. These activities are not anticipated to cause any significant source of sedimentation.

The Department finds that the activity will not cause unreasonable erosion of soil or sediment nor unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

4. HABITAT CONSIDERATIONS:

The Department of Marine Resources (DMR) reviewed the project approved in Department Order #L-25672-2G-A-N/L-25672-FS-B-N and stated that it should not cause any significant adverse impact to marine resources.

The Maine Department of Inland Fisheries and Wildlife (MDIFW) reviewed the project approved in Department Order #L-25672-2G-A-N/L-25672-FS-B-N and stated that the mudflats and riparian areas below the HAT line are a valuable shorebird feeding area on the west side of the peninsula and a roosting area on the east side of the peninsula. MDIFW commented that the proposed project includes activities within the associated upland buffer areas that may have the potential to adversely affect shorebirds using the mudflats in the area. As a result of two site visits and multiple revisions to the delineation of the roosting area and the feeding area buffers based on onsite conditions, neither buffer extends onto the project site more than 50 feet from mean high water.

During the Department's review of the original application in 2012, MDIFW expressed concerns about the initial design of the project because it proposed rowing floats at the northeasterly corner of the site, directly adjacent to the shorebird roosting area and its associated upland buffer. This float system was subsequently deleted from the plan, and the plan that was approved by the Department included a small hand carry boat/kayak launch float at the southern tip of the site as described in Finding 1. MDIFW did not express concerns about this seasonal structure and stated that the project when complete would not result in any significant adverse impact to the habitat.

The applicant now proposes to relocate the pier and float structure from the southernmost tip of Thompson's Point to a point on the shoreline approximately 108 feet west of the previously approved pier system, further from the shorebird roosting area, but still within

the shorebird feeding area. MDIFW reviewed the proposed project and stated in a review memorandum dated June 25, 2014, that the pier system has been relocated to an area that will be less disruptive to wildlife than the original location. MDIFW recommended that the applicant reiterate its commitment to installing interpretive signage in the vicinity of the pier structure and a viewing platform overlooking the salt marsh and mudflat communities in the northwest portion of the site. The applicant confirmed that it intends to comply with the previous permit conditions that required the installation of a viewing platform and educational placards.

The Department finds that the activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine or marine fisheries or other aquatic life.

5. WATER QUALITY CONSIDERATIONS:

The applicant proposes to use lumber treated with chromated copper arsenate (CCA) to construct the pier system. To protect water quality, all CCA-treated lumber must be cured on dry land in a manner that exposes all surfaces to the air for 21 days prior to the start of construction.

Provided that CCA-treated lumber is cured as described above, the Department finds that the proposed project will not violate any state water quality law, including those governing the classification of the State's waters.

6. WETLANDS AND WATERBODIES PROTECTION RULES:

The applicant proposes to indirectly alter a total of 1,028 square feet of coastal wetland as a result of shading from the proposed pier system. The permanent pier section's supports will be located above the HAT line; therefore, no direct wetland impacts are proposed. The pier system as originally approved in Department Order #L-25672-2G-A-N/L-25672-FS-B-N included 513 square feet of indirect wetland alteration due to shading.

The Wetland Protection Rules interpret and elaborate on the Natural Resources Protection Act (NRPA) criteria for obtaining a permit. The rules guide the Department in its determination of whether a project's impacts would be unreasonable. A proposed project would generally be found to be unreasonable if it would cause a loss in wetland area, functions and values and there is a practicable alternative to the project that would be less damaging to the environment. Each application for a NRPA permit that involves a coastal wetland alteration must provide an analysis of alternatives in order to demonstrate that a practicable alternative does not exist.

A. Avoidance. No activity may be permitted if there is a practicable alternative to the project that would be less damaging to the environment. The applicant submitted an alternatives analysis for the proposed project completed by Fay, Spofford & Thorndike and dated May 27, 2014 and June 12, 2014. When the project was first proposed in 2012,

the site in question was contemplated as water access for small personal kayaks, canoes and a water shuttle/taxi. The applicant stated that the purpose of the revised configuration, location, and increase in float size is to allow water access for local rowing organizations. The applicant proposes to increase the size of the floats in order to launch eight oar crew boats, or shells, which are approximately 60 feet long, out into the bay. The increased pier length is needed to walk the shell down the gangway and launch it into the water. The pier system is not intended for boats to be anchored or moored for extended periods. Because of the nature of the project purpose, some increase in impact to the coastal wetland is unavoidable.

B. Minimal Alteration. The amount of coastal wetland to be altered must be kept to the minimum amount necessary for meeting the overall purpose of the project. A permanent pier has been added to the system, but will be located above the HAT line. The gangway will be 10 feet longer than originally proposed, and the float size has been expanded to accommodate a local rowing club as described above. The proposed 60-foot long float is the minimum size necessary to safely launch rowing shells.

C. Compensation. In accordance with Chapter 310 Section 5(C)(6)(b), compensation is not required to achieve the goal of no net loss of coastal wetland functions and values since the project will not result in over 500 square feet of fill in the resource, which is the threshold over which compensation is generally required. Further, the proposed project will not have an adverse impact on marine resources or wildlife habitat as determined by DMR and MDIFW. For these reasons, the Department determined that compensation is not required.

The Department finds that the applicant has avoided and minimized wetland impacts to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project.

7. OTHER CONSIDERATIONS:

The Department did not identify any other issues involving existing scenic, aesthetic, or navigational uses, soil erosion, habitat or fisheries, the natural transfer of soil, natural flow of water, water quality, or flooding.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S.A. Sections 480-A et seq. and Section 401 of the Federal Water Pollution Control Act:

- A. The proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses.
- B. The proposed activity will not cause unreasonable erosion of soil or sediment.

- C. The proposed activity will not unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.
- D. The proposed activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine, or marine fisheries or other aquatic life.
- E. The proposed activity will not unreasonably interfere with the natural flow of any surface or subsurface waters.
- F. The proposed activity will not violate any state water quality law including those governing the classifications of the State's waters provided that CCA-treated lumber is cured as described in Finding 5.
- G. The proposed activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties.
- H. The proposed activity is not on or adjacent to a sand dune.
- I. The proposed activity is not on an outstanding river segment as noted in Title 38 M.R.S.A. Section 480-P.

THEREFORE, the Department APPROVES the above noted application of FOREFRONT PARTNERS I, LP to relocate and enlarge a previously approved pier system at Thompson's Point as described in Finding 1, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

1. Standard Conditions of Approval, a copy attached.
2. The applicant shall take all necessary measures to ensure that its activities or those of its agents do not result in measurable erosion of soil on the site during the construction of the project covered by this approval.
3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

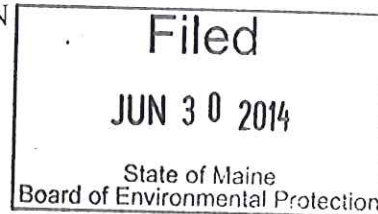
4. All CCA-treated lumber shall be cured on dry land in a manner that exposes all surfaces to the air for 21 days prior to the start of construction.

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 30th DAY OF June, 2014.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Michael Kuhn
For: Patricia W. Aho, Commissioner



PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES...

MR/L25672FNGN/ATS#77793, 77794



Natural Resources Protection Act (NRPA) Standard Conditions

THE FOLLOWING STANDARD CONDITIONS SHALL APPLY TO ALL PERMITS GRANTED UNDER THE NATURAL RESOURCE PROTECTION ACT, TITLE 38, M.R.S.A. SECTION 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.

Revised (12/2011/DEP LW0428)

DEPLW0386 A2012



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.



STATE OF MAINE
Department of Environmental Protection

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

July 2012

Forefront Partners I, LP
55 Lisbon St., Suite 2400
Lewiston, ME 04240
ATTN: Chris Thompson

RE: Natural Resources Protection Act Application, Portland
DEP #L-25672-2G-A-N / #L-25672-FS-B-N

Dear Mr. Thompson:

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) 592-1692 or at Marybeth.richardson@maine.gov.

Sincerely,

A handwritten signature in blue ink that reads "Marybeth Richardson".

Marybeth Richardson, Project Manager
Division of Land Resource Regulation
Bureau of Land and Water Quality

pc: File

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST

BANGOR
106 HOGAN ROAD
BANGOR ME 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 04769-2094
(207) 764-0477 FAX: (207) 764-3143



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION
AUGUSTA, ME 04333

DEPARTMENT ORDER

IN THE MATTER OF

FOREFRONT PARTNERS I, LP PROTECTION	) NATURAL RESOURCES
Portland, Cumberland County	) COASTAL WETLAND ALTERATION
THE FOREFRONT AT THOMPSON'S POINT	) SIGNIFICANT WILDLIFE HABITAT
L-25672-2G-A-N (approval)	) WATER QUALITY CERTIFICATION
L-25672-FS-B-N (approval)	) FINDINGS OF FACT AND ORDER

Pursuant to the provisions of 38 M.R.S.A. Sections 480-A et seq. and Section 401 of the Federal Water Pollution Control Act, the Department of Environmental Protection has considered the application of FOREFRONT PARTNERS I, LP with the supportive data, agency review comments, and other related materials on file and FINDS THE FOLLOWING FACTS:

1. PROJECT DESCRIPTION:

A. History of Project: Thompson's Point is an approximately 27.5-acre peninsula of land extending into the Fore River that has a 150-year history of industrial development. In the early part of the twentieth century the site was used primarily as a railroad maintenance facility. It was later used by the federal government for war-related activities such as munitions production. Subsequent uses included the operation of a concrete products manufacturing facility and other commercial activities, and the staging and stockpiling of construction materials.

B. Summary: The applicant proposes to demolish existing structures and redevelop almost the entire project site with a number of buildings, including an events center and concert hall, outdoor amphitheater, hotel, sports medicine and athletic performance lab, parking structure, office building, surface parking, trails, public space, and small boat/kayak access. Activities contemplated by the applicant that require Natural Resources Protection Act review are those that will occur within 75 feet of the highest annual tide (HAT) line, including clean up and removal of existing debris, stockpiles, and solid waste; building demolition; clearing and grubbing in advance of new topsoil for soil stabilization, landscaping, and trails; access drive and parking area construction; new buildings; installation or replacement of stormwater outfalls; installation of utilities; installation of a seasonal dock at the south end of the peninsula; a small hand carry boat/kayak launch; and a public access ramp. Within 25 feet of the HAT line, the only proposed activities will be grading for new landscaping and drainage work.

The proposed project will result in approximately 386 square feet of freshwater wetland fill within the northwesterly "panhandle" of the site associated with a drainage outfall and grading. Under current conditions, the shoreline is riprapped around the majority of the project site. In areas not containing riprap currently, the shoreline is naturally vegetated. No significant disturbance is proposed within these areas. A total of ten drainage outfalls

are proposed and the total extent of riprap enhancement associated with the drainage work is approximately 100 linear feet.

The proposed project is shown on a set of plans, the first of which is titled "The Forefront at Thompson's Point," prepared by DeLuca-Hoffman Associates, Inc. and dated August 2011, with a latest revision date on any sheet of July 12, 2012. The project site is located on Thompson's Point, off Congress Street, in the City of Portland.

The proposed project is subject to review under the Site Location of Development Act. Pursuant to M.R.S.A. Section 489-A, the City of Portland has delegated review authority and is conducting that review.

C. Current Use of the Site: A portion of the project site is utilized as storage for refrigerated dairy trailers. Various other commercial tenants lease space throughout the remaining site. There are currently nine structures and at least several additional foundations located on the site. The majority of the approximately 4,100 linear feet of shoreline at the site has been armored with riprap. Approximately five acres of the site lie below the HAT line.

2. EXISTING SCENIC, AESTHETIC, RECREATIONAL OR NAVIGATIONAL USES:

In accordance with Chapter 315, Assessing and Mitigating Impacts to Scenic and Aesthetic Uses, the applicant submitted a copy of the Department's Visual Evaluation Field Survey Checklist as Appendix A to the application along with a description of the property and the proposed project. The applicant also submitted several photographs of the proposed project site including an aerial photograph of the project site. Department staff visited the project site in July of 2011.

The proposed project is located adjacent to the Fore River, which is a scenic resource visited by the general public, in part, for the use, observation, enjoyment and appreciation of its natural and cultural visual qualities. The project site is currently almost completely developed with paved areas, gravel areas, and a number of buildings and foundations. Some of the buildings are functional and contain commercial space and others are in various stages of disrepair. The developed areas extend to the top of the slope down to the river, which is armored with riprap. Existing wooded areas are limited to the far northwest corner of the site.

Overall, the existing site is heavily developed with little visual appeal. Current uses include construction staging, a wood salvage operation, and semi-trailer box storage. Most of the existing structures appear to be marginally maintained and are in average to poor condition. The proposed project is expected to increase the visual appeal of the site by introducing new buildings and implementing an integrated landscape enhancement plan.

The proposed project was evaluated using the Department's Visual Impact Assessment Matrix and was found to have an acceptable potential visual impact rating. Based on the information submitted in the application, the visual impact rating, and the site visit, the Department determined that the location and scale of the proposed activity is compatible with the existing visual quality and landscape characteristics found within the viewshed of the scenic resource in the project area.

The Department did not identify any issues involving existing recreational and navigational uses.

The Department finds that the proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational or navigational uses of the protected natural resource.

3. SOIL EROSION:

The applicant submitted an erosion control report and supporting plans for the proposed project, dated March 2012. Based on its review of this information, the Department finds that the activity will not cause unreasonable erosion of soil or sediment nor unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.

4. HABITAT CONSIDERATIONS:

The Department of Marine Resources (DMR) stated that the proposed project should not cause any significant adverse impact to marine resources, navigation or recreation.

The Maine Department of Inland Fisheries and Wildlife (MDIFW) reviewed the proposed project and stated that the mudflats and riparian areas below the HAT line are valuable shorebird feeding area on the west side of the peninsula and roosting area on the east side of the peninsula. MDIFW commented that the proposed project includes activities within the associated upland buffer areas that may have the potential to adversely affect shorebirds using the mudflats in the area. As a result of two site visits and multiple revisions to the delineation of the roosting area and the feeding area buffers based on onsite conditions, neither buffer extends onto the project site more than 50 feet from mean high water.

In response to MDIFW's concerns, the applicant revised the layout of the project to avoid and minimize potential impacts within the buffer areas, and worked with MDIFW to develop a landscape plan (revision dated July 12, 2012) that provides adequate vegetative screening of the mapped shorebird feeding area between the shoreline and proposed pedestrian trail, and limits vegetation within the shorebird roosting area buffer to lower profile shrubs that are expected to maintain visibility for the shorebirds and minimize the threat of increased raptor predation. The applicant has agreed to install interpretive signage at the proposed south end boat launch. The signage will identify the presence and significance of shorebird habitat and will be designed with MDIFW's input. Additionally, the applicant has agreed to install a raised viewing platform overlooking the salt marsh and mudflat communities in the northwest portion of the site.

In a review memorandum dated July 13, 2012, MDIFW commented: "Given the steps that the applicant has taken to maintain and enhance mapped Significant Wildlife Habitats at this site we do not feel that project completion will result in any significant adverse impact to the resource."

Based on MDIFW's review, the Department finds that the activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine or marine fisheries or other aquatic life.

5. WATER QUALITY CONSIDERATIONS:

The applicant may use lumber treated with chromated copper arsenate (CCA) to construct the floats. To protect water quality, any CCA treated lumber must be cured on dry land in a manner that exposes all surfaces to the air for 21 days prior to the start of construction. Provided any CCA treated lumber is cured as described above, the Department finds that the proposed project will not violate any state water quality law, including those governing the classification of the State's waters.

The Department does not anticipate that the proposed project will violate any state water quality law, including those governing the classification of the State's waters.

6. WETLANDS AND WATERBODIES PROTECTION RULES:

The applicant proposes to alter 386 square feet of an emergent freshwater wetland in the northwestern portion of the site to regrade an area and install a stormwater outfall pipe. Other proposed impacts below the HAT line include less than 100 square feet of alteration associated with the installation of multiple drainage outfalls, most of which will replace existing outfalls. Additionally, approximately 513 square feet of coastal wetland will be altered, through shading, as a result of the seasonal installation of floats at the south end of the peninsula.

The Department's Wetlands and Waterbodies Protection Rules, Chapter 310, require that the applicant meet the following standards:

A. **Avoidance.** No activity may be permitted if there is a practicable alternative to the project that would be less damaging to the environment. Each application for a coastal wetland alteration permit must provide an analysis of alternatives in order to demonstrate that a practicable alternative does not exist. The applicant submitted an alternatives analysis for the proposed project completed by DeLuca-Hoffman Associates, Inc. Because the proposed project is a transit-oriented development, the applicant selected the project site due to its proximity to the highway, passenger rail service, and bus service, all within a short distance to the Portland Jetport. There are currently no other sites in Portland that can offer the amount of land availability and the location required for this type of project, which will offer a range of activities integrating office, hospitality, and cultural uses with a focus on sustainability. The proposed layout includes approximately 386 square feet of wetland fill within the northwesterly "panhandle" of the site associated with a drainage outfall and grading. This alteration was determined to be unavoidable.

B. **Minimal Alteration.** The amount of wetland to be altered must be kept to the minimum amount necessary for meeting the overall purpose of the project. The site is currently almost completely developed and the proposed project offers opportunities to improve the scenic character of the area as well as the water quality of runoff from the site. The applicant incorporated a number of measures into the project design and layout to minimize potential impacts to shorebird roosting and feeding areas as described in Finding 4.

C. **Compensation.** In accordance with Chapter 310 Section 5(C)(6)(b), compensation is not required to achieve the goal of no net loss of coastal wetland functions and values since the project will not result in over 500 square feet of fill in the resource, which is the threshold over which compensation is generally required. Further, the proposed project will not have an adverse impact on marine resources or wildlife habitat as determined by DMR and MDIFW. For these reasons, the Department determined that compensation is not required.

The Department finds that the applicant has avoided and minimized wetland impacts to the greatest extent practicable, and that the proposed project represents the least environmentally damaging alternative that meets the overall purpose of the project.

7. OTHER CONSIDERATIONS:

The Department did not identify any other issues involving existing scenic, aesthetic, or navigational uses, soil erosion, habitat or fisheries, the natural transfer of soil, natural flow of water, water quality, or flooding.

BASED on the above findings of fact, and subject to the conditions listed below, the Department makes the following conclusions pursuant to 38 M.R.S.A. Sections 480-A et seq. and Section 401 of the Federal Water Pollution Control Act:

- A. The proposed activity will not unreasonably interfere with existing scenic, aesthetic, recreational, or navigational uses.
- B. The proposed activity will not cause unreasonable erosion of soil or sediment.
- C. The proposed activity will not unreasonably inhibit the natural transfer of soil from the terrestrial to the marine or freshwater environment.
- D. The proposed activity will not unreasonably harm any significant wildlife habitat, freshwater wetland plant habitat, threatened or endangered plant habitat, aquatic or adjacent upland habitat, travel corridor, freshwater, estuarine, or marine fisheries or other aquatic life.
- E. The proposed activity will not unreasonably interfere with the natural flow of any surface or subsurface waters.
- F. The proposed activity will not violate any state water quality law including those governing the classifications of the State's waters provided any CCA treated lumber used for the project is cured on dry land as described in Finding 5.
- G. The proposed activity will not unreasonably cause or increase the flooding of the alteration area or adjacent properties.
- H. The proposed activity is not on or adjacent to a sand dune.
- I. The proposed activity is not on an outstanding river segment as noted in Title 38 M.R.S.A. Section 480-P.

THEREFORE, the Department APPROVES the above noted application of FOREFRONT PARTNERS I, L.P. to alter coastal wetlands and adjacent areas as described in Finding 1, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations:

1. Standard Conditions of Approval, a copy attached.
2. The applicant shall take all necessary measures to ensure that its activities or those of its agents do not result in measurable erosion of soil on the site during the construction of the project covered by this approval.
3. Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.
4. Any CCA treated lumber shall be cured on dry land in a manner that exposes all surfaces to the air for 21 days prior to the start of construction.

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 27th DAY OF July, 2012.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Michael Kulers for
Patricia W. Aho, Commissioner



PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES...

MR/L25672AN&BN/ATS#74653&74756



Natural Resource Protection Act (NRPA) Standard Conditions

THE FOLLOWING STANDARD CONDITIONS SHALL APPLY TO ALL PERMITS GRANTED UNDER THE NATURAL RESOURCE PROTECTION ACT, TITLE 38, M.R.S.A. SECTION 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.

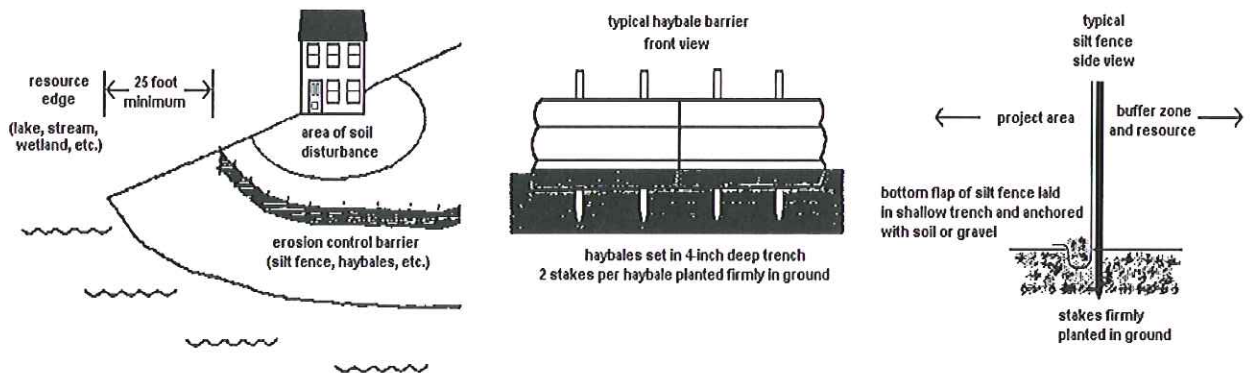


STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
17 STATE HOUSE STATION, AUGUSTA, MAINE 04333

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.

Comments - Environmental Project Review	
Maine Department of Inland Fisheries and Wildlife	
Wildlife Division Comments – Region A	
Applicant's Name: Forefront Partners I, LP (Forefront at Thompson's Point)	
Project: L-25672-2G-A-N	Regulatory Agency: MDEP
Project Type: NRPA	Project Manager: Richardson
Comments Due Date:	Date Comments Sent: 7/13/12
Project Location	
Town: Portland	County: Cumberland
Waterbody: Fore River	
Wildlife Biologist(s): Camuso, Tudor, Walker	

After review of the application and consideration of the proposal's probable effect on the environment, and on our agency's programs and responsibilities, we provide the following comments:

I. Project Description/Resource Affected: Forefront Partners I, LP proposes to develop the 22.5 +/- acre Thompson's Point as a mixed use commercial and entertainment development to include an events center and concert hall, outdoor amphitheater, hotel, sports medicine facility, office complex, parking garage and surface parking for 780 vehicles. Additionally, the proposed development includes public amenities such as trails and a water access site. A seasonal rowing facility has also been suggested in the northeast corner of the site. It is our understanding that this last element has been removed from the current proposal and will potentially be reconsidered at a future date.

MDIF&W has mapped two Significant Wildlife Habitats in this portion of the Fore River, both of which include upland buffers that extend into the proposed development area. The mapped habitats include a Significant Shorebird Feeding Area along the western side of the peninsula and a Significant Shorebird Roosting Area along the eastern shoreline. Shorebirds that frequent Maine during the spring on their way to breeding grounds in the open tundra of northern Canada, and again in mid to late summer on their return trip south are dependent on open mudflats for feeding and, at times of high tide, require specific shoreline conditions that provide secure areas for roosting. Upland buffers associated both habitat types are critical in minimizing disturbance to migratory shorebirds by proximate human activities. Additionally, the vegetated condition of buffers associated with roosting habitat is an important factor in determining viability of the roost. Shorebirds will abandon roosts where tall woody vegetation that provides cover for raptors becomes established. Several of the shorebird species that frequent Maine during their migrations have shown long-term populations declines. These declines are, in part, due to significant losses of both migratory feeding and roosting stop over habitats.

II. Comments/Recommended Considerations or Conditions:

Wildlife Considerations:

MDIFW originally mapped Shorebird Significant Wildlife Habitats and associated buffers in 2006. At that time, shorebird roosting areas were digitized with a 250-foot associated upland

buffer based on scientific literature that documented human disturbance effects. Similarly, feeding areas were digitized with a 100-foot buffer intended to minimize unnecessary disturbance to shorebird activity on the mudflats. Where roosts occur proximate to developed areas, development was clipped out of the original buffers by GIS staff to account for existing disturbances. In the case of Thompson's Point, the originally mapped roost habitat buffer varied from 25-foot offset from mean high water to 150-foot offset from mean high water based on best available aerial photos at the time. As a result of two recent site walks and multiple revisions of the delineation of the roost area and the feeding area buffers based on on-the-ground conditions, neither buffer now extends into the site more than 50-feet from mean high water.

The applicant has adjusted the initially submitted project site plan to avoid and minimize impacts within these revised buffers and has worked closely with our Department to develop a landscape plan that at once creates adequate vegetative screening of the mapped shorebird feeding area between the shoreline and proposed pedestrian trail, and limits vegetation within the shorebird roost area buffer to shrubs that will likely not exceed 4-feet in height and thereby maintain visibility for the shorebirds and minimize the threat of increased predator activity. Additionally, the applicant has agreed to install interpretive signage at the proposed south end boat launch. The signage will identify the presence of shorebird habitat and explain the significance of these habitats. Our Department will assist the applicant in designing the signage to be installed. The applicant has also agreed to install a raised viewing platform overlooking the saltmarsh and mudflat communities in the northwestern portion of the site. This structure will serve as both an attractive amenity for the project and help to build local awareness of and appreciation for local bird life.

Given the steps that the applicant has taken to maintain and enhance mapped Significant Wildlife Habitats at this site we do not feel that project completion will result in any significant adverse impact to the resource.

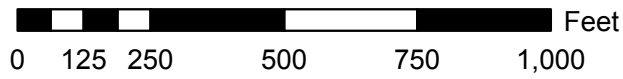
Should the rowing club be constructed during a subsequent phase of development, we do feel that the structure extending into the roost and resulting presence of shells passing along the frontage of the roost will eliminate existing habitat values. With the proposed placement of the facility, it is unlikely that any mitigation for the loss of the roost could take place on-site. We would therefore recommend mitigation for the loss of this Significant Wildlife Habitat feature in the form of a contribution to the Maine Natural Resource Conservation Program for future shorebird roost protection and monitoring. The total square footage of the revised roosting habitat is 63,764sf. Should the rowing club locate in this area, the Department feels that a contribution to the MNRCP fund of \$90,544 ($63,764 \times 0.71 \times 2$ per MDEP guidance) would be appropriate.



Draft II Revised Thompson's Point Shorebird Habitats

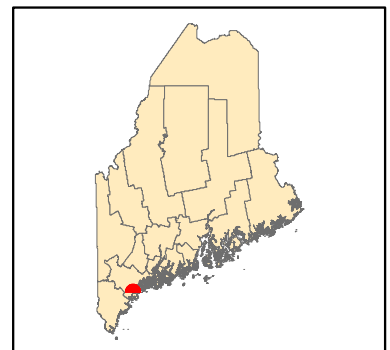


Maine Department of
Inland Fisheries and Wildlife



Projection: UTM, NAD83, Zone 19N

Date: 6/22/2012





STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

March 6, 2013

Christopher Thompson
Forefront Partners I, LP
55 Lisbon Street, Suite 2400
Lewiston, Maine 04240

Re: The Forefront at Thompson's Point, Portland:
Voluntary Response Action Program- No Action Assurance Letter

Dear Mr. Thompson:

The Maine Department of Environmental Protection (Department) has received and reviewed an application submitted in June 2012, by your environmental consultant Credere Associates, LLC (Credere) to the Department's Voluntary Response Action Program (VRAP) for the Thompson's Point property located at 1 Thompson's Point in Portland, Maine. The following reports were compiled for this site as part of the Greater Portland Council of Government's (GPCOG) Brownfields Program and were reviewed along with this application: A Phase One Environmental Site Assessment (ESA) for the Thompson's Point property prepared by Credere, dated December 5, 2011, a Phase II ESA for Thompson's Point, prepared by Credere dated July 11, 2012, as well as a Voluntary Response Action Program Work Plan, Revision 2 dated February 27, 2013 (Work Plan). Additional documentation submitted to MDEP previously for review included two Phase I ESAs prepared by Gemini Geotechnical Associates (GGA) dated February 6, 1991 and May 16, 2006, a December 15, 1998 Test Pit Investigation report prepared by GGA, and a February 26, 1999 No Further Action Assurance Letter issued by MEDEP VRAP to a previous applicant. The current application was submitted to the Department with the request that the site participate in the VRAP and that Forefront Partners I, LP (Forefront Partners), as the applicant to the VRAP, receive the protections provided by the VRAP Law.

The Thompson's Point Property (the site) is composed of five City of Portland tax map lots (Map 201 Lots A-5, A-8, and A-10, and Map 202 Lots A-1 and A-4) totaling approximately 27.5 acres located on a peninsula along the Fore River in Portland. Land use in the area is currently primarily commercial. The site has been used historically for the following activities: a train car maintenance yard, automobile repair facilities, utility distributors (natural gas and propane), building supply retailers, metal working, concrete block manufacturing, bomb shell casing manufacturing (ordnance plant), textile manufacturing, various construction contractor offices, paperboard production, trailer storage, trucking facilities, and warehousing. The Credere Phase ESA identified the past commercial/industrial use of the property as an environmental concern and identified eight specific Recognized Environmental Concerns for further Phase II

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

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 04679-2094
(207) 764-0477 FAX: (207) 760-3143

investigation. The Phase II investigation concluded that there is soil and groundwater contaminated with petroleum and hazardous substances, and that other universal and special wastes are located on the site, including building materials.

Based on the information presented in the above listed reports, the Department agrees with the following recommended actions as proposed in the Work Plan:

1. Known and/or potentially contaminated soils that are disturbed during redevelopment of the site will be managed according to the Work Plan and associated December 12, 2012 Soil Management Plan (SMP). Contaminated soils that are within 12 inches of the developed ground surface or removed and replaced onsite will be covered with a marker layer and a minimum of 12 inches of clean fill, and/or 6 inches of clean sand and gravel over the contaminated soil and at least 3 inches of asphalt/concrete or brick. If excess contaminated soil is generated that cannot be re-used onsite, the material will be disposed offsite at an appropriate facility as special waste.
2. Known and/or potentially contaminated groundwater that is encountered during site redevelopment work will be managed in accordance with the Work Plan and associated December 12, 2012, Groundwater Management Plan.
3. Universal, special, and hazardous waste will be properly managed and removed from the site and disposed at an appropriate facility.
4. PCB containing building materials will be characterized and managed in an appropriate manner and in accordance with the applicable provisions of the Toxic Substances Control Act 40 CFR 761 et seq. Plans for such characterization and management shall be submitted concurrently to USEPA Region 1 and the Department for review and approval.
5. Asbestos abatement and/or management activities in onsite buildings will be conducted in accordance with all applicable State and Federal rules and regulations.
6. Lead based paint abatement/management issues shall be conducted as discussed in the Work Plan and in accordance with all applicable state and federal regulations.
7. A soil screening program will be conducted after the demolition of the site buildings and removal of the concrete slabs as discussed in the Work Plan. Activities that will be completed based on the results of the screening program are discussed in the Work Plan.
8. A deed restriction will be recorded at the Cumberland County Registry of Deeds that:
 - 1) Prohibits excavation/disturbance of soils onsite without notification of the Department, and references the existence of an Environmental Management Plan that will be developed for the site and submitted for approval by the Department prior to deed restriction recording.
 - 2) Prohibits withdrawal of groundwater without notification of the Department, and references the existence of an Environmental Management Plan that will be developed for the site and submitted for approval by the Department prior to deed restriction recording.

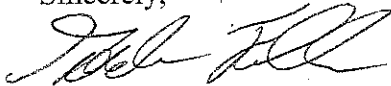
These restrictions will be placed as Declaration of Environmental Covenants consistent with this letter and in a manner that is acceptable to the Department.

Provided that the actions described above are completed to the satisfaction of the Department, Forefront Partners I, LP and its successors and/or assigns, as well as those persons identified in 38 M.R.S.A. § 343-E(6), will be granted the liability protection provided by 38 M.R.S.A. § 343-E(1) for the property located at 1 Thompson's Point, in Portland, Maine identified as Map 201 Lots A-5, A-8, and A-10, and Map 202 Lots A-1 and A-4. The Department will take no action against Forefront Partners I, LP, its successors and assigns, and all those persons identified in 38 M.R.S.A. § 343-E(6).

Once the proposed and recommended remedial measures at the property have been implemented to the satisfaction of the Department, a report demonstrating the successful completion of the tasks must be forwarded to the VRAP. A report may be submitted when all of the remedial activities have been completed for the entire property or in stages as portions of the property are remediated and ready for redevelopment. Upon determining successful conclusion of the remedial tasks, the Department will issue a Commissioner's Certificate(s) of Completion to Forefront Partners I, LP for those portions of the property where remedial activities have been completed.

If you have any questions, please call me at 207-287-4853.

Sincerely,



Gordon Fuller
Voluntary Response Action Program
Division of Remediation

cc: Nick Hodgkins--MEDEP
Jedd Steinglass, Credere
David L. Galgay, Jr—Verrill Dana LLP.

ATTACHMENT H

Utility Capacity Information



4/5/2012

Stephen Bushey, PE
Deluca-Hoffman Associates, Inc
778 Main Street
South Portland, Maine
Sent via email

RE: Ability to Serve Letter for Thompson's Point Upgrade

Dear Mr. Bushey:

CMP has the ability to serve your proposed project located at Thompson's Point in Portland, Maine, in accordance with our CMP Handbook (web link below). We can provide you the desired pad mounted transformers or pole mounted transformers per your request and city approval, in accordance with our CMP Standards Handbook. If you have any questions on the process, or need help in completion of the documents, please feel free to contact me.

New Service Milestones

- Call 1-800-565-3181 to establish a new account and an SAP work order. Please provide both of these to me.
- Submit Load information. Please complete this CMP spreadsheet using load information
- Submit the easement information worksheet. Please complete this CMP form and either email or fax back to us.
- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections if you have them.
- Preliminary meetings with CMP Advisor and Engineer to determine details of job (I will need to schedule with your electrician/contractor-please let me know who this is)
- Field planner design appointment to cost out job and develop CMP Invoice.
- Submit invoice for payment.
- Easements signed and payment received. Attached is what a typical easement will look like.
- Job scheduled for completion after the electrical inspection has been received.

This process can take several months, depending upon several factors including transformer delivery, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

162 Canco Road Portland, ME 04103
Tel (800) 750-4000
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

www.cmpco.com



An equal opportunity employer



Please complete the attached forms (specific instructions are on each form) and email them back to me at your earliest convenience.

For your convenience, here is a link to the CMP Website which contains our Handbook with details on most service requirements:

[CMP Handbook of Standard Requirements](#)

(<http://www.cmpco.com/MediaLibrary/3/6/Content%20Management/YourAccount/PDFs%20and%20Docs/handbook.pdf>)

If you have any questions, please contact me.

Attachments:

Excel Load Sheet
Easement Worksheet
Standard CMP Easement

Regards,

Jamie

Jamie Cough
Energy Services Advisor
Central Maine Power Company
162 Canco Road
Portland, ME 04103
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

162 Canco Road Portland, ME 04103
Tel (800) 750-4000
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

www.cmpco.com



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From: [Carpenter, Scott](#)
To: [Sandi Keef](#)
Cc: [Bo Kennedy](#)
Subject: RE: The Forefront at Thompson's Point - Ability to Serve Project
Date: Thursday, February 13, 2014 1:54:00 PM

To whom it may concern;

We, Unitil Natural Gas have been in contact with the owner of the Thompson Point project and have conceptionally come to terms with an agreement to service this project as the result of our meetings.

As a side note, we did some work last fall (2013) that included upgrading and extending our existing gas main to a 4" main on Sewall St., down the street in the direction of the Thompson's Point project and ran a service to the Eyecare Medical building at 53 Sewall St. We look forward to working with everyone on this exciting project as it comes together!

If you need something else, please don't hesitate to contact us.

Kindest Regards,
Scott

Scott Carpenter
New Business Development



ME Gas Operations
1075 Forest Ave
Portland, ME 04103-3586
Phone: (207) 541-2543
Fax: (207) 541-2593

From: Sandi Keef [mailto:SKeef@fstinc.com]
Sent: Friday, January 24, 2014 2:49 PM
To: Carpenter, Scott
Cc: Bo Kennedy
Subject: The Forefront at Thompson's Point - Ability to Serve Project

Please find the attached request for a formal Ability to Serve Capacity Letter for the Thompson's Point project. Please contact our office with any questions.

Thank you,

Sandi Keef | *Technical Assistant*

FAY, SPOFFORD & THORNDIKE formerly DeLuca Hoffman Associates

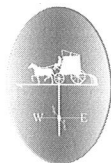
778 Main Street, Suite 8 | South Portland, ME 04106

Main Tel: (207) 775-1121 | Fax: (207) 879-0896

skeef@fstinc.com | www.fstinc.com

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Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

March 14, 2014

Fay, Spofford & Thorndike
778 Main Street
South Portland, ME 04106

Attn: Bo Kennedy, P.E.
Re: The Forefront at Thompsons Point, Portland
Ability to Serve Project with PWD Water and Wastewater

Dear Mr. Kennedy:

The Portland Water District has received your request for an Ability to Serve determination for the noted site. 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. Please review this letter for any special conditions specified by the District and to determine the appropriate next steps to take to move your project through the submittal and approval process.

Existing Site Water Service

According to District records, the project site does currently have existing water service. A 12-inch diameter ductile iron water service line, located as shown on the attached water service card, provides water service to this site. Additionally, the Portland Water District has a 2-inch diameter copper water service line that feeds the existing Thompson's Point Pump Station. Please refer to the "Conditions of Service" section of this letter for requirements related to the use of these service lines.

Water System Characteristics

According to District records, there is a 12-inch ductile iron water main within the site and a public fire hydrant located across from the existing pump station.

The current data from the nearest hydrant with flow test information is as follows:

Hydrant Location: Sewall Street ROW
Hydrant Number: POD-HYD01670
Last Tested: 9/13/2011
Static Pressure: 99 psi
Residual Pressure: Not Measured
Flow: 1,519 GPM



Public Fire Protection

Your design indicates that the project will not include the installation of new public hydrants to be accepted into the District water system. The decision to require new hydrants and to determine their locations is solely that of the local fire department. 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 ability to serve request dated January 24, 2014 indicates that a projected design flow of 136,105 gallons per day with a peak flow of 567 gallons per minute. The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project. Based on the high water pressure in this area, we recommend that you consider the installation of pressure reducing devices that comply with state plumbing codes.

Private Fire Protection Water Needs

You have indicated that this project will require water service to provide private fire protection to the site. Please note that the District does not guarantee any quantity of water or pressure through a fire protection service. Please share the noted water system results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact the MEANS Division to request a hydrant flow test and we will work with you to get more complete data.

Existing Site Sewer Service

The project site is currently served with public sewer. Private piping connects into the public sewer manhole located approximately 50 feet easterly of the existing Thompson's Point pump station.

Proposed Site Sewer Service

According to your Ability to Serve request letter, the site will generate up to 136,105 GPD with a peak flow anticipated at 567 GPM to the existing Thompson's Point Pump Station. We have reviewed the impacts of this additional flow to the pump station and have determined that the station can handle the added flow. The existing pump station is a duplex station with 1,000 GPM pumps. It should be noted that the increase in flow from the project will require more frequent pump cycling times due to the effective wet well volume that currently exists at the site. While this does not currently constitute a need for additional wet well volume at this time, it should be noted in the event that the site's estimates are low or significantly change in the future.

Conditions of Service

As this project moves through the design stage, we will continue to work with the development team on a number of specific items that should be addressed prior to construction. These items include:

1. As site users are established, we will require updated water and wastewater flow estimates and an understanding of any potential wastewater pretreatment needs. The development team has indicated that there will not be discharge of any non-typical sewage that could contribute to pump clogging, but this will have to be monitored in the future if site uses change.
2. Access to the Thompson's Point pump station appears restricted and does not appear to allow for adequate space for our vehicles to turn around. We will require that the final design include a turnaround within the pump station site for PWD vehicle use.
3. PWD maintains telemetry systems at the existing pump station. The addition of high buildings as proposed could cause interference with these signals. We would like to work with the developer on antenna siting if this turns out to be necessary due to the development at this site.
4. Based on an anticipated high level of foot traffic near the pump station site, further review of the site security is required. Fencing of this site is recommended for the protection of the facilities and the pedestrians. The developer may also wish to work with PWD on the general aesthetics of the pump station facility to better match the character of the final site.
5. The proximity of the 30" CSO Outfall in relation to the foundation for Building E1 should be reviewed. More information on separation from the building and the process for any maintenance should be outlined.
6. The agreed upon contribution amount of \$10,000 to be placed in escrow, as outlined in the City of Portland Site Plan approval, will be adequate for VFD and communication upgrades.

We would like to continue to work with the development team on the noted items above as the project progresses through design and construction phases. To date the District has only received a master utility plan for review. We recommend that complete design plans be submitted and we reserve the right for further comments.

If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District



Rico Spugnardi, P.E.
Senior Project Engineer

ATTACHMENT I

CONFORMITY WITH APPLICABLE DESIGN STANDARDS

The following statement is made in accordance with the City of Portland Code of Ordinances, Chapter 14 Land Use, Section 14-525(c)(9).

OVERVIEW

This project conforms with all the applicable design standards of Section 14-526 as demonstrated in the following narrative.

(a) Transportation Standards

1. Impact on Surrounding Street Systems:

The applicant has obtained a Traffic Movement Permit which addresses impacts on surrounding street systems. The project will provide improvements and/or partial funding under the EDA Grant Program for collaborative improvements with the City of Portland to maintain an acceptable level of service. The offsite improvements project construction is nearly complete and will be operational by the end of October, 2014.

2. Access and Circulation:

a. Site Access and Circulation.

(i) The development provides access via Thompson's Point Connector Road. The applicant has worked with fire safety and city officials to make access and circulation easy and safe for all vehicular and pedestrian users. The existing road will be widened and improved as depicted on recently completed EDA Grant Program plans. Internal circulation was reviewed and approved during the Master Development Plan review process. There have not been any major changes to the internal circulation pattern since the Master Development Plan approval.

(ii) Access and egress have been designed to avoid conflicts with existing turning movements and traffic flows.

(iii) The site does not feature drive up services as mentioned in this requirement.

b. Loading and Servicing.

c. The perimeter loop road layout has been designed to permit access for a WB-67 tractor-trailer truck (AASHTO 2004). All buildings have been designed to permit access for a 45' long ladder truck.

d. Sidewalks.

(i) Sidewalks have been provided throughout the site and connect to offsite pedestrian access. All sidewalks shall conform to the City of Portland Technical Manual as shown on the project design drawings.

- (ii) The development will benefit from new sidewalks from the intersection of Fore River Parkway and Thompson's Point Connector Road into the site and throughout the development.
- (iii) The development provides pedestrian access to adjacent trailways (Portland Trails), Portland Transportation Center, internal public transit stop, and abutting land uses (commercial and residential).

3. Access and Circulation:

- a. The development will be served with an existing transit stop at the Portland Transportation Center and a new Metro bus stop within the development.
- b. The new transit stop will include a pull-off space and shelter.
- c. The new stop is connected to the public pedestrian system.
- d. Waiver: Waivers for this section have not been requested for this project.

4. Parking:

a. Location and Required Number of Vehicle Parking Spaces:

- (i) The applicant is requesting the Planning Board make a determination of parking requirements. The applicant has completed a parking study as prepared by Rich Associates and supplemented by Gorrill-Palmer Consulting Engineers. The development provides enough parking spaces to meet the Phase 1 demand of the project based on the findings of the parking study.
- (ii) The applicant has prepared a TDM strategy and previously submitted the document for review to City Officials.
- (iii) The applicant proposes the amount of parking which is appropriate for the anticipated uses of this site as consistent with the results of the parking study.
- (iv) Parking spaces and aisles have been designed to meet the dimensional requirements of the Technical Manual.
- (v) Parking lots have been designed to withstand site conditions as presented in the Preliminary Geotechnical Data Report and with construction common practices set forth by the MaineDOT. The parking lots will be paved and graded to drain to a formal drainage system.

b. Location and Required Number of Bicycle Parking Spaces:

- (i)(b) The project will provide bicycle parking at each building facility in accordance with the Technical Manual.

c. Motorcycles and Scooter Parking.

- (i) The project provides designated motorcycle/scooter parking in the parking structure facility.

- d. Snow Storage.
 - (i) Snow storage management will employ three strategies;
 - 1. On-site snow storage around the perimeter of the site.
 - 2. Snow removal and offsite storage.
 - 3. Mechanical snow removal (i.e. melting bins).

5. Transportation Demand Management (TDM):

- a. The applicant has developed a TDM Plan pursuant to the City of Portland's Code of Ordinances.
- b. The TDM Plan incorporates the City goals by integrating elements described in the Technical Manual.

(b) Environmental Quality Standards

1. Preservation of Significant Natural Features:

- a. The development is designed to maintain a 25' foot buffer from the annual mean high tide to all building structures. Grading and stormwater quality improvements are proposed inside of this setback. The project will avoid impacts to the wetland of special significance around the perimeter of the site with the exception of a small permitted wetland alteration for a stabilized stormwater discharge (<500 SF of impact). The development will improve water quality of stormwater runoff entering the Fore River. The applicant has worked with the MeDEP and Maine Department of IF&W to get approval for the development adjacent to the endangered Piping Plover bird habitat.
- c. The applicant is not requesting a waiver from this standard.

2. Landscaping and Landscaping Preservation:

a. Landscape Preservation.

- (i) The site's existing tree population is limited to the northwest corner of the site. The project proposed plans to preserve trees as required by the Shoreland Zoning Ordinance and original Level III Site Plan approval.
- (ii) The applicant has performed a site walk with the City's arborist and will meet this criteria.
- (iii) The applicant has previously prepared a Demolition and Removal Plan, and an Erosion and Sedimentation Control Plan which require protection of existing vegetation as required by the City's Land Use Ordinance.
- (iv) The applicant will not require a waiver from this standard.

b. Site Landscaping.

i. Landscaped Buffers:

- (a) All service and loading areas are to be screened by fencing or placed in a discrete location out of the direct view of the public.
- (b) The development has been designed to meet the understory planting requirements of Section 4 of the Technical Manual.
- (c) The development has been designed to meet the commercial planting requirements of Section 4 of the Technical Manual.

ii. Parking Lot Landscaping:

- a) The development has been previously designed to meet the planting requirements of Section 4 of the Technical Manual. The enclosed subdivision plans do not show parking lot landscaping. This information will be provided under subsequent Level III site plan applications.
- b) The parking lots have been designed to have landscaping islands in paved areas every 40 spaces.
- c) Landscaping islands are curbed as shown on the enclosed site layout plans

iii. Street Trees have been provided as required in section 4 of the Technical Manual.

3. Water Quality, Stormwater Management and Erosion Control:

a. Stormwater:

- (i) All stormwater draining onto the site from adjacent properties will be accounted for in the pipe sizing and be redirected to a new discharge location.
- (ii) All stormwater runoff is proposed to discharge directly to the Fore River. The project will not adversely impact adjacent lots.
- (iii) All stormwater runoff is proposed to discharge directly to the Fore River. The project will not adversely impact adjacent lots.
- (iv) All stormwater runoff is proposed to discharge directly to the Fore River. The project will not adversely impact adjacent lots

b. The Stormwater Management Plan meets the requirements and goals stated in Section 5 of the Technical Manual.

c. The project is not located in a watershed of an urban impaired stream as listed by the MeDEP.

d. N/A

- e. The Stormwater Management Plan contemplates structural separation between groundwater and stormwater runoff through the use of an impermeable liner. The project is serviced by a public wastewater system. The project will not pose a risk of groundwater contamination.
- f. The project will be connected to the public sanitary sewer system which is adequately sized for the Phase 1 project flows.

(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. The project site proposed the conveyance of land to the City for the sole purpose of public access to the site. The City has successfully petitioned for a Public Railroad Crossing at the entrance to the site.

2. Public Safety and Fire Prevention:

- a. The site has been designed to promote safe and inviting public meeting and gathering spaces. Controlled access has been designed into the site plan through the use of emergency ready parking gates.
- b. The site has been designed to allow for emergency response vehicles to move around all areas of the site.
- c. The project provides new fire hydrants to meet the requirements of Section 3 of the Technical Manual.

3. Availability and Adequate Capacity of Public Utilities:

- a. The applicant has secured letters from all applicable utilities stating their ability to serve this project. The project will ultimately require all new utility infrastructure throughout the site. Initial renovation work to existing buildings will rely on existing utility infrastructure.
- b. All on site electrical lines serving new buildings will be underground.
- c. All new utility infrastructure will meet the provisions of the Technical Manual.
- d. The project will require a service connection to the Thompson's Point sanitary pump station.
- e. The sanitary sewer collection system is designed to meet all applicable sections of the Technical Manual. The stormwater management system will be designed to meet the requirements of the Technical Manual and Chapter 500 of the MeDEP Stormwater Management Standards.
- f. The project will use exterior dumpsters or trash compactors to store trash and recyclables temporarily until a contracted waste management company can pick up and dispose of the solid waste. The project proposes to screen the facilities with fence enclosures.

(d) Site Design Standards.

1. Massing, Ventilation and Wind Impact:

- a. The bulk, location and height of the proposed building will have been designed to not result in adverse impacts to each other or abutting properties. The elevations depicting building massing were provided to the city as part of the approved 2014 Master Development Plan.
- b. The bulk, location and height of the proposed building will have been designed to not result in adverse impacts to each other or abutting properties.
- c. HVAC venting is proposed to be directed to the roof of all buildings and directed away from public spaces.

2. Shadows:

- a. The development is located in the B5 Zone and this standard is not applicable.

3. Snow and Ice Loading:

- a. The proposed buildings will be designed and located such that accumulated snow and ice will not fall onto adjacent properties or public ways.

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; however, the project is seeking Federal Grant money and consequently a Section 106 review was prepared and accepted by the Maine Historic Preservation Office.
- b. The development is not located adjacent to or within 100 ft. of a designated landmark, 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 will be designed to meet the requirements of Section 12 of the Technical Manual.

7. Noise and Vibration:

The project noise levels will be designed to meet the permitted levels as outlined in the B5 Zone. All HVAC and mechanical equipment is proposed to be mounted on the roof.

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) Proposed commercial signage is still being designed and subject to a condition of approval.

(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.(i) The project is designed to be a high density mixed use development with multiple story building, parking structure and attractive public space.

(e) The project is still evolving through the design process and is likely to require some conditions as part of its final site plan approval.

ATTACHMENT J

Title, Right & Interest

TRAIL EASEMENT

THIS TRAIL EASEMENT is made as of the 21st day of October, 2013 (the "Effective date"), by and between **FOREFRONT PARTNERS I, LP**, a Maine limited partnership organized and existing under the laws of the State of Maine and having a mailing address of P.O. Box 660, Lewiston, Maine 04243-0660 (hereinafter referred to as "Grantor"), and **CITY OF PORTLAND, MAINE**, with a principal address of 389 Congress Street, Room 208, Portland, Maine 04101 (hereinafter referred to as "Grantee").

WITNESSETH

WHEREAS, Grantor is the owner of property located on Thompson Point, on or near Thompson Point Road and Sewell Street, Portland, Maine, and more specifically described in deed from Thompson's Point Incorporated to Grantor dated June 19, 2013 and recorded on June 27, 2013 in the Cumberland County Registry of Deeds in Book 30781, Page 282 (hereinafter referred to as the "Premises"); and

WHEREAS, Grantor has agreed to grant to Grantee, or other qualified holder, a trail easement over a portion of the Premises as more particularly described herein; and

WHEREAS, Grantee intends to enter into a use and maintenance agreement ("Use Agreement") with Portland Trails, a nonprofit corporation organized and existing under the laws of the State of Maine, with a principal office at 305 Commercial Street, Portland, Maine 04101, the form of which Use Agreement shall be reviewed and approved by Grantor in its reasonable discretion;

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants herein contained, the parties hereto agree as follows:

1. Grant of Trail Easement. Grantor hereby grants to Grantee a non-exclusive easement for the purpose of constructing, maintaining, repairing, using and replacing an unpaved foot path or walking trail within that portion of the Premises described below in Section 2 hereof (the "Trail Easement"), together with improvements delineating such foot path or walking trail, footbridges and directional signs, for use by the general public, subject to the conditions and limitations set forth herein. The Use Agreement shall provide for the designation of responsibility for maintenance and repair to Trail Easement. Grantor or Grantor's agents and designees shall have

the right to enter upon the Trail Easement at all times.

2. Location. The Trail Easement shall be a strip of land approximately ten (10') feet wide, located along the boundary of a portion of the Premises extending from the existing trail connection on the property of the abutting property to the northwest which is owned by Waynflete School, along the northwestern edge of the Premises to the edge of the property owned by Portland Water District, and thence along the westerly edge of the Premises to the southerly point, which shall be the terminus of the Trail Easement area, all as generally depicted in Exhibit A attached hereto and incorporated by reference. The traveled way of the trail within the Trail Easement area shall be no more than ten (10) feet in width and the improvements associated therewith may reasonably extend beyond the traveled way for purposes of drainage, construction and maintenance. The design of the trail and all improvements associated therewith shall be subject to the prior review and approval of Grantor for compliance with this Trail Easement, which approval shall not be unreasonably withheld. Provided, however, and notwithstanding anything to the contrary contained herein, Grantor reserves the right to relocate all or any portions of the trail and associated improvements provided that all costs and expenses associated with such relocation shall be borne by Grantor so long as such new location reasonably provides connections with the trail destinations. Notwithstanding the foregoing, it is understood and agreed by and between the parties that Grantor shall permit the State of Maine, by and through its Department of Transportation and/or its contractor, to enter the Trail Easement area for the purpose of constructing the recreational trail contemplated by this Trail Easement.
3. Approvals. Subject to Section 2 above, Grantor and Grantee shall work together to obtain any necessary federal, State or local permits and approvals required in connection with the construction of the trail, the cost an expense of which is included in the "Municipal/Developer/State Agreement: Proposed Public Infrastructure Improvements to Thompson's Point."
4. Use; Maintenance. The Trail Easement area shall be used solely for passive recreational uses during daylight hours limited to pedestrian and non-motorized bicycle traffic and shall exclude any and all motorized/mechanized wheeled/track recreational vehicles of any kind. Wheelchairs or other similar non-recreational vehicles shall be permitted. Grantee shall endeavor, by means of the Use Agreement, to designate Portland Trails to keep and maintain the Premises neat, clean, orderly and safe.
5. Signs. Grantee hereby agrees to cause, by means of the Use Agreement, Portland Trails to install and maintain at its sole cost and expense signs for the Trail. The

signs will indicate that public access is limited to the trail. The signs will request that users of the trail respect abutters' privacy by staying within the Trail. The signs will be subject to the review and approval of Grantee and Grantor.

6. Duration. This Trail Easement shall terminate and be of no further force and effect in the event that it shall pass from Grantee to any third party by grant, operation of law or otherwise without the prior written consent of Grantor, its successors or assigns except to a successor non-profit entity with a similar mission to that of Portland Trails. Further, the initial term of this Trail Easement shall be for a period of twenty (20) years commencing on the effective date and ending on the twentieth (20th) anniversary of the effective date (hereinafter referred to as "Initial Term"). On the fifth (5th) year of the Initial Term, and every five (5) years thereafter of the Initial Term and any subsequent extension thereof, Grantor and Grantee will negotiate to extend for a period of twenty (20) years ("Subsequent Term"). The Subsequent Term will begin in the year in which the Subsequent Term is agreed to by the parties hereto (e.g., the fifth, tenth, fifteenth year, etc.) and end on the anniversary date of the effective date, twenty years thereafter. Grantee shall surrender the Premises to Grantor on the expiration of this Trail Easement or any extensions thereto in as good condition as when received, ordinary wear and tear and damage by the elements excepted. Within thirty (30) days of the expiration of this Trail Easement, Grantor, in its sole discretion, may remove, or permit the use by means of a Use Agreement any of the improvements it has made to the Trail Easement area.
7. Indemnification. Grantee agrees when entering into the Use Agreement with Portland Trails to endeavor to cause Portland Trails to indemnify and hold harmless Grantor and Grantee, and their respective successors and assigns, from and against any loss, claim, damage, liability, expense or damage (including reasonable attorney fees) resulting from the exercise of rights granted under the Use Agreement. Grantee agrees to provide by means of the Use Agreement to cause the provision of, insurance coverage for construction, maintenance, repair, use and replacement of the trail and associated improvements, which insurance shall name Grantor and Grantee as an additional insured. This indemnification and hold harmless agreement shall survive any termination of this Trail Easement but shall apply solely to loss, claim, damage, liability, expense or damage arising out of acts or omissions occurring prior to the termination of this Trail Easement.
8. Governing Law. This Trail Easement shall be governed by the laws of the State of Maine. This Trail Easement is intended to be a trail easement as defined under 33 M.R.S.A. § 1581, et seq., Grantor, by its delivery of this Trail Easement, and Grantee, by its acceptance hereof, acknowledge and agree that this Trail Easement is being granted to Grantee without charge for the purpose of recreational activities by

the general public pursuant to and in accordance with 14 M.R.S.A. § 159-A and that Grantor shall have the benefit of the terms and provisions hereof.

- 9. Amendment. No amendment to this Trail Easement shall be effective unless it is in writing and signed by both parties and duly recorded in the Cumberland County Registry of Deeds.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their officers, thereunto duly authorized, as of the date first set forth above.

FOREFRONT PARTNERS I, LP
By: Forefront GP LLC, its General Partner

Margaret Gilbert
Witness

By: Christopher M. Thompson
Christopher M. Thompson
Its President

CITY OF PORTLAND

Judith H. Rosen
Witness

By: Mark Rees
Mark Rees
Its City Manager

APPROVED AS TO FORM:

[Signature]
CORPORATION COUNSEL'S OFFICE

STATE OF MAINE
County of Cumberland, ss.

October 11, 2013

Then personally appeared the above-named Christopher M. Thompson, President of Forefront GP LLC, the General Partner of Forefront Partners I, LP, and acknowledged the foregoing instrument to be his free act and deed, in his said capacity and the free act and deed of Forefront Partners I, LP.

Before me,

Jude A. Cluff-Graham
Attorney at Law/Notary Public
Printed Name of Attorney/Notary

STATE OF MAINE

County of Cumberland, ss.

October 21, 2013

Then personally appeared the above-named Mark Rees, City Manager of the City of Portland, and acknowledged the foregoing instrument to be her free act and deed in her said capacity and the free act and deed of said Portland Trails.

Before me,

JUDITH H. ROSEN
Notary Public, Maine
My Commission Expires June 17, 2018

Judith H. Rosen
Attorney at Law/Notary Public

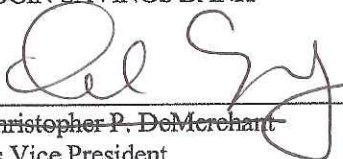
Judith H. Rosen
Printed Name of Attorney/Notary

CONSENT OF MORTGAGEE

ANDROSCOGGIN SAVINGS BANK, a Maine banking corporation ("Lender"), holder of a certain Mortgage Deed, Security Agreement and Financing Statement from FOREFRONT PARTNERS I, LP, a Maine limited partnership (the "Borrower"), dated as of June 27, 2013 and recorded in the Cumberland County Registry of Deeds in Book 30781, Page 292; a Collateral Assignment of Leases and Rentals dated as of June 27, 2013 and recorded in said Registry of Deeds in Book 30781, Page 312; a Mortgage Deed, Security Agreement and Financing Statement dated as of August 30, 2013 and recorded in said Registry of Deeds in Book 31014, Page 166; a Collateral Assignment of Leases and Rentals dated as of August 30, 2013 and recorded in said Registry of Deeds in Book 31014, Page 185; and an Equal Priority Agreement dated as of August 30, 2013 and recorded in said Registry of Deeds in Book 31014, Page 194 (collectively the "Loan Documents"), each with respect to certain property located at or near Thompson's Point in Portland, Cumberland County, Maine, as more particularly described therein (the "Mortgaged Property"), hereby consents to, and subordinates the liens of the Loan Documents to the interests of the Grantee in the foregoing Trail Easement, dated of near or even date, by and between the City of Portland and the Borrower. The Lender hereby agreeing that its lien under the Loan Documents shall be subject to the provisions of the said Trail Easement, and agreeing that in the event of the foreclosure of the Loan Documents, or other sale of the Mortgaged Property under judicial or non-judicial proceedings, the same shall be sold subject to the the terms of said Trail Easement, PROVIDED, HOWEVER, that this consent shall not be construed to to impose on the Lender, its successors and assigns, any of the obligations or liabilities of the Grantor under the Trail Easement.

Dated as of October 12, 2013

ANDROSCOGGIN SAVINGS BANK

By: 
Christopher P. DeMerchant
Its Vice President
David M. Eldridge

STATE OF MAINE
County of Cumberland

DAVID M. ELDRIDGE

Personally appeared the above-named ~~Christopher P. DeMerchant~~ in his capacity as Vice President of Androscoggin Savings Bank and acknowledged the foregoing to be his free act and deed and the free act and deed of Androscoggin Savings Bank.

Before me,

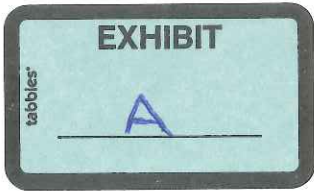


Notary Public / Attorney at Law

Print Name: _____

My Commission Expires: _____

CHARLES A. SCHWAB
Notary Public, Maine
My Commission Expires September 28, 2017



FST <small>FORWARD</small> FAY, SPOFFORD & THORNDIKE, INC. <small>ARCHITECTS</small> 770 MAIN ST., 5TH FL. • SUITE 500 • WASHINGTON, D.C. 20001	
DESIGNER	DATE: 08/12/2013
CHECKED BY	SCALE: 1" = 50'
DRAWN BY	DRAWING NO.:
PROJECT NO.	SHEET NO.:

PROJECT:	THE FOREFRONT AT THOMPSON'S POINT
CLIENT:	FOREFRONT PARTNERS, L.P.



ZONE TEXT AMENDMENT MASTER PLAN					
REV.	DATE	DESCRIPTION	BY	DATE	REVISIONS



FORE RIVER

SEWELL ST

WATERFRONT ACCESS

TRAIL EASEMENT

THIS TRAIL EASEMENT is made as of the 21st day of October, 2013 (the "Effective date"), by and between **FOREFRONT PARTNERS I, LP**, a Maine limited partnership organized and existing under the laws of the State of Maine and having a mailing address of P.O. Box 660, Lewiston, Maine 04243-0660 (hereinafter referred to as "Grantor"), and **CITY OF PORTLAND, MAINE**, with a principal address of 389 Congress Street, Room 208, Portland, Maine 04101 (hereinafter referred to as "Grantee").

WITNESSETH

WHEREAS, Grantor is the owner of property located on Thompson Point, on or near Thompson Point Road and Sewell Street, Portland, Maine, and more specifically described in deed from Thompson's Point Incorporated to Grantor dated June 19, 2013 and recorded on June 27, 2013 in the Cumberland County Registry of Deeds in Book 30781, Page 282 (hereinafter referred to as the "Premises"); and

WHEREAS, Grantor has agreed to grant to Grantee, or other qualified holder, a trail easement over a portion of the Premises as more particularly described herein; and

WHEREAS, Grantee intends to enter into a use and maintenance agreement ("Use Agreement") with Portland Trails, a nonprofit corporation organized and existing under the laws of the State of Maine, with a principal office at 305 Commercial Street, Portland, Maine 04101, the form of which Use Agreement shall be reviewed and approved by Grantor in its reasonable discretion;

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants herein contained, the parties hereto agree as follows:

1. Grant of Trail Easement. Grantor hereby grants to Grantee a non-exclusive easement for the purpose of constructing, maintaining, repairing, using and replacing an unpaved foot path or walking trail within that portion of the Premises described below in Section 2 hereof (the "Trail Easement"), together with improvements delineating such foot path or walking trail, footbridges and directional signs, for use by the general public, subject to the conditions and limitations set forth herein. The Use Agreement shall provide for the designation of responsibility for maintenance and repair to Trail Easement. Grantor or Grantor's agents and designees shall have

the right to enter upon the Trail Easement at all times.

2. Location. The Trail Easement shall be a strip of land approximately ten (10') feet wide, located along the boundary of a portion of the Premises extending from the existing trail connection on the property of the abutting property to the northwest which is owned by Waynflete School, along the northwestern edge of the Premises to the edge of the property owned by Portland Water District, and thence along the westerly edge of the Premises to the southerly point, which shall be the terminus of the Trail Easement area, all as generally depicted in Exhibit A attached hereto and incorporated by reference. The traveled way of the trail within the Trail Easement area shall be no more than ten (10) feet in width and the improvements associated therewith may reasonably extend beyond the traveled way for purposes of drainage, construction and maintenance. The design of the trail and all improvements associated therewith shall be subject to the prior review and approval of Grantor for compliance with this Trail Easement, which approval shall not be unreasonably withheld. Provided, however, and notwithstanding anything to the contrary contained herein, Grantor reserves the right to relocate all or any portions of the trail and associated improvements provided that all costs and expenses associated with such relocation shall be borne by Grantor so long as such new location reasonably provides connections with the trail destinations. Notwithstanding the foregoing, it is understood and agreed by and between the parties that Grantor shall permit the State of Maine, by and through its Department of Transportation and/or its contractor, to enter the Trail Easement area for the purpose of constructing the recreational trail contemplated by this Trail Easement.
3. Approvals. Subject to Section 2 above, Grantor and Grantee shall work together to obtain any necessary federal, State or local permits and approvals required in connection with the construction of the trail, the cost an expense of which is included in the "Municipal/Developer/State Agreement: Proposed Public Infrastructure Improvements to Thompson's Point."
4. Use; Maintenance. The Trail Easement area shall be used solely for passive recreational uses during daylight hours limited to pedestrian and non-motorized bicycle traffic and shall exclude any and all motorized/mechanized wheeled/track recreational vehicles of any kind. Wheelchairs or other similar non-recreational vehicles shall be permitted. Grantee shall endeavor, by means of the Use Agreement, to designate Portland Trails to keep and maintain the Premises neat, clean, orderly and safe.
5. Signs. Grantee hereby agrees to cause, by means of the Use Agreement, Portland Trails to install and maintain at its sole cost and expense signs for the Trail. The

signs will indicate that public access is limited to the trail. The signs will request that users of the trail respect abutters' privacy by staying within the Trail. The signs will be subject to the review and approval of Grantee and Grantor.

6. Duration. This Trail Easement shall terminate and be of no further force and effect in the event that it shall pass from Grantee to any third party by grant, operation of law or otherwise without the prior written consent of Grantor, its successors or assigns except to a successor non-profit entity with a similar mission to that of Portland Trails. Further, the initial term of this Trail Easement shall be for a period of twenty (20) years commencing on the effective date and ending on the twentieth (20th) anniversary of the effective date (hereinafter referred to as "Initial Term"). On the fifth (5th) year of the Initial Term, and every five (5) years thereafter of the Initial Term and any subsequent extension thereof, Grantor and Grantee will negotiate to extend for a period of twenty (20) years ("Subsequent Term"). The Subsequent Term will begin in the year in which the Subsequent Term is agreed to by the parties hereto (e.g., the fifth, tenth, fifteenth year, etc.) and end on the anniversary date of the effective date, twenty years thereafter. Grantee shall surrender the Premises to Grantor on the expiration of this Trail Easement or any extensions thereto in as good condition as when received, ordinary wear and tear and damage by the elements excepted. Within thirty (30) days of the expiration of this Trail Easement, Grantor, in its sole discretion, may remove, or permit the use by means of a Use Agreement any of the improvements it has made to the Trail Easement area.
7. Indemnification. Grantee agrees when entering into the Use Agreement with Portland Trails to endeavor to cause Portland Trails to indemnify and hold harmless Grantor and Grantee, and their respective successors and assigns, from and against any loss, claim, damage, liability, expense or damage (including reasonable attorney fees) resulting from the exercise of rights granted under the Use Agreement. Grantee agrees to provide by means of the Use Agreement to cause the provision of, insurance coverage for construction, maintenance, repair, use and replacement of the trail and associated improvements, which insurance shall name Grantor and Grantee as an additional insured. This indemnification and hold harmless agreement shall survive any termination of this Trail Easement but shall apply solely to loss, claim, damage, liability, expense or damage arising out of acts or omissions occurring prior to the termination of this Trail Easement.
8. Governing Law. This Trail Easement shall be governed by the laws of the State of Maine. This Trail Easement is intended to be a trail easement as defined under 33 M.R.S.A. § 1581, et seq., Grantor, by its delivery of this Trail Easement, and Grantee, by its acceptance hereof, acknowledge and agree that this Trail Easement is being granted to Grantee without charge for the purpose of recreational activities by

the general public pursuant to and in accordance with 14 M.R.S.A. § 159-A and that Grantor shall have the benefit of the terms and provisions hereof.

- 9. Amendment. No amendment to this Trail Easement shall be effective unless it is in writing and signed by both parties and duly recorded in the Cumberland County Registry of Deeds.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be executed by their officers, thereunto duly authorized, as of the date first set forth above.

FOREFRONT PARTNERS I, LP
By: Forefront GP LLC, its General Partner

Margaret Gilbert
Witness

By: Christopher M. Thompson
Christopher M. Thompson
Its President

CITY OF PORTLAND

Judith H. Rosen
Witness

By: Mark Rees
Mark Rees
Its City Manager

APPROVED AS TO FORM:

[Signature]
CORPORATION COUNSEL'S OFFICE

STATE OF MAINE
County of Cumberland, ss.

October 11, 2013

Then personally appeared the above-named Christopher M. Thompson, President of Forefront GP LLC, the General Partner of Forefront Partners I, LP, and acknowledged the foregoing instrument to be his free act and deed, in his said capacity and the free act and deed of Forefront Partners I, LP.

Before me,

Jude A. Cluff-Graham
Attorney at Law/Notary Public
Printed Name of Attorney/Notary

STATE OF MAINE

County of Cumberland, ss.

October 21, 2013

Then personally appeared the above-named Mark Rees, City Manager of the City of Portland, and acknowledged the foregoing instrument to be her free act and deed in her said capacity and the free act and deed of said Portland Trails.

Before me,

JUDITH H. ROSEN
Notary Public, Maine
My Commission Expires June 17, 2018

Judith H. Rosen
Attorney at Law/Notary Public

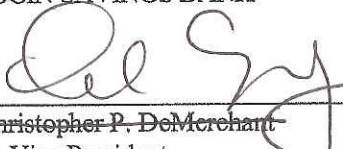
Judith H. Rosen
Printed Name of Attorney/Notary

CONSENT OF MORTGAGEE

ANDROSCOGGIN SAVINGS BANK, a Maine banking corporation ("Lender"), holder of a certain Mortgage Deed, Security Agreement and Financing Statement from FOREFRONT PARTNERS I, LP, a Maine limited partnership (the "Borrower"), dated as of June 27, 2013 and recorded in the Cumberland County Registry of Deeds in Book 30781, Page 292; a Collateral Assignment of Leases and Rentals dated as of June 27, 2013 and recorded in said Registry of Deeds in Book 30781, Page 312; a Mortgage Deed, Security Agreement and Financing Statement dated as of August 30, 2013 and recorded in said Registry of Deeds in Book 31014, Page 166; a Collateral Assignment of Leases and Rentals dated as of August 30, 2013 and recorded in said Registry of Deeds in Book 31014, Page 185; and an Equal Priority Agreement dated as of August 30, 2013 and recorded in said Registry of Deeds in Book 31014, Page 194 (collectively the "Loan Documents"), each with respect to certain property located at or near Thompson's Point in Portland, Cumberland County, Maine, as more particularly described therein (the "Mortgaged Property"), hereby consents to, and subordinates the liens of the Loan Documents to the interests of the Grantee in the foregoing Trail Easement, dated of near or even date, by and between the City of Portland and the Borrower. The Lender hereby agreeing that its lien under the Loan Documents shall be subject to the provisions of the said Trail Easement, and agreeing that in the event of the foreclosure of the Loan Documents, or other sale of the Mortgaged Property under judicial or non-judicial proceedings, the same shall be sold subject to the the terms of said Trail Easement, PROVIDED, HOWEVER, that this consent shall not be construed to to impose on the Lender, its successors and assigns, any of the obligations or liabilities of the Grantor under the Trail Easement.

Dated as of October 12, 2013

ANDROSCOGGIN SAVINGS BANK

By: 
Christopher P. DeMerchant
Its Vice President
David M. Eldridge

STATE OF MAINE
County of Cumberland

DAVID M. ELDRIDGE

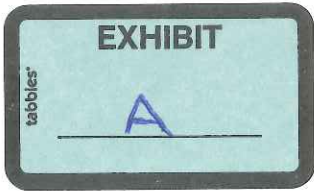
Personally appeared the above-named ~~Christopher P. DeMerchant~~ in his capacity as Vice President of Androscoggin Savings Bank and acknowledged the foregoing to be his free act and deed and the free act and deed of Androscoggin Savings Bank.

Before me,



Notary Public / Attorney at Law
Print Name: _____
My Commission Expires: _____

CHARLES A. SCHWAB
Notary Public, Maine
My Commission Expires September 28, 2017



FST <small>FORWARD</small> FAY, SPOFFORD & THORNDIKE, INC. <small>ARCHITECTS</small> 770 MAIN ST., 5TH FL., SUITE 5000, WASHINGTON, D.C. 20001	
DESIGNER	DATE: 08/12/2013
CHECKED BY	SCALE: 1" = 60'
DRAWN BY	DRAWING NO.:
PROJECT NO.	SHEET NO.:

PROJECT:	THE FOREFRONT AT THOMPSON'S POINT
CLIENT:	FOREFRONT PARTNERS, L.P.



ZONE TEXT AMENDMENT MASTER PLAN					
REV.	DATE	DESCRIPTION	BY	DATE	REVISIONS



FORE RIVER

SEWELL ST

WATERFRONT ACCESS

FUTURE BUNKER AREA

OUTDOOR PAVILION

PLAZA

SERVICE AREA

PARKING GARAGE FOR 500 VEHICLES

EVENT CENTER

CHALLENGER CENTER 100,000 SF

EDUCATIONAL 25,000 SF

OPEN SPACE / OUTDOOR CONCERT VENUE

SERVICE AREA

OPEN SPACE / PERFORMANCE SPACE

SERVICE AREA

FUTURE BUILDING AREA 100,000 SF

OFFICE BUILDING 100,000 SF

RESTAURANT 5,000 SF

QUITCLAIM DEED
With Covenant

THOMPSON'S POINT INCORPORATED (a/k/a Thompson's Point Inc.), a Maine corporation, for consideration paid, the receipt whereof is hereby acknowledged, does hereby **GRANT** to FOREFRONT PARTNERS I, LP, a Maine limited partnership, of Lewiston, State of Maine, and having a mailing address of: P.O. Box 660, Lewiston, Maine 04243-0660, **WITH QUITCLAIM COVENANT**, the following described real estate located in Portland, Maine:

PARCEL ONE:

A. Lot One

A certain tract or parcel of uplands and flats, with the buildings thereon, known as Thompson's Point and situated in the City of Portland, in the County of Cumberland and State of Maine, and more particularly bounded and described as follows:

Beginning at a stake in the division line between land now or formerly owned by P.H. and J.M. Brown Company and land formerly owned by the Portland and Ogdensburg Railway (now owned by Maine Central Railroad), which said division line extends in a direct course from Congress Street to the location of said Railway (hereinafter called "said location"), and crosses said location to and into the flats adjoining the above described land and which above described point of beginning is in the southwesterly side line of said location and is twenty-eight (28) feet southwesterly from and measured at right angles to the center line of the east bound main track of said Railway; thence South fifteen degrees twenty-four minutes (15 deg. 24') West on said division line four hundred ninety-eight (498) feet to a stake in the flats; thence South fifty-eight degrees forty-six minutes (58 deg. 46') East three hundred eighty-three and four tenths (383.4) feet to a stake in the flats; thence South six degrees thirty-six minutes (6 deg. 36') East five hundred and seventy-eight (578) feet to a stake in the flats; thence South thirteen degrees thirty-three minutes (13 deg. 33') West four hundred (400) feet, more or less, to the channel of a creek running into Fore River, so-called; thence in a general southeasterly direction by said channel of said creek five hundred (500) feet, more or less, to the point of intersection of said channel of said creek with a line drawn parallel to and one hundred (100) feet northwesterly from and measured at right angles to the prolongation southwesterly of the northwesterly side line of Frederick Street; thence northeasterly on said line drawn parallel to and one hundred (100) feet northwesterly from and measured at right angles to said prolongation southwesterly of said northwesterly side line of Frederick Street fifteen hundred (1,500) feet, more or less, to a point in the southwesterly side line of said location distant forty-nine and five tenths (49.5) feet, more or less, southwesterly from and measured at right angles to the center line of said east bound main track of said Railway; thence northwesterly by the southwesterly side line of said location eighty-five (85) feet, more or less, to a point; thence northeasterly at right angles by said location twenty-one and five tenths (21.5) feet to the southwesterly sideline of

MAINE REAL ESTATE TAX PAID

said location and a point twenty-eight (28) feet southwesterly from and measured at right angles to the center line of said east bound main track of said Railway; thence North fifty-four degrees thirty-six minutes (54 deg. 36') West by the southwesterly side line of said location and on a line parallel to and twenty-eight (28) feet southwesterly from and measured at right angles to the center line of said east bound main track of said Railway seventeen hundred seventy-five (1,775) feet, more or less, to the point of beginning.

Together with a right of way in common with others over the way as now traveled from the intersection of Sewall and Hooper Streets southerly to the above described premises.

Together with a right of way 15 feet in width over land reserved by Suburban U.D.I. Co. of Maine as described below adjacent to and northerly of the southerly bounds of the reserved parcel described below. The southerly bounds are described as N 54° 1-1/2' W, 222.55 feet; N 60° 57-1/2' W, 60.12 feet; and N 53° 54-1/2' W, 175.19 feet.

Together with a right to use as presently located over the land reserved by Suburban U.D.I. Co. of Maine all sewers, water mains, and utility lines useful for the conduct of business, including the right to enter the land reserved by Suburban U.D.I. Co. of Maine when necessary for the maintenance and repair of said sewers, water mains, and utility lines.

B. Lot Two

A certain lot or parcel of land situated in the City of Portland, County of Cumberland State of Maine being that certain parcel of land conveyed by Suburban Propane Gas Corporation to Mecaw Industries by deed dated October 22, 1965 and recorded in the Cumberland County Registry of Deeds in Book 2935, Page 239, more particularly bounded and described as follows:

Beginning at an iron pipe that is distant S 35° 31' W forty one and eighty-two hundredths (41.82) feet from the point of beginning of a parcel of land that is excepted and reserved from the conveyance in a quit claim deed from Suburban U.D.I. Co. of Maine to Peter A. Anderson and E. Martin Anderson dated August 18, 1953 and recorded in Cumberland County Registry of Deeds in Book 2146, Page 304. Thence, from said point of beginning and by a private road leading from Sewall Street, on the same course of S 35° 31' W thirty six and fifty-nine hundredths (36.59) feet to a spike at land now or formerly of Mecaw Industries; Thence by said land now or formerly of Mecaw Industries S 37° 32' E two hundred twenty five and eighteen (225.18) feet to an iron; Thence through said excepted parcel N 7° 58' W seventy and ninety-four (70.94) feet to an iron; Thence continuing through said excepted parcel N 37° 32' W one hundred seventy four and fourteen hundredths (174.14) feet to the point of beginning. Said above described courses are magnetic and of the date of 1953.

EXCEPTING from Parcel One above a certain lot or parcel of land and any buildings thereon as reserved in a deed from Suburban U.D.I. Co. of Maine to Peter A. Anderson

and E. Martin Anderson dated August 18, 1953 and recorded in the Cumberland County Registry of Deeds in Book 2146, Page 304, and further bounded and described as follows:

Beginning at a stake on the southerly side line of the right of way of the Mountain Division of the Maine Central Railroad (formerly the Portland and Ogdensburg Railway), said stake being 15 feet easterly from the center line of a private road leading from Sewall Street to and over land conveyed by Suburban U.D.I. Co. of Maine to said Andersons, said stake being approximately opposite Station 42+96.45, of said railroad; thence by said railroad right of way S 37° 32' E, 206.10 feet to a stake in the line of a fence; thence by said fence and on a course of S 32° 21' E, 282.06 feet to the end post of said fence; thence S 32° 50' E, 18.69 feet to a stake; thence S 22° 35' E, 50.00 feet to a stake; thence S 20° 06' E, 50.00 feet to a stake; thence S 13° 06' E, 50.00 feet to a stake; thence S 02° 18' E, 50.00 feet to a stake; thence S 07° 40' W, 50.00 feet to a stake; thence S 17° 43-1/2' W, 50.00 feet to a stake; thence S 27° 11-1/2' W, 50.00 feet to a spike in the center line of a 30 foot right of way hereinafter described, said spike being distant N 54° 01-1/2' W, 3.92 feet from the westerly gauge of a railway spur line; thence by the center line of said aforementioned 30 foot right of way, N 54° 01-1/2' W, 227.55 feet to a spike marking an angle in said right of way, said last mentioned course passing 15 feet northerly of and parallel to the northerly side line of a projection of a building on land conveyed by Suburban U.D.I. Co. of Maine to said Andersons; thence by the center line of said aforementioned 30 foot right of way, N 60° 57-1/2' W, 60.12 feet to a spike marking an angle therein; thence by the center line of said aforementioned 30 foot right of way, N 53° 54-1/2' W, 175.19 feet to a spike, said last mentioned course passing 22 feet southerly of and parallel to the brick line of a three story office building known as Building 7-G on land reserved to Suburban U.D.I. Co. of Maine; thence parallel to and 5 feet from a building on land reserved to Suburban U.D.I. Co. of Maine, N 36° 16-1/2' E, 300.52 feet to a stake; thence N 37° 32' W, 225.18 feet to a stake distant 15 feet from the center line of said private road leading from Sewall Street to and over land conveyed by Suburban U.D.I. Co. of Maine to said Andersons, said last mentioned course being parallel to and 75 feet from the first described course; thence by said private road leading from Sewall Street, N 35° 31' E, 78.41 feet to the point of beginning. Said above described courses are magnetic and of the year 1953.

ALSO EXCEPTING from Parcel One above a small parcel of land conveyed by Mecaw Industries to Suburban Propane Gas Corporation by deed dated November 24, 1965 and recorded in the Cumberland County Registry of Deeds in Book 2935, Page 236.

ALSO EXCEPTING from Parcel One a small parcel of land conveyed by Mecaw Industries to Portland Water District by deed dated March 19, 1976 and recorded in the Cumberland County Registry of Deeds in Book 3821, Page 2.

ALSO EXCEPTING from Parcel One above that portion of the premises taken by the State of Maine for highway purposes and described in a Notice of Taking dated July 26, 1967 and recorded in the Cumberland County Registry of Deeds in Book 3005, Page 432.

ALSO EXCEPTING from Parcel One above that portion of the premises and rights and easements taken by the Northern New England Passenger Rail Authority by Notice of Condemnation dated August 20, 2001 and recorded in the Cumberland County Registry of Deeds in Book 16667, Page 204.

ALSO EXCEPTING from Parcel One above that portion of the premises taken by Langdon Street Real Estate by its Notice dated November 10, 1997 and recorded in the Cumberland County Registry of Deeds in Book 13459, Page 202.

ALSO EXCEPTING from Parcel One above that portion of the premises and rights and easements taken by the Northern New England Passenger Rail Authority by Notice of Condemnation dated February 2, 2010, and recorded in the Cumberland County Registry of Deeds in Book 27577, Page 53.

PARCEL TWO:

A certain lot or parcel of land situated in the City of Portland, County of Cumberland and State of Maine and conveyed by The Dartmouth Company to Thompson's Point, Inc. by deed dated January 31, 1985 and recorded in the Cumberland County Registry of Deeds in Book 6676, Page 287, further bounded and described as follows:

Commencing at a point on a line of land being the southeasterly sideline of land now or formerly of The Dartmouth Company and further being the last described course (i.e., the 2,066-foot course) in the fourth described parcel in a deed from John Marshall Brown to P.H. and J.M. Brown Company, dated January 3, 1894, and recorded in the Cumberland County Registry of Deeds in Book 609, Page 364, said point being at the intersection of the aforesaid line with the line of land formerly of the Portland and Ogdensburg Railway, now of the Portland Terminal Company; thence northwesterly along the line of land of said Portland Terminal Company approximately three hundred (300) feet to a northerly corner of the land now or formerly of the Dartmouth Company; thence South 70° West by said The Dartmouth Company sideline approximately fifty (50) feet to the high water mark of an inlet on the Fore River; thence in a generally southerly direction along the high water mark and westerly, southerly and easterly around a finger of land extending into said inlet, in all cases along the high water mark, to the northwesterly sideline of the land of Thompson's Point Inc.; thence northeasterly along the northwesterly sideline of the land of the said Thompson's Point Inc. approximately four hundred fifteen (415) feet to the point of beginning.

The above-described premises are conveyed subject to and together with the benefit of all easements, restrictions, covenants, liens and other matters of record, to the extent the same are now in force and applicable, including, but not limited to: (1) Affidavit of E. Martin Anderson, Chairman and President of Mecaw Industries, dated October 1, 1984 and recorded in the Cumberland County Registry of Deeds in Book 6579, Page 24, (2) Easement Deed from Thompson's Point Inc. to Central Maine Power Company and New England Telephone and Telegraph dated April 5, 1990 and recorded in the Cumberland County Registry of Deeds in Book 9153, Page 246, (3) Notice regarding Bath, Jose and

Sewall Streets dated November 25, 1997 and recorded in the Cumberland County Registry of Deeds in Book 13459, Page 202 as it affects the private rights of the named lot owners in and to the indicated streets, (4) terms and conditions of a State of Maine Department of Environmental Protection "No Further Action Assurance Letter" dated February 26, 1999 and recorded in the Cumberland County Registry of Deeds in Book 14640, Page 294, (5) such state of facts as set forth on plan entitled "State of Maine Department of Transportation Right of Way Map, Portland Intermodal Transportation Center", dated March 2001 and recorded in the Cumberland County Registry of Deeds in Plan Book 207, Page 303, (6) such state of facts as set forth on plan entitled "Northern New England Passenger Rail Authority Proposed Land Taking Thompsons Point Associates" dated May 22, 2001, revised through August 13, 2001 and recorded in the Cumberland County Registry of Deeds in Plan Book 201, Page 330, (7) terms and conditions of a State of Maine Department of Environmental Protection Order dated February 9, 2004 and recorded in the Cumberland County Registry of Deeds in Book 20909, Page 4, (8) Trail Easement from Thompson's Point Inc. to Portland Trails, dated October 6, 2005 and recorded in the Cumberland County Registry of Deeds in Book 23265, Page 216, and (9) such state of facts as set forth on plan entitled "Project: Land Acquisition - Northern New England Passenger Rail Authority - Thompson's Point, ME", dated February 13, 2009, revised to December 29, 2009 by OEST Associates, Inc., Drawing No. C-101, Sheet 1 of 3.

For Thompson's Point Incorporated's title see deed dated October 1, 1984 from Mecaw Industries and recorded in the Cumberland County Registry of Deeds in Book 6579, Page 30, and deed dated January 31, 1985 from The Dartmouth Company and recorded in the Cumberland County Registry of Deeds in Book 6676, Page 287.

[Signature Page Follows]

IN WITNESS WHEREOF, the said THOMPSON'S POINT INCORPORATED has set its hand and seal on June 19, 2013.

WITNESS:

[Signature]

THOMPSON'S POINT INCORPORATED

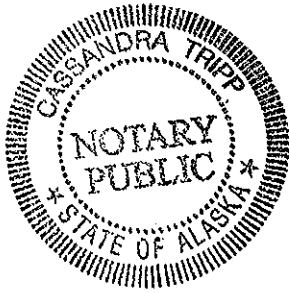
By: [Signature]

Name: Nicholas Van Wyck
Title: President

STATE OF Alaska
COUNTY OF 3rd Judicial District

June 19, 2013

Then personally appeared the above-named Nicholas Van Wyck, the President of Thompson's Point Incorporated, and acknowledged the foregoing instrument to be his free act and deed.



Before me,

[Signature]
Notary Public/Attorney-at-Law

Print name: Cassandra Tripp

my commission Expires 7-26-2016

Received
Recorded Register of Deeds
Jun 27, 2013 03:19:00P
Cumberland County
Pamela E. Lovley

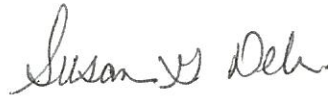
September 16, 2013

Jeff Levine, AICP
Director
Planning & Urban Development Department
City of Portland
389 Congress Street, 4th Floor
Portland, Maine 04101

Dear Mr. Levine,

The purpose of this letter is to confirm that Suburban Propane has executed a Purchase and Sale Agreement with Thompson's Point Development Company, Inc. and its assigns, for our parcel located at Thompson's Point, Portland, Maine; and to confirm that Thompson's Point Development Company, Inc. is authorized to seek entitlements for the redevelopment of this parcel.

Thank you and best regards,



Susan G. Delia
Senior Real Estate Manager

75 West Commercial Street, Suite 104
Portland, Maine 04101-4631
207-780-1000 Tel
207-780-1001 Fax
www.AmtrakDowneaster.com

Martin I. Eisenstein
Chairman



**NORTHERN NEW ENGLAND
PASSENGER RAIL AUTHORITY**

September 16, 2013

Jeff Levine, AICP
Director
Planning & Urban Development Department
City of Portland
389 Congress Street, 4th Floor
Portland, Maine 04101

Dear Mr. Levine,

The purpose of this letter is to confirm that Northern New England Passenger Rail Authority has agreed in principle with Thompson's Point Development Company, Inc., and its assigns, to engage in a transaction in which Thompson's Point Development Company, Inc. would acquire the parcel at Thompson's Point, Portland, Maine, described as "Parcel B" in NNEPRA's notice of condemnation dated February 2, 2010, and recorded in the Cumberland County Registry of Deeds in Book 27577, Page 53, excepting and reserving to NNEPRA a strip 50 feet (+/-) in width along the length of the northerly boundary of that parcel.

As far as NNEPRA is concerned, Thompson's Point Development Company, Inc. is authorized to seek entitlements for the redevelopment of the parcel it would acquire in the anticipated transaction.

Thank you.

A handwritten signature in black ink, appearing to read "Patricia Quinn", written over a horizontal line.

Patricia Quinn
Executive Director

ATTACHMENT K

Financial Capacity Letter



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May 17, 2011

Greg A. Mitchell, Director
Economic Development Division
City of Portland
389 Congress Street
Portland, Maine 04101

RE: Thompson's Point Development Company, Inc.

Dear Mr. Mitchell,

TD Bank, N.A. is aware that Thompson's Point Development Company, Inc. has approached the City of Portland to request Tax Increment Financing to support their redevelopment efforts at Thompson's Point, and I am providing this letter in support.

We have done business with the development team and a number of the investors in this project. All have a proven track record and a commitment to the City of Portland and the State of Maine. We are confident in their ability to complete this project and see that it operates effectively over the long term.

We are in the midst of an active review of the project and wish to confirm our interest in the prospect of providing construction and permanent financing.

Please feel free to contact me with any questions.

Sincerely,

Kimberly J. Twitchell
Vice President
Senior Lender

ATTACHMENT L

Declaration of Easements, Covenants and Restrictions

Draft – April 18, 2014

**DECLARATION
OF
EASEMENTS, COVENANTS AND RESTRICTIONS
dated as of
_____, 2014**

**Declarant: FOREFRONT PARTNERS I, LP
P.O. Box 660
Lewiston, Maine 04243-0660**

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**DECLARATION OF EASEMENTS,
COVENANTS AND RESTRICTIONS**

THE FOREFRONT AT THOMPSON POINT

WITNESS THIS DECLARATION OF EASEMENTS, COVENANTS AND RESTRICTIONS (hereinafter referred to as this “Declaration”) made as of this ____ day of _____, 2014, by FOREFRONT PARTNERS I, LP, and its successors and assigns, a Maine limited partnership, of Lewiston, Maine, and having a mailing address of P.O. Box 660, Lewiston, Maine 04243-0660 (hereinafter referred to as the “Declarant”).

RECITALS

A. Declarant is the owner of certain parcels of land and improvements thereon situated off Thompson’s Point Road in the City of Portland, County of Cumberland and State of Maine, being more particularly described in that certain Quitclaim Deed with Covenant from Thompson’s Point Incorporated (a/k/a Thompson’s Point Inc.), a Maine corporation, to Declarant dated June 19, 2013 (the “Deed”) and recorded on June 27, 2013 in the Cumberland County Registry of Deeds in Book 30781, Page 282 (the “Property”), and as shown on the site plan entitled “_____” (the “Site Plan”).

B. Declarant has subdivided a portion of the Property into certain Lots of land for a commercial development of mixed uses, including, without limitation, work studios, retail businesses, offices, hotels, residential facilities, health clubs and facilities, restaurants and/or banquet facilities, sports facility, theaters (film and performing), public meeting places and/or convention facilities and/or parking garages and facilities to be known as “The Forefront at Thompson Point” (the “Subdivision”).

C. The Subdivision is more particularly depicted on a plan entitled “Amended Subdivision Plan / The Forefront at Thompson’s Point”, prepared for the Declarant by Fay, Spofford & Thorndike Inc., dated _____, 2013, revised through _____, 2014 and approved by the City of Portland Planning Board on _____, 2014, and recorded in the Cumberland County Registry of Deeds in Plan Book _____, Page ____ (as amended from time to time, the “Plan”).

D. The Declarant is the owner of all of the Lots (as hereinafter defined) depicted on the Plan, being Lots 1 through 21, inclusive (except for Lots 16 and 17 which are under contract), and the roadways that circumvent the Subdivision and the Common Areas (as hereinafter defined), excluding approximately one hundred thirty-nine and eighty-seven hundredths (139.87) feet of roadway (9,155^{+/-} square feet) at the entrance of the Subdivision and depicted on the Plan as “proposed conveyance to the City of Portland as additional land for Sewall Street”, which entrance roadway area is currently owned by the State of Maine Department of Transportation(the “Public Road”). Other than the Public Road (i.e., the 139.87

feet of roadway at the entrance to the Subdivision to be conveyed to the City of Portland), the roadways of the Subdivision are, and shall be, private roads.

E. The Declarant desires to provide for the improvement of the Property in accordance with a harmonious plan for the relative location of commercial structures, accessory structures, garages, rights-of-way, easements, roads, railroad crossing rights, common areas, roadways and walkways providing ingress and egress to the Subdivision and general land use, all to assure the owners of Lots, their successors and assigns, that the use, benefit and enjoyment of the individual Lots, Common Areas, facilities, easements and roads will not conflict with the harmonious plan of the proposed commercial development (the "Development").

F. The various components and improvements of the Property have been operated as a single integrated parcel of land over the years, and in order to facilitate the separate operation of the Lots within the Property the Declarant desires to create a Development providing for the greatest possible degree of health, safety, environmental beauty and amenity for the Lot Owners and commercial tenants thereof, and to effect the foregoing purposes, desires to subject the Property to protective covenants, restrictions and common easements and to provide for the administration and enforcement of same, the maintenance and improvement of certain common facilities, and the establishment, collection and disbursement of assessments, all as set forth hereinafter, each and all of which are for the benefit of the Subdivision and of each Lot maintaining and improving certain rights-of-way and other common facilities, and otherwise carrying out the provisions and objectives of this Declaration.

NOW, THEREFORE, the Declarant hereby declares that the Property shall be held, occupied, improved, transferred, sold, leased and conveyed subject to the protective covenants and restrictions, the reservations and exceptions, the common rights and easements and the provisions hereinafter set forth, all of which are declared to be in furtherance of a uniform scheme for the development of the Property and that said protective covenants, reservations, common easements and provisions are intended to enhance and protect the value and desirability of the Property as a whole, to mutually benefit each of the Lots located thereon, to create mutual equitable servitudes upon each of the Lots in favor for each and all other Lots therein and to create reciprocal rights and privities of contract and estate between all persons and entities acquiring or owning any interest in any portion of the Property, including the Declarant, with such protective covenants, restrictions, and easements deemed to run with the land and be a burden and benefit to and enforceable by all such persons, including the Declarant and the Declarant's grantees, successors, administrators and assigns, and by the Association (as hereinafter defined).

ARTICLE I DEFINED TERMS

1.1. Defined Terms. The following terms which are not otherwise defined in this Declaration shall have the following specific meanings in this Declaration:

1.1.1. “Allocated Interests” mean (a) the Common Area Interest, (b) the Common Expense Liability, and (c) the Votes in the Association, allocated to each Lot pursuant to this Declaration.

1.1.3. “Association” means the association of the Lot Owners organized as a nonprofit corporation under the Maine Nonprofit Corporation Act. Subsequent to the Declarant Control Period, if applicable, references herein to the Declarant shall mean the Association as successor in interest to the Declarant.

1.1.4. “Building” means any building erected on the Property within a Lot, as well as other improvements comprising a part of a Building or intended to be used for purposes incidental to the use of a Building.

1.1.5. “Bylaws” mean such governing regulations for the Association as are adopted pursuant to this Declaration for the regulation and management of the Property, including such amendments thereof as may be adopted from time to time.

1.1.6. “Common Areas” mean the outdoor plazas, sidewalks, roadways, public street entrances and exits, service roads, boat docks, landscaped areas, utility structures, and other areas located on the Property and identified as “Common Area” on the Plan, and other portions of the Property hereafter designated as Common Areas pursuant to this Declaration from time to time. In addition, “Common Areas” shall include all storm water facilities situated on the Property, whether or not included in the “Common Area” shown on the Plan, and all utility structures that are not owned and serviced by the utility company and serve multiple Lots.

1.1.7. “Common Area Interest” means the percentage of undivided interest in the Common Areas appurtenant to each Lot.

1.1.8. “Common Expenses” mean and include, but are not limited to, (a) the cost of maintenance, management, operation, repair, renovation, restoration and replacement of the Common Areas and such parts of the Lots as to which pursuant to this Declaration it is the responsibility of the Association to maintain, repair and replace, (b) the cost of all insurance premiums on all policies of insurance required to be or which have been obtained by the Board of Directors pursuant to the provisions of this Declaration, (c) such amounts as the Board of Directors may deem necessary to provide for general operating reserve funds, reserve funds for replacements and contingencies, and such other reserve funds as may be required by the Bylaws or as the Board of Directors may periodically establish, (d) sums that the Board of Directors may deem necessary to compensate for any deficits in receipts over expenses for the previous fiscal year, (e) the charges and fees for energy, heat, water, electricity, gas and sewer services, including stormwater impact fees if applicable, furnished to the Development to the extent not separately metered to individual Lots and charged to individual Lot Owners, and (f) such other

costs and expenses that may be declared by this Declaration, the Bylaws or resolution or agreement by the Board of Directors, Lot Owners, or any of the foregoing, to be Common Expenses of the administration, operation, maintenance and repair of the Development and the Property and the rendering to Lot Owners of all related services.

1.1.9. “Common Expense Liability” means the allocation to each Lot of the respective liability for Common Expenses. The Common Expense Liability allocated to the Lot is a percentage equal to the Common Area Interest appurtenant to the respective Lot.

1.1.10 “Convertible Real Estate” shall mean the land designated as Lots 16 and 17 on the Plan abutting the Development and on the southwesterly side of the railroad tracks that may be acquired by the Declarant during the Declarant Control Period and added to the Development. Any Convertible Real Estate added to the Development shall thereafter be included in the term “Property”. Until such time as Lot 16 and/or Lot 17 are added to the Development, the provisions of this Declaration relating to Lots or Lot Owners shall not be applicable to such Convertible Real Estate.

1.1.11. “Declarant” shall mean the Declarant originally named herein and any successor to the Development Rights (as hereinafter defined), and, if applicable, subsequent to the Declarant Control Period (as hereinafter defined), the Association as successor in interest to the Declarant.

1.1.12. “Declarant Control Period” shall be the period prior to the transition election to Association control described in Section 9.2 hereof.

1.1.13. “Development Documents” mean this Declaration, the Plan, the Site Plan, the Governmental Approvals, the Bylaws and any Rules and Regulations adopted pursuant thereto by the Board of Directors or a committee designated by the Board of Directors, and all amendments to each of the same.

1.1.14. “Development rights” means any right or combination of rights reserved by the Declarant in this Declaration to add real estate to the Development; to create Lots or Common Areas within the Development; to subdivide Lots or convert Lots into Common Areas; or to withdraw real estate from the Development.

1.1.15. “Eligible Mortgage Holder” means the holder of record of a recorded first Mortgage encumbering a Lot in the Development which has delivered written notice to the Association by prepaid United States Mail, return receipt requested, or by delivery in hand securing a receipt therefor, stating the name and address of the holder of a Mortgage, the name and address of the Owner of the Lot encumbered by such Mortgage, the identifying number of such Lot, and containing a statement that such Mortgage is a recorded first Mortgage.

1.1.16. “Governmental Approvals” means any authorization, consent, approval, license or exemption of, registration or filing with, or report to, any governmental or regulatory unit having jurisdiction over the Property to develop the Development.

1.1.17. “Lot” means a part of the Property designated for any type of separate ownership or occupancy, the boundaries of which are described in Article III. For purposes of determining Allocated Interests, the “size” of each Lot is the number of square feet therein determined by reference to the dimensions shown on the latest version of the Plan approved by the City of Portland and recorded in the Cumberland County Registry of Deeds.

1.1.18. “Majority Vote” or “Majority of Lot Owners” shall mean a vote by the Owners of those Lots to which are allocated more than fifty percent (50%) of the Votes in the Association that are cast in person or by proxy at any meeting of the Association at which a quorum (as defined in the Bylaws) is present in person or by proxy. Except as otherwise provided, any specified percentage of Lot Owners means a vote by the Owners of those Lots to which are allocated the same specified percentage of the Votes in the Association that are cast in person or by proxy at any meeting of the Association at which a quorum is present in person or by proxy, and for all voting purposes, each Lot Owner shall have a vote equal to the Votes in the Association allocated to its Lot. The approval by a specified percentage of Eligible Mortgage Holders is based upon one (1) vote for each Mortgage held.

1.1.19. “Mortgage” means a recorded mortgage or deed of trust encumbering a Lot in the Development held by a Mortgagee or an Eligible Mortgage Holder. “Mortgagee” means the holder of a Mortgage.

1.1.20. “Recorded” means that an instrument has been duly entered of record in the Registry of Deeds in and for Cumberland County, Maine.

1.2. Interpretation. In the event of any conflict or discrepancy between this Declaration, the Bylaws and the Plan, the provisions of this Declaration shall govern the Bylaws and the Plan.

ARTICLE II DESCRIPTION OF PROPERTY

2.1. Description of the Property. A legally sufficient description of the Property included in the Development is set forth in Schedule A attached hereto, and the location and dimensions of the Property included in the Development is depicted on the Plan, a reduction of a true copy of which is attached to this Declaration as Schedule B.

2.2. Location and Dimension of Each Lot. The location and dimension of each Lot is depicted on the Plan.

ARTICLE III
DESCRIPTION OF UNITS, ETC.

3.1. Maximum Number of Lots. The Declarant has created pursuant to the Plan, and the Subdivision approved, twenty-one (21) Lots as identified on Schedule C. The Declarant reserves the right to add to the Development Lots 16 and 17 on the Convertible Real Estate.

3.2. Creation of Lots. Reference is made to Schedule C and the Plan for the identifying number of each Lot, including the locations and dimensions of the horizontal boundaries of each Lot, the Common Areas to which the Lot has direct access and any other information necessary to identify the Lot.

3.3. Lot Boundaries. The boundaries of each Lot are shown on the Plan and are described as follows:

3.3.1. Vertical Boundaries: The Lots shall have no vertical boundaries.

3.3.2. Horizontal (Parametric) Boundaries: The horizontal boundaries of each Lot are as shown on the Plan.

3.3.3. Inclusions: Each Lot will include the spaces and improvements lying within the boundaries described in subparagraphs 3.3.2 above.

3.3.4. Exclusions: Except when specifically included by other provisions of this Paragraph 3.3, the following are excluded from each Lot: the spaces and improvements lying outside of the Lot boundaries described in subparagraphs 3.3.2 and 3.3.3 above.

3.4. Allocated Interests. The Allocated Interests allocated to each Lot are listed and allocated to the Lots in Schedule C. Each Common Area Interest and Common Expense Liability has been rounded to the nearest one thousandth of one percent (0.001%). The Common Area Interests and Common Expense Liabilities appurtenant to each respective Lot are each a percentage determined on the basis of "size" (as defined in Paragraph 1.1.17 above) by multiplying by one hundred (100) the quotient resulting from dividing the "size" of each respective Lot by the aggregate "size" of all the Lots in the Development, excluding from such calculation Lot 1, which contains only Common Areas, and excluding Lots 16 and 17 until such time as they are added to the Development. The Votes in the Association allocated to each respective Lot is a sum rounded to the nearest whole number determined by multiplying by one thousand (1,000) the quotient resulting from dividing the "size" of each said Lot by the aggregate "size" of all the Lots in the Development, excluding from such calculation Lot 1, which contains only Common Areas, and excluding Lots 16 and 17 until such time as they are added to the Development. The Allocated Interests stated for each Lot in Schedule C are subject to change in the circumstances stated in this Declaration, e.g., change in a Lot size, change in Common Areas, or addition of Convertible Real Estate.

3.5. Structures. No Building (or auxiliary structure) shall be erected or placed within any Lot, or the exterior of any Building altered, until its design, siting within the Lot, utility siting, exterior siding, roofing and trim materials, all auxiliary structures and exterior colors are approved by the Declarant, which approval shall not be unreasonably withheld, delayed or conditioned if such erection, placement or alteration is otherwise consistent with the Site Plan for the Development approved by the City of Portland Planning Board.

3.6. Time of Construction. When the construction of a Building on a Lot is once begun by a Lot Owner, work thereon must be prosecuted diligently and the enclosed shell of such Building must be completed within two (2) years, unless otherwise consented to by the Association, which consent shall not be unreasonably withheld, delayed or conditioned; provided, however, in the event construction begins on a “pad” site, so-called, and not a Building, so that site work, foundations, utilities, etc. can be done, it shall not be deemed to trigger the two (2) year period so long as completion of the “pad” site is completed to a “pad ready” status within eight (8) months from commencement to the satisfaction of the Declarant or Board of Directors, as applicable.

3.7. Compliance with Ordinances. All construction activities, including the siting of a Building and erection of signs, shall be in accordance with all local, state and federal laws, codes, ordinances and regulations and subject to the existing Site Plan approvals, Subdivision approvals and this Declaration.

3.8. Maintenance of Lots. Each Lot Owner shall be solely responsible for the maintenance, replacement and repair of its Lot, excluding Common Areas, and shall keep its Lot free from rubbish and trash of any kind. Each Lot Owner shall keep trash, garbage and other waste in sanitary containers and any sand, gravel, salt or similar materials in appropriate locations within the boundaries of a Lot, and in accordance with all local, state and federal laws, codes, ordinances and regulations, and any Rules and Regulations established by the Association’s Board of Directors. Each Lot in the Development is situated on private property with street frontage on private roads, and the City of Portland shall not have any responsibility for trash removal or for road maintenance on the said private roads of the Development.

3.9. Nuisances. No Owner shall do or permit to be done any act in the Development or within a Lot which may be, or is, or may become a nuisance as defined by state or local ordinances or regulations.

ARTICLE IV COMMON AREAS AND APPLICABLE PROVISIONS

4.1. Association Rights to Reserve Areas. “Reserved Common Areas” are those parts of the Common Area which the Declarant (or the Board of Directors as successor to the Declarant) may designate from time to time for use by less than all Lot Owners or by non-Lot Owners for specified periods of time. The Declarant (or the Board of Directors of the Association) shall have the power in its discretion from time to time to grant revocable licenses

in designated Reserved Common Areas and to establish a reasonable charge for the use and maintenance thereof, but the designation of such Reserved Common Areas shall not affect the Allocated Interests of the Lot Owners.

4.2. Common Areas to Remain Undivided. The Common Area Interest of a Lot shall be inseparable from each Lot, and any conveyance, lease, devise or other disposition or mortgage or other encumbrance of any Lot shall extend to and include the Common Area Interest, whether or not expressly referred to in the instrument effecting such transfer. The Common Areas shall remain undivided and no action for partition or division of any part thereof shall be permitted, unless otherwise provided by law and permitted by this Declaration.

4.3. Use of Common Areas. Except as their use may otherwise be limited by this Declaration or the Bylaws or otherwise by the Declarant (or the Board of Directors, as applicable) pursuant to its powers, each Lot Owner, tenant and occupant of a Lot, and guests, customers, clients, agents and employees of such Lot Owner, tenant and occupant, may use the Common Areas in common with all other Lot Owners and tenants or occupants of other Lots, and their respective guests, customers, clients, agents and employees, in accordance with the purposes for which they are intended without hindering or encroaching upon the lawful rights of the other Lot Owners, subject to the following terms:

4.3.1. Except for such signs as may be posted by the Declarant for promotional or marketing purposes, no exterior or Building signs of any character shall be erected, posted or displayed upon, in, from or about any Lot or Common Areas without the prior written approval of the Board of Directors or a committee designated by the Board of Directors, which approval shall not be unreasonably withheld, delayed or conditioned. All signs must be in compliance with the City of Portland Ordinances, Regulations and Permits. Notwithstanding the foregoing, (i) any tenant identification sign to be installed on a Building or on a monument sign for a Lot shall not require the approval of the Board of Directors or the committee if such sign complies with the Portland Ordinances, Regulations and Permits, and (ii) Declarant's right to post signs for promotional or marketing purposes shall be limited to (A) such Lots and those Common Areas that are unimproved, (B) those Lots on which the construction of a Building or other improvements have not yet been completed, and (C) those Lots whose Owner(s) have consented to the posting thereof.

4.3.2. No Lot Owner shall obstruct any of the Common Areas nor shall any Lot Owner place or cause or permit anything to be placed on or in any of the Common Areas (except those areas designated for such storage by the Development Documents or the Board of Directors) without the approval of the Board of Directors, which approval shall not be unreasonably withheld, delayed or conditioned. Notwithstanding the foregoing, the approval of the Board of Directors shall not be required in connection with the installation of any outside fuel tanks, trash compactors, coolers, compressors, electrical transformers and

other equipment which exclusively serves a Building so long as such installation does not eliminate any parking spaces or obstruct ingress and/or egress.

4.3.3. The Board of Directors, the Association, any Lot Owner and the Declarant shall not be considered a bailee of any personal property stored on the Common Areas (including property located in storage cubicles and vehicles parked on the Common Areas), whether or not exclusive possession of the particular area is given to a Lot Owner for storage or parking purposes, and shall not be responsible for the security of such personal property or for any loss or damage thereto, whether or not due to negligence, except to the extent covered by insurance in excess of any applicable deductible.

ARTICLE V EASEMENTS AND LICENSES

5.1. Recorded Easements and Licenses. The Property is on the date hereof subject to and benefited by those recorded easements and licenses and other matters of record, including those easements, notes, conditions and restrictions as are set forth herein, on the Site Plan and the Plan, each as may be amended, modified, approved and recorded from time to time.

ARTICLE VI NOTICES TO LOT OWNERS BY ASSOCIATION

6.1. To Lot Owners. All notices, demands, bills and statements or other communications affecting the Development shall be given to Lot Owners by the Association in writing and shall be deemed to have been duly given if delivered personally securing a receipt therefor or sent by United States mail, postage prepaid, or if such notification is of a default or lien, sent by registered or certified United States mail, return receipt requested, postage prepaid, addressed to the Lot Owner at the address which the Lot Owner shall designate in writing and file with the Secretary of the Association, or if no such address is so designated, the address of the Lot of such Lot Owner who is the record owner thereof.

6.2. To the Association. All notices, demands, statements or other communications affecting the Development given by the Lot Owners to the Association shall be in writing and shall be deemed to have been duly given to the Association if delivered personally securing a receipt therefor, or sent by United States mail, postage prepaid, return receipt requested, addressed to the Association at the principal office of the managing agent, or if there shall be no managing agent, then to the Secretary of the Association at the address of the Lot of which the Secretary is the record Lot Owner.

6.3. To Eligible Mortgage Holder. All notices, demands, statements or other communications affecting the Development given by the Association to any Eligible Mortgage Holder shall be in writing and shall be deemed to have been duly given by the Association if delivered personally securing a receipt therefor, or sent by United States mail, postage prepaid,

addressed to the Eligible Mortgage Holder at the address identified pursuant to Article I by virtue of which it became an Eligible Mortgage Holder.

ARTICLE VII
EASEMENTS

7.1. Utilities, Pipes and Conduits. Subject to the terms of Section 10.1.7 hereof, each Lot Owner shall have an easement in common with all other Lot Owners to use all pipes, wires, ducts, cables, conduits, public utility lines and other Common Areas serving its Lot and located in any of the other Lots or Common Areas. Each Lot shall be subject to an easement in favor of all other Lot Owners to use the pipes, ducts, cables, wires, conduits, public utility lines and other Common Areas serving such other Lots and located in such Lot. The Declarant (and the Association and its Board of Directors as successor to the Declarant) shall have the right to grant to third parties additional permits, licenses and easements over and through the Common Areas for utilities, roads and other purposes reasonably necessary or useful for the proper maintenance and operation of the Development.

7.2. Ingress, Egress and Regress. Each Lot Owner, and the clients, customers, guests, employees, tenants, subtenants, invitees, agents, contractors and licensees of Lot Owners shall have an easement, subject to any rules and regulations established by the Board of Directors, in common with all other Lot Owners to use the entrances, exits, corridors and other Common Areas as a means of ingress, egress and regress to and from the Property and the adjoining public streets. The Board of Directors shall not and cannot establish any rules and regulations depriving any Lot Owner of reasonable ingress, egress and regress to and from its Lot, the Property and Common Areas and the adjoining public streets. Notwithstanding the foregoing, use of the entrances, exits, corridors and roadways as a means of ingress, egress and regress to and from the Property and the adjoining public streets, and to parking spaces and areas located on the Property shall be subject to the Event Management Plan generally described in Schedule D attached hereto and the Transportation Demand Management Program generally described in Schedule E attached hereto, which Event Management Plan and Transportation Demand Management Program shall be incorporated into the Rules and Regulations as adopted by, and amended from time to time, by the Board of Directors.

7.3. Development Association and Board of Directors Access. The Declarant reserves in favor of itself, the Association and its Board of Directors, officers, agents and employees, and the managing agent and every other person authorized by the Board of Directors, the irrevocable right and easement to have access to each Lot as may be necessary for the inspection, maintenance, repair or replacement of any of the Common Areas therein or accessible therefrom or the making of any addition or improvements thereto; or to make repairs to any Lot or the Common Areas if such repairs are reasonably necessary for public safety or to prevent damage to any other Lot or Lots or the Common Areas; or to abate any violation of law, orders, rules or regulations of the Association or of any governmental authorities having jurisdiction thereof. In case of an emergency, such right of entry shall be immediate whether or not the Lot Owner is present at the time.

7.4. Declarant's Easement for Marketing. Prior to the completion of the Development, the Declarant reserves the right with respect to its marketing of Lots to use the Common Areas for the ingress and egress of itself, its officers, employees, agents, contractors and subcontractors and for prospective owners or tenants of Lots, including the right of such prospective owners or tenants to park in parking spaces. The Declarant further reserves the right to maintain on the Property such advertising signs as may comply with applicable governmental regulations, which may be placed in any location on the Property and may be relocated or removed, all at the sole discretion of the Declarant. The Declarant shall have the right to erect on the Common Areas temporary offices for construction, management, and similar purposes, which may be relocated or removed, all at the sole discretion of the Declarant and which may be of such types and sizes as the Declarant may deem appropriate. Notwithstanding the foregoing, Declarant's rights set forth in this Section 7.4 shall be limited to those Common Areas that are part of any Lot under construction, to those Common Areas that are unimproved, to those Lots that are unimproved, to those Lots on which the construction of a Building or other improvements have not yet been completed, and to those Lots whose Owner(s) have consented to the activity thereon.

7.5. Declarant's Easement for Construction. The Declarant reserves the easement, right and privilege without delay or hindrance with respect to the construction of the Lots, Common Areas and other improvements of the Development, to go upon any and all of the Property for purposes of construction, reconstruction, maintenance, repair, renovation, replacement or correction of the Lots or Common Areas. This easement shall include, without limitation, the right of vehicular and pedestrian ingress and egress, the right to park motor vehicles and to engage in construction and marketing activities of any nature whatsoever, including the movement and storage of building materials and equipment. This easement also expressly includes the right to cut and remove any trees, bushes or shrubbery, to grade and remove the soil, to undertake any work in the tidal area and the embankment areas in or near the shoreland setbacks, including the areas which may be under license or easement with others for the purposes of maintaining the public bicycle and pedestrian trails, or to take any other action reasonably necessary to achieve this purpose, following which the Declarant shall restore the affected property as closely to its original condition as practicable. The Declarant reserves the rights to sell the removed timber and soil and retain the proceeds thereof. Furthermore, the Declarant reserves an easement in the Lots and Common Areas for the purpose of discharging the Declarant's obligations and exercising the Development Rights and other special rights reserved pursuant to this Declaration or on the Plan. The easements, powers or rights reserved by the Declarant in Paragraphs 7.4, 7.5, 7.6, 7.8, 7.9 and 7.14 shall continue until the Declarant has conveyed to a third party grantees all Lots in the Development which the Declarant has reserved the Development Rights to create. These Paragraphs shall not be amended until that time without the written consent of the Declarant.

7.6. Declarant's Easement to Correct Drainage. The Declarant (and the Association as successor to the Declarant) reserves an easement on, over and under those portions of the Property for the purpose of maintaining, correcting, upgrading, and improving drainage of surface water in order to maintain reasonable standards of health, safety and appearance. The reservation of this right does not and shall not result in the imposition of an obligation.

7.7. Encroachments. Each Lot shall have an easement to the extent necessary for structural and subjacent support over the Common Areas, and the Common Areas shall be subject to an easement for structural and lateral support in favor of every other Lot. If any portion of the Common Areas hereafter encroaches upon any Lot, or if any Lot hereafter encroaches upon any other Lot or upon any portion of the Common Areas, as a result of settling or shifting of any Building or Buildings within a Lot or otherwise than as a result of the purposeful or negligent act or omission of the Lot Owner, or of the Association in the case of encroachments by the Common Areas, a valid easement appurtenant to the encroaching Building or Common Areas for the encroachment and for the maintenance of the same shall exist for so long as the encroachment shall exist. Subject to the express terms of any written lease controlling the occupancy of any Building, in the event that any Building or Buildings shall be partially destroyed as a result of fire or other casualty or as a result of a taking by the power of, or in the nature of, eminent domain or by an action or deed in lieu of condemnation, and then is rebuilt, encroachments of a portion or portions of the Common Areas upon any Lot or of any Lot upon any portion of the Common Areas, due to such rebuilding, shall be permitted, and valid easements appurtenant to the encroaching Lots, Common Areas for such encroachments and the maintenance thereof shall exist so long as that Building as so rebuilt shall stand.

7.8. Declarant's Right to Connect with Utilities. The Declarant further reserves an easement to connect with and make use of utility lines, wires, pipes and conduits located or to be located on the Property for construction purposes on the Property, provided that the Declarant shall be responsible for the cost of service so used, and to use the Common Areas for ingress and egress and construction activities and for the storage of construction materials and equipment used in the completion of the Lots and Common Areas.

7.9. Declarant's Right to Grant Easements. The Declarant shall have the right, until the Declarant has transferred all Lots in the Development which the Declarant has reserved the Development Rights to create, to grant and reserve easements and rights-of-way through, under, over and across the Property for construction purposes, and for the installation, maintenance and inspection of lines and appurtenances for public or private water, sewer, drainage, gas, electricity, telephone and other utilities. The Lots and Common Areas shall be and are hereby made subject to easements in favor of the Declarant, appropriate utility and service companies and governmental agencies or authorities for such utility and service lines and equipment as may be necessary or desirable to serve any portion of the Property. The easements created in this Paragraph shall include, without limitation, rights of the Declarant, or the providing utility or service company, or governmental agency or authority, to install, lay, maintain, repair, relocate and replace pipes and conduits, water mains and pipes, sewer and drain lines, telephone wires and equipment, television equipment and facilities (cable or otherwise) over, under, through, along and on the Lots and Common Areas. The Declarant hereby covenants that in its exercise of the easements rights reserved in this Section 7.9, any such construction, crossing or work associated with the foregoing will be done so as to minimize any nuisance or interference with any occupied Lot or Common Area within the Development.

7.10. Common Areas Easement in Favor of Lot Owners. The Common Areas shall be

and is hereby made subject to the following easements in favor of the Lots benefited:

7.10.1. For the installation, repair, maintenance, use, removal and/or replacement of pipes, ducts, heating and air conditioning systems, electrical, telephone and other communication wiring and cables and all other utility lines and conduits which are a part of or serve any Lot and which pass across or through a portion of the Common Areas.

7.10.2. For the installation, repair, maintenance, use, removal and/or replacement of lighting fixtures, electrical receptacles, panel boards and other electrical installations which are a part of or serve any Lot but which encroach into a part of a Common Area adjacent to such Lot; provided that the installation, repair, maintenance, use, removal or replacement of any such item does not unreasonably interfere with the common use of any part of the Common Areas.

7.10.3. For driving and removing nails, screws, bolts and other attachment devices into the surface of the concrete slab or subflooring below the Lot, to the extent such nails, screws, bolts and other attachment devices may encroach into a part of a Common Area adjacent to such Lot; provided that any such action will not unreasonably interfere with the common use of any part of the Common Areas.

7.11. Rental Operations by Declarant. The Declarant shall have the right to operate any real estate subject to Development Rights as a rental project. The Declarant may establish and maintain all offices, signs and other accoutrements normally used in the operation of such rental properties in the sole discretion of the Declarant. The Declarant may, in its sole discretion, lease portions of any real estate subject to Development Rights so long as the Declarant pays the expenses attributable to such rental operations and such operations shall be for the benefit of the Declarant, and neither the Association nor any Lot Owner (other than the Declarant) shall have any right or interest in the profits or losses thereof.

7.12. Alteration of Common Areas by Declarant. The Declarant reserves the right to modify, alter, relocate, remove or improve defective, obsolete or nonfunctional portions of the Common Areas, including, without limitation, any equipment, fixtures and appurtenances when, in the Declarant's judgment, it is necessary or desirable to do so.

7.13. Easements or Licenses for Walking Trails. The Declarant or the Association, as applicable, promptly following the substantial completion of the construction of the Development and subject to the terms of the applicable Governmental Approvals, shall enter into negotiations for the purpose of providing a license or easement as determined in the sole discretion of the Declarant or the Association, as applicable, with Portland Trails, or any successor to Portland Trails or similar entity whether now existing or hereafter created, to provide to the public a non-exclusive walking trail or foot path across Common Areas to and near the waterfront on the Property at specifically designated locations, which locations may be changed, modified or relocated from time to time by the Declarant or the Association, as applicable, with such walking trail or foot path also providing access to a launch site for access

into the Fore River for small kayaks and canoes. Notwithstanding the foregoing, (i) the Declarant or the Association, as applicable, at all times hereby reserves the right to restrict public access to the Property and/or portions of the Property, and (ii) nothing in this Section 7.13 or elsewhere in this Declaration shall be deemed or interpreted to create or establish a license or easement for walking trails, foot paths or access to the Fore River, and any such access as contemplated by this Section 7.13 shall not be effective unless and until a separate, written license or easement agreement, upon such terms and conditions agreed to by the parties has been signed and delivered by the Declarant or the Association, as applicable. Prior to the issuance of any Certificates of Occupancy in the Development and subject to the terms of the applicable Governmental Approvals, the Declarant shall execute and deliver, in recordable form, a separate instrument granting the walking trail and water access rights described in this Section 7.13.

7.14. City of Portland Easement for Public Vehicles Declarant hereby grants to the City of Portland a right of way easement for City of Portland owned vehicles for ingress and egress over and across the Common Areas paved roads and driveways of the Property for the specific purpose of a safe and reasonable “turn-around” to return to the Public Road and for access by the City’s emergency vehicles. Prior to the issuance of any Certificates of Occupancy in the Development and subject to the terms of the applicable Governmental Approvals, the Declarant shall execute and deliver to the City, in recordable form, a separate instrument granting the easements described in this Section 7.14.

ARTICLE VIII

ASSESSMENTS FOR COMMON EXPENSES AND MAINTENANCE OF PROPERTY

8.1. Allocation and Payment of Assessments of Common Expenses. The total amount of Common Expenses shall be assessed against the Lots in the following proportions:

8.1.1. The Common Expenses shall be assessed against all the Lots in proportion to the relative Common Expense Liabilities of all the Lots, as the Common Expense Liabilities may be changed as provided in Paragraph 3.4 and Schedule C.

8.1.2. [Omitted]

8.1.3. Assessments to pay a judgment against the Association shall be made as a Common Expense against the Lots included in the Development at the time the judgment was entered.

8.1.4. Water servicing the Lots shall be supplied by the Portland Water District to the Development and the water district will own and be responsible for the water line up to the meter. Upon substantial completion of a Building, said Building will be separately metered, if permitted by the water district, or otherwise sub-metered; and for each Lot that is not separately metered for water, the Board of Directors shall pay or cause to be paid as an assessment against the Lot Owners so served, the charges for water services consumed together with all related water

charges associated with the Lot's water use promptly after the bills from the water district are rendered. Such assessment against a Lot Owner so served by a sub-meter shall not be included in the Common Expenses. Likewise, water supplied to the Common Areas shall be supplied by the water district serving the area to the Common Areas through one or more separate meters or sub-meters, and the Board of Directors shall pay or cause to be paid as a Common Expense assessable to all the Lot Owners the charges for water services consumed on the Common Areas, together with all related water charges arising therefrom promptly after the bills therefor are rendered. The Board of Directors shall assess such charges for water consumed in the Lots against the various Lots in proportion to usage, it being presumed that the proportionate usage of water in each Lot is based on the number and efficiency of water fixtures in the Lot. Sewer services shall be supplied by the sewer district serving the area to the Lots and the Common Areas on the same basis as the water services shall be supplied. The sewer charges, and related utility fees and charges, including but not limited to stormwater utility fees that may be assessed by the municipality or water district, shall be paid and assessed as Common Expenses on the same basis as the water charges are paid and assessed as Common Expenses.

8.1.5. Gas, electricity and telecommunication services shall be supplied by such utility company serving the area directly to each Lot through a separate meter, and each Lot Owner shall be required to pay the bills for gas, electricity and telecommunication services consumed or used in its Lot promptly after the bills therefor are rendered. The electricity serving the Common Areas shall be separately metered, and the Board of Directors shall pay or cause to be paid promptly after the bills therefor have been rendered all bills for the electricity consumed in the Common Areas as a Common Expense.

8.1.6. Except as otherwise provided in subparagraphs 8.1.4 and 8.1.5, the costs of utilities serving the Development not individually metered to a Lot shall be assessed solely against the Lots benefited in proportion to the relative Common Expense Liabilities of such Lots as between themselves as the Board of Directors shall periodically compute.

8.1.7. The cost of insurance coverage obtained and maintained by the Association as provided in Article XIV shall be assessed as a Common Expense except to the extent that the Board of Directors may periodically determine that the costs of insurance shall be assessed against Lots in proportion to risk.

8.2. Payment of and Lien for Assessments; Budget; Limitation on Expenditures; Taxes; Etc.

8.2.1. Each Lot Owner shall pay to the Association or its authorized representative (1) on the first day of each month one-twelfth (1/12th) (or such other fraction that the Board of Directors may determine in writing) of the Common

Expenses and revised Common Expenses assessed on an annual basis against its Lot (or on such other date or at a greater or lesser frequency as the Board of Directors may determine in writing); and (2) on the first day of the next month which begins more than ten (10) days after delivery to the Lot Owner of notice of special assessment or levy, all special assessments, any other sum duly levied against the Lot pursuant to this Declaration, the Bylaws or the Act, including expenses assessed against Lot Owners for maintenance, repair or replacement; and (3) all interest thereon and charges for late payment thereof and legal fees and other costs of collection thereof, and fines, penalties and fees as provided by this Declaration, the Bylaws or the Act.

If for any reason the Association shall revise the annual budget of the Association whereby the Common Expenses or any component thereof may be increased (or decreased), then commencing on the first day of the first month subsequent to the adoption of such revised budget, each Lot Owner shall pay to the Association or its authorized representative such revised annual Common Expenses assessed against its Lot.

8.2.2. The following shall constitute the personal liability of the Owner of the Lot so assessed and also shall, until fully paid, constitute a lien against the Lot in favor of the Association (1) the total annual assessment levied against each Lot for Common Expenses; (2) revised Common Expenses, including any special assessment; (3) any other sums duly levied against the Lot pursuant to this Declaration, the Bylaws or the Act, including special assessments assessed against Lots for maintenance, repair or replacement pursuant to Paragraph 8.5; and (4) all interest thereon and charges for late payment thereof, legal fees and other costs of collection thereof, and fines, penalties and fees as provided in this Declaration or the Bylaws. Such lien shall, with respect to annual assessments and revised annual assessments, be effective on the first day of each fiscal year of the Association as to the full amount of the annual assessment or revised annual assessment, and, as to special assessments and other sums duly levied, including assessments against a Lot Owner for maintenance, repair or replacement pursuant to Paragraph 8.5, interest, charges for late payment, legal fees, costs of collection, fines, penalties and fees as described in subparagraph 8.2.1, on the first day of the next month which begins more than ten (10) days after delivery to the Lot Owner of notice of such special assessment or levy. Such lien is prior to all other liens and encumbrances on a Lot except (a) liens and encumbrances recorded before the recordation of this Declaration, (b) a first Mortgage recorded before or after the date on which the assessment sought to be enforced becomes delinquent, and (c) liens for real estate taxes and other governmental assessments or charges against the Lots; provided, however, that such lien is not subject to the provisions of 14 M.R.S.A. §§ 4651 and 18-A M.R.S.A. §§ 2-201, et seq., as they or their equivalents may be amended or modified from time to time.

8.2.3. In the event of a default by a Lot Owner in paying any sum assessed against its Lot which continues for a period in excess of thirty (30) days, interest shall be imposed on the principal amount unpaid from the date when due until paid at a rate of interest to be established annually by the Board of Directors which shall not exceed the lower of the maximum interest rate allowed by law which may be charged by the Association at such time or eighteen percent (18%) per annum. If the Board of Directors shall fail to set such rate, it shall be deemed to have been set at the rate of eighteen percent (18%) per annum. The Association shall have the right to establish and impose charges for late payment of assessments. In any case where an assessment against a Lot Owner is payable in installments, upon a default by such Lot Owner in the timely payment of any two consecutive installments, the maturity of the remaining total of the unpaid installments of such assessments may be accelerated at the option of the Board of Directors, and the entire balance of the assessment may be declared due and payable in full by the service of notice to such effect upon the defaulting Lot Owner by the Board of Directors or its representative.

8.2.4. The lien for assessments described in subparagraph 8.2.2 may be enforced and foreclosed by the Association in like manner as a mortgage on real estate or by any other means presently or hereafter provided by law or in equity. A suit to recover a money judgment for unpaid assessments, interest, penalties and costs of collection may be maintained against the Lot Owner personally without foreclosing or waiving the lien securing such assessments, and a foreclosure may be maintained notwithstanding the pendency of any suit to recover a money judgment. During the pendency of any such suit, the Lot Owner shall be required to pay a reasonable rental for the Lot for any period prior to sale pursuant to any judgment or order of any Court having jurisdiction over such sale.

8.2.5. No Lot Owner may exempt itself from Common Expense Liability with respect to the payment of assessments for Common Expenses by waiver of the enjoyment of the right to use any of the Common Areas or by abandonment of its Lot or otherwise. The obligation to pay assessments for Common Expenses is absolute and unconditional and shall not be subject to set-offs or counterclaims.

8.2.6. Within thirty (30) days after adoption by the Board of Directors of any proposed budget for the Development, the Board of Directors shall provide a summary of that budget in reasonably itemized form to each Lot Owner. The Board of Directors shall set a date for a meeting of the Lot Owners and Eligible Mortgage Holders to consider ratification of such proposed budget not less than fourteen (14) days nor more than thirty (30) days after mailing of said summary of budget or notice. Unless at that meeting a majority in voting interest of all the Lot Owners rejects the proposed budget, that budget is ratified irrespective of whether a quorum is present at said meeting. In the event such proposed budget shall be rejected at the meeting, the budget last ratified with respect to the period covered by the proposed budget shall be continued as the budget for the Development until

such time as the Lot Owners ratify a subsequent budget proposed by the Board of Directors upon the same conditions as are provided with respect to the original proposed budget.

The failure of the Board of Directors to conform to the schedules above stated shall not invalidate any budget adopted by the Board of Directors and ratified by the Lot Owners.

8.2.7. If the Board of Directors votes to levy a Common Expense assessment not included in the current budget in an amount greater than fifteen percent (15%) of the current annual operating budget, the Board of Directors shall submit such Common Expense to the Lot Owners and Eligible Mortgage Holder for ratification in the same manner as a budget under subparagraph 8.2.6 of this Declaration.

8.2.8. The failure or delay of the Board of Directors to prepare or adopt a budget for any fiscal year shall not constitute a waiver or release in any manner of a Lot Owner's obligation to pay its allocable share of the Common Expenses as herein provided whenever the same shall be determined and, in the absence of any annual budget or adjusted budget, each Lot Owner shall continue to pay each monthly installment at the monthly rate established for the previous fiscal year until the new annual or adjusted budget shall have been adopted.

8.2.9. Any provision or limitation on expenditures contained in the Development Documents to the contrary notwithstanding, the Board of Directors or the manager may, on behalf of the Association and the Owners without prior notice or consent, expend any amount, or incur a contractual obligation in any amount, required to deal with emergency conditions which may involve a danger to life or property or may threaten the safety of the Development or the owners or occupants of Lots or may threaten the suspension of any necessary service to the Development or may involve the immediate damage to or destruction of the Common Areas.

8.3. Reduction of Expenses and Surplus Funds. Subject to the following sentence, all receipts from payments, fees or charges for the use, rental, operation or allocation as a Reserved Common Area located within any and all Common Areas shall be applied first to reduce the Common Expense relating to the use of that Common Area giving rise to such Common Expense, and any excess thereof shall be applied to Common Expenses generally; and all receipts from any special assessments shall be applied first to reduce the expense relating to the service afforded to the Lot benefited, and any excess shall then be applied to Common Expenses generally. Any amounts accumulated from assessments for Common Expenses, income from interest on reserves, and income from the operation of the Common Areas to which such Common Expenses pertain in excess of the amount required for actual Common Expenses and provision for Common Expenses and any payment of reserves shall be credited to each Lot Owner in proportion to their respective Common Expense Liabilities to reduce until exhausted

the next monthly installments due from Lot Owners.

8.4. Real Estate Subject to Development Rights, if Any. Any income or proceeds from any real estate subject to Development Rights inures and is payable to the Declarant.

8.5. Maintenance of Common Areas. The Association shall be responsible for the maintenance, management, operation, repair, renovation, restoration and replacement, including snow and ice removal, as needed, of (i) the Common Area sidewalks, roadways and public street entrances (unless, in the reasonable opinion of the Board of Directors, such expense was necessitated by the negligence or misuse of a Lot Owner or the persons or entities responsible for any special events, as such term is used in the Event Management Plan, on the Development) and (ii) all of the other Common Areas, the cost of which shall be charged to the Lot Owners as a Common Expense to the extent permitted under this Declaration. The maintenance, management, operation, repair, renovation, restoration and replacement of Common Areas to the extent required for the functioning of or for connecting utilities to the Property and the Lots shall be furnished by the Association as part of the Common Expenses to the extent permitted under this Declaration or, if fewer than all of the Lots are benefited, as a special assessment against such benefitted Lots.

8.6. Maintenance of Lot. Unless otherwise set forth in this Declaration, each Lot Owner shall keep and maintain its Lot (other than the Common Areas located thereon) and its Building, equipment, appliances and appurtenances in good order, condition and repair and in a clean and sanitary condition, whether such maintenance and repair shall be structural or nonstructural, ordinary or extraordinary, and shall do all redecorating, painting and varnishing which may at any time be necessary to maintain the good appearance and condition of its Lot. No Lot Owner shall sweep or throw, or permit to be swept or thrown, from its Lot any dirt, debris or other substance. In addition, each Lot Owner shall be responsible for all damage to any other Lots or to the Common Areas resulting from its failure or negligence to make any of the repairs required by this Article. Each Lot Owner shall perform its responsibility in such manner as shall not unreasonably disturb or interfere with the other Lot Owners. Each Lot Owner shall promptly report to the Board of Directors or the managing agent any defect or need for repairs for which the Association is responsible.

8.7. Liability of Owner. Each Lot Owner shall be liable, and the Association shall have a lien against its Lot for, the expense of maintenance, repair or replacement of any damage to the Common Areas or of another Lot caused by such Lot Owner's act, neglect or carelessness or by that of any member of such Lot Owner's guests, employees, agents or lessees or their respective guests, employees or agents, which the Association shall have the right to cure, correct, maintain, repair or replace. Such liability shall include any increase in fire insurance rates occasioned by use, misuse, occupancy, or abandonment of any Lot or its appurtenances. Nothing herein contained, however, shall be construed so as to modify any waiver by insurance companies of rights of subrogation against such Lot Owner.

ARTICLE IX
ASSOCIATION OF LOT OWNERS; VOTING; DECLARANT CONTROL

9.1. The Association, Powers. The membership of the Association at all times shall consist exclusively of all Lot Owners, or following any termination of the Development, of all former Lot Owners entitled to distributions of proceeds, or their heirs, successors or assigns, but shall not include persons having an interest in a Lot solely as security for an obligation. Each Lot Owner shall automatically become and be a member of the Association as long as it continues as a Lot Owner, and upon the termination of the interest of the Lot Owner in the Development, its membership and any interest in the common funds of the Association shall thereupon automatically terminate and transfer and inure to the next Lot Owner or Owners succeeding it in interest.

9.2. Board of Directors Powers, Declarant Control Period. The Board of Directors may act on behalf of the Association, shall have all of the powers necessary for the administration of the affairs of the Association and may do all such acts and things as are not by this Declaration or the Bylaws required to be exercised and done by the Association. The affairs of the Association shall be governed by a Board of Directors composed of no less than three (3) and no more than seven (7) natural persons. Prior to the transition election to Association control provided for by subparagraph 9.2.1, the Board of Directors shall be composed of three (3) natural persons appointed by the Declarant. The Declarant shall have the right during the Declarant Control Period (as described below) to appoint, remove and replace from time to time any and all members of the Board of Directors and officers of the Association, without the necessity of obtaining resignations. The appointees of the Declarant need not be Lot Owners. After the transition election, at least a majority of the members of the Board of Directors shall be Lot Owners, or in the case of a Lot Owner which is a corporation, partnership, limited liability company, trust or estate, a designated agent thereof. The transition from Declarant-appointed members of the Board of Directors to Lot Owners other than the Declarant shall occur as follows:

9.2.1. No later than the earlier of (a) sixty (60) days after the transfer of seventy-five percent (75%) of the Lots to grantees or (b) fifteen (15) years following transfer of the first Lot to a grantee, or at such earlier date as the Declarant in its sole discretion shall specify, the transition meeting of the Association and transition election shall be held at which all of the members of the Board of Directors and the officers of the Association shall all resign, and the Lot Owners, including the Declarant if the Declarant owns one or more Lots, shall thereupon elect successor members of the Board of Directors to act in the place and stead of those resigning.

9.2.2. The Declarant may voluntarily surrender the right to appoint and remove officers and members of the Board of Directors before termination of the Declarant Control Period, but in that event it may require, for the duration of the Declarant Control Period, that specified actions of the Association or Board of Directors, as described in a recorded instrument executed by the Declarant, be

approved by the Declarant before such actions can become effective. In determining whether the Declarant Control Period has terminated, the percentage of the Lots conveyed or transferred is presumed to be that percentage which would have been conveyed if all the Lots were included in the Development that the Declarant has created or reserved in this Declaration the Development Rights to create.

9.3. Voting. The Votes in the Association allocated to a Lot can only be cast as a unit and cannot be split. If a Lot is owned of record by one person, that Lot Owner's right to vote shall be established by the record title to the Lot. If ownership of a Lot is in more than one person, the person who shall be entitled to cast the Votes allocated to that Lot shall be the person named in a certificate executed by all of the Owners of such Lot and filed with the Secretary of the Association. If ownership of a Lot is in a corporation, partnership, limited liability company, trust or estate, the officer or employee of that corporation, partner of that partnership, manager or member of that limited liability company, trustee of that trust, or agent of that estate, entitled to cast for the corporation, partnership, limited liability company, trust or estate the Votes allocated to such Lot shall be designated in a certificate for that purpose executed by the president or a vice president of that corporation, and attested to by the secretary or clerk of that corporation, executed by all the partners of that partnership, by all of the members of that limited liability company, or executed by all the beneficiaries of that trust, or executed by either all the devisees of that estate or by order of the probate court and filed with the Secretary of the Association. Such certificates of multiple owners, corporations, partnerships, limited liability companies, trusts or estates shall be valid until revoked by a subsequent certificate similarly executed and filed with the Secretary of the Association. Wherever the vote, approval or disapproval of a Lot Owner is required by this Declaration, such vote, approval or disapproval shall be made only by the person who would be entitled pursuant to such certificate to cast at any meeting of the Association the Vote allocated to such Lot. If the person named or designated in said certificate for a particular Lot shall be absent from a meeting of the Association, no person may cast the Vote allocated to that Lot at the meeting, although the presence at the meeting of a non-named or non-designated co-Owner or member, officer or employee of such Owner shall be counted in determining whether a quorum is present. If a multiple Owner of a Lot (that is not a partnership, limited liability company, trust, estate or corporation) has failed to file said certificate with the Secretary of the Association and only one of the multiple Owners is present at a meeting of the Association, he or she shall be entitled to cast at the meeting all the Votes allocated to that Lot without establishing the concurrence of the absent Owner just as though that person were the sole Owner of the Lot. If a multiple Owner of a Lot (that is not a partnership, trust, limited liability company, estate or corporation) has failed to file said certificate with the Secretary and if more than one Owner of that Lot is present at the meeting, the Votes allocated to that Lot may be cast only in accordance with the agreement of a majority of the multiple Owners present at the meeting. Such majority agreement shall be conclusively presumed if any one of those multiple Owners shall cast the Vote allocated to the Lot without protest being promptly made to the person presiding over the meeting by any other Owners of that Lot.

ARTICLE X
RESTRICTIONS ON USE, OCCUPANCY AND ALIENATION OF LOTS

10.1. Use and Occupancy Restrictions on Lots. Each Lot shall be occupied and used subject to the following restrictions:

10.1.1. No Lot shall be used or occupied for other than professional, business or commercial purposes or for residential purposes, and in compliance with all applicable land use laws, ordinances and regulations, it being expressly understood that the use of a Lot by a hotel shall not, regardless of any guest's length of stay, constitute a residential use. Nothing in this Declaration or the Bylaws shall be construed to prohibit the Declarant from exercising any easements and Special Declarant Rights reserved by the Declarant pursuant to Article VII for purposes permitted by this Declaration, including promotional, marketing or display purposes, from using any appropriate portion of the Common Areas for exercising these reserved rights, settlement of sales of Lots and for customer service purposes, or from leasing Lots owned by the Declarant as permitted in this Declaration, and in each case subject to any limitations set forth elsewhere in this Declaration.

10.1.2. Nothing shall be done or kept in any Lot or in the Common Areas which will increase the rate of insurance for the Property or any part thereof applicable without the prior written consent of the Board of Directors. No Lot Owner shall permit anything to be done or kept in its Lot or in the Common Areas which will result in the cancellation of insurance on the Property or any part thereof or which would be in violation of any law, regulation or administrative ruling. No waste will be committed on the Common Areas.

10.1.3. No Lot shall be used so as to create a nuisance or an unreasonable interference with the peaceful possession and occupation or proper use of any other Lot or the Common Areas; provided, however, it shall not be deemed a nuisance so long as a Lot is being used in compliance with the Rules and Regulations of the Development, if any, and as permitted under the terms of its lease.

10.1.4. No owner or occupant of any Lot shall carry on, or permit to be carried on, any practice which unreasonably interferes with the quiet enjoyment and proper use of another Lot or the Common Areas by the Owner or occupant of any other Lot, or which creates or results in a hazard or nuisance on the Property.

10.1.5. The maintenance, keeping, boarding and/or raising of animals, laboratory animals, livestock, poultry or reptiles of any kind, regardless of number, shall be and is prohibited within any Lot or upon the Common Areas.

10.1.6. Trash, garbage, recycling, and other waste shall be kept only in sanitary containers and shall be disposed of in such manner as may be prescribed

from time to time in the Rules and Regulations established by the Board of Directors. No articles of personal property belonging to any Lot Owner shall be stored in any portion of the Common Areas except in a storage area specifically designated by the Board of Directors or the managing agent, if any.

10.1.7. No Lot Owner shall make any alterations, repairs or modifications to or connections with the common lines and appurtenances for water, sewer, drainage, gas, electricity, telephone and other utilities serving the Property without the prior written consent of the Board of Directors or a committee designated by the Board of Directors, as appropriate, which consent shall not be unreasonably withheld, delayed or conditioned.

10.2. Voluntary Resale of Lots. No Lot Owner, including the Declarant, shall be liable for the payment of any part of the Common Expenses assessed against its Lot subsequent to the date of recordation of a conveyance in fee of such Lot by the Owner. In a voluntary transfer of a Lot, the grantee of the Lot shall be jointly and severally liable with the grantor for all unpaid assessments and special assessments for Common Expenses made by the Board of Directors against the latter up to the time of the recordation of the grantor's transfer, without prejudice to the grantee's right to recover from the grantor the amounts paid by the grantee therefor.

10.3. Title. Every Lot Owner shall promptly cause to be duly recorded the deed, lease, assignment or other conveyance to it of its Lot or other evidence of its title thereto and file such evidence of its title with the Board of Directors through the Secretary or Manager.

ARTICLE XI AMENDMENTS

Except in the case of amendments to this Declaration that may be executed and recorded by the Declarant pursuant to the provisions of this Declaration granting the Declarant the right to unilaterally amend the same, and except in cases of amendments to this Declaration that may be unilaterally executed and recorded by the Association and subject to the other provisions of this Declaration, this Declaration and the Plan may be amended as follows:

11.1. Before Any Conveyance. Prior to the conveyance of any Lot by the Declarant to a Lot Owner other than as security for an obligation, the Declarant shall have the right to amend and re-amend this Declaration in any manner that the Declarant may deem appropriate.

11.2. After First Conveyance. After the first conveyance of a Lot by the Declarant as contemplated in the preceding Paragraph, the terms of the following subparagraphs shall apply to the amendment of this Declaration:

11.2.1. Notice. Notice of the subject matter of a proposed amendment shall be included in the notice of any meeting of the Board of Directors or the Association in which a proposed amendment is considered, and shall be served upon all Lot Owners and upon all Eligible Mortgage Holders.

11.2.2. Resolution. An amendment may be proposed by either the Board of Directors or by Lot Owners holding in the aggregate no less than twenty percent (20%) of the votes in the Association. No resolution of the Board of Directors adopting a proposed amendment or the proposed amendment itself shall be effective unless it has been adopted by the affirmative vote, written consent, or any combination thereof, of at least sixty-seven percent (67%) in voting interest of the Lot Owners and then executed and recorded as provided in subparagraph 11.2.6.

11.2.3. Agreement. In the alternative, an amendment may be made by an agreement signed by the record Owners of Lots to which are allocated one hundred percent (100%) of the Votes in the Association in the manner required for the execution of a deed and acknowledged by at least one of them, and such amendment shall be effective when certified and recorded as provided in subparagraph 11.2.6.

11.2.4. Proviso. During the Declarant Control Period, no amendment of this Declaration shall make any change which would in any way affect any of the rights, privileges, powers and options of the Declarant, its successors or assigns, unless the Declarant, or its successors or assigns, shall join in the execution of such amendment.

11.2.5. Exception to Consent. Subject to such applicable provisions otherwise set forth in this Declaration, the Declarant may amend this Declaration and the Plan without Board of Director or Association approval so long as such amendment is for the sole purpose of moving the boundary lines of a Lot, provided the Declarant has obtained the written approval of the Lot Owners affected by such boundary line change and such amendment does not increase the Allocated Interests of the other Lots.

11.2.6. Execution and Recording. A copy of each amendment shall be attached to or included with a certificate, certifying that the amendment was duly adopted, which certificate shall be executed and acknowledged by such officer or officers of the Association and/or member or members of the Board of Directors designated for that purpose by the Bylaws. The amendment shall be effective when such certificate and copy of the amendment are recorded.

11.2.7. Notice and Challenge. No action to challenge the validity of an amendment to this Declaration adopted by the Association pursuant to this Article may be brought more than one (1) year after such amendment is recorded. After each amendment to this Declaration adopted pursuant to this Article has been

recorded, notice thereof shall be sent to all Lot Owners and to all Eligible Mortgage Holders at the address last furnished to the Board of Directors, but failure to send such notices shall not affect the validity of such amendment.

ARTICLE XII
TERMINATION OF DEVELOPMENT

12.1. Termination. The Development shall not be terminated except by agreement of Owners of Lots to which at least sixty-seven percent (67%) of the Votes in the Association are allocated. Termination shall not bar the subsequent re-creation of the Development or another project with respect to the Property.

ARTICLE XIII
INSURANCE

13.1. Policies. Commencing no later than the time of the first conveyance of a Lot other than as security for an obligation to a person other than the Declarant, the Board of Directors on behalf of the Association shall obtain, or cause to be obtained, and shall maintain, the policies of insurance described in Paragraphs 13.3 and 13.4 to the extent such policies shall be reasonably available from reputable insurance companies. To the extent that said insurance described in Paragraphs 13.3 and 13.4 is not reasonably available as described in the preceding sentence, the Board of Directors on behalf of the Association shall give written notice of that fact to the Lot Owners and the Eligible Mortgage Holders of Mortgages of their Lots by hand delivery securing a receipt therefor, or by prepaid United States mail, return receipt requested. To the extent that any of the insurance described in Paragraphs 13.3 and 13.4 shall become in the future no longer available, the Association shall obtain in substitution therefor such comparable insurance as shall then be available. The Board of Directors of the Association is hereby irrevocably appointed as attorney-in-fact for each Lot Owner and for each Mortgagee and Eligible Mortgage Holder and for each owner of any other interest in the Property for the purpose of purchasing and maintaining the insurance described in Paragraphs 13.3 and 13.4, the collection and appropriate disposition of the proceeds thereof, the negotiation of losses and execution of releases of liability, the execution of all documents and the performance of all other acts necessary to accomplish such purposes.

13.2. Property Insurance. Each Lot Owner shall keep the Building and other improvements upon the Lot insured against loss or damage by fire and any of the casualties included from time to time in the special form all-risk, extended coverage or supplementary contract endorsements, and with such coverages and endorsements as Lot Owner's mortgagee may require, in an amount equal to the full replacement value thereof, exclusive of excavation costs, foundations and footings, without deduction for depreciation.

13.3. Liability Insurance. The Board of Directors shall obtain and maintain as a Common Expense commercial general public liability insurance (including medical payments insurance) and property damage insurance in such limits as the Board may from time to time determine, insuring each Board of Directors member, the managing agent, each Lot Owner (and

if requested by the Lot Owner, one or more of the Lot Owner's lessees) and the Declarant against any liability to the public or to the Lot Owners (and their invitees, agents and employees) covering all occurrences commonly insured against for death, bodily injury or property damage arising out of, or incident to, the maintenance, ownership or use of the Common Areas and/or relating to any legal liability resulting from suits or actions related to employment contracts to which the Association is a party. Such insurance shall be issued on a comprehensive liability basis and shall contain (a) a cross liability endorsement under which the rights of a named insured under the policy shall not be prejudiced with respect to its action against another named insured; (b) hired and non-owned vehicle coverage; (c) a "severability of interest" endorsement which shall preclude the insurer from denying liability to a Lot Owner because of negligent acts of the Association or of another Lot Owner or a tenant of a Lot Owner; and (d) a broad form liability extension endorsement including "personal injury," contractual liability, host liquor liability and other coverage commonly included in such broad form. In further clarification of the foregoing, the Board of Directors shall maintain and keep in full force and effect a Commercial General Liability Insurance policy that includes coverage for all of the Development, including the rail operations at the railway crossing, and named peril/time element pollution liability coverage with a limit of not less than \$15,000,000 per occurrence. The policy(ies) shall name Pan Am Railways and its parent, subsidiaries, directors, officers, agents, employees, and its successors and assigns as additional insureds. Such coverage shall be primary and not contributory with any other insurance maintained by Pan Am Railways. The policy will be endorsed to waive subrogation against Pan Am Railways. The Board of Directors shall provide to Pan Am Railways certificates of insurance showing evidence of all of the coverage and endorsements required above on an annual basis. The certificates shall state that the insurers agree to provide Pan Am Railways with not less than thirty (30) days' prior written notice of any cancellation. All policies must be written with insurance companies with A.M. Best Ratings of not less than "A". Certificates must be delivered to Pan Am Railways at 1700 Iron Horse Park, North Billerica, MA 01862, attention Law Department."

13.4. Other Insurance. The Board of Directors shall obtain and maintain as a Common Expense:

13.4.1. To the extent available at reasonable cost, "directors' and officers'" liability insurance to satisfy indemnification obligations of the Association provided in Paragraph 16.2.

13.4.2. Workers' compensation insurance if and to the extent necessary to meet the requirements of law.

13.4.3. Such other insurance as the Board of Directors may determine or as may be requested from time to time by a majority in voting interest of the Lot Owners.

13.5. Memoranda, Cancellation, Additional Required Provisions. All insurers that shall issue an insurance policy or policies under this Article shall issue certificates or memoranda of insurance to the Association, and, upon request, to any Lot Owner, lessee of a Lot Owner, or

Mortgagee. All such insurers issuing the policy may not cancel (including cancellation for non-payment of premium), substantially modify or refuse to renew such policy or policies until twenty (20) days after notice of the proposed cancellation or non-renewal has been mailed to the Association, the managing agent, each Lot Owner and each Mortgagee to whom a certificate or memorandum of insurance has been issued at their respective last known addresses. All policies under Paragraphs 13.2 and 13.3 shall in addition contain the following provisions or features:

13.5.1. The insurer waives any right to claim by way of subrogation against the Declarant, the Association, the Board of Directors, the managing agent or the Lot Owners, and their respective agents, employees, tenants and guests.

13.5.2. The Declarant, so long as the Declarant shall own a Lot, shall be protected by all such policies as a Lot Owner.

13.5.3. Each Lot Owner is an insured person under the policy with respect to liability arising out of its ownership of an undivided interest in the Common Areas or membership in the Association.

13.5.4. No act or omission by any Lot Owner, unless acting within the scope of its authority on behalf of the Association, will void the policy or be a condition to recovery under the policy.

13.5.5. If, at the time of a loss under the policy, there is other insurance in the name of a Lot Owner covering the same risk covered by the policy, the Association's policy provides primary insurance.

ARTICLE XIV
CREATION OF ADDITIONAL LOTS, COMMON AREAS ON CONVERTIBLE REAL ESTATE

14.1. Reservation. Declarant reserves the Development Rights and options until the fifteenth (15th) anniversary date of the recording of this Declaration to add Convertible Real Estate to the Development and to create and construct from time to time additional Common Areas, on any or all portions of the Convertible Real Estate and this Declaration without the consent of any Lot Owner or Mortgagee. Convertible Real Estate and additional Common Areas created on the Convertible Real Estate shall be deemed included in the Development immediately upon the recording of an Amendment to this Declaration so stating. The Development Right to add Convertible Real Estate or create and construct additional Common Areas within the Convertible Real Estate may be terminated prior to such anniversary date only upon the recording by the Declarant of an appropriate amendment to this Declaration. The Declarant reserves the rights to add Convertible Real Estate and to create and construct Common Areas on any or all portions of the Convertible Real Estate at any time, at different times, in any order, without limitation and without any requirement that any other Development Right reserved by the Declarant be exercised at any time. The Declarant reserves the rights to designate

Common Areas on the Convertible Real Estate.

14.2. Assurances. The Declarant makes no assurances as to the boundaries of the portions of the Convertible Real Estate on which the Declarant will create and construct additional Common Areas, the order in which the Declarant will create and construct Common Areas on those portions of the Convertible Real Estate, and whether Declarant will create and construct Common Areas on any portion of the Convertible Real Estate. The Declarant makes no assurances as to whether it will create any Common Areas on any portion or portions of the Convertible Real Estate if the Declarant exercises any other Development Right or Rights reserved in this Declaration. The Declarant makes no assurances as to what improvements may be constructed on the Convertible Real Estate, but the improvements on the Convertible Real Estate originally included in the Development will be reasonably compatible with existing improvements in the Development in terms of quality of construction and principal materials, provided that Declarant may substitute construction materials of equal or better quality. The Declarant makes no assurances as to the location of any improvements that may be made on the Convertible Real Estate.

14.3. Alteration of Lots by Declarant. During the construction of the Development, to the fullest extent permitted by law and applicable zoning, land use and environmental ordinances, regulations and statues, but subject to limitations provided in Paragraph 11.2 and in Paragraph 14.2, the Declarant reserves the right without the vote or consent of the Board of Directors, any Lot Owner or any Mortgagee, to change the size, number, arrangement and location of Lots and any other improvements. Any single such change or all such changes in the aggregate shall not be substantial. Notwithstanding the foregoing, for those changes that consists of changing the size or boundary lines of Lot(s), the Declarant shall obtain the written consent of the Lot Owners of the Lots being changed, which consent shall not be unreasonably withheld, delayed or conditioned.

ARTICLE XV

APPLICABILITY; COMPLIANCE AND DEFAULT; EMINENT DOMAIN

15.1. Applicability. This Declaration shall be applicable to the Property. All present and future Owners and tenants, their guests, licensees, servants, agents, employees and any other person or persons that shall be permitted to use a Lot or the Common Areas shall be subject to this Declaration, the Bylaws and to the Rules and Regulations as may be issued by the Board of Directors from time to time to govern the conduct of its members and the use and occupancy of the Property. Ownership, rental or occupancy of any of the Lots in the Development (other than possession by a Mortgagee prior to either of the completion of foreclosure or the acceptance of a deed to the Lot subject to the Mortgage held by such Mortgagee) or the acceptance of a deed or conveyance (other than as security) or the entering into of a lease or occupancy of any Lot shall signify that the provisions of this Declaration and the Bylaws, the Rules and Regulations of the Development and the decisions of the Board of Directors are accepted and ratified by such Owner, tenant or occupant, and all of such provisions shall be deemed and taken to be covenants running with the land and shall bind any person having at any time any interest or estate in such Lot, as though such provisions were recited and stipulated at length in each and every deed,

conveyance or lease thereof.

15.2. Compliance.

15.2.1. Each Lot Owner shall be governed by and shall comply strictly with the terms, covenants, conditions and restrictions of this Declaration, the Bylaws and the Rules and Regulations adopted pursuant thereto, and the same as they may be amended from time to time.

15.2.2. The Board of Directors shall have the power to adopt, amend and enforce compliance with, such reasonable Rules and Regulations relative to the operation, use and occupancy of the Lots and the Common Areas consistent with the provisions of this Declaration, including, but not limited to, the appointment of such committees and the enactment and enforcement of such enforcement procedures and penalties for violations as the Board of Directors shall deem appropriate. Any such Rules and Regulations shall be adopted or amended, from time to time, by means of appropriate resolutions duly approved by the Board of Directors in accordance with the Bylaws. A copy of such Rules and Regulations and copies of any amendment thereto shall be delivered or mailed to each Owner or occupant of a Lot promptly after the adoption thereof and shall become binding upon all Owners, their successors in title and assigns, and occupants.

15.2.3. Failure by a Lot Owner to comply with the terms of this Declaration, the Bylaws and the Rules and Regulations adopted pursuant thereto, as the same may be amended from time to time, shall entitle the Board of Directors to (a) sue for the recovery of damages, (b) sue for injunctive relief, and/or (c) to enter the Lot in which, or as to which, such violation or breach exists and summarily to abate and remove, at the expense of the defaulting Lot Owner, any structure, thing or condition that may exist therein contrary to the intent and meaning of the provisions hereof, and the Board of Directors shall not thereby be deemed guilty in any manner of trespass. Such relief shall not be exclusive of other remedies provided by law. In any proceeding arising because of an alleged failure of a Lot Owner to comply with the terms of the Development Documents and Rules and Regulations adopted pursuant thereto, as the same may be amended from time to time, the Board of Directors or such committee, if the prevailing party shall be entitled to recover the costs of the proceeding and reasonable attorneys' fees.

15.2.4. The failure of the Board of Directors to enforce any covenant, restriction or other provision of the Development Documents or the Rules and Regulations adopted pursuant thereto, shall not constitute a waiver of the right to do so thereafter.

15.3. Eminent Domain. If all or part of the Common Areas shall be taken or condemned by any authority having the power of eminent domain, the Association shall notify the Owners and the Eligible Mortgage Holders of the Lots affected and shall represent the Lot

Owners in any condemnation proceedings or in negotiations, settlements and agreements with the condemning authority, and the award shall be paid to the Association for the restoration and repair of the remaining Common Areas to a usable condition and for the use and benefit of the Lot Owners and their Mortgagees as their interests may appear. The Association shall divide any portion of the award not used for any restoration or repair among the Lot Owners and their Mortgagees, as their interests may appear, in proportion to their Allocated Interests in the Common Areas prior to such taking or condemnation. Each Lot Owner appoints the Association as attorney-in-fact for the purposes described in this Paragraph. Notwithstanding anything to the contrary in this Paragraph 15.3, lien holders on any Lot or Common Area shall have a lien on any such awards in order of priority of their respective liens.

ARTICLE XVI
LIMITATION OF LIABILITY

16.1. Limited Liability of the Board of Directors. The Board of Directors, and its members in their capacity as members, officers and employees:

16.1.1. Shall not be liable for the failure of any service to be obtained by the Board of Directors and paid for by the Association, or for injury or damage to persons or property caused by the elements or by another Lot Owner or person on the Property, or resulting from electricity, gas, water, rain, dust or sand which may leak or flow from the outside or from any part of the Buildings, or from any of its pipes, drains, conduits, appliances or equipment or from any other place unless in each such instance such injury or damage has been caused by the willful misconduct or gross negligence of the Association or the Board of Directors.

16.1.2. Shall not be liable to the Lot Owners as a result of the performance of the Board of Directors members' duties for any mistake of judgment, negligence or otherwise, except for the Board of Directors members' own willful misconduct or gross negligence.

16.1.3. Shall have no personal liability in contract to a Lot Owner or any other person or entity under any agreement, check, contract, deed, lease, mortgage, instrument or transaction entered into by them on behalf of the Board of Directors or the Association in the performance of the Board of Directors members' duties.

16.1.4. Shall not be liable to a Lot Owner, or such Lot Owner's tenants, employees, agents, customers or guests, for loss or damage caused by theft of or damage to personal property left by such Lot Owner or its tenants, employees, agents, customers or guests in a Lot, or in or on the Common Areas, except for the Board of Directors members' own willful misconduct or gross negligence.

16.1.5. Shall have no personal liability in tort to a Lot Owner or any other person or entity, direct or imputed, by virtue of acts performed by or for them,

except for the Board of Directors members' own willful misconduct or gross negligence in the performance of their duties.

16.1.6. Shall have no personal liability arising out of the use, misuse or condition of the Buildings, or which might in any other way be assessed against or imputed to the Board of Directors members as a result of or by virtue of their performance of their duties, except for the Board of Directors members' own willful misconduct or gross negligence.

16.2. Indemnification. Each member of the Board of Directors, in its capacity as an Board of Directors member, officer or both, shall be indemnified by the Association against all expenses and liabilities, including attorneys' fees, reasonably incurred by or imposed upon its in connection with any proceeding in which he or she may become involved by reason of he or she being or having been a member and/or officer of the Board of Directors, or any settlement of any such proceeding, whether or not he or she is an Board of Directors member, officer or both at the time such expenses are incurred, except in such cases wherein such Board of Directors member and/or officer is adjudged guilty of willful misconduct or gross negligence in the performance of its duties; provided that, indemnification hereunder with respect to any criminal action or proceeding is permitted only if such Board of Directors member and/or officer had no reasonable cause to believe its conduct was unlawful. The indemnification by the Lot Owners set forth in this Paragraph shall be paid by the Association on behalf of the Lot Owners and shall constitute a Common Expense and shall be assessed and collectible as such. Such right of indemnification shall not be deemed exclusive of any other rights to which such Board of Directors member and/or officer may be entitled as a matter of law or agreement or by vote of the Lot Owners or otherwise.

16.3. Defense of Claims. Complaints brought against the Association, the Board of Directors or the officers, employees or agents thereof in their respective capacities as such, or the Development as a whole, shall be directed to the Board of Directors of the Association, which shall promptly give written notice thereof to the Lot Owners and the Eligible Mortgage Holders and the Mortgagees of Lots, and such complaints shall be defended by the Association. The Lot Owners shall have no right to participate in such defense other than through the Association.

ARTICLE XVII
INTENTIONALLY OMITTED

ARTICLE XVIII
TAXATION

18.1. Lots Not Yet Separately Assessed. In the event that for any year real estate taxes assessed by the City of Portland are not separately taxed and assessed to each separate Lot Owner but are taxed on the Property as a whole, then each Lot Owner shall pay its proportionate share thereof in accordance with its respective Common Expense Liabilities, or in the event some but not all of the Lots are separately taxed and assessed, then those Lots not separately taxed and assessed shall pay their proportionate share thereof as allocated by the Board of

Directors through a special assessment.

18.2. Taxes on Lots and on Property Outside of Lots. Each Owner is obligated to pay when due all real estate taxes assessed against its Lot, as well as all other taxes and assessments which in the event of non-payment may give rise to a lien on the real estate. In the event that a certificate of lien is filed against a Lot containing Common Areas as a result of unpaid taxes or assessments, or if forfeiture of such Common Areas is otherwise threatened due to non-payment of any taxes or assessments, the Association may elect to pay such taxes on behalf of the Lot Owner and assess the Owner therefor, which assessment shall constitute a lien in favor of the Association in the manner described in Section 8.2.2 hereof. In the event that those portions of the Property located within the boundary lines of Lot 1, including the open space and the roadways that circumvent the Property, are separately assessed for real estate taxes by the City of Portland, then such taxes shall be paid by the Association and assessed as Common Expenses against each Lot in proportion to its Common Area Interest.

ARTICLE XIX
EXPENSES OF CONVERTIBLE REAL ESTATE, ETC.

19.1. Convertible Real Estate, Etc. To the extent that the Declarant (a) has not added Lots on the Convertible Real Estate to the Development, or (b) until such Development Rights have expired, the Declarant shall be solely responsible for the maintenance, repair, and restoration of, and for the payment of real estate taxes upon and the insurance premiums attributable to, each portion of the Convertible Real Estate upon which Lots have not been added to the Development. To the extent that it is not practical or possible to segregate the responsibilities of the Association and the responsibilities of the Declarant for payment of costs of maintenance, repair and restoration of, and the payment of real estate taxes upon and the insurance premiums attributable to, each portion of the Convertible Real Estate upon which Lots have not been added to the Development, any item of maintenance, repair or restoration paid by the Association upon the Convertible Real Estate, and any real estate taxes and insurance premiums paid by the Lot Owners upon the Convertible Real Estate, shall be partially reimbursed by the Declarant by paying the amount of each of such sums to the Association on the basis of (a) the aggregate area of the portions of the Convertible Real Estate upon which Lots have not been added to the Development relative to, (b) the aggregate area of (1) the Lots, and (2) the portions of the Convertible Real Estate and the remainder of the Property upon which Lots have been added to the Development or in which the Declarant no longer retains said Development Rights. The Association shall not undertake any maintenance, repair or restoration of the Convertible Real Estate on which Lots have not been added to the Development except to the extent set forth in the preceding sentence. Upon the sale of Convertible Real Estate, prior to such Convertible Real Estate being added to the Development, to a person other than the Declarant, such real estate's status as Convertible Real Estate shall immediately terminate.

ARTICLE XX
GENERAL PROVISIONS

20.1. No Obligation to Complete. Nothing contained in this Declaration or the Plan do, or shall be deemed to, impose upon the Declarant, or any successor Declarant, any liability or obligation to build, construct or provide any Buildings, amenities or other improvements to the Property.

20.2. Captions. The headings in this Declaration are for purposes of reference only and shall not limit or otherwise affect the meaning of this Declaration. Any tables of contents or indices are attached to this Declaration for purposes of reference and convenience only and shall neither limit nor otherwise affect the meaning hereof nor be deemed as part of this Declaration. References in this Declaration to Articles, Paragraphs, subparagraphs and Schedules without references to the document in which they are contained are references to this Declaration. Schedules are attached to and incorporated by reference into this Declaration and are an integral part of this Declaration. Any Exhibits are attached to this Declaration for purposes of identification only and shall not for any purposes or reasons be deemed as part of this Declaration.

20.3. Gender, Number, Etc. The use of the singular number in this Declaration shall be deemed to include the plural, the plural the singular, and the use of any one gender shall be deemed applicable to all gender.

20.4. Severability. The invalidity of any provisions of this Declaration shall not be deemed to impair or affect in any manner the validity, enforceability or effect of the remainder of this Declaration, and in such event, all of the other provisions of this Declaration shall continue in full force and effect as if such invalid provision had never been included herein.

[Signature Page Follows]

IN WITNESS WHEREOF, FOREFRONT PARTNERS I, LP, as the Declarant, has caused this Declaration to be executed and sealed in its company name by its Manager hereunto duly authorized as of the date and year first above written.

Signed, Sealed and Delivered
in presence of

FOREFRONT PARTNERS I, LP
By: Forefront GP, LLC, its General
Partner

By: _____
Christopher M. Thompson
Its Member

“Declarant”

STATE OF MAINE
COUNTY OF CUMBERLAND, ss.

On _____, 2014, personally appeared before me the above-named Christopher M. Thompson as the duly authorized Member of Forefront GP, LLC, the General Partner of said Forefront Partners I, LP and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said Forefront Partners I, LP.

Before me,

Notary Public

MORTGAGEE CONSENT_

ANDROSCOGGIN SAVINGS BANK, a Maine banking corporation (“Lender”), holder of a certain Mortgage Deed, Security Agreement and Financing Statement from FOREFRONT PARTNERS I, LP, a Maine limited partnership (the “Borrower”), dated as of June 27, 2013 and recorded in the Cumberland County Registry of Deeds in Book 30781, Page 292; a Collateral Assignment of Leases and Rentals dated as of June 27, 2013 and recorded in said Registry of Deeds in Book 30781, Page 312; a Mortgage Deed, Security Agreement and Financing Statement dated as of August 30, 2013 and recorded in said Registry of Deeds in Book 31014, Page 166; a Collateral Assignment of Leases and Rentals dated as of August 30, 2013 and recorded in said Registry of Deeds in Book 31014, Page 185; and an Equal Priority Agreement dated as of August 30, 2013 and recorded in said Registry of Deeds in Book 31014, Page 194 (collectively the “Loan Documents”), each with respect to certain property located at or near Thompson’s Point in Portland, Cumberland County, Maine, as more particularly described therein (the “Mortgaged Property”) hereby consents to, and subordinates the liens of the Loan Documents to the foregoing Declaration of Easements, Covenants and Restrictions dated _____, 2014 (the “Declaration of ECR”). The undersigned mortgagee hereby agreeing that its lien under the Loan Documents shall be subject to the provisions of the said Declaration of ECR, and agreeing that in the event of the foreclosure of the Loan Documents, or other sale of the Mortgaged Property under judicial or non-judicial proceedings, the same shall be sold subject to the said Declaration of ECR.

Dated as of _____, 2014

ANDROSCOGGIN SAVINGS BANK

By: _____
Christopher P. DeMerchant
Its Vice President

STATE OF MAINE
County of Cumberland

_____, 2014

Personally appeared the above-named Christopher P. DeMerchant in his capacity as Vice President of Androscoggin Savings Bank and acknowledged the foregoing to be his free act and deed and the free act and deed of Androscoggin Savings Bank.

Before me,

Notary Public / Attorney at Law
Print Name: _____
My Commission Expires: _____

SCHEDULE A – Property Description

PARCEL ONE:

A. Lot One

A certain tract or parcel of uplands and flats, with the buildings thereon, known as Thompson's Point and situated in the City of Portland, in the County of Cumberland and State of Maine, and more particularly bounded and described as follows:

Beginning at a stake in the division line between land now or formerly owned by P.H. and J.M. Brown Company and land formerly owned by the Portland and Ogdensburg Railway (now owned by Maine Central Railroad), which said division line extends in a direct course from Congress Street to the location of said Railway (hereinafter called "said location"), and crosses said location to and into the flats adjoining the above described land and which above described point of beginning is in the southwesterly side line of said location and is twenty-eight (28) feet southwesterly from and measured at right angles to the center line of the east bound main track of said Railway; thence South fifteen degrees twenty-four minutes ($15^{\circ} 24'$) West on said division line four hundred ninety-eight (498) feet to a stake in the flats; thence South fifty-eight degrees forty-six minutes ($58^{\circ} 46'$) East three hundred eighty-three and four tenths (383.4) feet to a stake in the flats; thence South six degrees thirty-six minutes ($6^{\circ} 36'$) East five hundred and seventy-eight (578) feet to a stake in the flats; thence South thirteen degrees thirty-three minutes ($13^{\circ} 33'$) West four hundred (400) feet, more or less, to the channel of a creek running into Fore River, so-called; thence in a general southeasterly direction by said channel of said creek five hundred (500) feet, more or less, to the point of intersection of said channel of said creek with a line drawn parallel to and one hundred (100) feet northwesterly from and measured at right angles to the prolongation southwesterly of the northwesterly side line of Frederick Street; thence northeasterly on said line drawn parallel to and one hundred (100) feet northwesterly from and measured at right angles to said prolongation southwesterly of said northwesterly side line of Frederick Street fifteen hundred (1,500) feet, more or less, to a point in the southwesterly side line of said location distant forty-nine and five tenths (49.5) feet, more or less, southwesterly from and measured at right angles to the center line of said east bound main track of said Railway; thence northwesterly by the southwesterly side line of said location eighty-five (85) feet, more or less, to a point; thence northeasterly at right angles by said location twenty-one and five tenths (21.5) feet to the southwesterly sideline of said location and a point twenty-eight (28) feet southwesterly from and measured at right angles to the center line of said east bound main track of said Railway; thence North fifty-four degrees thirty-six minutes ($54^{\circ} 36'$) West by the southwesterly side line of said location and on a line parallel to and twenty-eight (28) feet southwesterly from and measured at right angles to the center line of said east bound main track of said Railway seventeen hundred seventy-five (1,775) feet, more or less, to the point of beginning.

Together with a right of way in common with others over the way as now traveled from the

intersection of Sewall and Hooper Streets southerly to the above described premises.

Together with a right of way fifteen (15) feet in width over land reserved by Suburban U.D.I. Co. of Maine as described below adjacent to and northerly of the southerly bounds of the reserved parcel described below. The southerly bounds are described as N 54° 1-1/2' W, two hundred twenty-two and fifty-five hundredths (222.55) feet; N 60° 57-1/2' W, sixty and twelve hundredths (60.12) feet; and N 53° 54-1/2' W, one hundred seventy-five and nineteen hundredths (175.19) feet.

Together with a right to use as presently located over the land reserved by Suburban U.D.I. Co. of Maine all sewers, water mains, and utility lines useful for the conduct of business, including the right to enter the land reserved by Suburban U.D.I. Co. of Maine when necessary for the maintenance and repair of said sewers, water mains, and utility lines.

Together with an easement for access and utilities as reserved in a deed from Forefront Partners I, LP to the State of Maine, acting by and through its Department of Transportation, dated June 27, 2013 and recorded in the Cumberland County Registry of Deeds in Book 30781, Page 288.

B. Lot Two

A certain lot or parcel of land situated in the City of Portland, County of Cumberland State of Maine being that certain parcel of land conveyed by Suburban Propane Gas Corporation to Mecaw Industries by deed dated October 22, 1965 and recorded in the Cumberland County Registry of Deeds in Book 2935, Page 239, more particularly bounded and described as follows:

Beginning at an iron pipe that is distant S 35° 31' W forty one and eighty-two hundredths (41.82) feet from the point of beginning of a parcel of land that is excepted and reserved from the conveyance in a quit claim deed from Suburban U.D.I. Co. of Maine to Peter A. Anderson and E. Martin Anderson dated August 18, 1953 and recorded in Cumberland County Registry of Deeds in Book 2146, Page 304. Thence, from said point of beginning and by a private road leading from Sewall Street, on the same course of S 35° 31' W thirty six and fifty-nine hundredths (36.59) feet to a spike at land now or formerly of Mecaw Industries; Thence by said land now or formerly of Mecaw Industries S 37° 32' E two hundred twenty five and eighteen hundredths (225.18) feet to an iron; Thence through said excepted parcel N 7° 58' W seventy and ninety-four hundredths (70.94) feet to an iron; Thence continuing through said excepted parcel N 37° 32' W one hundred seventy four and fourteen hundredths (174.14) feet to the point of beginning. Said above described courses are magnetic and of the date of 1953.

EXCEPTING from Parcel One above a certain lot or parcel of land and any buildings thereon as reserved in a deed from Suburban U.D.I. Co. of Maine to Peter A. Anderson and E. Martin Anderson dated August 18, 1953 and recorded in the Cumberland County Registry of Deeds in Book 2146, Page 304, and further bounded and described as follows:

Beginning at a stake on the southerly side line of the right of way of the Mountain Division of the Maine Central Railroad (formerly the Portland and Ogdensburg Railway), said stake being fifteen (15) feet easterly from the center line of a private road leading from Sewall Street to and over land conveyed by Suburban U.D.I. Co. of Maine to said Andersons, said stake being approximately opposite Station 42+96.45, of said railroad; thence by said railroad right of way S 37° 32' E, two hundred six and one tenth (206.1) feet to a stake in the line of a fence; thence by said fence and on a course of S 32° 21' E, two hundred eighty-two and six hundredths (282.06) feet to the end post of said fence; thence S 32° 50' E, eighteen and sixty-nine hundredths (18.69) feet to a stake; thence S 22° 35' E, fifty (50) feet to a stake; thence S 20° 06' E, fifty (50) feet to a stake; thence S 13° 06' E, fifty (50) feet to a stake; thence S 02° 18' E, fifty (50) feet to a stake; thence S 07° 40' W, fifty (50) feet to a stake; thence S 17° 43-1/2' W, fifty (50) feet to a stake; thence S 27° 11-1/2' W, fifty (50) feet to a spike in the center line of a thirty (30) foot right of way hereinafter described, said spike being distant N 54° 01-1/2' W, three and ninety-two hundredths (3.92) feet from the westerly gauge of a railway spur line; thence by the center line of said aforementioned thirty (30) foot right of way, N 54° 01-1/2' W, two hundred twenty-seven and fifty-five hundredths (227.55) feet to a spike marking an angle in said right of way, said last mentioned course passing 15 feet northerly of and parallel to the northerly side line of a projection of a building on land conveyed by Suburban U.D.I. Co. of Maine to said Andersons; thence by the center line of said aforementioned thirty (30) foot right of way, N 60° 57-1/2' W, sixty and twelve hundredths (60.12) feet to a spike marking an angle therein; thence by the center line of said aforementioned thirty (30) foot right of way, N 53° 54-1/2' W, one hundred seventy-five and nineteen hundredths (175.19) feet to a spike, said last mentioned course passing twenty-two (22) feet southerly of and parallel to the brick line of a three story office building known as Building 7-G on land reserved to Suburban U.D.I. Co. of Maine; thence parallel to and five (5) feet from a building on land reserved to Suburban U.D.I. Co. of Maine, N 36° 16-1/2' E, three hundred and fifty-two hundredths (300.52) feet to a stake; thence N 37° 32' W, two hundred twenty-five and eighteen hundredths (225.18) feet to a stake distant fifteen (15) feet from the center line of said private road leading from Sewall Street to and over land conveyed by Suburban U.D.I. Co. of Maine to said Andersons, said last mentioned course being parallel to and seventy-five (75) feet from the first described course; thence by said private road leading from Sewall Street, N 35° 31' E, seventy-eight and forty-one hundredths (78.41) feet to the point of beginning. Said above described courses are magnetic and of the year 1953.

ALSO EXCEPTING from Parcel One above a small parcel of land conveyed by Mecaw Industries to Suburban Propane Gas Corporation by deed dated November 24, 1965 and recorded in the Cumberland County Registry of Deeds in Book 2935, Page 236.

ALSO EXCEPTING from Parcel One a small parcel of land conveyed by Mecaw Industries to Portland Water District by deed dated March 19, 1976 and recorded in the Cumberland County Registry of Deeds in Book 3821, Page 2.

ALSO EXCEPTING from Parcel One above that portion of the premises taken by the State of Maine for highway purposes and described in a Notice of Taking dated July 26, 1967 and recorded in the Cumberland County Registry of Deeds in Book 3005, Page 432.

ALSO EXCEPTING from Parcel One above that portion of the premises and rights and easements taken by the Northern New England Passenger Rail Authority by Notice of Condemnation dated August 20, 2001 and recorded in the Cumberland County Registry of Deeds in Book 16667, Page 204.

ALSO EXCEPTING from Parcel One above that portion of the premises taken by Langdon Street Real Estate by its Notice dated November 10, 1997 and recorded in the Cumberland County Registry of Deeds in Book 13459, Page 202.

ALSO EXCEPTING from Parcel One above that portion of the premises and rights and easements taken by the Northern New England Passenger Rail Authority by Notice of Condemnation dated February 2, 2010, and recorded in the Cumberland County Registry of Deeds in Book 27577, Page 53.

ALSO EXCEPTING from Parcel One above that portion of the premises conveyed by Forefront Partners I, LP to the State of Maine acting by and through its Department of Transportation by deed dated June 27, 2013 and recorded in the Cumberland County Registry of Deeds in Book 30781, Page 288.

PARCEL TWO:

A certain lot or parcel of land situated in the City of Portland, County of Cumberland and State of Maine and conveyed by The Dartmouth Company to Thompson's Point, Inc. by deed dated January 31, 1985 and recorded in the Cumberland County Registry of Deeds in Book 6676, Page 287, further bounded and described as follows:

Commencing at a point on a line of land being the southeasterly sideline of land now or formerly of The Dartmouth Company and further being the last described course (i.e., the 2,066-foot course) in the fourth described parcel in a deed from John Marshall Brown to P.H. and J.M. Brown Company, dated January 3, 1894, and recorded in the Cumberland County Registry of Deeds in Book 609, Page 364, said point being at the intersection of the aforesaid line with the line of land formerly of the Portland and Ogdensburg Railway, now of the Portland Terminal Company; thence northwesterly along the line of land of said Portland Terminal Company approximately three hundred (300) feet to a northerly corner of the land now or formerly of the Dartmouth Company; thence South 70° West by said The Dartmouth Company sideline approximately fifty (50) feet to the high water mark of an inlet on the Fore River; thence in a generally southerly direction along the high water mark and westerly, southerly and easterly around a finger of land extending into said inlet, in all cases along the high water mark, to the northwesterly sideline of the land of Thompson's Point Inc.; thence northeasterly along the northwesterly sideline of the land of the said Thompson's Point Inc. approximately four hundred fifteen (415) feet to the point of beginning.

The Property subject to this Declaration of ECR is also subject to the following easements:

1. A certain Drainage Easement from Forefront Partners I, LP to the State of Maine

acting by and through its Department of Transportation by instrument dated October 11, 2013 and recorded in the Cumberland County Registry of Deeds in Book 31099, Page 185.

2. A certain Construction and Maintenance Easement from Forefront Partners I, LP to Northern New England Passenger Rail Authority by instrument dated October 11, 2013 and recorded in the Cumberland County Registry of Deeds in Book 31099, Page 188.

SCHEDULE B – Reduced Copy of Plan

SCHEDULE C - Common Area Interest and Common Expense Liability

Identifying Number	Lot Size in Sq. Feet – <u>see</u> § 1.1.17 hereof	Common Area Interest and Common Expense Liability	Votes in the Association
1	Common Area	N/A	N/A
2	73,763	10.619	106
3	53,701	7.731	77
4	46,198	6.651	67
5	22,772	3.278	33
6	69,746	10.040	100
7	23,270	3.350	34
8	35,882	5.165	52
9	31,603	4.550	46
10	17,504	2.520	25
11	59,072	8.504	85
12	17,279	2.490	25
13	13,873	2.000	20
14	11,329	1.631	16
15	15,323	2.206	22
16	Convertible	TBD (See Section 3.4)	TBD
17	Convertible	TBD (See Section 3.4)	TBD
18	37,971	5.466	55
19	44,623	6.424	64
20	54,331	7.821	78
21	66,399	9.560	96
TOTALS	694,649	100.006	1001

Each Common Area Interest and Common Expense Liability has been rounded to the nearest one thousandth of one percent (0.001%) so that the sum of the Common Area Interests and Common Expense Liabilities allocated at any time to all the Lots may not equal one hundred percent (100%). The Common Area Interest and Common Expense Liability appurtenant to each respective Lot are each a percentage determined on the basis of “size” (as defined in Paragraph 1.1.17 above) by multiplying by one hundred (100) the quotient resulting from dividing the “size” of each respective Lot by the aggregate “size” of all the Lots in the Development, excluding from such calculation Lot 1, which contains only Common Areas, and excluding Lots 16 and 17 until such time as they are added to the Development. The “size” of each Lot is the number of square feet therein determined by reference to Section 1.1.17 of the Declaration and the latest version of the Plan recorded in the Cumberland County Registry of Deeds. The Votes in the Association allocated to each respective Lot is a sum rounded to the nearest whole number determined by multiplying by one thousand (1,000) the quotient resulting from dividing the “size” of each respective Lot by the aggregate “size” of all the Lots in the Development, excluding from such calculation Lot 1, which contains only Common Areas, and excluding Lots

16 and 17 until such time as they are added to the Development. In the event of a discrepancy between the stated Allocated Interests and the result derived from the foregoing formulas, the stated Allocated Interests shall prevail. The Allocated Interests stated for each Lot in this Schedule C are subject to change in the circumstances stated in this Declaration, e.g., change a Lot size, change in Common Areas, or addition of Convertible Real Estate. This Schedule C shall be amended and restated by the Declarant or Association, as applicable, without the consent of the Lot Owners each time such a change occurs.

SCHEDULE D – Copy or Summary of Event Management Plan

SCHEDULE E – Copy or Summary of Transportation Demand Management Program