Attachment A.1

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207.775.1121
FAX 207.879.0896

- SITE PLANNING AND DESIGN
- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- PERMITTING
- AIRPORT ENGINEERING
- CONSTRUCTION ADMINISTRATION
- LANDSCAPE PLANNING

April 1, 2013

Ms. Jean Fraser, Planner
Planning and Urban Development Department
City of Portland, Maine
389 Congress Street
Portland, Maine 04101-3509

Subject: Convenience Store and Fuel Station Development
2282 Congress Street
Final Site Plan Application
Applicant: CJ Developers Inc.

Dear Jean:

On behalf of CJ Developers Inc., we are pleased to provide the accompanying package of Final Site Plan submission materials related to the proposed Convenience Store/Fuel Station at 2282 Congress Street. This submission package is intended to meet the City's Final Plan Submission Requirements as outlined in the Level III Final Site Plan Application procedures. These materials represent the ongoing design development for the proposed Convenience Store for the property generally bounded by Congress Street (north), Maine Turnpike (east), Skyway Drive (south) and Community Substance Abuse Center (west). It is the Applicant's intent to construct a 3,850 s.f. convenience store and fuel station. The development site is an approximately 3.24-acre area that is currently undeveloped. The Applicant currently has a purchase and sale agreement to acquire the property from the current Owner (see Attachment A in Section 2). The existing site was previously reviewed and approved for the development of a hotel under a Contract Zoning Agreement. The hotel was not constructed and the previous Contract Zoning Agreement lapsed, so the underlying I-M zoning restrictions have been in effect. Under City Council Order 154 – 12/13, the Applicant successfully received a Conditional Rezoning Agreement with the City of Portland. The Conditional Rezone Agreement allows the proposed uses as well as those uses allowed within the I-M Zone.

Accompanying this cover letter are the following materials:

- Level III Site Plan Application
- Section 1: Written Description of Project, Including:
  - Construction Management Plan
  - Lighting Package
- Section 2: Evidence of Right, Title and Interest and Financial Capacity
  (To be provided under separate cover)

- Section 3: Written Assessment of Proposed Project's Compliance with Applicable Zoning and Land Use Requirements
- Section 4 Stormwater Management Report and Computations
- Reduced Sized Plans

You will find in the accompanying materials, information including the Final Site Plan, Lighting Package and Building Elevations that provide details for the building development activities. Information pertaining to the project's utilities needs and statements regarding compliance with the City's Standards are contained within this submission. A copy of the Traffic Impact Study prepared by Gorrill-Palmer Consulting Engineers will be provided to the City and its Peer Review Consultant under separate cover.

On behalf of the CJ Developers Team, we look forward to your continued assistance on the project and we look forward to the April 2013 Public Hearing meeting with the Planning Board. A Public Informational Meeting is scheduled for April 10, 2013. A copy of the notice and list of notified parties is contained with the application materials following this cover letter. Please find one (1) hard copy of the application materials including one set each of 11x17 and full size plans, along with a CD containing PDF files for all submitted materials.

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

Sincerely,

DeLUCA-HOFFMAN ASSOCIATES, INC.

Stephen R. Bushey, P.E.
Senior Engineer

SRB/smk

Attachments

c: David Latulippe, CJ Developers, Inc.
Wes Thames, Priority Group

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Effective August 18, 2010

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 to be used 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. General information pertaining to the thresholds of review and fee structure is contained on page 3 of this application. The Land Use Code (including Article V), the Technical Manual, and the Design Manual are available on the City's web site at http://www.portlandmaine.gov/planning/default.asp

Level III: Site Plan Development includes:

- New structures with a total floor area of 10,000 sf or more except in Industrial Zones.
- New structures with a total floor area of 20,000 sf 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 sf or more (cumulatively within a 3 year period) except in Industrial Zones.
- Building addition(s) with a total floor area of 20,000 sf or more in Industrial Zones.
- A change in the use of a total floor area of 20,000 sf 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 sf of building area in any other permitted zone.
- Correctional prerelease facilities.
- Park improvements: New structures greater than 10,000 sf and/or facilities encompassing 20,000 sf 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).

The Land Use Code (including Article V), the Technical Manual, and the Design Manual are available on the City's web site at http://www.portlandmaine.gov/planning/default.asp or copies may be purchased at the Planning Division Office.

Planning Division
Fourth Floor, City Hall
389 Congress Street
(207) 874-8721 or 874-8719

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

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PROJECT NAME: Convenience Store with Fuel Station

PROPOSED DEVELOPMENT ADDRESS:

2282 Congress Street, Portland, Maine

PROJECT DESCRIPTION:

New commercial development on 3.24 acre property located on the south side of Congress Street, west of the MTA. The project includes a 3,850 SF C-Store/Fuel Station with 14 filling dispenser positions. An ATM Drive-thru will be provided. Site access will be off Congress Street.

CHART/BLOCK/LOT: 237/A/012

PRELIMINARY PLAN _____ (date)
FINAL PLAN X (date)

CONTACT INFORMATION:

Applicant – must be owner, Lessee or Buyer Name: CJ Developers, Inc. Co-Applicant: Portland Property Holdings, LLC 2 Main Street Topsham, ME 04086 Business Name, if applicable: Address: 35 Primrose Lane City/State : Freeport, ME Zip Code: 04032	**Applicant Contact Information** Work # 207-865-4323 Home# 207-865-4305 Cell # 207-240-1074 Fax# e-mail: ddlatulip@aol.com
Owner – (if different from Applicant) Name: Hutchcount LLC Address: 1000 Market Street, Building 1 City/State : Portsmouth, NH Zip Code: 03801	**Owner Contact Information** Work # Home# Cell # Fax# e-mail: rich.ade@oceanprop.com
Agent/ Representative Name: David Latulippe Address: 35 Primrose Lane City/State : Freeport, ME Zip Code: 04032	**Agent/Representative Contact information** Work # 207-865-4323 Cell # 207-865-4305 e-mail: ddlatulip@aol.com
Billing Information Name: CJ Developers, Inc. Address: 35 Primrose Lane City/State : Freeport, ME Zip Code: 04032	**Billing Information** Work # 207-865-4323 Cell # 207-865-4305 Fax# e-mail: ddlatulip@aol.com

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Engineer Name: Steve Bushey, P.E. DeLuca-Hoffman Associates, Inc. Address: 778 Main Street, Suite 8 City/State : South Portland, ME Zip Code: 04106	**Engineer Contact Information** Work # 207-775-1121 Cell # 207-756-9359 Fax# 207-879-0896 e-mail: sbushey@delucahoffman.com
Surveyor Name: Rex Croteau Titcomb Associates Address: 13 Gray Road City/State : Falmouth, ME Zip Code: 04105	**Surveyor Contact Information** Work # 207-797-9197 Cell # Fax# 207-878-3142 e-mail: rcroteau@titcombsurvey.com
Architect Name: Alpha Architects Address: 17 Chestnut Street, Suite 201 City/State : Portland, ME Zip Code: 04101	**Architect Contact Information** Work # 207-761-9500 Cell # 207-617-4110 Fax# e-mail: mark@alphaarchitects.com
Attorney Name: John Moncure Moncure & Barnicle Address: 9 Bowdoin Mill Island City/State : Topsham, ME Zip Code: 04086	**Attorney Contact Information** Work # 207-729-0856 Cell # Fax# 207-729-7790 e-mail: JMoncure@mb-law.com

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APPLICATION FEES:
Check all reviews that apply. (Payment may be made by Cash or Check payable to the City of Portland.)

Level III Development (check applicable reviews)

_X_ Less than 50,000 sq. ft. ($500.00)
___ 50,000 - 100,000 sq. ft. ($1,000)
___ 100,000 – 200,000 sq. ft. ($2,000)
___ 200,000 – 300,000 sq. ft. ($3,000)
___ over $300,00 sq. ft. ($5,000)
___ Parking lots over 11 spaces ($1,000)
___ After-the-fact Review ($1,000.00 plus applicable application fee)

The City invoices separately for the following:

- Notices ($.75 each)
- Legal Ad (% of total Ad)
- Planning Review ($40.00 hour)
- Legal Review ($75.00 hour)

Third party review is assessed separately.

Plan Amendments (check applicable reviews)

___ Planning Staff Review ($250)
___ Planning Board Review ($500)

Other Reviews (check applicable reviews)

_X_ Traffic Movement ($1,000)
_X_ Stormwater Quality ($250)
___ Subdivisions ($500 + $25/lot)
# of Lots ___ x $25/lot = _____
___ Site Location ($3,000, except for residential projects which shall be $200/lot)
# of Lots ___ x $200/lot = _____

___ Other _____
___ Change of Use
___ Flood Plain
___ Shoreland
___ Design Review
___ Housing Replacement
___ Historic Preservation

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APPLICATION SUBMISSION

All site plans and written application materials must be uploaded to a website for review. At the time of application, instructions for uploading the plans will be provided to the applicant. One paper set of the plans, written materials and application fee must be submitted to the Planning Division Office to start the review process.

Submissions shall include one (1) paper packet with folded plans containing the following materials:

1. **One (1) full size set of plans** that must be **folded.**
2. One (1) copy of all written materials 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. Copy of the checklist completed for the proposal listing the material contained in the submitted application.
6. One (1) set of plans reduced to 11 x 17.

Refer to the application checklist for a detailed list of submittal requirements.
Portland's development review process and requirements are outlined in the Land Use Code (Chapter 14), which includes the Subdivision Ordinance (Section 14-491) and the Site Plan Ordinance (Section 14-521). Portland's Land Use Code is on the City's web site: www.portlandmaine.gov Copies of the ordinances may be purchased through the Planning Division.

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

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

Signature of Applicant:	Date:
Stephen Bushey, agent	4/1/13

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PROJECT DATA

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

Total Area of Site	146,361 SF (Total) 141,134 SF (Parcel) 5,227 SF (MTA Easement Area)
Proposed Total Disturbed Area of the Site	91,589 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	
Wetland Area (Fill Area)	41,459 sq. ft. (1,183 sq. ft.)
Impervious Surface Area	
Impervious Area (Existing)	0 sq. ft.
Impervious Area (Proposed)	62,033 sq. ft. full build-out
Building Ground Floor Area and Total Floor Area	
Building Footprint (Existing)	0 sq. ft.
Building Footprint (Proposed)	4,066 SF (Total) 3,850 SF (C-store) & 216 SF (Farm Stand)
Floor Area (Existing)	0 sq. ft.
Floor Area (Proposed)	4,066 SF (Total) 3,850 SF (C-store) & 216 SF (Farm Stand)
Zoning	
Existing	I-M
Proposed, if applicable	Condition of Zoning Agreement
Land Use	
Existing	Undeveloped
Proposed	C-Store, Fuel Station & Farm Stand
Residential, If applicable	N/A
Residential Units (Existing)	
Residential Units (Proposed)	
# Number of Lots (Proposed)	
Affordable Housing Units (Proposed)	
Efficiency Units (Proposed)	
One-Bedroom Units (Proposed)	
Two-Bedroom Units (Proposed)	
Three-Bedroom Units (Proposed)	
Parking Spaces	
Parking Spaces (Existing)	0
Parking Spaces (Proposed)	26
Handicapped Spaces (Proposed)	2
Bicycle Parking Spaces	
Bicycle Spaces (Existing)	0
Bicycle Spaces (Proposed)	8
Estimated Cost of Project	$2-3 Million

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General Submittal Requirements – Preliminary Plan (Optional)
Level III Site Plan
Preliminary Plan Phase Check list (if elected by applicant)

Applicant Checklist	Planner Checklist	Number of Copies	Written Submittal Requirements
☐	☐	1	Completed application form
☐	☐	1	Application fees
☐	☐	1	Written description of project
☐	☐	1	Evidence of right, title and interest.
☐	☐	1	Copies of required State and/or Federal permits.
☐	☐	1	Written assessment of proposed project's compliance with applicable zoning requirements.
☐	☐	1	Written description of existing and proposed easements or other burdens.
☐	☐	1	Written requests for waivers from individual site plan and/or technical standards, where applicable.
☐	☐	1	Traffic analysis (may be preliminary, in nature, during the preliminary plan phase).
☐	☐	1	Written summary of significant natural features located on the site.
☐	☐	1	Written summary of project's consistency with related city master plans.
☐	☐	1	Neighborhood Meeting Material (refer to page 13 of this application.)
Applicant Checklist	**Planner Checklist**	**Number of Copies**	**Site Plan Submittal Requirements**
☐	☐	1	Boundary Survey meeting the requirements of Section 13 of the City of Portland Technical Manual.
☐	☐	1	**Preliminary Site Plan Including the following:** ***(*Information provided may be preliminary in nature during preliminary plan phase):***
☐	☐		▪ *Existing and proposed structures with distance from property line (including location of proposed piers, docks or wharves if in Shoreland Zone).*
☐	☐		▪ *Location of adjacent streets and intersections and approximate location of structures on abutting properties.*
☐	☐		▪ *Proposed site access and circulation.*
☐	☐		▪ *Proposed grading and contours.*
☐	☐		▪ *Location and dimension of existing and proposed paved areas including all parking areas and vehicle, bicycle and pedestrian access ways.*
☐	☐		▪ *Preliminary landscape plan including existing vegetation to be preserved, proposed site landscaping and street trees.*
☐	☐		▪ *Existing and proposed utilities (preliminary layout).*
☐	☐		▪ *Preliminary infrastructure improvements (e.g. - curb and sidewalk improvements, roadway intersection modifications, utility connections, transit infrastructure, roadway improvements).*
☐	☐		▪ *Preliminary stormwater management and erosion control plan.*
☐	☐		▪ *Existing significant natural features located on the site (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features listed in Section 14-526 (b) 1. of the Land Use Code).*
☐	☐		▪ *Proposed alterations to and protection measures for significant natural features located on the site (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features listed in Section 14-526 (b)1. of the Land Use Code).*
☐	☐		▪ *Existing and proposed easements or public or private rights of way.*

General Submittal Requirements – Final Plan (Required)
Level III Site Plan
Final Plan Phase Check list (including items listed above in General Requirements for Preliminary Plan, if applicant did not elect to submit for a preliminary plan review)

Applicant Checklist	Planner Checklist	Number of Copies	Written Submittal Requirement
☒	☐	1	Evidence of financial and technical capacity.
☒	☐	1	Evidence of utilities' capacity to serve the development.
☒	☐	1	Written summary of fire safety (referencing NFPA fire code and Section 3 of the City of Portland Technical Manual).
☒	☐	1	Construction management plan.
☒	☐	1	Traffic Plan (if development will (1) generate 100 or more PCE or (2) generate 25 or more PCE and is located on an arterial, within 1/2 mile of a high crash location, and/or within ¼ mile of an intersection identified in a previous traffic study as a failing intersection).
☒	☐	1	Stormwater management plan.
☒	☐	1	Written summary of solid waste generation and proposed management of solid waste.
☒	☐	1	Written assessment of conformity with applicable design standards.
☒	☐	1	Manufacturer's verification that HVAC and manufacturing equipment meets applicable state and federal emissions requirements.

Final Plan Phase			
☐	☐	1	**Final Site Plan Including the following**
☒	☐		▪ *Existing and proposed structures on the site with distance from property line (including location of proposed piers, docks or wharves if in Shoreland Zone).*
☒	☐		▪ *Location of adjacent streets and intersections and approximate location of structures on abutting properties.*
☒	☐		▪ *Proposed site access and circulation.*
☒	☐		▪ *Proposed grading and contours.*
☒	☐		▪ *Location and dimension of existing and proposed paved areas including all parking areas and vehicle, bicycle and pedestrian access ways. Proposed curb lines must be shown.*
☒	☐		▪ *Proposed loading and servicing areas, including applicable turning templates for delivery vehicles*
☒	☐		▪ *Proposed snow storage areas or snow removal plan.*
☒	☐		▪ *Proposed trash and recycling facilities.*
☒	☐		▪ *Landscape plan including existing vegetation to be preserved, proposed site landscaping and street trees.*
☒	☐		▪ *Existing and proposed utilities.*
☒	☐		▪ *Location and details of proposed infrastructure improvements (e.g. - curb and sidewalk improvements, roadway intersection modifications, utility connections, public transit infrastructure, roadway improvements).*
☐	☐		▪ *Proposed septic system, if not connecting to municipal sewer. (Portland Waste Water Application included in this application)*
☒	☐		▪ *Proposed finish floor elevation (FFE).*
☒	☐		▪ *Exterior building elevation(s) (showing all 4 sides).*
☒	☐		▪ *Proposed stormwater management and erosion controls.*
☒	☐		▪ *Exterior lighting plan, including street lighting improvements..*

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☒	☐	▪ *Proposed signage.*
☒	☐	▪ *Identification of existing significant natural features located on the site (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features listed in Section 14-526 (b)1. of the Land Use Code). Wetlands must be delineated.*
☒	☐	▪ *Proposed alterations to and protection measures for of existing significant natural features located on the site (including wetlands, ponds, watercourses, floodplains, significant wildlife habitats and fisheries or other important natural features listed in Section 14-526 (b)1. of the Land Use Code).*
☒	☐	▪ *Total area and limits of proposed land disturbance.*
☒	☐	▪ *Soil type and location of test pits and borings.*
☐	☐	▪ *Details of proposed pier rehabilitation (Shoreland areas only).*
☒	☐	▪ *Existing and proposed easements or public or private rights of way.*

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Att. E

Att. F

LIST OF ATTACHMENTS

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Attachment B – Figures 2-5 and 7-11
Attachment C – Building Elevations/Floor Plans Plan Set at end
Attachment D – Utility Capacity Availability Letters Att. H.
Attachment E – Construction Management Plan Att. I.
Attachment F – Lighting Package Att. H I
Attachment G – Conditional Zone Agreement Att. 1

Section 2: Attachment A – Purchase and Sale Agreement with Hutchcourt LLC Att. C
Attachment B – Financial Capacity Letter Att. D

Section 4: Stormwater Management Report and Computations

LIST OF PLANS

SHEET #	TITLE
C-1.0	COVER SHEET
C-1.1	GENERAL NOTES AND LEGEND
C-1.2	EXISTING CONDITIONS SURVEY / BOUNDARY SURVEY
C-1.3	EXISTING CONDITIONS PLAN
C-2.0	SITE LAYOUT PLAN
C-3.0	GRADING AND DRAINAGE PLAN
C-4.0	UTILITY PLAN
C-5.0	LANDSCAPE PLAN
C-6.0	EROSION AND SEDIMENT CONTROL PLAN
C-7.0	LIGHTING PLAN CANOPY ON
C-7.1	LIGHTING PLAN CANOPY OFF
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C-8.2	MISCELLANEOUS DETAILS
C-8.3	SITE DETAILS
C-8.4	SITE DETAILS
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C-8.6	EROSION CONTROL DETAILS
C-8.7	EROSION CONTROL NOTES
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C-9.1	STORMWATER MANAGEMENT: STORMTREAT™ SYSTEMS DETAILS
C-9.2	STORMWATER MANAGEMENT: UNDERGROUND STORAGE DETAILS
C-10.0*	UTILITY PROFILES
C-11.0*	STORM DRAIN PROFILES
C-11.1*	STORM DRAIN PROFILES
C-12.0*	ACCESS DRIVE PROFILES
C-12.1*	ACCESS DRIVE PROFILES
C-13.0	VACANT
C-14.0	PREDEVELOPMENT WATERSHED MAP
C-14.1	POSTDEVELOPMENT WATERSHED MAP

* Plan not included with this submission. To be released for construction documents.

Attachment B.1

1. DEVELOPMENT DESCRIPTION

1.1 PROJECT OVERVIEW

CJ Developers Inc. proposes to construct, own, and operate a 3,850 SF Convenience Store and Fuel Station at 2282 Congress Street, just west of the Maine Turnpike Overpass, in Portland, Maine. The project represents an ideal use for an area lacking in these services.

The development includes new building construction, fuel canopy and UST installation, pavement for parking and circulation and a new entrance off Congress Street generally opposite Blueberry Drive. The plans include the installation of the following:

- Primary site access off Congress Street consisting of a 14 foot entry lane and two 12' wide exit lanes. The driveway radii have been configured to allow ease of movement for semi trailer vehicles;
- A Fuel canopy area that will contain six two-way (12 pumps total) dispensers and an overhead canopy;
- A diesel fuel island containing two fuel dispensers and overhead canopy for tractor trailers and passenger vehicles. It is anticipated that the primary patrons will be smaller box trucks and waste hauling vehicles;
- A 55' x 70' Convenience Store with a building appendage housing an ATM for drive thru service. The building will be oriented to face the Turnpike and the ATM will be positioned on the southerly side of the building generally facing Skyway Drive. Parking is located around the perimeter of the building and its been configured to allow for ease of entry and exit from the Congress Street driveway. Within the C-Store, retail space will include areas for coolers, merchandise display, and checkout counter;
- Designated area for the future installation of a compressed natural gas dispenser and compressor facility. The site is located nearby to an existing natural gas pipeline (located between the site and Congress Street). Depending on market conditions, the applicant foresees the potential for CNG service at this location based on the volume of prospective CNG powered vehicles traveling in the region. This includes waste hauling vehicles associated with the Eco-Maine Facility as well as other nearby land uses;
- Landscape buffering along Congress Street and Skyway Drive;
- Internal pedestrian circulation and connectivity;
- Enclosed waste container area for dumpsters;
- Lighting meeting the City's Standards;
- Underground utilities including multiple underground fuel storage tanks that will be installed in accordance with Local, State and Federal Regulations;
- The development will include a stormwater management system consisting of a closed drainage collection system and management basin to achieve compliance with the MeDEP Chapter 500 Requirements including Basic and General Standards. This includes quantity

controls in accordance with the Flooding Standards as well as water quality treatment under the General Standards. The site is within the Long Creek Watershed which is an urban impaired watershed. The plans include closed drainage systems and water quality treatment measures to meet the applicable standards. The project requires a Stormwater Permit from the City of Portland under their delegated authority;

- Entry identification and directional signage; and
- Stormwater treatment and detention measures. A summary of the project's stormwater management measures, inspection and maintenance, and other data is included in Section 4.

1.2 SITE OWNERSHIP AND LOCATION

According to the Boundary Survey completed by Titcomb Associates the development site is identified in the City of Portland Tax Assessor's Maps and is described as follows:

TABLE 1 – Land Ownership

Chart-Block-Lot	Owner	Description
237-A-12	Hutchcourt LLC	A rectangular shaped parcel containing 140,964 SF (3.23 acres) of land, currently undeveloped and a mix of vegetative cover. The lot has been previously cleared of timber except along the perimeter.

Figures 2-5 and 7-11 at the end of this section depict the project location on various available resource maps. As shown, the site location is on Congress Street just west of the MTA overpass and generally opposite Blueberry Lane. The parcel has approximately 60 LF of frontage along Congress Street. The development site is identified on the U.S.G.S Portland West 7.5 Minute Quadrangle Map. The accompanying Survey Plan contains a licensed surveyors stamp and the vertical datum for the depicted topography is based on NGVD29 datum per the City requirements. The development site will require an access agreement with the Maine Turnpike Authority since the main entrance will cross MTA property between the site and Congress Street. Evidence of the agreement with MTA has been previously submitted as part of the Conditional Zone Agreement process.

1.3 PROJECT PURPOSE AND NEED

As outlined in the Conditional Zone Agreement, the property is considered unique due to its somewhat isolated location with streets/roads on three sides of the property and a developed parcel on its fourth side. Because of its smaller size the parcel is ideal for the development of the services proposed which will serve the broader surrounding industrial and commercial area. Currently, there is a deficit of available services for the nearby businesses as well as to serve the MTA interchange. This finding is supported by various letters from landowners and business operators in the area that were submitted to the City during the CZA discussions and hearings. In approving the Conditional Zone Agreement, the City has found that the proposed use is compatible and reasonable for the land and will fit in with the character of the area, subject to the CZA provisions for landscaping, lighting and building design.

1.4 EXISTING CONDITIONS

The development site is undeveloped and was generally cleared of any major timber, except along its edges, within the past ten years. No evidence of any previous structures or development is apparent. Existing development in the area includes the following:

- Congress Street and the intersection of Blueberry Drive are located to the north of the site. There are several commercial buildings on each side of Blueberry Lane. The Eco-Maine facility is located at the end of Blueberry Lane.

- The MTA southbound highway is located to the east of the site. The site has approximately 264 LF of frontage along the highway. There is an existing 40' wide utility easement serving an underground natural gas line along the MTA frontage.

- The Merrimack River Medical Services Methadone Clinic is a tenant with the existing building located to the west of the site.

- The site has approximately 479 LF of frontage along Skyway Drive to the south. This frontage is currently restricted by a Control of Access by the MTA.

- The MTA owns a strip of property between much of the Congress Street frontage and the site boundary. The MTA currently leases a portion of their parcel for the placement of a Natural Gas Regulator station.

1.5 ACCESS CONDITIONS

The site's primary access will be developed from a new driveway to be located generally opposite Blueberry Drive on Congress Street. The proposed access driveway will contain a single 14' wide entrance lane and separate 12' wide left-thru and right turn lanes. The access driveway will allow direct entrance into the fuel canopy area as well as to parking that will be provided around the perimeter of the C-Store.

Gorrill-Palmer Consulting Engineers is completing a Traffic Impact Study for the development. The initial findings are that the site entrance will remain an unsignalized intersection and that the Congress Street improvements may include lane striping and median construction.

The site access will include a bituminous asphalt sidewalk that will extend out to Congress Street and to a crosswalk that will be provided on the west side of the intersection. The crosswalk will connect to the existing sidewalk located on the north side of Congress Street.

The site development plans currently do not include any access onto Skyway Drive. Pending authorization from the MTA, the Applicant may pursue an entrance connection off Skyway Driveway at some point in the future.

1.6 SITE UTILITIES

The site contains access to several active utility lines. The primary utilities are identified as follows:

- The City of Portland maintains an 8" sanitary sewer line along Congress Street that ends approximately 190 feet west of the site. Existing easements are in place along the property frontage of the adjacent parcel to allow an extension of the sewer from the proposed

development site to the existing terminus point. It is the applicant's intent to extend an 8' gravity sewer to tie into the existing sewer. The work will involve trenching and surface restoration behind the curb line on Congress Street.

- The Portland Water District maintains a 12" water main in Congress Street in front of the site. The applicant proposes to extend a 2" domestic service from the main into the site, generally within the property's 60' of frontage along Congress Street.

- Unitil maintains a natural gas line along the site's MTA frontage and also within the MTA land fronting Congress Street. There is an existing Regulator Station on the MTA property. The applicant may consider the installation of a Compressed Natural Gas Dispensing bay on the site in the future, if market conditions support such facilities. The CNG bay and a future compressor building for CNG are identified on the Site Layout Plan, but are not anticipated for immediate construction.

- Power to the site will be supplied by Central Maine Power. The Development Team is currently working with CMP and Fairpoint to determine any improvements that may be necessary from the existing overhead lines on Congress Street into the site. An onsite transformer may be required and it will be appropriately screened and in compliance with CMP standards.

1.7 TOPOGRAPHY, STORMWATER AND DRAINAGE

The development site is currently undeveloped and mostly cleared of mature vegetation. The accompanying Survey Plan and detailed Grading Plan include topographic information based on the City's NGVD29 datum. The site contains approximately 28' of relief and slopes from west to east towards the MTA ROW. There is evidence of rock outcroppings nearby, so it is believed that much of the site may be underlain by shallow bedrock.

Albert Frick Associates, Inc. was retained to assess and delineate the site's natural resource conditions. They identified wetlands in the lower area of the site, which are shown on the Existing Conditions Plan. The wetlands are considered scrub-shrub in nature and are not considered wetlands of special significance.

The majority of the site lies within the Long Creek Watershed which is located generally south of the site. The northwest corner of the site drains to Congress Street and is within the Stroudwater River Watershed. Runoff from the majority of the site sheds west to east following the topography which drains to an existing 24" culvert inlet draining under Skyway Drive. The 24" culvert inlet is the point of analysis for the stormwater computations and report contained with this applicant submission. The 24" culvert drains to the south side of Skyway Drive and these flows ultimately reach the south branch of Long Creek just south of the airport approach zone.

The project's stormwater management needs involve the new construction of treatment and control systems. Under Basic Standards Compliance the Applicant proposes the following:

- During construction the Applicant's contractor will be required to maintain temporary and permanent sediment capture measures including, but not limited to, installation of erosion control barriers on the down hill side of all disturbed ground surfaces, silt sacks or approved equivalent at new catch basin structures, street sweeping, and temporary and permanent ground stabilization as may be necessary.

- The Applicant will be responsible for the routine maintenance of all onsite drainage systems. This will include semi-annual inspections of all drainage systems and prompt cleaning of systems to assure proper functioning. Evidence of draft maintenance agreement(s) will be supplied to the City under separate cover.

1.8 LAND ORDINANCE REVIEW

1.8.1 OVERVIEW

The applicant has pursued a Conditional Zone agreement with the City of Portland, which was approved under City Council Order 154 – 12/13 on March 4, 2013. A copy of the Conditional Zone Agreement accompanies this submission is Attachment G.

Permitted Uses

Those uses allowed in the I-M Zone. In addition, the Property shall be permitted to be used for the following uses:

a. Major Auto Service Station. Natural gas and electricity fuel shall be included in the fuels that the major auto service station is allowed to sell.
b. Bank or ATM (with a drive through)
c. Convenience Store (without a drive through)
d. Restaurant (without a drive through)

The following dimensional requirements apply in the I-M District:

Dimensional Standard	Requirement
Minimum Lot Size	None
Minimum Frontage	60 feet
Front Yard Setback	1' from the property line for each 1' of building height
Side and Rear Yard Setback	1' from each side or rear line for each 1' of building height up to 25'
Pavement setback from boundary line	10'
Maximum Lot Coverage	100%
Maximum impervious surface ratio	75%
Maximum Building Height	75'

1.9 TRAFFIC/PARKING

The proposed project will not result in significant impacts to the surrounding street system. The project's proposed conditions will result in greater than 100 new peak hour trips thus requiring a Traffic Impact Study to be reviewed by the City under their delegated authority. Gorrill-Palmer Consulting Engineers is completing this study which will be provided to City representatives under separate cover. Based on their analysis the offsite road improvements will be limited to some pavement striping/markings improvements and minor shoulder widening along Congress Street in front of the site.

B.6.

According to Section 14-332 (c) of the Land Use Ordinance, retail establishments shall require one (1) parking space for each 200 square feet in excess of 2,000 SF. Based on a floor area of 3,850 SF a parking supply of 9 spaces is required per the code. The proposed Site Layout Plan includes 32 parking spaces plus space for an additional 14 vehicles at the fueling positions. The applicant is proposing more spaces than required by Code as they anticipate a robust Convenience Store business during breakfast and lunch periods and they want to assure ease of access and parking for patrons in/out of the facility.

1.10 NATURAL FEATURES

The development site contains modest natural features including wetlands in the lower areas. Albert Frick Associates, Inc. completed a wetland delineation on the property and the results of this work are indentified on the plan drawings. There are no significant wildlife habitats or regulated streams or waterbodies on the site. The grading limits have been prepared in a manner to minimize wetland impacts. Measures including steepening the sideslopes to 2:1 have been incorporated to minimize the wetland impact to 1,183 SF (0.03 acre), which keeps the project activity to below the 4,300 SF MeDEP permitting requirement.

1.11 APPROVAL REQUIREMENTS

The following permits are anticipated:

- City of Portland Planning Board Level III Site Plan Approval
- City of Portland Building Permit(s)
- Traffic Movement Permit by the City of Portland under delegated review
- Stormwater Permit by the City of Portland under delegated review
- Longcreek Watershed approval by the Longcreek Management District

1.12 ATTACHMENTS

Attachment A – Existing Site Photographs

Attachment B – Figures 2-5 and 7-11

Attachment C – Building Elevations/Floor Plans

Attachment D – Utility Capacity Availability Letters

Attachment E – Construction Management Plan

Attachment F – Lighting Package

Attachment G – Conditional Zone Agreement

PHOTO 1 – Skyway Drive – West

PHOTO 2 – Unitil Gas Regulator off Congress Street

DH

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207-775-1121
FAX: 207-879-0896
E-MAIL: dhai@delucahoffman.com

Existing Site Photographs
2282 Congress Street – Portland, Maine
Photos Taken 04-01-13 by Steve Bushey, P.E.

B.8

PHOTO 3 – View from Skyway Drive

PHOTO 4 – View from Skyway Drive

DeLUCA-HOFFMAN ASSOCIATES, INC.
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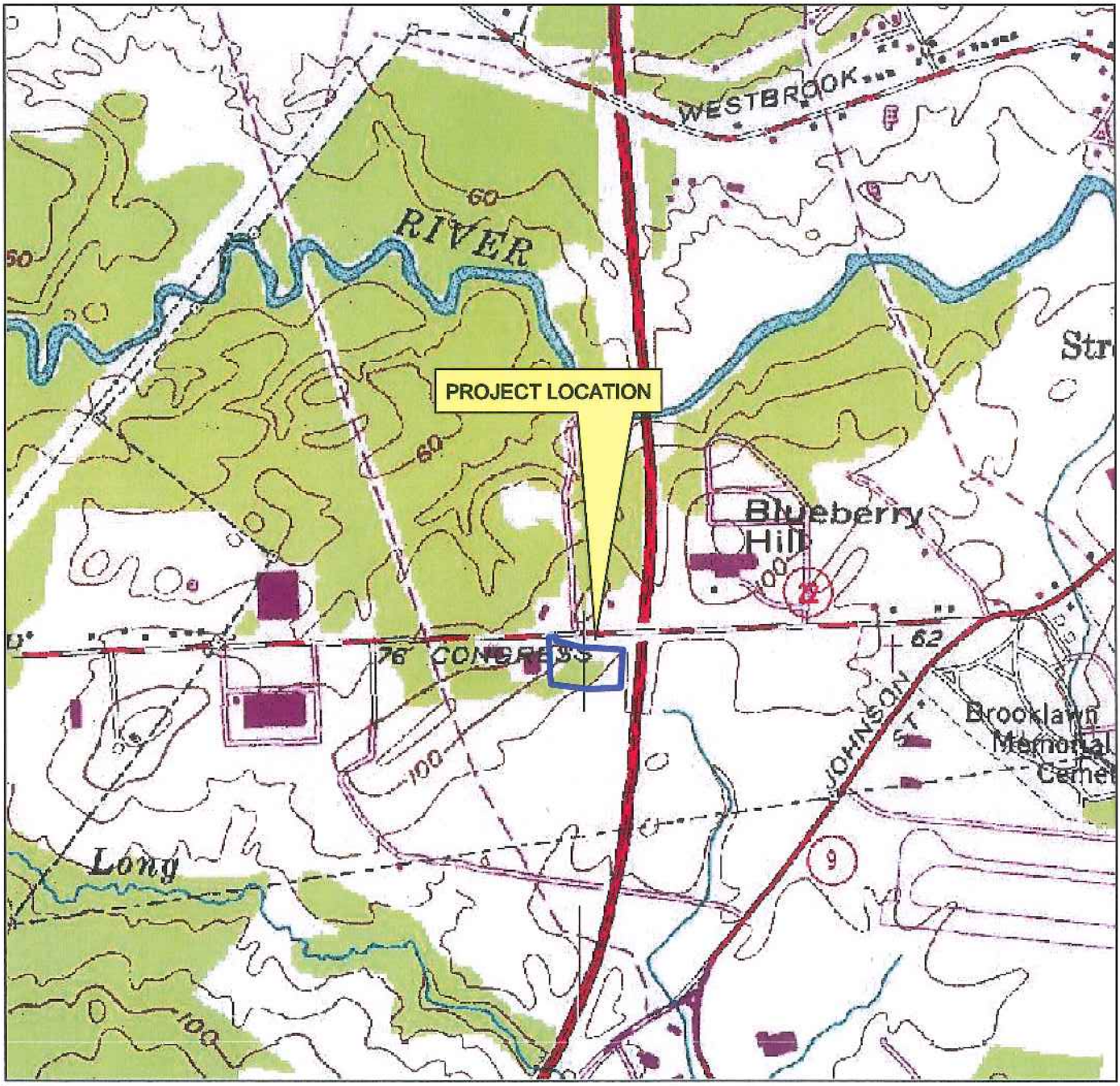
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207-775-1121
FAX: 207-879-0896
E-MAIL: dhai@delucahoffman.com

Existing Site Photographs
2282 Congress Street – Portland, Maine
Photos Taken 04-01-13 by Steve Bushey, P.E.



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USGS LOCATION MAP
MULTI-USE DEVELOPMENT
PORTLAND, MAINE

SOURCE: MAINE OFFICE OF GIS - MAPS

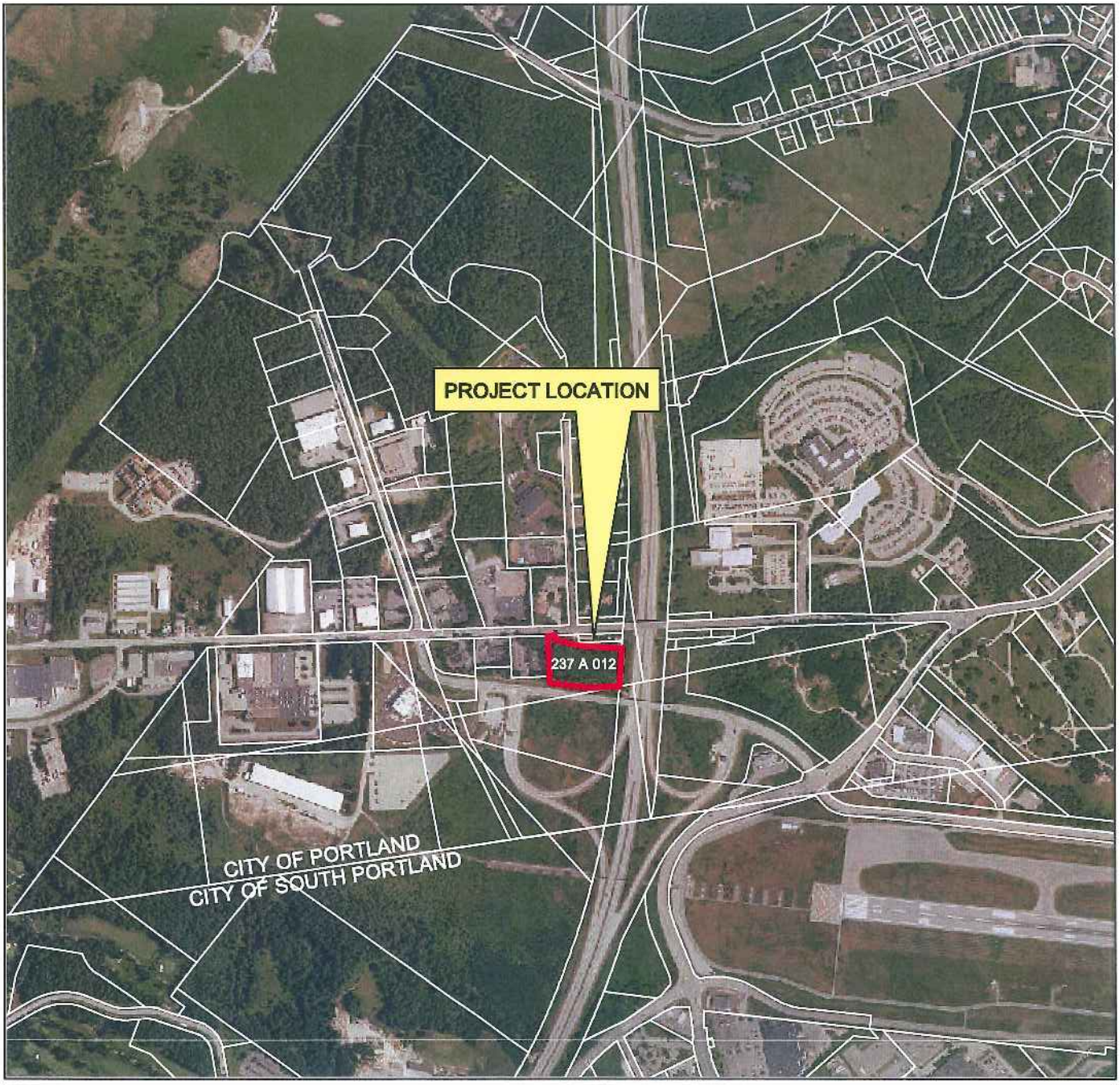
DeLuca-Hoffman Associates, Inc.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, ME 04106
207-775-1121
www.delucahoffman.com

DRAWN:	DED
CHECKED:	SRB
DATE:	SEPT 2012
FILENAME:	3118-USGS
SCALE:	1 inch = 1,000 feet

FIGURE

2

B,10



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TAX MAP
CONVENIENCE STORE
PORTLAND, MAINE

SOURCE: CITY OF PORTLAND

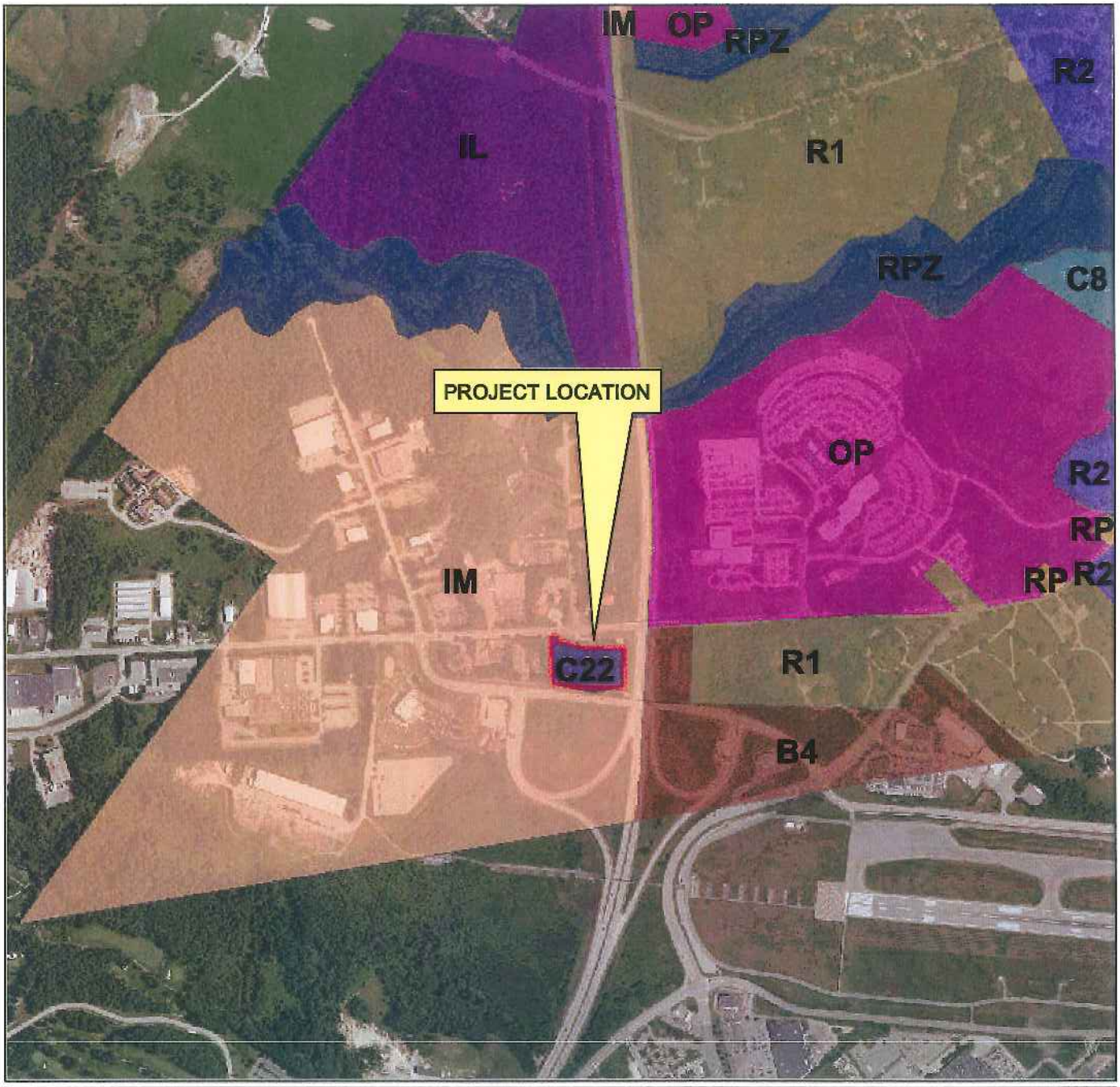
DeLuca-Hoffman Associates, Inc.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, ME 04106
207-775-1121
www.delucahoffman.com

DRAWN:	DED
CHECKED:	SRB
DATE:	SEPT 2012
FILENAME:	3118-TAX MAP
SCALE:	1 inch = 1,000 feet

FIGURE

3

B.11



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ZONING MAP
CONVENIENCE STORE
PORTLAND, MAINE

SOURCE: CITY OF PORTLAND

DeLuca-Hoffman Associates, Inc.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, ME 04106
207-775-1121
www.delucahoffman.com

DRAWN:	DED
CHECKED:	SRB
DATE:	SEPT 2012
FILENAME:	3118-ZONING
SCALE:	1 inch = 1,000 feet

FIGURE

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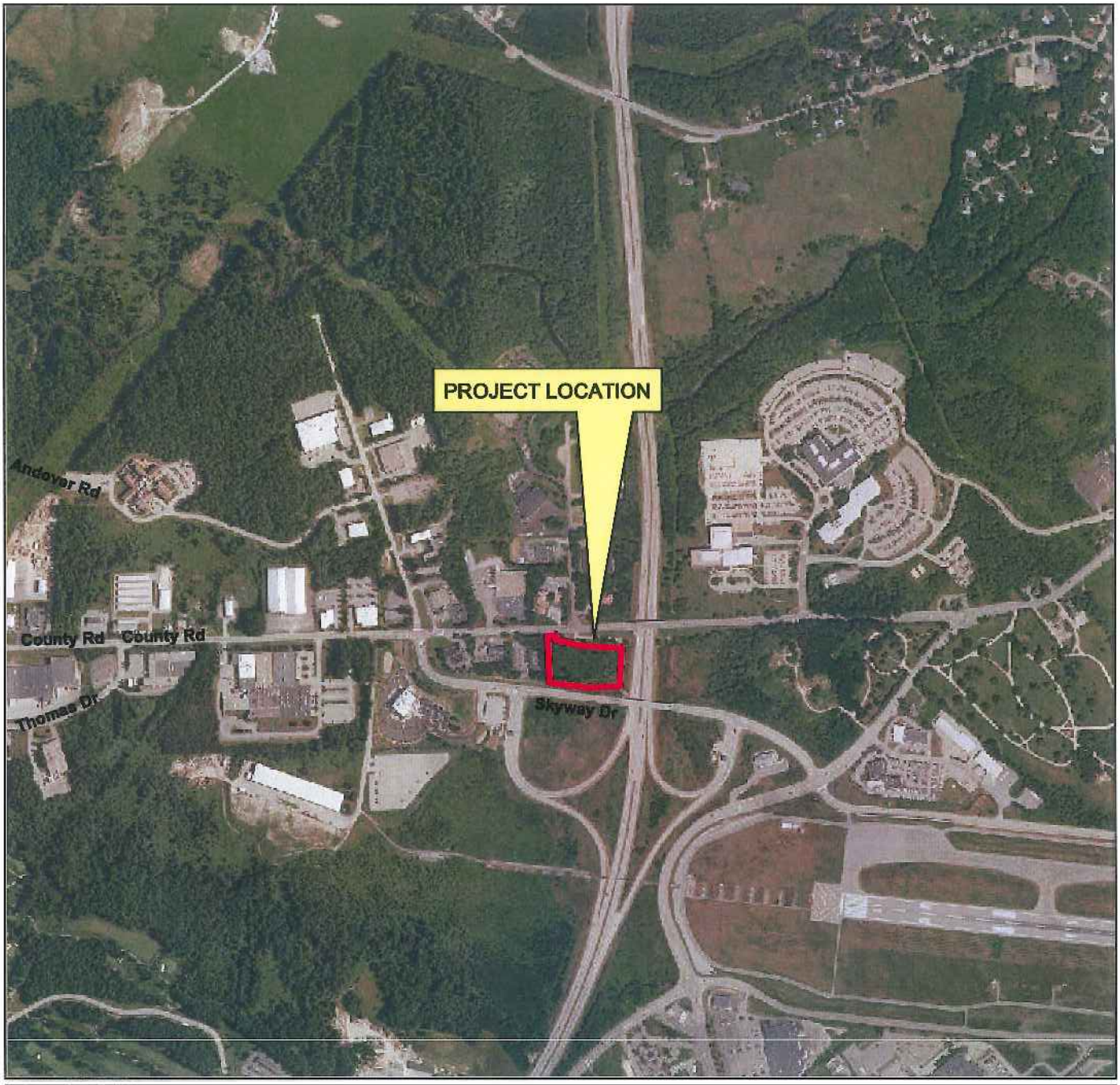
B.12



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AERIAL PHOTOGRAPH
CONVENIENCE STORE
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:	SEPT 2012
FILENAME:	3118-AERIAL
SCALE:	1 inch = 1,000 feet

FIGURE

5

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FLOOD MAP
MULTI-USE DEVELOPMENT
PORTLAND, MAINE

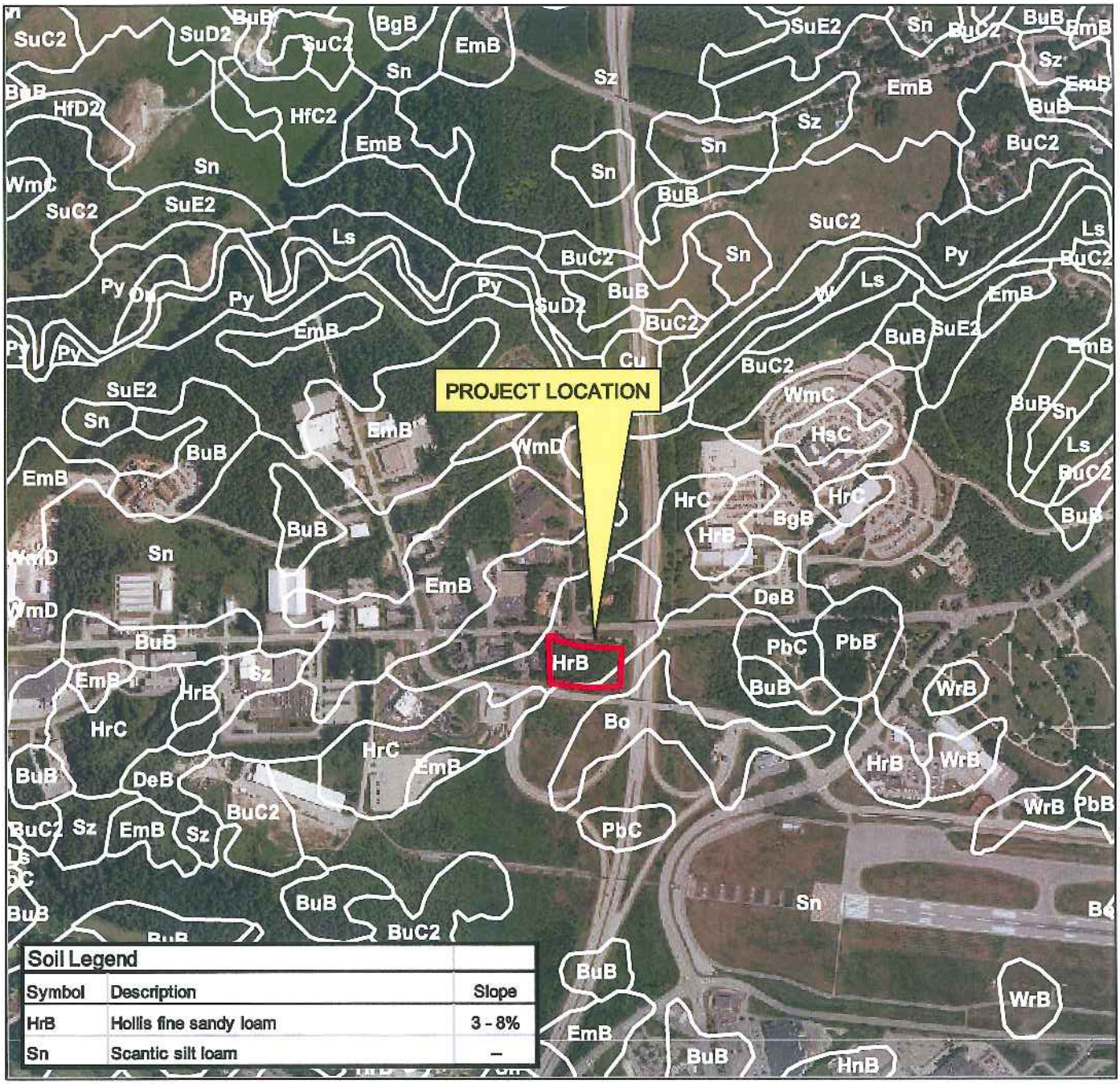
SOURCE: MAINE OFFICE OF GIS - FIRM LAYER

DeLuca-Hoffman Associates, Inc.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, ME 04106
207-775-1121
www.delucahoffman.com

DRAWN:	DED
CHECKED:	SRB
DATE:	SEPT 2012
FILENAME:	3118-FLOOD
SCALE:	1 inch = 1,000 feet

FIGURE

7



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SOILS MAP
MULTI-USE DEVELOPMENT
PORTLAND, MAINE

SOURCE: MAINE OFFICE OF GIS

DeLuca-Hoffman Associates, Inc.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, ME 04106
207-775-1121
www.delucahoffman.com

DRAWN: DED
CHECKED: SRB
DATE: SEPT 2012
FILENAME: 3118-SOILS
SCALE: 1 inch = 1,000 feet

FIGURE
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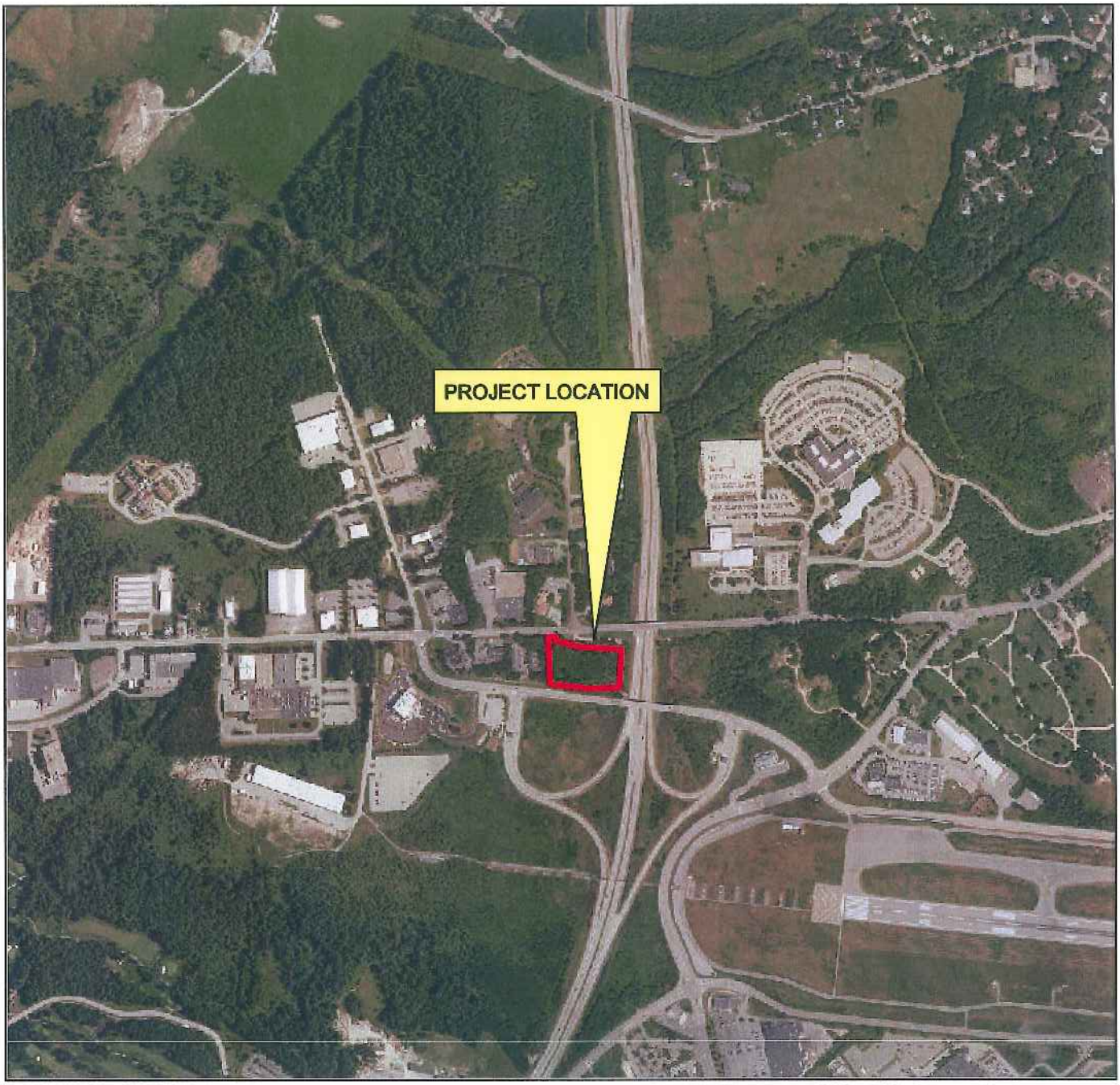
B.15



SAND AND GRAVEL AQUIFER MAP
MULTI-USE DEVELOPMENT
PORTLAND, MAINE

SOURCE: MAINE OFFICE OF GIS

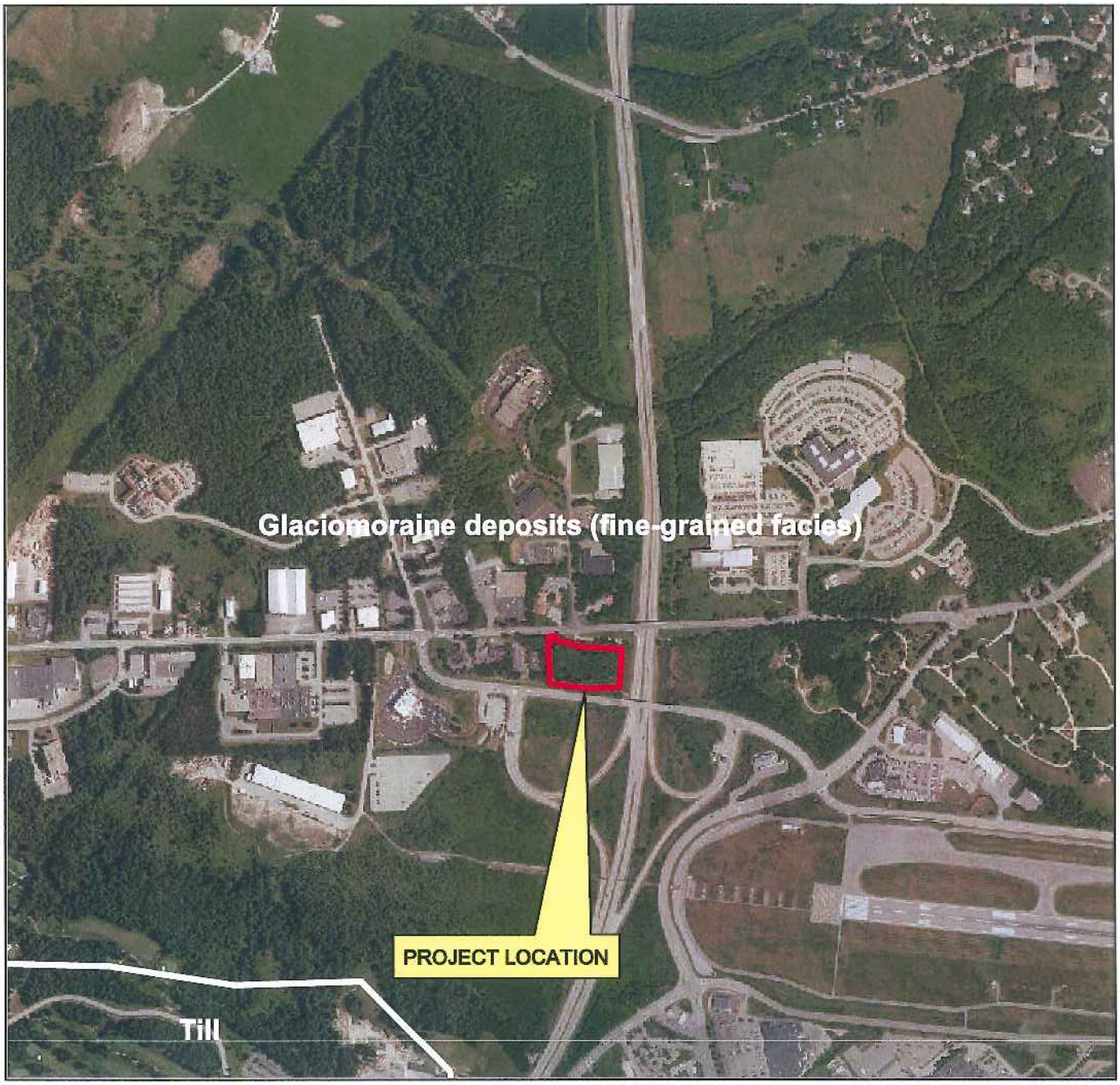
DeLuca-Hoffman Associates, Inc.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, ME 04106
207-775-1121
www.delucahoffman.com

DRAWN:	DED
CHECKED:	SRB
DATE:	SEPT 2012
FILENAME:	3118-AQUIFER
SCALE:	1 inch = 1,000 feet

FIGURE

9

B.16



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SURFICIAL GEOLOGY MAP
MULTI-USE DEVELOPMENT
PORTLAND, MAINE

SOURCE: MAINE OFFICE OF GIS - SURF LAYER

DeLuca-Hoffman Associates, Inc.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, ME 04106
207-775-1121
www.delucahoffman.com

DRAWN:	DED
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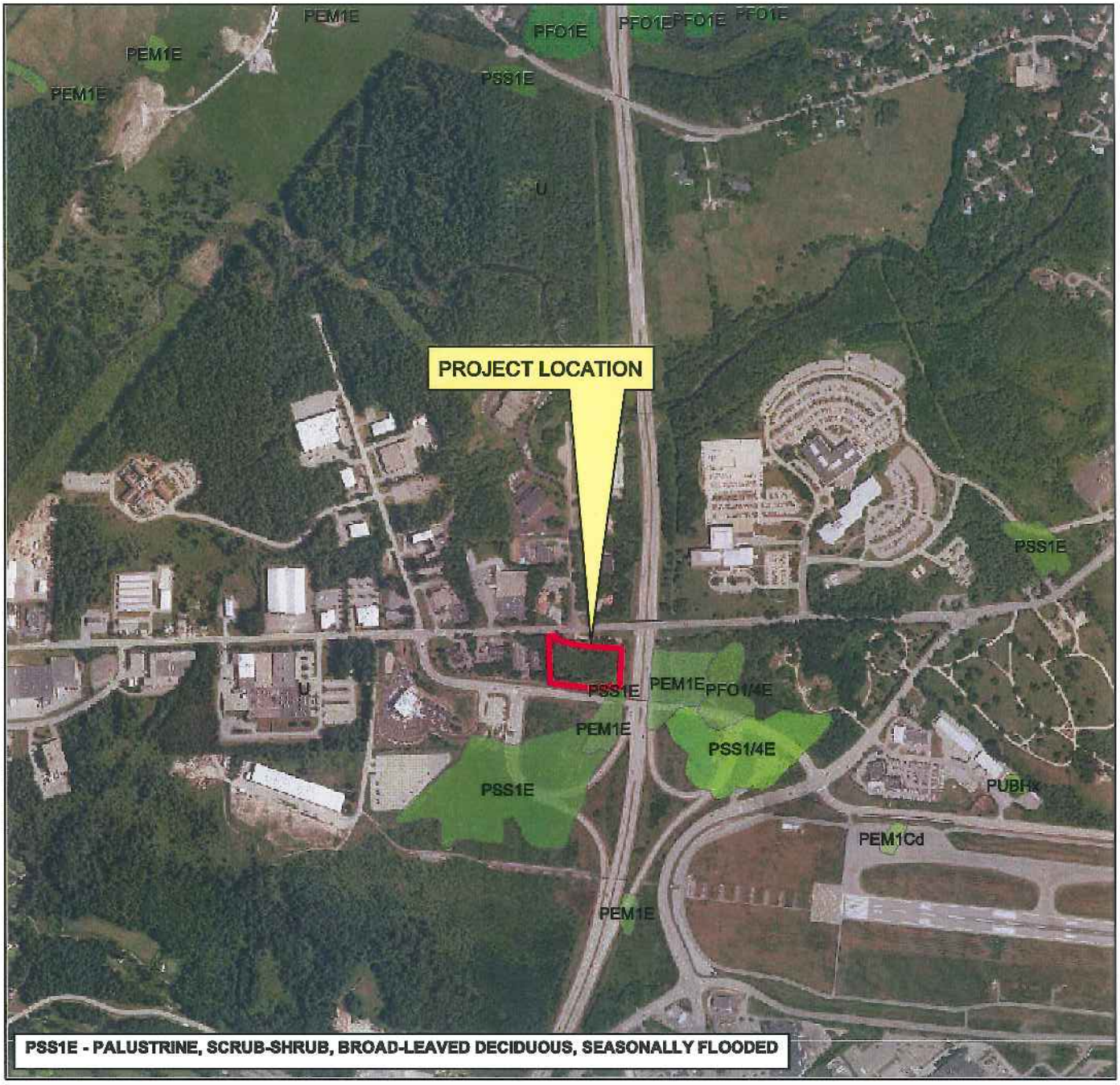
DATE:	SEPT 2012
FILENAME:	3118-GEOLOGY
SCALE:	1 inch = 1,000 feet

FIGURE

10

B.17



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NWI MAP
MULTI-USE DEVELOPMENT
PORTLAND, MAINE

SOURCE: MAINE OFFICE OF GIS - NWI LAYER

DeLuca-Hoffman Associates, Inc.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, ME 04106
207-775-1121
www.delucahoffman.com

DRAWN:	DED
CHECKED:	SRB
DATE:	SEPT 2012
FILENAME:	3118-NWI
SCALE:	1 inch = 1,000 feet

FIGURE
11

B. 18

PORTLAND FIRE DEPARTMENT
SITE REVIEW
FIRE DEPARTMENT CHECKLIST

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

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

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

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207.775.1121
FAX 207.879.0896

B.19

- SITE PLANNING AND DESIGN
- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- PERMITTING
- AIRPORT ENGINEERING
- CONSTRUCTION ADMINISTRATION

April 1, 2013

Captain Chris Pirone
City of Portland Fire Department
380 Congress Street
Portland, ME 04101

Subject: Convenience Store with Fuel Station
2282 Congress Street
Fire Department Site Review Checklist

Dear Captain Pirone:

In accordance with instructions in the City's Level III Site Plan Review packet, please find enclosed the drawings necessary for your review of the proposed amended project. We have listed each item in your checklist below, followed by our response.

1. *Name, address, telephone number of applicant.*

   CJ Developers, Inc.
   35 Primrose Lane
   Freeport, ME 04032
   (207) 865-4323

2. *Name, address, telephone number of architect.*

   Project Architect: Alpha Architects
   17 Chestnut Street, Suite 201
   Portland, ME 04101
   Attn: Mark Sengelman
   207-761-9500

3. *Proposed uses of any structures (NFPA and IBC classification).*

Building	IBC Code	NFPA Code
C-Store	Mercantile	Mercantile

4. *Square footage of all structures (total and per story).*

   3,850 SF

5. *Elevation of all structures.*

   The building finish floor elevation will be elevation 99.3'. The building height will be 27'-6".

6. *Proposed fire protection of all structures.*

   The proposed store will have a domestic water supply only and will not be sprinkled. Multiple fire extinguishers will be provided in the building and a code compliant foam suppression system will be provided within the fuel canopies over the dispensers.

7. *Hydrant locations.*

A fire hydrant is currently located on the opposite side of Congress Street from the project site's 60' street frontage.

8. *Water main(s) size and location.*

The Portland Water District maintains a 12" water supply line in Congress Street.

9. *Access to all structures (min. 2 sides).*

The structure will be accessible from all four sides.

10. *A code summary shall be included referencing NFPA 1 and all fire department technical standards.*

NFPA 1 – Chapter 18 Fire Department Access and Water Supply

18.2 Fire Department Access:

The project site is located on an arterial road and is bordered by public streets on three sides. The following street widths are currently available:

Street	Width
Congress Street	> 40 ft.
Skyway Drive	> 36 ft.

Per NFPA 1 – Chapter 18.2.3.2.2.1, all first story floors shall be located not more than 450 ft. from a Fire Department access road.

City of Portland Technical Manual – Section 3 Public Safety

3.4.1 Every dead-end roadway more than one hundred fifty (150') feet in length shall provide a turnaround at the closed end. Turnarounds shall be designed to facilitate future street connectivity and shall always be designed to the right (refer to Figure I-5).

Supporting Evidence: Not Applicable

3.4.2 Where possible, developments shall provide access for Fire Department vehicles to at least two sides of all structures. Access may be from streets, access roads, emergency access lanes, or parking areas.

Supporting Evidence: The Site Plan includes an access drive that circles the building and will provide four sided access to the building.

3.4.3 Building setbacks, where required by zoning, shall be adequate to allow for emergency vehicle access and related emergency response activities and shall be evaluated based on the following factors:

- *Building Height.*
- *Building Occupancy.*
- *Construction Type.*
- *Impediments to the Structures.*
- *Safety Features Provided.*

Supporting Evidence: The proposed building and fuel station canopy will be fully accessible to emergency equipment.

3.4.4. Fire Dept. access roads shall extend to within 50' of an exterior door providing access to the interior of the structure.

Supporting Evidence: The access drive will allow an emergency vehicle to pull within 10' of the structure.

3.4.5. Site access shall provide a minimum of nine (9) feet clearance height to accommodate ambulance access.

Supporting Evidence: There are no vertical obstructions into the site and the fuel canopies will be at least fourteen feet above grade.

3.4.6. Elevators shall be sized to accommodate an 80 x 24 inch stretcher.

Supporting Evidence: Not Applicable.

3.4.7. All structures are required to display the assigned street number. Numbers shall be clearly visible from the public right of way.

Supporting Evidence: The applicant will work with the City's Public Services Division to assign street addresses and numbering to meet City Standards.

If you need any further information, please contact our office.

Sincerely,

DeLUCA-HOFFMAN ASSOCIATES, INC.

Stephen R. Bushey, P.E., C.P.E.S.C.
Senior Engineer

SRB/smk

Enclosures:

c: Jean Fraser, City of Portland Planning Department
David Latullipe, CJ Developers, Inc.
Wes Thames, Priority Group

R:\3118-Convenience Store, Portland, ME\Admin\Permitting\Local\Level III Site Plan Application\3118 2013.03.26-Pirone-Fire Dept Review.doc

Attachment C.1

2. TECHNICAL AND FINANCIAL CAPACITY

2.1 TITLE, RIGHT AND INTEREST

The Applicant currently has a Purchase and Sale Agreement with Hutchcourt, LLC to purchase property as evidenced by the agreement contained in Attachment A to this section.

Updated by 4-23-2013 Letter in Att. K

2.2 TECHNICAL CAPACITY

The Applicant has assembled a highly qualified team of professionals to plan, permit, and develop construction documents for the project. The Team is working under the direction of Mr. David Latulippe as Project Developer, and the overall long term management will be under the Priority Real Estate Group, LLC (www.prioritygroupllc.com).

The Team services will be provided by the following companies and their respective team leaders.

2.3 CONSULTANT TEAM

Civil Engineer	Stephen R. Bushey, P.E. DeLuca-Hoffman Associates, Inc. 778 Main Street, Suite 8 South Portland, ME 04106 (207) 775-1121 – Work (207) 879-0896 – Fax (207) 756-9359 – Cell sbushey@delucahoffman.com
Surveyor	Rex J. Croteau Titcomb Associates 13 Gray Road Falmouth, Maine 04105 (207) 797-9199 – Work (207) 878-3142 – Fax rcroteau@titcombsurvey.com
Traffic Engineer	Tom Gorrill Gorrill-Palmer Consulting Engineers 15 Shaker Road PO Box 1237 Gray, ME 04039 (207) 657-6910 – Work (207) 657-6912 – Fax tgorrill@gorrillpalmer.com
Architect	Mark Sengelman Alpha Architects 17 Chestnut Street Portland, Maine 04101 (207) 761-9500 – Work (207) 761-9595 – Fax mark@alphaarchitects.com

C.2

Attorney	John Moncure, Esq Moncure & Barnicle 9 Bowdoin Mill Island Topsham, ME 04086 (207) 729-0856 – Work (207) 729-7790 – Fax jmoncure@mb-law.com

2.4 EXPERIENCE OF PROJECT TEAM

The team of consultants retained by the Developer has expertise and experience in the design of similar commercial projects. Resumes of key personnel for the Development Team can be provided upon request.

The Applicant also has significant experience in the development and management of large commercial projects having developed similar properties in Southern and Midcoast Maine. The Priority Group Real Estate, LLC oversees $85,000,000 of real estate.

2.5 FINANCIAL CAPACITY

The Developer has the capacity to complete the project as shown in the Financial Capacity Letter provided in Attachment B to this section.

2.6 CONSTRUCTION COST ESTIMATE

A breakdown of the preliminary project cost for the project includes the following:

- Convenience Store/Fuel Station development – $2-3 million

These values are considered preliminary and approximate and are subject to change as building design and project layout is refined and contractor pricing is obtained.

2.7 ATTACHMENTS

Attachment A – Purchase and Sale Agreement with Hutchcourt, LLC

Attachment B – Financial Capacity Letter

C. 3

ATTACHMENT A

from letter 4-23-13 See Att. F.

State of Maine Certificate of Good Standing and Assignment of Option Agreement

C.4

ASSIGNMENT OF OPTION AGREEMENT

FOR VALUE RECEIVED, the receipt of which is hereby acknowledged, CJ Developers, Inc., a Maine Corporation of Freeport, Maine ("Assignor"), being the Optionee under a certain Option Agreement, effective dated March 19, 2012 with Hutchcourt, LLC of Portsmouth, New Hampshire as Optioner, regarding certain real property located at 2282 Congress St, Portland, Maine (the "Agreement") hereby assigns all of its rights and obligations under the Agreement to PORTLAND PROPERTY HOLDINGS, LLC a Maine limited liability corporation of Topsham, Maine ("Assignee"), and Assignee hereby accepts and assumes said rights and obligations under the Agreement.

Dated as of this 11th day of April, 2013.

ASSIGNOR:

CJ Developers, Inc

By: David Latulippe
David Latulippe:
Its: President

ASSIGNEE:

PORTLAND PROPERTY HOLDINGS, LLC

By: James Howard
James Howard
Its: President

C.5

Interactive Corporate Services

MAINE

Department of the Secretary of State

Bureau of Corporations, Elections and Commissions

Corporate Name Search

Information Summary

Subscriber activity report

This record contains information from the CEC database and is accurate as of: Thu Apr 11 2013 14:32:54. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status
PORTLAND PROPERTY HOLDINGS, LLC	20133429DC	LIMITED LIABILITY COMPANY (DOMESTIC)	GOOD STANDING

Filing Date	Expiration Date	Jurisdiction
04/11/2013	N/A	MAINE

Other Names **(A=Assumed ; F=Former)**

NONE

Clerk/Registered Agent

JOHN MONCURE
9 BOWDOIN MILL ISLAND

TOPSHAM, ME 04086

Back to previous screen | New Search

Click on a link to obtain additional information.

List of Filings	View list of filings	
Obtain additional information:		
Additional Addresses	Plain Copy	Certified copy
Certificate of Existence (more info)	Short Form without amendments ($30.00)	Long Form with amendments ($30.00)

C.6

ATTACHMENT A

Purchase and Sale Agreement with Hutchcourt, LLC

C.7

OPTION AGREEMENT

THIS OPTION AGREEMENT ("Agreement") is made and entered into this 19th day of March, 2012, by and between Hutchcourt, L.L.C., a New Hampshire limited liability company, with a mailing address of 1000 Market St. Building 1, Portsmouth, NH, 03801 as optionor (hereinafter referred to as "Optionor"), and CJ Developers, Inc., a Maine corporation, with a mailing address 35 Primrose Lane, Freeport, Maine 04032, as optionee (hereinafter referred to as "Optionee").

WITNESSETH:

WHEREAS, Optioner is the owner of that certain parcel of real property situate, lying and being in Cumberland County, Maine, containing approximately 3.232 acres of land, located at 2282 Congress Street, Portland, Maine being depicted as Tax Map 237, Lot 12 (the "Real Property"); and

WHEREAS, the Optionee desires to obtain an option to purchase the Real Property; and

WHEREAS, the Optionor is willing to grant to the Optionee the option to purchase the Real Property pursuant to the stipulations, agreements, conditions and covenants contained and set forth herein.

NOW, THEREFORE, in consideration of the Real Property, the payment by the Optionee of an option fee in the amount of [redacted] and No/100 ([redacted]) Dollars (the "Option Fee") to Malone Commercial Brokers (the "Escrow Agent'), whose address is 5 Moulton Street, Portland, Maine 04101, which Option Fee shall be paid to the Escrow Agent ") within three business days after the Effective Date, as defined hereinbelow, and for other good and valuable considerations, the receipt and sufficiency of which considerations is hereby absolutely and unconditionally acknowledged by the parties, the parties hereby agree as follows.

1. **GRANT OF OPTION** Optionor hereby grants to Optionee the exclusive and irrevocable option to purchase the Real Property (the "Option") on the terms and conditions contained in this Agreement.

2. **TERM OF OPTION, EXPIRATION OF OPTION AND EXTENSION OFOPTION; DEPOSIT** The Option shall remain in full force and effect during the period (the "Option Period") commencing on the Effective Date and expiring on that date which is [redacted] days from the Effective Date. Optionee may extend the Option Period for an additional [redacted] days by furnishing written notice to the Optionor (the "Option Extension Notice") on or before 6:00 PM (Portland, Maine time) on that date which is the third business day next following the expiration of the Option Period. The Option Extension Notice shall be accompanied with an additional deposit in the amount of [redacted] and [redacted] Dollars (the "Additional Option Fee") payable to the Escrow Agent. Upon such timely payment of the

Additional Option Fee, the Option Fee and the Additional Option Fee shall become non-refundable. The term "Effective Date" when used herein means that date on which the last one of the Optionor and the Optionee executes this Agreement and furnishes an unaltered counterpart hereof to the other party.

3. **NOTICE OF EXERCISE** The Option shall be exercisable by Optionee by furnishing written notice (the "Closing Notice") to the Optionor and to the Escrow Agent of the election of the Optionee to exercise the Option, which Closing Notice, if furnished, must be furnished prior to the expiration of the Option Period.

4. **EXERCISE** If, and only in the event that Optionee exercises this Option by timely furnishing the Closing Notice, the following provisions shall be applicable:

a. Purchase Price Subject to any adjustments and prorations hereinafter described, the purchase price for the Real Property (the "Purchase Price") shall be [redacted] and shall be paid by bank cashier's check (drawn on a bank which maintains an office in Portland, Maine) or by bank wire transfer at the closing (the "Closing") of the purchase and sale of the Real Property pursuant to this Agreement. The Option Fee and the Additional Option Fee (if ever paid) shall be credited against the Purchase Price at the Closing.

b. Title and Condition of Real Property Optionor shall convey the fee simple title to the Real Property to Optionee at the Closing by Quitclaim Deed (the "Deed") with good marketable title, free of clear of all liens, encumbrances, and mortgages, but subject, however, to certain restrictions of record and to an express prohibition against use of the Real Property for a conference center, hotel or hotel related purposes, which restrictions are a specifically-negotiated consideration for and a material inducement for the execution and delivery of this Agreement by the Optionor and a will be set forth in the Deed, will run with the Real Property in perpetuity, and will be expressed in language set forth in the Deed as follows, to-wit:

"The Grantee and the successors and assigns of the Grantee (collectively the "Grantee"), hereby covenant and agree that no part of the Real Property will be developed as a hotel; nor shall any part of the Real Property be incorporated into or form any part of any site plan for development of the Real Property which includes a hotel; nor shall any unit constructed upon the Real Property be used for the purpose of providing sleeping or housekeeping accommodations to transient guests for periods of less than sixty (60) days whether or not arrangements for occupants of any unit constructed upon the Real Property are negotiated by the Grantee, pursuant to contracts or other arrangements with a term in excess of sixty (60) days, or whether or not the occupancy by a particular individual is pursuant to a contract or other arrangement for the occupancy of units constructed upon the Real Property by numerous individuals; it being specifically understood and agreed that these restrictions prohibit the construction, maintenance, management, operation or establishment upon the Real Property, or any portion thereof, by the Grantee or its successors or assigns or any other person or entity whomsoever (including, without limitation, tenants or licensees or invitees) of: (a) any building

containing sleeping rooms in which transient guests are lodged whether or not provision is made for cooking in any individual room or suite and whether or not any dining rooms, restaurants, cafes or accessory uses are provided and whether or not such sleeping rooms are advertised or held out to the public as a place regularly rented to any patron, customer, tenant, lodger, boarder, or occupant, and/or (b) any hotel, public lodging establishment or other unit, group of units, dwelling, building or group of buildings within a single complex of buildings, which is rented to guests for periods of less than sixty (60) days or which is advertised or held out to the public as a place regularly rented to any patron, customer, tenant, lodger, boarder, or occupant. The Grantee, and the successors and assigns of the Grantee, hereby agree to pay all costs, charges and expenses, including the reasonable attorneys' fees at all trial and appellate levels, of the Grantor, and the successors and assigns of the Grantor (collectively the "Grantor"), in the event that the Grantor prevails in the enforcement of these restrictive covenants."

Full possession of the Real Property free of all tenants and occupants and not in violation of any applicable environmental law or regulation is to be delivered at the Closing. Optionor shall not construct any substantial improvements on or materially alter the Real Property during the pendency of this Agreement. In the event that Optionor is unable to convey title to the Real Property as aforesaid, Optionor shall be given a reasonable period of time, not to exceed sixty (60) days, after receipt of written notice of any such defects from Optionee, to remedy any title defects, failing which, this Agreement shall automatically terminate upon the expiration of the aforesaid sixty-day period unless the parties agree otherwise, in writing; provided, however, that Optionee may elect to close without any adjustment in the Purchase Price notwithstanding such title defects as may exist. Optionor agrees to use commercially-reasonable efforts to cure any such title defects.

c. No Representations Without limiting Optionor's obligations to deliver the Real Property as provided herein, the Optionor has made no representations, covenants, or warranties as to the physical condition of the Real Property. Optionee acknowledges that it is not relying upon any representations, covenants or warranties whatsoever of Optionor. Optionor agrees to provide Optionee full access to the Real Property during the Option Period for the purpose of making any investigation that it deems necessary to determine whether it wishes to exercise the Option. Optionee, at Optionee's expense, shall restore the Real Property to substantially its prior condition following any disturbance caused by any such investigation. Optionee agrees to indemnify and hold harmless Optionor from the claims of any person for any an all damage or injury to persons or to the Real Property caused by Optionee's investigations or the conduct thereof.

d. Closing The Closing shall take place at the office of Optionee's lender's counsel or at such other place as the Optionee and Optionor may mutually agree, in writing, forty five (45) days after the date of the Closing Notice if timely furnished. Documents to be provided by Optionor to Optionee at the Closing shall include the Deed and such other documents as the Optionee's lender and the title company insuring the title may reasonably request, including, without limitation, a Mechanic's Lien and Persons in Possession Affidavit, a Taxpayer Information (1099S) Form, an Affidavit of Non-Foreign

Status, a settlement statement, and such other documents as may reasonably be required by the closing agent. It is agreed that time is of the essence with respect to all of the terms and conditions of this Agreement. Notwithstanding the references herein to the Optionee's lender, it is specifically understood and agreed that the payment of the Purchase Price by the Optionee is, as between the Optionor and the Optionee, an all-cash transaction not subject in any manner whatsoever to the creditworthiness of the Optionee and/or to the ability or inability of the Optionee to borrow any portion whatsoever of the Purchase Price form any person or entity whomsoever.

e. Adjustments, Prorations and Closing Costs

(i) Real estate taxes and assessments shall be prorated as of the adte of Closing on the basis of the latest available tax bill.

(ii) The Maine real estate transfer tax shall be paid by Optionor and Optionee in accordance with 36 M.R.S.A. 4641-A.

(iii) The recording fee for the Deed and any expenses related to any mortgage that Optionee may grant to a lender in connection with the purchase of the Real Property shall be paid for by the Optionee.

f. Brokerage Optionor and Optionee each represents and warrants to the other that they have not dealt with any real estate broker, agent or salesperson in connection with this transaction other than Joe Malone of Malone Commercial Brokers, of Portland, Maine (the "Broker"), whose fees shall be paid by the Optionor, payable pursuant to a separate agreement which stipulates that such fees shall be payable to the Broker only if the Closing occurs in accordance with the terms hereof. Optionor and Optionee each hereby agrees to indemnify and hold the other harmless from any breach of its warranty and representation set forth in this subsection f which warranty and representation shall survive the Closing.

5. **CANCELLATION** Notwithstanding anything contained herein to the contrary, Optionee shall have the right, at any time prior to the expiration of the Option Period (as it may be extended pursuant to the terms hereof) to cancel this Agreement by written notice to Optionor (the "Cancellation Notice"), and upon the sending of a Cancellation Notice, this Agreement shall be of no further force and effect, without recourse to the parties hereto except with respect to the obligations of the Optionee pursuant to Section 4 c., if applicable. Should the Cancellation Notice be sent prior to the payment of the Additional Option Fee, the Option Fee (if paid) shall be promptly returned to the Optionee.

6. **CONFIDENTIALITY** Optionor and Optionee each hereby covenants and agrees to use commercially-reasonable efforts to preserve the confidentiality of the transaction contemplated by this Agreement, to prevent disclosure of the existence of this Agreement, the price and other terms of the transaction set forth in this Agreement, to any party other than to its respective stockholders, officers, directors, members, managers, employees, attorneys, auditors, lenders, financial advisors and accountants, who shall agree to hold such information as proprietary and confidential and not to be

C.11

disclosed to others, except: (i) as may be approved in writing in advance by the other party in each instance; (ii) such reports as may be required by applicable statute (as for instance in the case of such reports relating to Oil and Hazardous Materials); (iii) as may be ordered by a court of competent jurisdiction; or (iv) the disclosure of any such information to any prospective assignee of the Optionee.

During the Option Period and so long as this Agreement is in full force and effect, Optionor covenants and agrees to take the Real Property off the market and not to offer the Real Property for sale or lease to any other person or entity, nor to accept, invite, or respond to offers for the purchase or leasing of the Real Property. Accordingly, during the Option Period and so long as this Agreement is in full force and effect, Optionor shall forward any inquiry or offer with respect to the Real Property to Optionee.

7. **MISCELLANEOUS**

a. Time Time is of the essence hereof.

b. Notices All notices, demand and other communications hereunder shall be in writing and sent by hand delivery, by certified or registered mail, or by Federal Express or equivalent overnight courier, addressed to other party at the address set forth above, or at such other address as the other party shall have provided notice of according to this provision. Any such notice shall be deemed to have been given upon the date of actual receipt or upon the first refusal of the addressee to accept delivery.

c. Default In the event of breach or failure of performance by Optionor of any of its obligations hereunder, and Optionor's failure to cure such breach or failure within ten (10) business days after receiving notice thereof from Optionee, the Optionee may elect as its sole remedies for such breach of failure of performance to: (i) waive said Default, or (ii) terminate this Agreement and demand and obtain the return of the Option Fee (and the Additional Option Fee, if applicable), and the obligations of the parties hereunder shall terminate forthwith, or (iii) seek all remedies available under this Agreement and/or at law or in equity, including, without limitation, specific performance of this Agreement, and/or recourse for any and all of its losses, expenses, costs, and claims of same, including without limitation, reasonable attorneys fees and costs. In the event of breach or failure of performance by Optionee of any of its obligations hereunder and Optionee's failure to cure such breach or failure within ten (10) business days after receiving notice thereof from Optionor, the Optionor may elect as its sole remedies for such breach of failure of performance to may (i) terminate this Agreement by written notice to Optionee or (ii) seek all remedies available under this Agreement and/or at law or in equity, including, without limitation, specific performance of this Agreement, and/or recourse for any and all of its losses, expenses, costs, and claims of same, including without limitation, reasonable attorneys fees and costs .

d. Assignment Optionee's rights under this Agreement may not be assigned to another party without written consent of the Optionor which consent shall not

be unreasonably withheld. Optionee may, following exercise of the Option, designate a nominee to take title to the Real Property at the Closing.

e. Entire Agreement This Agreement constitutes the entire agreement between Optionor and Optionee and there are no agreements or understandings between the parties except as set forth herein.

f. Binding Effect This Agreement will inure to the benefit of and bind the respective successors and assigns of Optionor and Optionee.

g. Construction As used in this Agreement, the singular number shall include the plural, the plural the singular, and the use of one gender shall be deemed applicable to all genders. This Agreement shall be governed by and construed in accordance with the laws of Maine.

h. Partial Invalidity If any term, covenant or condition of this Agreement, or the application thereof to any person or circumstance, shall be determined to be unenforceable by a court of competent jurisdiction (the "Offending Provision"), then the remainder of this Agreement, or the application of such term, covenant or condition to persons, entities or circumstances other than those as to which its is invalid or unenforceable, shall not be affected thereby and each term, covenant and condition of this Agreement shall be valid and enforced to the fullest extent permitted by law; provided, however, that the parties affected by the Offending Provision shall endeavor in good faith, within sixty (60) days after the date such determination is made, to agree upon alternative provisions which shall have the same practical effect as the Offending Provision and upon any agreement being reached, the new provision shall be incorporated into and form a part of this Agreement.

i. Non-Waiver The parties acknowledge and agree that their waiver of any default under the terms of this Agreement at any time on certain circumstances shall not be construed or deemed to be a waiver of any subsequent or other default occurring either before or after the waived default, and that such parties shall be entitled to enforce their rights in the event of default regardless of any prior waivers thereof.

j. Modification and Amendment This Agreement may only be amended, altered or modified by a written instrument signed by each of the parties.

k. Attorneys' Fees In the event that any party is required to engage the services of legal counsel to enforce rights under this Agreement, the prevailing party shall be entitled to reasonable attorney's fees from non-prevailing parties. In the event of litigation, said attorney's fees shall include fees and costs, both at trial and on appeal.

l. Execution of Additional Instruments Each party hereby agrees to execute such other or further instruments of whatsoever kind or nature necessary to comply with any applicable laws, rules or regulations or to comply with the stipulations, agreements, conditions and covenants contained and set forth in this Agreement.

m. Third Parties None of the provisions of this Agreement shall be for the benefit of or enforceable by any third party.

n. Recordation Upon the payment of the Option Fee, the Optionee shall have and is hereby granted the right to record a memorandum of this Agreement in all applicable public records in order to place third parties on notice of the rights, interests and options of the Optionee contained and set forth herein and the Optionor agrees to fully cooperate with the Optionee in connection therewith including the agreement of the Optionor to execute a memorandum of this Agreement in recordable form (without the payment to the Optionor of additional consideration therefor) which memorandum shall provide, on its face, that the Optionor may record an affidavit executed by the Optionor which states, if true: (a) that the Optionor fully complied with the stipulations, agreements, conditions and covenants contained and set forth in this Agreement, and (b) notwithstanding such performance by the Optionor, the Optionee failed to purchase the Real Property on or before the date of Closing. It is specifically understood and agreed that the mere recordation of such affidavit by the Optionor shall, as to third parties, render this Agreement null and void and of no further force and effect whatsoever.

o. Counterparts This Agreement may be executed in counterparts, each of which shall be deemed an original but all of which shall constitute one and the same instrument. Counterparts of this Agreement with facsimile or electronic signatures shall be deemed original counterparts for all purposes; however, each party shall promptly furnish counterparts with original signatures upon request.

IN WITNESS WHEREOF, Optionor and Optionee have executed this Agreement as of the Effective Date of 3-19-17.

Optionee :
CJ Developers, Inc.

By: David Latulippe
David Latulippe

Optionor:
Hutchcourt, L.L.C.

By: RCA
Its: Richard C. Ade
Manager

Jean Fraser - RE: did not receive your e-mail

From: "Roberts, John D." <JRoberts@maineturnpike.com>
To: "Jean Fraser" <JF@portlandmaine.gov>
Date: 5/9/2013 10:38 AM
Subject: RE: did not receive your e-mail
Attachments: LaTulippeEasment0413 Redline.docx

Hello Jean:

Please be advised the Maine Turnpike Authority voted to approve an easement for CJ Developers, Inc. to cross MTA land for access to Congress Street at their meeting on April 25, 2013. I have attached a copy of the document we intend to use to convey this right. We are preparing documents at this time for a closing as soon as possible.

Please contact me if there are any concerns or further information is necessary.

Best Regards,
John

JOHN D. ROBERTS
Maine Professional Land Surveyor 1155
Maine Licensed Landscape Architect 30

Right of Way Manager
Maine Turnpike Authority
2360 Congress Street
Portland, Maine 04102
(207) 482-8350

From: Jean Fraser [mailto:JF@portlandmaine.gov]
Sent: Thursday, May 09, 2013 10:24 AM
To: Roberts, John D.
Subject: did not receive your e-mail

John

I have just got in from a DR app't and got your voice mail.

I have not received any e-mail from you; please resend - maybe as reply to this.

Thank you
Jean

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

C.15

EASEMENT DEED

With Quitclaim Covenant

The **Maine Turnpike Authority**, a body corporate and politic having an office at 2360 Congress Street, Portland, in the County of Cumberland, and State of Maine, for consideration paid, grants to **CJ Developers, Inc.**, with QUITCLAIM COVENANT, the right to construct and maintain an access by vehicles and on foot to and from its commercial development and Congress Street, and for all utilities, across land of the Grantor adjoining property of the Grantee, further described as follows:

{Description, possibly including reference to plan}

Said grant to be conditioned on the following:

1. That the easement is subject to temporary disruption, relocation, realignment and/or re-grading if necessary for transportation purposes, including but not limited to work connected with the reconstruction, repair or widening of Congress Street or the Congress Street Bridge over the Maine Turnpike, with restoration of the entrance to its former condition to be at grantee's expense.

2. That Grantee shall take all necessary provisions to accommodate the continued use of the easement area by Unitil Corporation for operation, maintenance and repair of its pipeline facility in accordance with Unitil's existing license agreement with Grantor, including but not limited to access by Unitil to the remainder of Grantor's property through the existing gated access point or a similar access point.

3. That the access granted herein shall be the only access point to serve Grantee's property at 2282 Congress Street and that if Grantee obtains any other permanent access point to serve said property then the easement granted herein ~~shall terminate and all rights in the easement area shall revert to the Grantor.~~and all access rights granted may be terminated at the discretion of the Grantor. PROVIDED, HOWEVER, before exercising the rights retained herein, the Grantor will give Grantee notice and an opportunity to be heard on the existence of any other permanent access point serving the property.

In Witness Whereof, the Maine Turnpike Authority has caused this instrument to be signed this _____ day of May, 2013.

SIGNED, SEALED AND DELIVERED
IN THE PRESENCE OF:

C.16

Jonathan Arey, Secretary, as Witness
Maine Turnpike Authority

Peter Mills, Executive Director
Maine Turnpike Authority

STATE OF MAINE
COUNTY OF CUMBERLAND, ss.

May _____, 2013

Personally appeared the above named Peter Mills, and acknowledged the foregoing instrument to be his free act and deed.

Before me,

Notary Public

Attachment D.

Benj. F. Packard

Bath Savings Institution

Since 1852

May 7, 2013

City of Portland Planning Board

RE: 2282 Congress Street, Portland, Maine
Proposed Gas Station and C-Store

To Whom It May Concern:

Bath Savings Institution is currently reviewing a request for financing from developers Jim Howard and David Latulippe for the development of a Gas Station/C-Store at 2282 Congress Street, Portland.

We have been presented with the plans and budgets for the proposed development. Based on a review of this information along with the Bank's experience with the developers, it appears they have the technical expertise and financial capacity to complete the project.

If you need additional information, do not hesitate to contact me.

Sincerely,

Theresa B. Hodge
Vice President, Commercial Lending

105 Front Street, PO Box 548, Bath, Maine 04530
Tel. 207-442-7711 Fax 207-442-9137
1-800-447-4559
Member FDIC

Attachment E.1

3. CONFORMITY WITH APPLICABLE DESIGN STANDARDS

The following statements are made in accordance with the City of Portland Code of Ordinances, Chapter 14 Land Use, Article V Section 14-526.

3.1 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:

   Gorrill-Palmer Consulting Engineers has completed a Traffic Impact Study with findings that the proposed development can adequately be served with a driveway off Congress Street opposite Blueberry Drive. Minor road improvements including lane markings and center median work will be used to define turning movements through this unsignalized intersection. Based on the traffic analysis, the surrounding street system will continue to appropriate at satisfactory levels of service.

2. Access and Circulation:

   a. Site Access and Circulation.

      (i) The development provides primary access off Congress Street with a two way unsignalized driveway consisting of a 16' wide entrance lane, an 11' wide left-thru exit lane and 11' wide right exit lane. The driveway radii have been designed to accommodate the turning movements of a WB-67 semi-trailer vehicle. Site distances in each direction exceed the minimum requirements for the posted speed limit in the area. The internal circulation includes 24' (minimum) wide drive aisles and perpendicular parking for ease of entry and exit.

      (ii) Access and egress have been designed to avoid conflicts with existing turning movements and traffic flows.

      (iii) The site does feature drive up ATM service which has been positioned on the south side of the building to allow for ample queuing capacity (greater than 4 vehicles). Queued vehicles will not back into any adjacent streets.

   b. Loading and Servicing.

      (i) The site circulation and pavement areas will adequately allow larger delivery vehicles the opportunity to exit off Congress Street and be able to unload without needing to park or otherwise maneuver within the street. There will remain adequate circulation space for vehicle and patrons to move around the site during deliveries.

E.2

c. Sidewalks.

(i) The applicant is proposing to extend a sidewalk from the interior of the site along the proposed Congress Street entrance out to Congress Street. We propose to install a crosswalk on the westerly side of the intersection for pedestrian connectivity to the existing sidewalk on the north side of Congress Street. The applicant is not proposing to install a sidewalk within the site's 60' of property frontage since there currently is no sidewalk on the south side of Congress Street, between the Skyway Drive intersection and the MTA overpass. The applicant is seeking a waiver from the curb and sidewalk requirements as outlined in Section 14-506 (b) of the code per the following conditions in existence:

Sidewalks

2. *There is no sidewalk in existence or expected within 1000 feet and the construction of sidewalks does not contribute to the development of a pedestrian oriented infrastructure.*
3. *A safe alternative-walking route is reasonably and safely available, for example, by way of a sidewalk on the other side of the street that is lightly traveled.*

Curbing

3. *The street has been rehabilitated without curbing in the last 60 months.*
5. *Runoff from the development site or within the street does not require curbing for stormwater management.*

3. Public Transit Access

a. The development contains no residential uses; therefore, Public Transit access is not applicable.

b. A new Transit stop is not proposed.

c. A new Transit stop is not proposed.

d. Waiver: The Applicant requests a waiver of the Transit facility requirement.

4. Parking:

a. Location and Required Number of Vehicle Parking Spaces:

(i) The Applicant is proposing to provide 32 parking spaces as well as 14 dispensing spaces for a total of 46 spaces for patrons to park in. Fourteen spaces are proposed adjacent the building to allow for ease of direct access into the store. Zoning Code requirements for retail use require only 18 parking spaces.

(ii) The Applicant has not prepared a TDM strategy, as it is not applicable to the intended uses.

E.3

(iii) The Applicant proposes the amount of parking which is appropriate for the anticipated uses of this site.

(iv) All parking spaces and drive aisles meet the City Standard 9' x 18' parking space dimension and 24' wide aisle width. Pavement will be used throughout the parking lot.

b. Location and Required Number of Bicycle Parking Spaces:

(i) The Applicant is providing bicycle parking measures at the front entrance to the store.

c. Motorcycles and Scooter Parking:

(i) Based on the number of available full size parking spaces being provided, we believe that adequate spaces fore motorcycles or scooters will be available around the site without need for specifically dimensioning such spaces.

d. Snow Storage:

(i) Snow storage will be provided around the perimeter of the site. There will remain ample space to push and pile snow off the edges of the pavement surfaces.

3. Transportation Demand Management (TDM):

a. A TDM Plan is not required for the project.

(b) Environmental Quality Standards

1. Preservation of Significant Natural Features:

a. The existing site retains no prominent significant natural features; therefore, no issue related to the preservation of these features applies.

b. The Applicant is not requesting a waiver from this standard.

2. Landscaping and Landscaping Preservation:

a. Landscape Preservation.

(i) There are numerous trees along the property boundaries that will remain. The Applicant is considering some modest street planting around the perimeter of the parking lot. Existing vegetation down in the lower wetland areas will remain as is.

(ii) Not applicable

(iii) Not applicable

(iv) The Applicant will request a waiver from this standard.

E.4

b. Site Landscaping.

(i) Landscaped Buffers:

(a) There are no service or loading areas observable from nearby sidewalks or residential properties. The dumpster pad area will be screened with an enclosure.

(b) The development is not subject to residential zoning setbacks or buffering requirements.

(c) Not applicable.

(ii) Parking Lot Landscaping:

a) thru d) The landscaping plan has been prepared in a manner to fulfill these requirements..

3. Water Quality, Stormwater Management and Erosion Control:

a. Stormwater:

(i) The site lies at the outer extent of a drainage boundary with a small portion of the site draining towards the Stroudwater River and the majority of the site draining to Long Creek. No offsite drainage will be impeded.

(ii) The project will not adversely impact adjacent lots or the City street system. Measures will be provided to control runoff release rates from the site in order to meet pre and post development peak runoff restrictions as outlined in the City's Stormwater regulations. A stormwater analysis report accompanies this submission.

(iii) The project will not adversely impact adjacent lots or the City street system.

(iv) The project will not adversely impact adjacent lots or the City street system.

b. A Stormwater Management Plan is proposed based on site use and size.

c. The project is located in the Long Creek Watershed which is an urban impaired stream, thus measures meeting the requirements of the Chapter 500 Regulations will be provided. See Stormwater Report for details.

d. N/A

e. The project is serviced by both a public wastewater system and public water supply system. All underground storage tank installations will be performed in accordance with current MeDEP and City Standards and requirements. 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 project flows.

E.5

(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 in accordance with the findings from the Planning Authority and Portland City Conditional related to the approved Conditional Zoning Agreement.

   b. The Applicant will coordinate with utility representatives for the extension of services related to utility infrastructure entering the site.

2. Public Safety and Fire Prevention:

   a. The site has been designed to promote safe and inviting customer access.

   b. No change to emergency access conditions within the surrounding streets is proposed.

   c. Fire hydrants are located within the adjacent street system.

3. Availability and Adequate Capacity of Public Utilities:

   a. The Applicant will secure letters from all applicable utilities stating their ability to serve this project.

   b. All on site electrical lines will be underground.

   c. All new utility infrastructure will meet the provisions of the Technical Manual.

   d. The project will extend a new service connection to the sewer system.

   e. The sanitary sewer collection system will be designed to meet all applicable sections of the Technical Manual. Wastewater flows are expected to consist of regular domestic flows only.

   f. Not applicable.

(d) Site Design Standards.

1. Massing, Ventilation and Wind Impact:

   a. The bulk, location and height of the building do not appear to result in adverse impacts to abutting properties. Building elevations depicting building massing are enclosed in the Site Plan package.

   b. HVAC venting is proposed to be directed to the building roof and directed away from public spaces. We understand that all HVAC equipment must meet maximum noise regulations for the I-M District.

2. Shadows:

   a. The development is located in the I-M Zone and this standard is not applicable.

E.6

3. Snow and Ice Loading:

   a. The proposed building will be designed and located such that accumulated snow and ice will not fall onto adjacent properties or public ways.

now shown on plans A. 5.10.13

4. View Corridors:

   a. The project site is located outside the Downtown Vision View Corridor Protection Plan.

5. Historic Resources:

   a. The site is not subject to Historic Landmark or Historic building review.

6. Exterior Lighting:

   a. Site Lighting.

      (i) Exterior lighting will be designed to meet the requirements of Section 12 of the Technical Manual. A Lighting Report has been prepared and is included with this submission.

7. Noise and Vibration:

   The project noise levels will be designed to meet the permitted levels as outlined in the I-M Zone. All HVAC and mechanical equipment is proposed to be mounted on the roof or ground mounted and concealed from nearby properties.

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. The project is within the IM and zoning related design standards are not applicable.

Attachment F.1.1

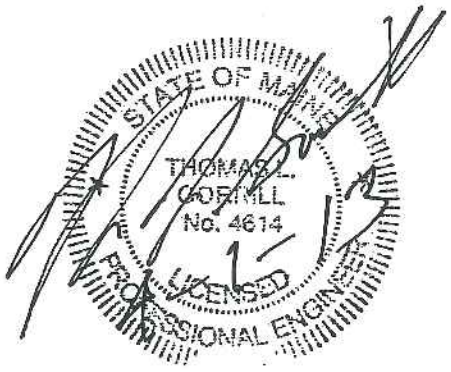
[Extract]

Full document will be available for reference at the Hearing.

Traffic Permit Application
Request for Scoping Meeting
Service Center
2282 Congress Street
Portland, Maine

Prepared for:

C.J. Developers, Inc.
35 Primrose Lane
Freeport, ME 04032



April 2013

Prepared by:

Gorrill-Palmer Consulting Engineers, Inc.

Engineering Excellence Since 1998

PO Box 1237
15 Shaker Road
Gray, ME 04039

(207) 657-6910
Fax: (207) 657-6912
E-mail: mailbox@gorrillpalmer.com

F. 1. 2

Department of Transportation
Traffic Engineering Division
16 State House Station
Augusta, Maine 04333
Telephone: 207-287-3775

FOR MDOT USE 12/99
ID#_____

Total Fees:_____
Date Received: _____

****

PERMIT APPLICATION – TRAFFIC
TRAFFIC MOVEMENT PERMIT, 23 M.R.S.A. §704-A

Please type or print:

This application is for (check all that apply): Traffic 100-200 PCE's ☐
Traffic 200 + PCE's ☒

Name of Applicant CJ Developers, Inc. Attn: Mr. David Latulippe

Address: 35 Primrose Lane - Freeport, Maine 04032 Telephone: (207) 865-4323

Name of local contact or agent: Thomas L. Gorrill, P.E.- Gorrill-Palmer Consulting Engineers, Inc.

Address: PO Box 1237 Gray, ME 04039 Telephone: (207) 657-6910

Name and type of development: Proposed Convenience Store with Fuel Pumps

Location of development including road, street, or nearest route number: The site is located at 2282 Congress Street opposite Blueberry Lane.

City/~~Town/Plantation~~: Portland County: Cumberland Tax Map 237 Lot A012

Do you want a consolidated review with DEP pursuant to 23 M.R.S.A. § 704-A (7)?
Yes _____ No X

Was this development started prior to obtaining a traffic permit? No

Is the project located in an area designated as a growth area (as defined in M.R.S.A. title 30-A, chapter 187)?
Yes_____ No X

Is this project located within a compact area of an urban compact municipality? Yes_____ No X

Is this development or any portion of the site currently subject to state or municipal enforcement action?

No

Existing DEP or MDOT permit number (if applicable): None Known

Name(s) DOT staff person(s) contacted concerning this application: Delegated Review-City of Portland

Name(s) of DOT staff person(s) present at the scoping meeting for 200+ applicants: _____

F.1.3

7/99

CERTIFICATION

This person responsible for preparing this application and/or attaching pertinent site and traffic information hereto, by signing below, certifies that the applicant for traffic approval is complete and accurate to the best of his/her knowledge.

Signature: _____ Re/Cert/Lic No.: _____

Name (print): **Thomas L. Gorrill** Engineer: **Maine PE # 4614**

Date: 4-1-13 Other: _____

If the signature below is not the applicant's signature, attach letter of agent authorization signed by applicant.

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I authorize the Department to enter the property that is the subject of this application, at reasonable hours, including buildings, structures or conveyances on the property, to determine the accuracy of any information provided herein. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

David Tatulinpo 3/14/13

Signature of applicant Date

F.1.4

Form C 7/97

NOTICE OF INTENT TO FILE

Please take notice that:

C.J. Developers, Inc.
35 Primrose Lane
Freeport, ME 04032
(207) 865-4323

is intending to file a MaineDOT Traffic Permit Application with the City of Portland, Maine under their delegated review authority, pursuant to the provisions of 23 M.R.S.A. §704 – A on or about:
April 2, 2013.
(anticipated filing date)

This application is for:

A proposed 3,850 square foot convenience store with twelve fueling stations, two diesel fueling stations and an ATM. The proposed facility will be completed by the end of 2013 and generate 211 trip ends during the AM peak hour; 277 trip ends during the PM peak hour and 189 trip ends during the Saturday peak hour of the adjacent street traffic.
(Summary of project: specifying trip generation at peak hour for the proposed development and the year the project is proposed to be completed and occupied)

at the following location:

at 2282 Congress Street opposite Blueberry Road in Portland, Maine. Tax Map 237, Lot A012.
(Project Location)

A request for a public hearing must be received by the City of Portland, in writing no later than 20 days after the application is found by the City to be complete and is accepted for processing. Public comment on the application will be accepted throughout the processing of the application.

The application will be filed for public inspection at the City of Portland Planning Office in Portland, Maine during normal working hours.

Written public comments may be sent to the following address: City of Portland, Planning Department, 389 Congress Street, 4th Floor, Portland, Maine 04101.

Thomas L. Gorrill, P.E., PTOE

F.1.5

Section 1
Site and Traffic Information

1.A. Site Description and Site Plan

The project is located on Outer Congress Street opposite Blueberry Road in Portland, Maine. The site is identified on the City Tax Map 237, Lot A012.

A site location map has been included in Attachment 1B.

1.B. Existing and Proposed Site Uses

The site is currently undeveloped. A single driveway opposite Blueberry Road provides access to the Maine Turnpike Authority property and this site.

The site is proposed to include a 3,850 sf convenience store with 12 fueling positions, a diesel pumps with 2 fueling positions, and an ATM.

Access to the site will be provided via an improved unsignalized driveway opposite Blueberry Road.

1.C. Site and Vicinity Boundaries

A site location map showing the development area is included in Attachment 1B. The site is bound to the north by the Maine Turnpike property and Congress Street, to the south by Skyway Drive, to the east by the Maine Turnpike, and to the west by a commercial use.

1.D. Proposed uses in the Vicinity of the Proposed Development

Approved projects that are not yet opened as well as projects for which applications have been filed are required to be included in the predevelopment volumes for this project. Gorrill-Palmer Consulting Engineers, Inc. contacted the City of Portland planning department to determine whether there are any other projects that have been approved or are ahead in the approval process whose traffic should be considered as background traffic in the study for this project. Based on our conversation, it is our understanding that there are currently two active projects in this area which need to be added to our background traffic which are summarized below:

144 Hutchins Drive- This facility is forecast by others to have an average of 5 employees which will generate 5 peak hour trip ends in both the weekday AM and PM peak hours. We have added the 5 employee trip ends due during

5.1.6

both the AM and PM peak hours to the pre-development traffic levels in our study.

ECOMAINE has a project in the approval process, but it is our understanding from City staff that it will not result in an increase in traffic.

The veterinarian on the corner of Hutchins had an expansion approved several years ago but it is our understanding from City staff that their approval has lapsed so the project was not considered in our analysis.

1.E. Trip Generation

Gorrill-Palmer Consulting Engineers, Inc. used the Institute of Transportation Engineers (ITE) publication *Trip Generation,* 8th Edition as the source for determining the potential trip generation for the site. The 8th Edition was used because it provided a Saturday Peak Hour trip generation for the Convenience Store with fueling positions whereas the 7th Edition does not. To determine the trip generation for the Convenience Store with fueling positions we used Land Use Code 853, averaging the trip generation from fueling positions and size of store. Land Use Code 912 was used to forecast the ATM, which forecasts 10 and 28 trip ends during the AM and PM peak hours of adjacent street traffic respectively.

The trip generation calculations are included in Appendix C and are summarized as follows for the peak hour of the adjacent street traffic:

AM Peak Hour Adj St:	211 trip ends
PM Peak Hour Adj St:	277 trip ends
Saturday Peak Hour:	189 trip ends

This level of trip generation requires a MaineDOT Traffic Movement Permit which has been delegated to the City of Portland. Our analyses focused on the weekday AM and PM peak hours since the traffic levels are less during a Saturday.

1.F. Trip Distribution

Gorrill-Palmer Consulting Engineers, Inc. has obtained the ratio of entering and exiting traffic from the Institute of Transportation Engineers publication *Trip Generation,* 8th Edition (7th Edition is the same). Based on the ITE information, the trip distribution would be the following for the AM, PM, and Saturday peak hours:

Weekday AM peak hour	50% entering, 50% exiting
Weekday PM peak hour	50% entering, 50% exiting

F.1.7

1.G. Trip Composition and Assignment

Gorrill-Palmer Consulting Engineers, Inc. has estimated trip composition for the facility based on the ITE *Trip Generation Handbook*. For LUC 853 – Convenience Market with Gasoline Pumps the trip composition would be the following:

Weekday AM - 12% Primary, 25% Diverted, 63% Pass-By
Weekday PM – 16% Primary, 18% Diverted, 66% Pass-By

For the purpose of this project, we combined the Primary and Diverted and rounded to the following, which is conservative since it increases the primary trips and reduces the pass-by trips:

Weekday AM / PM – 40% Primary / Diverted, 60% Pass-By

For LUC 912-Drive-In Bank, the shared trips are forecast to be 50% with the convenience store. Thus, trips at the driveway would be 5 and 14 during the AM and PM peak hours respectively with 50% being pass-by and 50% being a combination of pass-by and diverted trips.

The total trip distribution is summarized on the following table:

Proposed Trip Composition

Trip Type	Entering		Exiting		Total	
	AM	PM	AM	PM	AM	PM
Primary / Diverted	42	54	41	53	83	107
Pass-By	62	77	61	78	123	155
Total	**104**	**131**	**102**	**132**	**206**	**263**

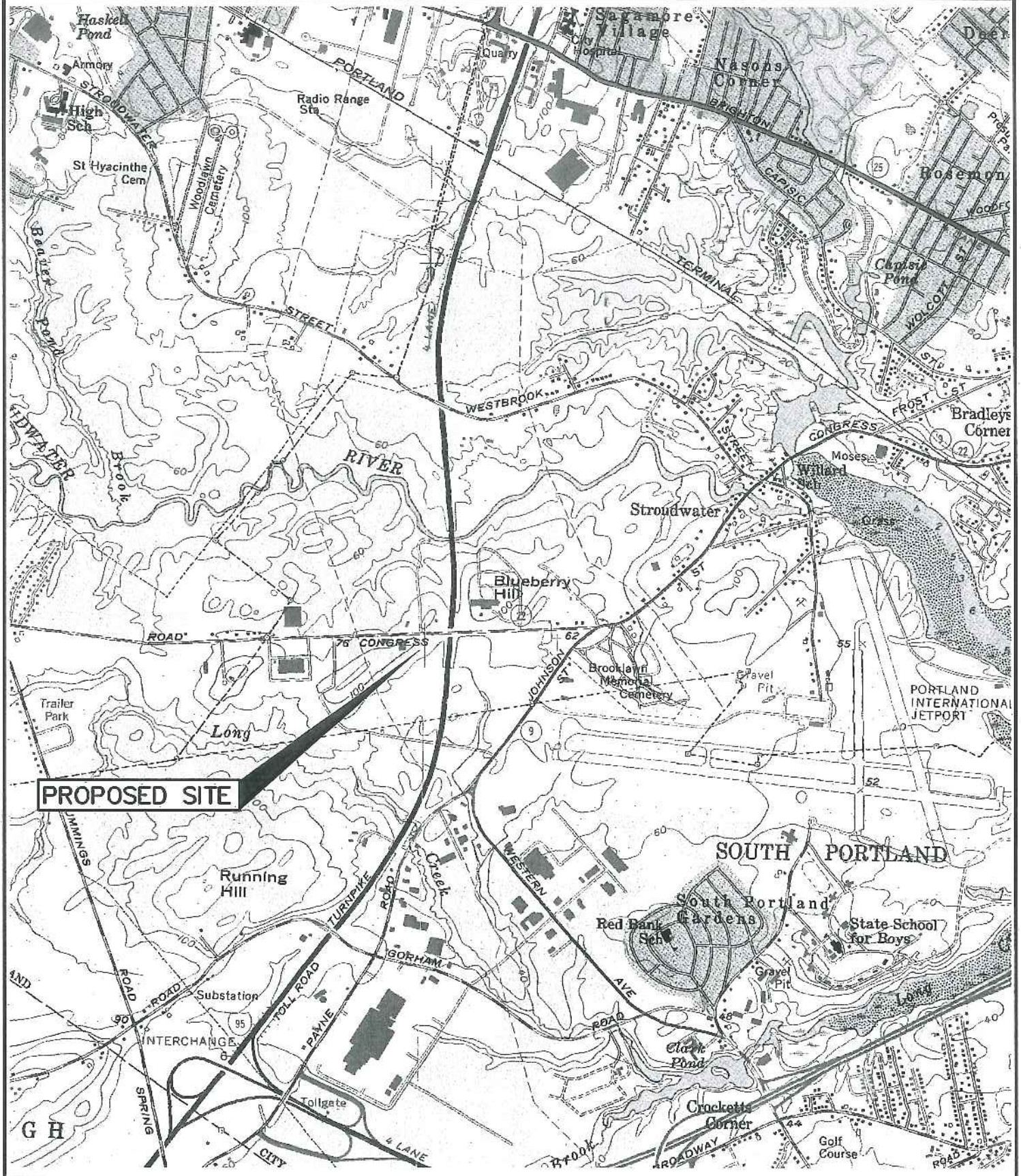
The trip assignment percentages are based on existing traffic patterns as derived from the turning movement counts and are included in Appendix A of Section 7, the Traffic Impact Study.

1.H. Attachments

Attachment 1A – Site Survey, Proposed Site Plan

Attachment 1B – Site Location Map

F.1.8



U.S.G.S. Location Map

2282 Congress Street - Portland, Maine

U.S.G.S. Portland West, Maine -7.5 Minute Series (Topographic)

Design: TLG	Date: APRIL 2013
Draft: CG	Job No.: 2672
Checked: TLG	Scale: 1"=2000'±
File Name: 2672-LOCATION.dwg	

Gorrill-Palmer Consulting Engineers, Inc.

Engineering Excellence since 1998

PO Box 1237
15 Shaker Road
Gray, ME 04039

207-657-6910
FAX: 207-657-6912
E-Mail: mailbox@gorrillpalmer.com

Figure 1

F.1.9

Section 2
Traffic Crashes

2.A. Crash Summary Data

Gorrill-Palmer Consulting Engineers, Inc. obtained the crash data from MaineDOT for the period of 2009-2011, the most recent period available.

In order to evaluate whether a location has a crash problem, MaineDOT uses two criteria to define High Crash Location (HCL). Both criteria must be met in order to be classified as an HCL.

1. A critical rate factor of 1.00 or more for a three-year period. (A Critical Rate Factor {CRF} compares the actual crash rate to the rate for similar intersection in the state. A CRF of less that 1.00 indicates a rate of less than average) **and:**

2. A minimum of eight crashes over a three-year period.

Based on the available data, there are no High Crash Locations within the study area.

2.B. Attachments

See Appendix C of Section 7-Traffic Impact Study – MaineDOT Collision Data

F. 1.10

Section 3
Development Entrances and Exits

3.A. Entrance and Exit Locations

Access to the site will be provided via a single unsignalized driveway on Congress Street opposite Blueberry Road. The Maine Department of Transportation has guidelines for sight distances as follows:

MaineDOT Standards for Sight Distance

Posted Speed (mph)	Sight Distance
25	200
30	250
35	305
40	360

The MaineDOT standards are as follows:

Driveway observation point:	10 feet off major street travelway
Height of eye at driveway:	3 ½ feet above ground
Height of approaching vehicle:	4 ¼ feet above road surface

Gorrill-Palmer has reviewed the sight lines at the driveway proposed opposite Blueberry Road. The posted speed limit on Congress Street fronting the site is 40 mph, and is reduced to 35 mph 275 feet to the east of the site. The available sight lines exiting the driveway are over 750 feet looking to the left and 490 feet looking to the right to the overpass with the clearing of some vegetation along the site frontage. Thus, sight lines exceed standards at the proposed driveway location.

3.B. Plan View

Attachment 1A of Section 1, the proposed site and survey plans include the following information:

- Names of intersecting roads
- Location of the driveways in the vicinity of the development site.

F.1.11

Section 5
Public or Private Right-of-Way

5.A. Public or Private Rights-of-Way

Access to the site will be provided via only one driveway located opposite Blueberry Road. The Developer has obtained an easement from the Maine Turnpike Authority for access across the land fronting the development property.

Attachment F.2.1

[EXTRACT]

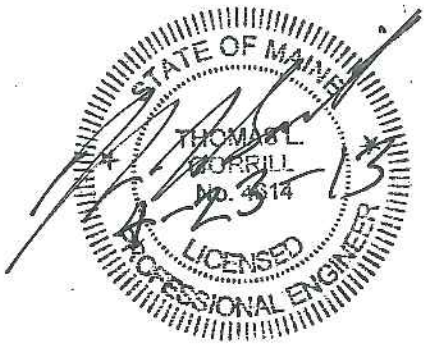
Full document will be available for reference at the Hearing.

Traffic Impact Study

Service Center at
2282 Congress Street
Portland, Maine

Prepared for:
C.J. Developers, Inc.
35 Primrose Lane
Freeport, ME 04032

April 2013



Prepared by:

GP Gorrill-Palmer Consulting Engineers, Inc.
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E-Mail:
mailbox@gorrillpalmer.com

Rec'd 4.23.13 following scoping meeting

F. 2. 2

Traffic Impact Study
CJ Developers, Inc.
Portland, Maine

Index

F.2.3

Executive Summary

The following Executive Summary is prepared for the reader's convenience, but is not intended to be a substitute for reading the full report.

Gorrill-Palmer Consulting Engineers, Inc. has been retained by CJ Developers, Inc. to prepare this traffic impact study for a proposed development in Portland, Maine. The site is located on Congress Street opposite Blueberry Road and is currently undeveloped. The proposed development includes a convenience store with 12 regular fueling positions, 2 diesel fueling positions and an ATM. Access to the site will be via a driveway opposite Blueberry Road. The project is anticipated to be completed by the end of 2013.

The following is a summary of the findings and conclusions of the study:

1. The proposed development is forecast to generate 211, 277, and 189 trip ends for the weekday AM and PM, and Saturday peak hours of adjacent street traffic, respectively. (Note: A trip end is either a trip in or out of the site. Therefore a single customer making a round trip would equal two trip ends). The project will require a MaineDOT Traffic Movement Permit since it generates over 99 trip ends during a peak hour. The MaineDOT has delegated their permit process to the City.

2. The capacity analyses show the site traffic can be accommodated with the restriping of Congress Street in the immediate area of the site to accommodate a short left turn lane into the site.

3. Based on a review of the signal warrants contained in the Manual on Uniform Traffic Control Devices, none of the signal warrants are met.

4. Gorrill-Palmer Consulting Engineers, Inc. obtained the latest three year crash history (2009-2011) from MaineDOT to identify if there were High Crash Locations (HCL's) within the immediate area. Based on this information, there are no high crash locations.

5. The sight lines at the proposed driveway exceed MaineDOT requirements. Gorrill-Palmer Consulting Engineers, Inc. recommends that all plantings, which will be located within the right-of-way, not exceed three feet in height and be maintained at or below that height. Signage should not interfere with sight lines. In addition, we recommend that during construction, when heavy equipment is entering and exiting into the site, that appropriate measures, such as signage and flag persons, be utilized in accordance with the Manual on Uniform Traffic Control Devices.

Based on these findings, it is the opinion of Gorrill-Palmer Consulting Engineers, Inc. that the adjacent street system can accommodate the traffic generated by the site with the recommended improvements.

F. 2.4

I. *Existing and Proposed Site*

The project is located on Outer Congress Street opposite Blueberry Road in Portland, Maine. The site is identified on the City Tax Map 237, Lot A012. A site location map has been included in Appendix A.

The site is currently undeveloped. A single driveway opposite Blueberry Road provides access to the Maine Turnpike Authority property and this site. The site is proposed to include a 3,850 sf convenience store with 12 fueling positions, a diesel pump with 2 fueling positions and one ATM.

Access to the site will be provided via an improved un-signalized driveway opposite Blueberry Road. The site is bound to the north by the Maine Turnpike property and Congress Street, to the south by Skyway Drive, to the east by the Maine Turnpike, and to the west by a commercial use.

II. *Background Traffic Conditions*

Gorrill-Palmer Consulting Engineers, Inc. based this study on the following information:

- A site plan prepared by DeLuca-Hoffman Associates, Inc..
- High Crash Listings for 2009-2011 provided by the Maine Department of Transportation.
- Turning movement counts completed by our office in July 2012 and March 2013.

Predevelopment Traffic Volumes

Seasonal Adjustment

The MaineDOT utilizes highway classifications of I, II, or III for state and local roadways. Type I roadways are defined as urban roadways, or those roads that typically see commuter traffic and experience little fluctuation from week to week throughout the year. Type II roadways, or arterial roadways are those that see a combination of commuter and recreational traffic and therefore experience moderate fluctuations during the year. Type III roadways, or recreational roadways are typically used for recreational purposes and experience dramatic seasonal fluctuation. Congress Street is classified as a Group I roadway and since the counts were collected in July, no seasonal adjustment is necessary. The March counts were somewhat higher than the July counts so the July volumes were balanced upward to the March counts.

Annual Growth

The proposed development is anticipated to be fully operational by the end of 2013. Traffic volumes in the Portland area and on Congress Street have not increased in recent years, therefore no adjustment for annual growth was made.

Other Development

Approved projects that are not yet opened as well as projects for which applications have been filed are required to be included in the predevelopment volumes for this project. Gorrill-Palmer Consulting Engineers, Inc. contacted the City of Portland planning department to determine whether there are any other projects that have been approved or are ahead in the approval process whose traffic should be considered as background traffic in the study for this project. Based on our conversation, it is our understanding that there are currently two active projects in this area which need to be added to our background traffic which are summarized below:

144 Hutchins Drive- This facility is forecast by others to have an average of 5 employees which will generate 5 peak hour trip ends in both the weekday AM and PM peak hours. We have added the 5 employee trip ends due during both the AM and PM peak hours to the pre-development traffic levels in our study.

ECOMAINE has a project in the approval process, but it is our understanding from City staff that it will not result in an increase in traffic.

The veterinarian on the corner of Hutchins had an expansion approved several years ago but it is our understanding from City staff that their approval has lapsed so the project was not considered in our analysis.

III. *Trip Generation*

Gorrill-Palmer Consulting Engineers, Inc. used the Institute of Transportation Engineers (ITE) publication *Trip Generation,* 8th Edition as the source for determining the potential trip generation for the site. The 8th Edition was used because it provided a Saturday Peak Hour trip generation for the Convenience Store with fueling positions whereas the 7th Edition does not. To determine the trip generation for the Convenience Store with fueling positions we used Land Use Code 853, averaging the trip generation from fueling positions and size of store. Land Use Code 912 was used to forecast the ATM, which forecasts 10 and 28 trip ends during the AM and PM peak hours of adjacent street traffic respectively.

The trip generation calculations are included in Appendix C and are summarized as follows for the peak hours of the adjacent street traffic:

AM Peak Hour Adj St:	211 trip ends
PM Peak Hour Adj St:	277 trip ends
Saturday Peak Hour:	189 trip ends

This level of trip generation requires a MaineDOT Traffic Movement Permit which has been delegated to the City of Portland. Our analyses focused on the weekday AM and PM peak hours since the traffic levels are less during a Saturday.

F. 2. 6

IV. *Trip Distribution*

Gorrill-Palmer Consulting Engineers, Inc. has obtained the ratio of entering and exiting traffic from the Institute of Transportation Engineers publication *Trip Generation,* 8th Edition (7th Edition is the same). Based on the ITE information, the trip distribution would be the following for the AM, and PM peak hours:

Weekday AM peak hour	50% entering, 50% exiting
Weekday PM peak hour	50% entering, 50% exiting

V. *Trip Composition and Assignment*

Gorrill-Palmer Consulting Engineers, Inc. has estimated trip composition for the facility based on the ITE *Trip Generation Handbook.* For LUC 853 – Convenience Market with Gasoline Pumps the trip composition would be the following:

Weekday AM - 12% Primary, 25% Diverted, 63% Pass-By
Weekday PM – 16% Primary, 18% Diverted, 66% Pass-By

For the purpose of this project, we combined the Primary and Diverted and rounded to the following, which is conservative since it increases the primary trips and reduces the pass-by trips:

Weekday AM / PM – 40% Primary / Diverted, 60% Pass-By

For LUC 912-Drive-In Bank, the shared trips are forecast to be 50% with the convenience store. Thus, trips at the driveway would be 5 and 14 during the AM and PM peak hours respectively with 50% being pass-by and 50% being a combination of primary and diverted trips.

The total trip distribution is summarized on the following table:

Proposed Trip Composition

Trip Type	Entering		Exiting		Total	
	AM	PM	AM	PM	AM	PM
Primary / Diverted	42	54	41	54	83	108
Pass-By	62	77	61	78	123	155
Total	**104**	**131**	**102**	**131**	**206**	**263**

The trip assignment percentages are based on existing traffic patterns as derived from the turning movement counts and are included in Appendix A.

F.2.7

VI. *2013 Postdevelopment Traffic*

The anticipated year 2013 predevelopment AM and PM peak hour traffic volumes shown on Figure 4 of Appendix A have been combined with the AM and PM peak hour traffic forecast for the development shown on Figures 5-6 of Appendix A to yield the 2013 postdevelopment AM and PM traffic volumes shown on Figure 7 of Appendix A.

VII. *Study Area*

The study area was defined by the City. The study area was identified as including the intersection of Congress Street/Blueberry Road and the proposed driveway as well as the intersection of Congress Street/Hutchins Drive and Skyway Drive.

VIII. *Auxiliary Lanes*

Our office completed right-turn and left-turn lane warrant analysis for the proposed driveway to identify if auxiliary lanes should be considered. To complete the review, our office utilized curves provided in the MaineDOT Highway Design Guide. The curves are provided in Appendix C.

Left-Turn Lanes – Both the AM and PM peak hours met the criteria for considering left turn treatment. As a result, re-striping Congress Street to provide a 75 foot long left turn lane for vehicles turning left into the site is recommended. A concept plan for this re-striping is shown on the site plan prepared by DeLuca Hoffman Associates, inc.

Right-Turn Lanes – Based on a review of the MaineDOT curves, a right turn treatment should be considered. The site has been designed with a wide radius to facilitate a vehicle turning right into the site.

IX. *Capacity Analyses*

Gorrill-Palmer Consulting Engineers, Inc. completed capacity analyses for the intersections listed in Section VII.

The analysis was completed with the Synchro/SimTraffic analysis software. Levels of service rankings are similar to the academic ranking system where an 'A' represents little control delay and an 'F' represents significant delay. At an unsignalized intersection, if the level of service falls below a 'D', an evaluation should be made to determine if further mitigation is warranted, and if not, a low level of service is acceptable. It should be noted that the capacity analysis was completed assuming re-striping of Congress Street to include a 75 foot left turn lane as discussed in the previous Section VIII.

The following table summarizes the relationship between delay and level of service for an un-signalized and a signalized intersection:

F.2.8

Level of Service Criteria for Unsignalized Intersections

Level of Service	Control Delay per Vehicle (sec)
A	Up to 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F	Greater than 50.0

Level of Service Criteria for Signalized Intersections

Level of Service	Control Delay per Vehicle (sec)
A	Up to 10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	Greater than 80.0

The results of the capacity analyses for the 2013 post-development conditions are summarized as follows, followed by a discussion of the results. The detailed analyses are included in Appendix B.

Site Access Road / Congress Street/Blueberry Rd (Unsignalized)

Lane Group	2013 Peak Hours			
	AM Postdevelopment		PM Postdevelopment	
	Delay (sec)	LOS	Delay	LOS
Congress St Eastbound	4	A	4	A
Congress St Wesbound	2	A	2	A
Site Driveway Northbound	22	C	23	C
Blueberry Rd Southbound	17	C	17	C

As can be seen from the above table, each of the approaches are forecast to operate at acceptable levels of service in both the weekday AM and PM peak hours with the left turn lane as proposed. This level of service and the maximum forecast PM peak hour traffic level of 72 turning left out of the site does not warrant the installation of a traffic signal as discussed in the next section.

Skyway Drive/Congress Street/Hutchins St (Signalized)

Lane Group	2013 Peak Hours			
	AM Postdevelopment		PM Postdevelopment	
	Delay	LOS	Delay	LOS
Congress St Eastbound	48	D	25	C
Congress St Wesbound	21	C	26	C
Skyway Drive Northbound	25	C	120	F
Hutchins St Southbound	33	C	30	C

As can be seen from the previous table, traffic exiting Skyway Drive experiences delay. However, the majority of the traffic associated with the proposed project is pass-by traffic with very little traffic being added to the left turning traffic from Skyway Drive. Thus, the project will not significantly affect the operation of this intersection.

X. *Signal Warrant Analyses*

In order for a traffic signal to be installed, the location must meet one or more of the traffic signal warrants published in the 2009 Edition of the Manual on Uniform Traffic Control Devices, and meet the test of engineering judgment. The nine traffic signal warrants are listed as follows:

Warrant #	Description
1	Eight-Hour Vehicular Volume
2	Four-Hour Vehicular Volume
3	Peak Hour
4	Pedestrian Volume
5	School Crossing
6	Coordinated Signal System
7	Crash Experience
8	Roadway Network
9	Intersection Near a Grade Crossing

Gorrill-Palmer Consulting Engineers, Inc. completed a signal warrant analysis for the intersection of Blueberry Road based on the post development volumes presented in Figure 7 of Appendix A. The intersection was evaluated based on these warrants which are summarized in the following pages. The right turning traffic exiting the site was excluded from the analysis since there is a separate right turning lane.

Warrant #1 – *Eight-Hour Vehicular Volume* - This warrant requires that one of the following conditions be met for any eight hours of an average day:

1. The vehicles per hour given in both of the 100% columns of Condition A in Table 4C-1 (included with this letter) exist on the major street and on the higher volume minor-street approaches, respectively, to the intersection, and

2. The vehicles per hour given in both 100% columns of Condition B in Table 4C-1 (included with this letter) exist on the major street and on the higher volume minor-street approaches, respectively, to the intersection.

An analysis was completed based on the data collected, which indicated that major street volumes were met but minor street movements were not met for the peak hours and therefore would most likely not be met for the remainder of the day. Thus, this warrant is not satisfied.

F. 2.10

Warrant #2 – *Four-Hour Vehicular Volume* - This warrant requires that for each of any four hours of an average day, the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor-street approach (one direction only) all fall above the applicable curve in figure 4C-1 (attached) for the existing combination of approach lanes. On the minor street, the higher volume shall not be required to be on the same approach during each of these four hours.

The minimum minor street volume to meet the warrant is 80 vehicles for each of four hours. The AM peak hour volume is 43 (combination of thru and left turning traffic from the driveway) and the PM is 74. Thus, this signal warrant is not met.

Warrant #3 – *Peak Hour* - This warrant is intended for locations where a large amount of traffic exits the site for an hour or two a day, such as a school, manufacturing facility, etc. The warrant requires that the criteria in either of the following two categories are met:

1. If all three of the following conditions exist for the same one hour (any four consecutive 15-minute periods) of an average day:

a. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a STOP sign equal or exceeds: four vehicle-hours for a one-lane approach; or five vehicle-hours for a two-lane approach, and

b. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes, and

c. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

The location does not satisfy the minimum volume requirements of 100, on the minor-street approach which is 74 during the PM peak hour.

2. The plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher-volume minor-street approach (one direction only) for one hour (any for consecutive 15-minute periods) of an average day falls above the applicable curve in Figure 4C-3 for the existing combination of approach lanes (enclosed with this letter).

The plotted point on figure 4C-3 for the peak hour falls below the curve. Therefore, this signal warrant is not met.

Warrant #4 – *Pedestrian Volume* – This warrant requires at least 100 pedestrian crossings in each of four hours across the major street. This level of pedestrian activity is not anticipated and therefore, this warrant is not anticipated to be met.

Warrant #5 – *School Crossing* – This warrant is based upon the need to provide gaps in traffic for crossing students. Before determining whether a signal is warranted, alternative measures should be explored, including school warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing. The proposed project is not located in the vicinity of a school and therefore, this warrant is not met.

Warrant #6– *Coordinated Signal System* – This warrant requires the existence on an existing coordinated signal system to warrant installation of a traffic signal at an intersection that does not otherwise meet a warrant, to maintain platoons of traffic. This location does not meet these criteria.

Warrant #7 – *Crash Experience* - This warrant requires that all of the criteria in the following categories are met.

1. Adequate trial of alternatives for which satisfactory observance and enforcement has failed to reduce the crash frequency.

2. Five or more reported crashes, of types susceptive to correction by a traffic control signal, have occurred within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash.

3. For each of any eight hours of an average day, the vehicles per hour given in both of the 80% columns of condition A in Table 4C-1 (included in Appendix C), exists on the major street and on the higher-volume minor-street approach, respectively, to the intersection, or the volume of pedestrian traffic is not less than 80 percent of the requirements specified in the pedestrian volume warrant. These major-street and minor-street volumes shall not be required to be on the same approach during each of the eight hours.

Gorrill-Palmer Consulting Engineers, Inc. requested crash data for the most recent three-year period of 2009-2011 from MaineDOT. That data indicates that one collision occurred during the three year period, which falls below the threshold for meeting Criteria 2. As such, this warrant is not met.

Warrant #8 – *Roadway Network* – This warrant is satisfied if there is justification for concentration or organization of traffic flow on a roadway network with two major routes, and the minimum and forecast entering traffic volumes are met. Congress Street is a major road however Blueberry Road and the proposed driveways are not classified as major. Therefore, this warrant is not met.

Warrant #9 – *Grade Crossing* – This warrant is based upon proximity to an at-grade rail crossing. As the subject intersection is not adjacent to a railroad, this warrant is not applicable.

F. 2. 12

Based on the warrant analysis, it is the opinion of Gorrill-Palmer Consulting Engineers, Inc. that the installation of a traffic signal is not warranted at this location.

XI Queue Analyses

Gorrill-Palmer Consulting Engineers, Inc. has evaluated the queue lengths at the intersection of the proposed driveway and Congress Street based on the SimTraffic analyses. The analyses consider the improvements indicated in the capacity analysis section. The queue analyses are included in the capacity analyses in Appendix B of this report and show the 95% length of queue for left turning traffic entering the site will be 3 vehicles, which is accommodated by the proposed 75 foot storage length.

XII Crash Data

Gorrill-Palmer Consulting Engineers, Inc. obtained the crash data from MaineDOT for the period of 2009-2011, the most recent period available.

In order to evaluate whether a location has a crash problem, MaineDOT uses two criteria to define a High Crash Location (HCL). Both criteria must be met in order to be classified as a HCL.

1. A critical rate factor of 1.00 or more for a three-year period. (A Critical Rate Factor {CRF} compares the actual crash rate to the rate for similar intersection in the state. A CRF of less than 1.00 indicates a rate of less than average) **and**:
2. A minimum of eight crashes over a three-year period.

Review of the collision history furnished by the MaineDOT shows there are no high crash locations in the vicinity of the project. However, while not meeting the criteria for a high crash location, the intersection of Congress Street and Hutchins Drive did have 18 collisions with a critical rate factor of 0.75 over this three year period. Our office obtained the collision reports from the MaineDOT and prepared a collision diagram which we have included in Appendix C. The diagram shows 11 of the 18 were rear end collisions either east bound or west bound on Congress Street which is not uncommon at a signalized intersection.

XIII Sight Line Analysis

F. 2. 13

The Maine Department of Transportation has guidelines for sight distances as follows:

MaineDOT Standards for Sight Distance

Posted Speed (mph)	Sight Distance
25	200
30	250
35	305
40	360

The MaineDOT standards are as follows:

Driveway observation point:	10 feet off major street travelway
Height of eye at driveway:	3 ½ feet above ground
Height of approaching vehicle:	4 ¼ feet above road surface

Gorrill-Palmer has reviewed the sight lines at the driveway proposed opposite Blueberry Road. The posted speed limit on Congress Street fronting the site is 40 mph, and is reduced to 35 mph 275 feet to the east of the site. The available sight lines exiting the driveway are over 750 feet looking to the left and 490 feet looking to the right to the overpass with the clearing of some vegetation along the site frontage. Thus, sight lines exceed standards at the proposed driveway location.

Gorrill-Palmer Consulting Engineers, Inc. recommends that all plantings, which will be located within the right of way, not exceed three feet in height and be maintained at or below that height. Signage should not interfere with sight lines. In addition, we recommend that during construction, when heavy equipment is entering and exiting into the site, that appropriate measures, such as signage and flag persons, be utilized in accordance with the Manual on Uniform Traffic Control Devices.

XIV Conclusions and Recommendations

The following is a summary of the findings and conclusions of the study:

1. The proposed development is forecast to generate 211, 277, and 189 trip ends for the weekday AM and PM, and Saturday peak hours of adjacent street traffic, respectively. (Note: A trip end is either a trip in or out of the site. Therefore a single customer making a round trip would equal two trip ends). The project will require a MaineDOT Traffic Movement Permit since it generates over 99 trip ends during a peak hour. The MaineDOT has delegated their permit process to the City.

2. The capacity analyses show the site traffic can be accommodated with the restriping of Congress Street in the immediate area of the site to accommodate a short left turn lane into the site.

F. 2. 14

3. Based on a review of the signal warrants contained in the Manual on Uniform Traffic Control Devices, none of the signal warrants are met.

4. Gorrill-Palmer Consulting Engineers, Inc. obtained the latest three year crash history (2009-2011) from MaineDOT to identify if there were High Crash Locations (HCL's) within the immediate area. Based on this information, there are no high crash locations.

5. The sight lines at the proposed driveway exceeds MaineDOT requirements. Gorrill-Palmer Consulting Engineers, Inc. recommends that all plantings, which will be located within the right-of-way, not exceed three feet in height and be maintained at or below that height. Signage should not interfere with sight lines. In addition, we recommend that during construction, when heavy equipment is entering and exiting into the site, that appropriate measures, such as signage and flag persons, be utilized in accordance with the Manual on Uniform Traffic Control Devices.

Based on these findings, it is the opinion of Gorrill-Palmer Consulting Engineers, Inc. that the adjacent street system can accommodate the traffic generated by the site with the recommended improvements.

Attachment G.1.1

STORMWATER MANAGEMENT REPORT (BASIC, GENERAL, FLOODING AND URBAN IMPAIRED STREAM STANDARDS)

CONVENIENCE STORE AND FUEL STATION PORTLAND, ME

PREPARED FOR:

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PREPARED BY:

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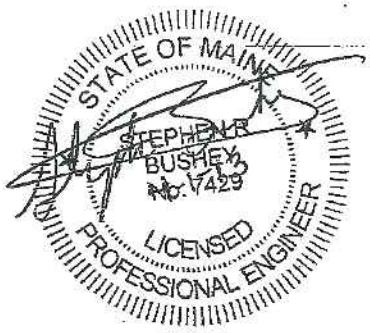

April 2013

G.1.2

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Appendices

as in Att. B.

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STORMWATER MANAGEMENT REPORT

1.0 Introduction

DeLuca-Hoffman Associates, Inc. has been retained by CJ Developers, Inc. for the preparation of site design and site permitting for a proposed convenience store/fuel station at 2282 Congress Street in Portland, Maine. The development will include a convenience store, drive-thru ATM and fueling facilities.

The project's 3.24-acre site is a cleared undeveloped wooded lot which was partially clear cut within the last ten years in preparation for a previously approved, but not constructed, project. The overall site is rectangular shaped with a small notched portion extending northerly to provide 60 feet of frontage on Congress Street. A narrow parcel of Maine Turnpike Authority (MTA) property that houses a Natural Gas Regulator Station separates the rest of the northerly property line and Congress Street. The westerly property line abuts the Merrimack River Medical Services building and property and the remaining two sides are bounded by MTA Highway I-95 and Skyway Dr. The site's Congress Street entrance drive will be constructed on a 0.12 acre permanent access easement across the MTA property.

This proposed project will create a total of 2.25 ac of developed area of which 1.57 ac will be new structure area (building and other impervious surfaces) within the 3.36 acre project boundary (3.24 acre parcel plus 0.12 acre Access Easement). This project meets the thresholds which require a MeDEP Stormwater Law permit which will be reviewed by the City of Portland under their delegated review authority. 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 flows easterly to a 24" RCP Culvert adjacent to the I-95 Interstate which flows southerly under Skyway Dr. and ultimately drains to the North Branch of Long Creek. Because the site is within the Long Creek Watershed the applicant will be required to apply for a Maine Waste Discharge Permit with the MeDEP and it must meet the urban impaired stream requirements described in MeDEP Chapter 500 Regulations.

Runoff from the proposed site will drain to a new inlet and conveyance system and it will be discharged to a stormwater storage facility. Stormwater storage will be comprised of an open detention basin and separate subsurface arch chamber storage tank. The stormwater detention basin will provide channel protection storage meeting the MeDEP General Standards Requirements. The subsurface chamber system will meet the flooding standards and manage the release of the 2, 10 and 25-year storm event to below predevelopment conditions as required by the City of Portland Stormwater Regulations. A series of StormTreat™ tanks 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. The StormTreat™ system will provide water quality treatment for approximately 89% of the proposed development.

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

G.1.4

On behalf of the applicant, DeLuca-Hoffman Associates, Inc. has prepared this report to show the proposed Stormwater Management Plan meets the City's General Stormwater Standards, as well as standards applicable to project's in the Long Creek Watershed.

2.0 Existing Site Conditions

The site is 3.24 acres and is currently undeveloped with the following land cover:

TABLE 1 – LAND COVER	
Current Land Cover	**Area (acre)**
Woods (Emerging)	3.04
Meadow (Natural Gas Easement)	0.20
Total	**3.24**

Topography slopes from west to east with slopes ranging from 3% to 14%. The site elevations range from 73 to 102 based on NGVD29. Existing topography sheet flows across the southerly and easterly property lines and drainage is towards a 24" RCP culvert adjacent to the abutting I-95 interstate highway (SB lanes).

The soils on the site are shown on the USDA medium intensity soils map to be primarily Hollis fine sandy loam and Scantic silt loam. Geotechnical explorations by SW Cole in March 2013 show that the soils are predominantly silty sand overlying sandy silt with gravel overlying relatively shallow bedrock.

The site is in the IM Industrial Zone and has been approved by the City of Portland as a permitted use through a Conditional Zone Agreement.

The existing conditions are shown on Drawing C-1.3 and supplemented by photographs appended to the end of this narrative in Appendix B.

The site is not located in a mapped 100-year floodplain and is denoted as Zone X based upon the Dec. 8, 1998 FEMA mapping and depicted on Figure 7 provided by MGIS Firm Panel # 230051 Panel #12-C.

The drainage is divided into two areas; the majority of the site is tributary to the North Branch of the Long Creek Subwatershed C as identified in the Long Creek Watershed Management Plan. A small portion of the Northwest corner of the site flows westerly along Congress Street and is tributary to the Stroudwater River.

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

3.0 Proposed Project

The proposed project is generally described below and is shown on Drawing C-2.0. The project will develop 2.25 acres of the 3.24 acre wooded site.

The proposed project will include construction of a 3,850 s.f. convenience store and fuel station with 12 pumps and a canopy. The development will also include a separate 2 dispenser diesel fueling area with canopy, drive-thru ATM machine, and provisions for a future Compressed Natural Gas fueling station.

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

TABLE 2 – LAND USE (ONSITE ONLY)		
Proposed Land Cover	**Area (acre)**	**Change from Current (acre)**
Woods	0.99	(2.05)
Meadow (Natural Gas Easement)	0.20	0
Meadow (Vegetated Fill Slopes)	0.42	+0.42
Lawn/Landscaped Planting Areas	0.01	+0.01
Pavement	1.48	+1.48
Roof	0.09	+0.09
Rip Rap Slope	0.05	+0.05
Total	**3.24**	**0**

The Erosion Control Plan contained in Appendix J 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:

- USGS 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

  Titcomb Associates, Inc., dated March, 2013.

- Hydrologic Soil Group Information

  USDA SCS Medium Intensity Mapping with interpretation of wetland delineation by Albert Frick Associates.

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/blwq/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.

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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.

7.0 Design Storms

TABLE 3 – RAINFALL	
Rainfall Amount (inches)	
2-Year Storm	3.0
10-Year Storm	4.7
25-Year Storm	5.5

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 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 HydroCAD modeling flow computations.
- The Tc flow paths were assumed to be a min. of 6 minutes as recommended in the TR-55 technical manual. In instances where flow paths were computed to be less then 6 minutes a direct entry command was used.

10.0 Predevelopment Analysis

Runoff from the site flows from the northwest corner in a southeasterly direction and generally passes over the property line as sheet flow. Flow begins to concentrate beyond the property line in road side ditches along Skyway Dr. to the south and I-95 to the east. Runoff discharges through a 24" RCP culvert crossing under Skyway Dr. flowing southerly through a channel to Long Creek's North Branch. The site is considered part of Long Creek Subwatershed C as defined in the Long Creek Watershed Management Plan. Long Creek is considered an Urban Impaired Stream as classified by the MeDEP.

For the purpose of this analysis, the offsite area downstream of the property boundaries tributary to the 24" culvert have been omitted for clarity and is not considered relevant to

this particular project. This peripheral area is small and does not produce a significant amount of runoff. The predevelopment analysis considers the sheet flow across the southerly and easterly property boundaries to the 24" culvert as the Point of Interest (POI) 1. The postdevelopment analysis analyzes the same POI and assumes that any concentrated flows will be redistributed to match predevelopment sheet flows as discussed in the following Postdevelopment Analysis section. The Predevelopment Watershed Map C-14.0 is enclosed as part of the plan set.

Peak flows at POI 1 are as follows:

TABLE 4
PREDEVELOPMENT FLOWS (PEAK DISCHARGE RATES) AT POI 1

POI #	2 Yr Storm Event (CFS)	10 Yr Storm Event (CFS)	25 Yr Storm Event (CFS)
1	2.86	7.18	9.42

Runoff from a small portion of the site in the northwestern corner flows westerly along Congress Street and ultimately enters the City of Portland storm drainage system tributary to the Stroudwater River. This area of the site is by in large excluded from the development area and therefore the analysis. A small piece of this area, which is development, is captured, redirected, treated and discharged to the Long Creek Watershed.

11.0 Postdevelopment Analysis

The postdevelopment analysis breaks up the site into two categories; the first category includes proposed vegetated fill slopes around the southeast perimeter of the development and undeveloped area downstream of the development. This area is identified as Subcatchment 101 in the postdevelopment analysis and shown on the Postdevelopment Watershed Map C-14.1 enclosed in the plan set. Subcatchment 101 is best described as the remaining portion of the predevelopment subcatchment directly tributary to POI 1 and it characteristics have changed as shown in Table 5.

TABLE 5
PREDEVELOPMENT VS. POSTDEVELOPMENT COMPARISON OF SUBCATCHMENT 1

Subcatchment ID	Peak Flows (CFS)			CN	Area (Ac.)	Hydrologic Time of Concentration (min.)
	2 Yr Storm Event	10 Yr Storm Event	25 Yr Storm Event			
1	2.86	7.18	9.42	74	4.16	18.3
101	1.99	4.73	6.13	76	2.33	14.9

The second category includes the area of the project development which drains to a new inlet and conveyance system. This area is released in three discharge locations as shown on the Grading and Drainage Plan C-3.0 and is described below:

G.1.8

TABLE 6 SUMMARY OF POSTDEVELOPMENT DISCHARGES	
Discharge Location ID	**Description**
1	Channel Protection discharge from StormTreat Treatment tanks with riprap apron directly to the southerly property line.
2	Discharge from subsurface detention zone with riprap apron and level lip spreader.
3	Culvert discharge from Subcatchment C1 (access drive) with riprap apron.

The development is broken into six (6) subcatchments which enter a series of catch basin inlets, flow to a central stormwater management area and are tributary to discharge locations 1 and 2. A seventh subcatchment identified as C1, located in the access drive, that is discharged at location 3 and bypasses the stormwater management facility. Each subcatchment has been modeled and routed to a catch basin inlet modeled as a pond. The inlets are routed together such that HydroCad can combine all of the hydrographs and compute the peak flow rates entering the stormwater detention basins. The model assumes each subcatchment has a minimum Time of Concentration (Tc) of 6.0 min.

Discharge from the development enters the open detention basin (DET O) that is equipped with a pretreatment sediment forebay. Runoff is distributed into either a series of 6 StormTreat™ treatment tanks or an overflow subsurface detention basin. Runoff in excess of 1" or equivalent to the water quality volume will exceed the storage capacity of the StormTreat™ tanks and open detention basin and it will overflow into the subsurface detention basin which is constructed of 42 large arched chambers (StormTech® Model MC-4500) with 12" of stone below and above the chambers.

Flows entering the stormwater management basins are summarized in the table below:

TABLE 7 POSTDEVELOPMENT FLOWS INTO DETENTION POND (DET O)	
Storm Event Interval	**Peak Flows (CFS)**
2-Year	4.45
10-Year	7.62
25-Year	9.12

Peak flows from the basins are routed to POI 1 using overland flow reaches with a high manning's coefficient typically seen in a wooded sheet flow application and combined with flows from Subcatchment 101. Postdevelopment flows tributary to POI 1 without any attenuation of flow are compared to Predevelopment in the following table and computations are attached in Appendix C:

G.1.9

TABLE 8 PEAK FLOW RATES AT POI 1 (WITHOUT DETENTION STORAGE)			
	2 Yr Storm Event (CFS)	10 Yr Storm Event (CFS)	25 Yr Storm Event (CFS)
Predevelopment	2.86	7.18	9.42
Postdevelopment	5.54	10.90	13.55
Net	+2.68	+3.72	+4.13

As evident from the table above, it is necessary to attenuate flow in the proposed subsurface detention area to meet the MeDEP Flooding standard objective as noted below.

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 Basic Standards, General Standards, and Flooding 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 Quantity Summary

To meet the Flooding Standards of the MeDEP Chapter 500 Stormwater Rules the project has been designed to store runoff in a subsurface detention area located on the easterly end of the development. The subsurface detention area will be constructed of large arched chambers manufactured by StormTech® and backfilled with crushed stone having approximately 40% porosity. Design plans require the entering row of chambers be constructed as an isolator row with inspection ports and terminus maintenance manhole.

Flow from the detention area will be restricted through a 7.5 inch orifice located in a outlet control manhole (D1). Flows and storage characteristics of the system are as follows:

G.1.10

TABLE 9 SUMMARY OF SUBSURFACE DETENTION SYSTEM (DET 2)				
Storm Event Interval	**Peak Flows In (CFS)**	**Peak Flows Out (CFS)**	**Storage (CF)**	**Peak Elevation (FT)**
2-Year	1.85	1.36	699	87.46
10-Year	6.56	2.67	4,185	89.87
25-Year	7.53	3.09	5,587	90.97

Detaining flows results in the following comparison of peak flows at POI 1:

TABLE 10 PEAK FLOW RATES AT POI 1 (WITH DETENTION STORAGE)			
	2 Yr Storm Event (CFS)	**10 Yr Storm Event (CFS)**	**25 Yr Storm Event (CFS)**
Predevelopment	2.86	7.18	9.42
Postdevelopment	2.51	7.06	9.17
Net	-0.35	-0.12	-0.25

The postdevelompent flows are lower then those in predevelopment conditions at point of interest 1 and therefore the Flooding Standard Goal has been met. Postdevelopment computations are contained in Appendices D & E.

14.0 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 and natural resource site constraints and the required limits of proposed development, there is insufficient space to utilize this method of water quality treatment without eliminating proposed development area or filling wetlands. Generally speaking, the approximately 2.25 acres of treated development area would require a wet pond of approximately 0.30 acres in size or 3 times the size of basin currently designed; 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 the Geotechnical Report 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 Scantic Silt loam. These soils are

commonly found to be somewhat excessively drained to poorly 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 bedrock) will make infiltration very difficult to incorporate into this site. Geotechnical explorations show that bedrock is present around 1.5 ft to 5 ft below existing grade and seasonally high groundwater table approximately 2 ft below existing grade. Due to the proximity to the groundwater table and bedrock, our office is proposing the use of an impermeable liner around all of the stormwater 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 proprietary 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 Sheet C-3.0 incorporates six (6) parallel StormTreat™ Proprietary tanks to best utilize the site conditions. The plan sheets detailing this system is enclosed in the full plan set.

A water quality summary chart of the project is appended with this application in Appendix G. The basis of design of the StormTreat™ treatment method is as follows:

- **StormTreat™ Treatment Units:**

  The StormTreat™ treatment units have been designed to treat at least 95% of the new structure area and 80 % of the developed area.

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

  1"/12 x impervious area (1.57 ac) plus 0.4"/12 x landscaped area (0.68 ac) = Water Quality Volume (6,252 cubic feet)

  It is noted that the proposed impervious area includes impervious area (894 sq. ft.) associated with a compressed natural gas compressor building which will not be constructed as part of this development until a future date. The construction of this building is incorporated into this design so that future modifications to the stormwater management system will not be necessary.

  Computations of the water quality volume are appended in Appendix G.

  The water quality volume provided is equal to 6,451 cubic feet in an open detention basin at an elevation of 91.00 which exceeds the required 6,252 CF. The pond stage storage calculations are appended in Appendix F.

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 1,155 cubic feet of water quality volume.

The discharge must pass through the StormTreat™ tanks at a rate less than 2.0 gallons per minute per tank. The discharge from the 6 tanks are piped to a common 12" header and controlled with an orifice plate sized to meet the cumulative 12 gpm flow rate. The orifice drawdown computations are appended in Appendix H.

Discharge from larger storm events overflow over a broad crested weir housed in a precast concrete outlet control structure set at elevation 91.00 (i.e. the basin stage when water quality volume has been reached). The overflow piping network is sized to handle runoff from a 25-year storm event. A rain event exceeding the storm drainage network capacity would flood the channel protection basin and detention basin and discharge over the reinforced turf overflow spillway at the northeast corner of the basin.

Pretreatment for flow entering from all inlet pipes to the storage area will be provided via the installation a riprap lined sediment forebay.

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).

15.0 Chapter 500 Treatment Percent Compliance

The proposed redevelopment project creates 1.57 acres of newly constructed impervious area and 0.68 acres of pervious area for a total disturbed area of about 2.25 acres.

Of the 1.57 acres of impervious area the proposed Stormwater Management Plan provides treatment for 1.53 acres or 97.42 percent. The disturbed area as part of this redevelopment is approximately 2.25 acres. Of the 2.25 acres the proposed Stormwater Management Plan provides treatment for 2.01 acres or 89.32 percent. Hence, the strategies proposed herein meets the minimum requirements stated in the General Standards.

16.0 Erosion Control

An Erosion Control Narrative, Plan, and Details have been prepared for the project and accompanies this submission in Appendix J.

17.0 Operations and Maintenance

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

G.1.13

18.0 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. This review will also meet the requirements of the MeDEP Stormwater Management Regulations and permit. A separate but concurrent review with the Long Creek Watershed District will be performed.

19.0 Drainage Network Pipe Sizing

The drainage network has been sized using the flows computed using HydroCad modeling software. The pipe sizes are noted on the drawings.

20.0 Appendices

A – Figures
B – Existing Conditions Photographs
C – Predvelopment Computations (2, 10 and 25-year Storm Event HydroCAD Computations)
D – Postdevelopmnet Computations without Detention (2, 10 and 25-year Storm Event HydroCAD Computations)
E – Postdevelopmnet Computations (2, 10 and 25-year Storm Event HydroCAD Computations)
F – Open Detention Basin Stage Storage Computations
G – Water Quality Summary Chart and Computations
H – Orifice Drawdown Computations
I – Geotechnical Exploration Test Pit Logs
J – Erosion Control Plan
K – Inspection & Maintenance Manual for Stormwater Management and Related Stormwater Facilities

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APPENDIX C

Predevelopment Computations

submitted & reviewed

Attachment G.2.1

EROSION AND SEDIMENTATION CONTROL REPORT

CONVENIENCE STORE AND FUEL STATION
PORTLAND, ME

PREPARED FOR:

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PREPARED BY:

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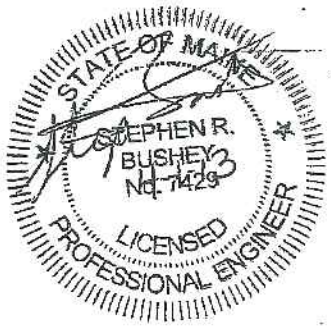
April 2013



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Att. B

Figures and Photographs (See Section 1 – Attachment A of the Application)

Attachments

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A. INTRODUCTION

DeLuca-Hoffman Associates, Inc. has been retained by CJ Developers, Inc. for the preparation of site design and site permitting for the proposed convenience store and fuel station at 2282 Congress Street in Portland, Maine. The development will include a convenience store, drive-thru ATM and fueling facilities.

A USGS Map, Zoning, Aerial Photographs, Flood, Soils, and location figures are provided in Section 1 – Attachment A of the Level III Site Plan Application to depict the location of the project. The accompanying plan set includes erosion control details and overall erosion control plan.

This study and section of the permit application presents the Erosion Sediment Control Plan designed for the project. The erosion control plans will be contained in the contract documents for implementation by the Contractor who is awarded the bid for the project. This project is coordinated with the MeDEP erosion control requirements. The Contract documents will require that turbid discharges from the site do not occur (measured by NTU with non-turbid runoff defined by representative samples with turbidity below 280 NTU at any discharge location), fugitive dust emissions will be controlled, the requirements of this erosion control plan, and all permit requirements will be fulfilled. Winter construction may be required and have specific winter time construction standards. Specific erosion controls stipulated by the plan and this report are minimum requirements.

B. EXISTING SITE CONDITIONS

The current site cover conditions are summarized in the table below:

SUMMARY OF LAND USE COVER	
Current Land Cover	**Area (acre)**
Woods	3.04
Meadow (Natural Gas Easement)	0.20
Total	**3.24**

C. EXISTING DRAINAGE FEATURES

The drainage is divided into two areas; the majority of the site is tributary to the North Branch of the Long Creek Subwatershed C as identified in the Long Creek Watershed Management Plan. A small portion of the northwest corner of the site flows westerly along Congress Street and is tributary to the Stroudwater River.

Topography slopes from west to east with slopes ranging from 3% to 14%. The site elevations range from 73 to 102 based on NGVD29. Existing topography sheet flows across the southerly and easterly property lines and drainage is towards a 24" RCP culvert adjacent to the abutting I-95 interstate highway (SB lanes).

The soils on the site are shown on the USDA medium intensity soils map to be primarily Hollis fine sandy loam and Scantic silt loam. Geotechnical explorations by SW Cole in March 2013 show that the soils are predominantly silty sand overlying sandy silt with gravel overlying relatively shallow bedrock.

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D. OVERVIEW OF SOIL EROSION AND SEDIMENTATION CONCERNS

The susceptibility of soils to erosion is indicated on a relative "K" scale of values over a range of 0.02 to 0.69. The "K" value is frequently used with the universal soil loss equation. The higher values are indicative of the more erodible soils. The relative K values of the underlying material at the site would be as follows:

Soil Symbol	Soil Description	"K" Value
Scantic - Sn	Silt Loam	0.37 – 0.49
Hollis - Hr	Fine sandy loam	0.20 - 0.43

The primary emphasis of the Erosion and Sedimentation Control Plan to be implemented for this project is as follows:

- **Temporary Measures:** Planning the project to have erosion resistant measures in place by implementing measures intended to prevent erosion from occurring.

- **Phasing Sequencing:** The plan includes measures to intercept and convey runoff to temporary sediment ponds and control devices as the construction of the project occurs. The use of small collection sumps with a clean sand filter above an underdrained discharge is recommended to supplement the principal sumps to help reduce turbidity. Turbidity should be controlled to fewer than 280 NTU's in any discharge through the use of settling, filters, or chemical coagulants.

- **Use of Type 1 Settling:** Installing sediment sumps and swales early in the construction sequence to provide secondary relief for erosion control measures within the site until late in the project when the sedimentation areas need to be removed for final restoration.

- **Restabilization:** Stabilization of areas denuded to underlying parent material must occur within stipulated time frame to minimize the period of soil exposure and stabilization of drainage paths to avoid rill and gully erosion.

- **Interim Entrapment:** The use of on-site measures to capture sediment (hay bales/silt fence, etc.) before it is conveyed to sediment sumps.

- **Long Term Site Protection:** The implementation of long-term measures for erosion/sediment and pollutant treatment through the construction of permanent water quality measures.

- **Special Winter Construction Measures:** These will be required for work between September 15 and April 15.

E. DESCRIPTION AND LOCATION OF LIMITS OF ALL PROPOSED EARTH MOVEMENTS

The construction of the project will disturb about 2.25 acres of land. The limit of disturbance is generally coincident with the limit of grading. The earthwork involved is summarized on the SiteOps computer analysis graphic provided in Attachment E following this report as well as a summary of the proposed earthwork.

The earth moving will include trenching for underground utilities, excavation for the water quality measures, earthwork to prepare and shape the parking lots, and excavation attendant with the buildings and excavation and borrow for the project improvements.

F. PROPOSED DRAINAGE FEATURES

The postdevelopment plan includes consideration and design for water quality of stormwater runoff. These constitute the stormwater management.

Certain manholes on the project provide flow management by directing stormwater to different areas. The hydraulic control manholes for this project include hydraulic control manholes to regulate the discharge, flow splitting manholes, and overflow manholes.

The proposed cover conditions for the site upon completion of the project will be as follows:

Proposed Land Cover	Area (acre)	Change from Current (acre)
Woods	0.99	(2.05)
Meadow (Natural Gas Easement)	0.20	0
Meadow (Vegetated Fill Slopes)	0.42	+0.42
Lawn/Landscaped Planting Areas	0.01	+0.01
Pavement	1.48	+1.48
Roof	0.09	+0.09
Rip Rap Slope	0.05	+0.05
Total	**3.24**	**0**

G. CRITICAL AREAS

Critical resource areas include the scrub shrub wetlands on the easterly side of the property and the Long Creek downstream of the site. No special species habitats have been identified on the site. It is noted that certain stormwater systems including underground storage and StormTreat™ treatment units shall not be activated until the tributary areas have been stabilized and at least three weeks has passed subsequent to placement of bituminous concrete paving materials. It will be critical to establish the StormTreat™ vegetation prior to placing them permanently online.

H. EROSION/SEDIMENTATION CONTROL DEVICES

As part of the site development, the Contractor will be obligated to implement the following erosion and sediment control devices. These devices shall be installed as indicated on the plans or as described within this report. For further reference on these devices, see the *Maine Department of Environmental Protection Erosion and Sediment Control BMPS Manual (March, 2003).*

1. Siltation Barrier shall be installed down slope of any disturbed areas to trap runoff borne sediments until the site is revegetated. The silt barrier shall be installed per the detail provided in the plan set and inspected immediately after each rainfall and at least daily during prolonged rainfall. The Contractor shall make repairs immediately if there are any signs of erosion or sedimentation below the barrier line. If such erosion is observed, the Contractor shall take proactive action to identify the cause of the erosion and take action to avoid its reoccurrence. Typically, this requires that

stabilization measures be undertaken. Proper placement of stakes and keying the bottom of silt fence fabric into the ground is critical to the fence's effectiveness. If there are signs of undercutting at the center or the edges, or impounding of large volumes of water behind the barrier, the barrier shall be replaced with a stone check dam and measures taken to avoid the concentration of flows not directed to the silt fence.

2. Silt barrier is shown by three types, depending upon the timing and intent, as follows:

SCHEDULE OF SILT FENCE REQUIREMENTS		
Silt Barrier	**Type/Purpose**	**Time of Installation**
Condition 1	To trap sediment along the grading edge where the new contours nearly parallel existing contours.	At initial site preparation, prior to other work.
Condition 2	To trap sediment from the work area; install in short sections parallel to existing contour; typically occurs where proposed and existing contours form a "V" shape.	At initial site preparation, prior to other work. On occasion, this needs to be deferred until the area for the silt fence installation can be reached.
Condition 3	To trap sediment along the base of proposed contours, typically in cut areas.	During construction after new grade is shaped. Time between work in area and shaping new grade to allow silt fence to be installed shall be minimized.

Conditions 2 and 3 silt barriers will be used extensively between project phases. In the event of frozen ground where silt fence cannot be installed, a wood waste berm may be used as a substitute.

3. Straw or hay mulch including hydroseeding is intended to provide cover for denuded or seeded areas until revegetation is established. Mulching should be occurring several times per week when the site construction activity is high and at sufficient intervals to reduce the period of exposure of bare soils to the time limits set forth in this plan. Mulch placed on slopes of less than 10 percent shall be anchored by applying water; mulch placed on slopes steeper than 10 percent shall be covered with fabric netting as immediately after mulching as practicable and anchored with staples in accordance with the manufacturer's recommendations. Proposed drainage channels, which are to be revegetated, shall receive Curlex blankets by American Green selected for the slope, velocity, and whether the measure is temporary or intended to be in place for a sustained period. Mulch application rates are provided in Attachment A of this section. Hay mulch shall be available on site at all times in order to provide immediate temporary stabilization when necessary. Where necessary, a windrow of crushed stone and/or gravel shall be placed at the top of the slope and directed to a temporary stone channel or pipe sluice to convey runoff down slopes. A dissipation device such as stone or a plunge pool should be installed at the base of the slope and sluice outlet to dissipate the energy of the water from the sluice or channel.

4. Temporary sediment sumps will provide sedimentation control for stormwater runoff from disturbed areas during construction until stabilization has been achieved. The sediment sumps need to include a sand filter above an underdrain or a chemical coagulant to remove fine-grained sediment. Appropriate measures to reduce sediment suspended in discharges to less than 280 NTU's will be required.
5. Riprap slopes, ditch linings, stone check dams, hay bale barriers, and culvert outlet aprons are intended to stabilize and protect denuded soil surfaces or dissipate the energy and erosive forces from concentrated flows. Installation details and stone sizes are provided in the construction plan set on the erosion control detail sheets.
6. A construction entrance will be constructed at all access points onto the site to prevent tracking of soil onto adjacent local roads and streets and the existing parking lot.
7. Stone sediment traps or a premanufactured SiltSack™ and a sediment bag will be installed at catch basin inlets to prevent silt from entering the storm drain system. Installation details are provided in the plan set on the erosion control detail sheets.
8. Dirtbags™ will be required to be on site and available for construction dewatering. The Contractor will be required to provide four Dirtbags™ with one prepared for operation prior to commencing any trenching operations. Dirtbags™ will need to be installed above filter sand and crushed stone in accordance with the details shown on the plan set will need to be installed.
9. Loam and seed is intended to serve as the primary permanent revegetative measure for all denuded areas not provided with other erosion control measures, such as riprap. Specific areas as shown on the Landscape Plan will receive sod. Application rates are provided in Attachment A of this section for temporary and permanent seeding.
10. Stone check dams will be installed in areas noted on the plan or as warranted, based upon observations during construction of the site.
11. Silt logs are an option for stone check dams and may be substituted provided the devices are well anchored.
12. Sorbent booms are intended to capture oils and the asphalt sheen from paved surfaces and shall be installed in all catch basins before pavement is installed.
13. DirtGlue™ is an acceptable means of temporary stabilization and is intended to form a "crust" on the surface that is resistant to erosion. However, applications where DirtGlue™ is used must be protected from traffic that would crack the "crust" and the DirtGlue™ has temperature limitations that restrict the periods of use. Use of this material shall conform to the requirements of Attachment D.
14. Wattles (constructed of rice straw) are to be used for small areas where the surface is irregular and where an immediate measure is needed to protect downstream measures.

I. TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES

The following are planned as temporary erosion/sedimentation control measures during construction:

1. Crushed stone-stabilized construction entrances shall be placed at any construction access points from adjacent streets. The locations of the construction entrances shown on the drawings should be considered illustrative and will need to be adjusted as appropriate and located at any area where there is the potential for tracking of mud

and debris onto existing roads or streets. Stone stabilized construction entrances will require the stone to be removed and replaced, as it becomes covered or filled with mud and material tracked by vehicles exiting the site.

2. Conditions 1 and 2 silt barriers shall be installed along the downgradient side of the proposed improvement areas. The silt fence will remain in place and properly maintained until the site is acceptably re-vegetated. Condition 3 silt barrier is to be used along the contour of significant fill slopes as illustrated on the erosion control plan site drawings. Silt barrier needs to be checked to insure the bottom is properly keyed in and inspected after significant rains. Wood chips or Erosion Control Mix is often used on the construction side of the silt fence to provide an extra margin of safety and security for the silt fence. This practice is encouraged, provided the chips are removed when the fence is removed.

3. Dirtbags™ shall be installed in accordance with the details in the plan set. The purpose of the Dirtbags™ is to receive any water pumped from excavations during construction. A Dirtbag™ shall be installed and prepared for operation prior to any trenching on site. When Dirtbags™ are observed to be at 50% capacity, they shall be cleaned or replaced. Stone and filter sand under the Dirtbag™ shall be removed and replaced concurrently with the replacement of the Dirtbag™.

4. Temporary stockpiles of common excavation will be protected as follows:

   a) Temporary stockpiles shall not be located at least 50 feet upgradient of the perimeter silt fence.

   b) Inactive stockpiles shall be stabilized within 5 days by either temporarily seeding the stockpile with a hydroseed method containing an emulsified mulch tackifier or by covering the stockpile with mulch. If necessary, mesh shall be installed to prevent wind from removing the mulch.

5. All denuded areas except gravel areas shall receive mulch, erosion control mesh fabric, or other approved temporary erosion sediment measure within 7 days of initial disturbance of soil or before a predicted rain event of >1/2" unless permanent measures are installed.

6. All soils disturbed between September 15 and April 15 will be covered with mulch within 5 days of disturbance, prior to any predicted storm event of the equivalent of ½" of rainfall in a 24-hour period, or prior to any work shutdown lasting more than 35 hours (including weekends and holidays). The mulch rate shall be double the normal rate.

   For work that is conducted between September 15 and April 15 of any calendar year, all denuded areas will be covered with hay mulch, applied at twice the normal application rate, and (in areas over 10% grade) anchored with a fabric netting. The time period for applying mulch shall be limited to 5 days for all areas, or immediately in advance of a predicted rainfall event.

7. Stone check dams, silt logs, or hay bale barriers will be installed at any evident concentrated flow discharge points during construction and earthwork operations.

8. Silt fencing with a maximum stake spacing of 6 feet should be used, unless the fence is supported by wire fence reinforcement of minimum 14 gauge and with a maximum mesh spacing of 6 inches, in which case stakes may be spaced a maximum of 10 feet apart. The bottom of the fence should be properly anchored a minimum of 6" per the plan detail and backfilled. Any silt fence identified by the owner or reviewing agencies

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as not being properly installed during construction shall be immediately repaired in accordance with the installation details.

9. Storm drain catch basin inlet protection shall be provided through the use of stone sediment barriers or a premanufactured SiltSack™. Stone sediment barrier installation details are provided in the plan set. The barriers or SiltSacks™ shall be inspected after each rainfall and repairs made as necessary, including the removal of sediment. Sediment shall be removed and the barrier or SiltSack™ restored to its original dimensions when the sediment has accumulated to one-half the design depth of the barrier. Sediment shall be removed from SiltSacks™ as necessary. Inlet protection shall be removed when the tributary drainage area has been stabilized.
10. All slopes steeper than 4:1 shall receive erosion control mesh.
11. Slopes steeper than 3:1 shall receive reinforced turf.
12. Condition 3 silt barriers shall be installed as construction progresses.
13. Areas of visible erosion and the temporary sediment sumps shall be stabilized with crushed stone. The size of the stone shall be determined by the contractor's designated representative in consultation with the Owner.
14. New catch basins and certain existing catch basins shall all be installed with an opening 2'-6" below finish grade to receive a 4" underdrain with an end cap except for inlets along underdrains and within 100 feet of nearby wells. A 3'-0" stub of underdrain surrounded by 6" of ¾" crushed stone and filter fabric shall be installed. The purpose of this measure is to provide drainage relief until site grades are at finish elevations.
15. All catch basins, which receive runoff from current or paved areas being constructed as part of this project, shall have a sorbent boom installed prior to placing the basin in operation installing binder pavement, or overlays. These sorbent booms shall be checked weekly for the three weeks following paving and replaced as necessary with the booms disposed of in accordance with local and State regulations.
16. Any flow from the site that is concentrated must be directed to a sump with sand filter and underdrained discharge.
17. Concentrated runoff shall be diverted away from slopes of over 10 percent unless the slope is armored with stone.
18. Underground utilities must be installed in compliance with the following standards and other requirements of this erosion control plan:

    - No more than 500 linear feet of trench may be opened at one time;
    - Excavated materials shall be placed on the uphill side of trenches;
    - Dewatering of the trench shall be pumped through a Dirtbag™ and appropriate sediment control facilities to avoid a turbid discharge; and
    - Stabilization shall occur as soon as practicable.

19. Rice straw wattles shall be used to control localized erosion.
20. Maintenance of the erosion control, sedimentation facilities, and control of fugitive dust must occur until the site is stabilized with permanent erosion control measures. For turf areas, stabilization shall be defined to be the establishment of a 90 percent "catch

of grass" with no areas larger than 2 square feet, and no spots that cumulatively add up to more than 5 square feet per 100 square feet.

J. STANDARDS FOR STABILIZING SITES FOR THE WINTER

The construction of the project will require winter construction. The project is anticipated to require about 18 months to construct. For permitted winter construction, the erosion control measures are substantially more stringent due to the cold temperatures and lack of weather conditions which aid in drying the subgrade soils through evaporation.

If construction activities involving earth disturbance continue past September 15 or begin before April 15, the following must be incorporated with the erosion control plan and implementation:

1. Enlarged access points must be stabilized to provide for snow stockpiling.
2. Limits of disturbance shall be reduced to the extent practicable.
3. A snow management plan including adequate storage and control of snowmelt, requiring cleared snow to be stored downgradient of all areas of disturbance shall be prepared by the contractor and submitted to the Owner for review and approval.
4. Snow shall not be stored in sediment basins or to preclude drainage structures from operating as intended.
5. A minimum 25-foot buffer maintained from perimeter controls such as silt fence shall be maintained on the "work area side" to allow for snow clearing and maintenance.
6. Drainage systems intended to operate during the winter shall be catalogued, shown on a plan, and inspected after each snow removal period to make sure the drainage structures are open and free of snow and ice dams.
7. To ensure cover of disturbed soil in advance of a melt event, areas of disturbed soil must be stabilized at the end of each work day, with the following exceptions:
   - If no precipitation within 24 hours is forecast and work will resume in the same disturbed area within 24 hours, daily stabilization is not necessary.
   - Disturbed areas that collect and retain runoff, such as house foundations or open utility trenches.
8. Standard for the timely stabilization of ditches and channels: The Contractor shall construct and stabilize all stone-lined ditches and channels on the site by September 15. The contractor shall construct and stabilize all grass-lined ditches and channels on the site by September 1. If the Contractor fails to stabilize a ditch or channel to be grass-lined by September 1, then the Contractor shall take one of the following actions to stabilize the ditch for late fall and winter.
   i. Install a sod lining in the ditch. The contractor shall line the ditch with properly installed sod by September 15. Proper installation includes the applicant pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, watering the sod to promote root growth into the disturbed soil, and anchoring the sod with jute or plastic mesh to prevent the sod strips from sloughing during flow conditions.

ii. Install a stone lining in the ditch. The contractor shall line the ditch with stone riprap by September 15. The contractor shall hire a registered professional engineer to determine the stone size and lining thickness needed to withstand the anticipated flow velocities and flow depths within the ditch. If necessary, the Contractor shall regrade the ditch prior to placing the stone lining so as to prevent the stone lining from reducing the ditch's cross-sectional area.

9. Standard for the timely stabilization of disturbed slopes: The Contractor shall construct and stabilize stone-covered slopes by September 15. The Contractor shall seed and mulch all slopes to be vegetated by September 1. The Department will consider any area having a grade greater than 15% (10H:1V) to be a slope. If the Contractor fails to stabilize any slope to be vegetated by September 1, then the Contractor shall take one of the following actions to stabilize the slope for late fall and winter.

   i. Stabilize the soil with temporary vegetation and erosion control mesh. By September 15, the Contractor shall seed the disturbed slope with winter rye at a seeding rate of 3 pounds per 1,000 square feet and apply erosion control mats over the mulched slope. The contractor shall monitor growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed slope by September 15, then the Contractor shall cover the slope with a layer of wood waste compost as described in item iii of this standard or with stone rip rap as described in item iv of this standard.

   ii. Stabilize the slope with sod. The Contractor shall stabilize the disturbed slope with properly installed sod by September 15. Proper installation includes the Contractor pinning the sod onto the slope with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil. The Contractor shall not use late-season sod installation to stabilize slopes having a grade greater than 33% (3H:1V) or having groundwater seeps on the slope face.

   iii. Stabilize the slope with wood waste compost. The Contractor shall place a six-inch layer of wood waste compost on the slope by September 15. Prior to placing the wood waste compost, the Contractor shall remove any snow accumulation on the disturbed slope. The contractor shall not use wood waste compost to stabilize slopes having grades greater than 50% (2H:1V) or having groundwater seeps on the slope face.

   iv. Stabilize the slope with stone rip rap. The Contractor shall place a layer of stone riprap on the slope by September 15. The Contractor shall hire a registered professional engineer to determine the stone size needed for stability and to design a filter layer for underneath the riprap.

10. Standard for the timely stabilization of disturbed soil: By September 1, the Contractor shall seed and mulch all disturbed soils on areas having a slope less than 15%. If the Contractor fails to stabilize these soils by this date, then the Contractor shall take one of the following actions to stabilize the soil for late fall and winter.

    i. Stabilize the soil with temporary vegetation. By September 15, the Contractor shall seed the disturbed soil with winter rye at a seeding rate of 3 pounds per 1,000 square feet, lightly mulch the seeded soil with hay or straw at 75 pounds per 1,000 square feet, and anchor the mulch with plastic netting. The Contractor shall

monitor the growth of the rye over the next 30 days. If the rye fails to grow at least three inches or fails to cover at least 75% of the disturbed soil before September 15, then the Contractor shall mulch the area for over-winter protection as described in item iii of this standard.

ii. Stabilize the soil with sod. The Contractor shall stabilize the disturbed soil with properly installed sod by September 15. Proper installation includes the Contractor pinning the sod onto the soil with wire pins, rolling the sod to guarantee contact between the sod and underlying soil, and watering the sod to promote root growth into the disturbed soil.

iii. Stabilize the soil with mulch. By September 15, the Contractor shall mulch the disturbed soil by spreading hay or straw at a rate of at least 150 pounds per 1,000 square feet on the area so that no soil is visible through the mulch. Prior to applying the mulch, the Contractor shall remove any snow accumulation on the disturbed area. Immediately after applying the mulch, the Contractor shall anchor the mulch with plastic netting to prevent wind from moving the mulch off the disturbed soil.

iv. Stabilize all stockpiles with mulch within 24 hours.

K. SPECIAL MEASURES FOR SUMMER CONSTRUCTION

The summer period is generally optimum for construction in Maine, but it is also the period when intense short duration storms are most common, making denuded areas very susceptible to erosion, when dust control needs to be the most stringent, and when the potential to establish vegetation is often restricted by moisture deficit. During these periods, the Contractor must:

1. Implement a program to apply dust control measures on a daily basis except those days where the precipitation exceeds 0.25 inch. This program shall extend to and include adjacent streets used by construction vehicles.

2. Spray any mulches with water after anchoring to dampen the soil and encourage early growth. Spraying may be required several times. Temporary seed may be required until the late summer seeding season.

3. Mulch, cover, and moisten stockpiles of fine-grained materials, which are susceptible to erosion. In the summer months, the potential for wind erosion is of concern, as well as erosion from the intense, short-duration storms, which are more prevalent in the summer months.

4. Take additional steps needed to control fugitive dust emissions to minimize reductions in visibility and the airborne disbursement of fine-grained soils. This is particularly important along the adjacent streets.

These measures may also be required in the spring and fall during the drier periods of these seasons.

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L. SEDIMENTATION SUMPS

The sediment sumps shall be sized in accordance with the plan and specifications. The bottom of the sumps is intended to be used for infiltration.

Discharge must be through a sand filter over an underdrained outlet to aid in the control of turbidity levels in the discharge. An emergency bypass shall be included and shall be constructed of 6" of stone overlaying filter fabric and discharge to undisturbed turf.

M. PERMANENT EROSION CONTROL MEASURES

The following permanent erosion control measures have been designed as part of the Erosion/Sedimentation Control Plan:

1. The drainage conveyance systems have been designed to intercept and convey the 25-year storm. In the case of open channels or swales, this includes the design of measures to resist scour of the channel. Velocity computation for channel aprons and the sizing of the temporary riser for the sediment pond will be appended to the NOI.

2. All storm drain pipes shall have riprap aprons at their outlet to protect the outlet and receiving channel of the culverts from scour and deterioration. Installation details are provided in the plan set. The aprons shall be installed and stabilized prior to directing runoff to the tributary pipe or culvert. It is noted that all inlets and outlets over 18" in diameter are to have a flared concrete inlet and an aluminum bar rack. Small pipes will be protected with rodent guards. Orifices in hydraulic control structures will be protected with a wire mesh screen with an opening of no more than 25 percent of the orifice size and a surface are of at least 25 times the area of the orifice.

3. All areas disturbed during construction, but not subject to other restoration (paving, riprap, etc.), will be loamed, limed, fertilized, mulched, and seeded. Fabric netting, anchored with staples, shall be placed over the mulch in areas where the finish grade slope is greater than 10 percent. Native topsoil shall be stockpiled and temporarily stabilized with seed and mulch and reused for final restoration when it is of sufficient quality.

4. Catch basins shall be provided with sediment sumps for all outlet pipes that are 12" in diameter or greater. Catch basins that are not within 100 feet of wells have been designed with an under drain connection to allow the subbase gravel to drain and reduce frost heave and movement at the basin. A sediment collection bag and an oil sorbent pillow shall be installed in all basins.

5. Permanent seeding shall be conducted only in April through May and in late summer until September 15.

6. A riprap plunge pool will be installed at the stormwater management discharge at the wetland edge to disperse the flows.

N. TIMING AND SEQUENCE OF EROSION/SEDIMENTATION CONTROL MEASURES

The site is quite susceptible to erosion when denuded soils are wet and caution is made to the contractor to limit construction activity during inclement weather. The Contractor must control fugitive dust emissions, respect and not impede the neighboring land uses, control sediment laden runoff to 280 NTU or less. For all grading activities, the Contractor

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shall exercise extreme caution not to overexpose the site by limiting the disturbed area and shall stabilize any steep slopes within 24 hours if final slope grading and stabilization will not be completed within 7 days. Any final slopes shall have the specified erosion control measures installed within 7 days of final stabilization.

The following construction sequence shall be required, (unless otherwise authorized in writing by the Owner's project manager or authorized permit agent).

The description of the work is:

Phase 1: The initial phase of the project will include the removal of the overhead utility lines, the razing of existing buildings, and the installation of the sedimentation facilities to serve the construction of the project. The Contractor will need to perform the following work

- Mark the Phase 1 work limits.
- Install safety fence and security signs around the perimeter of the site.
- Establish and install construction entrances with gates.
- Install silt fence along the perimeter and other designated areas requiring Type 1 silt fence.
- Initialize the relocation of overhead utilities.
- Establish Dirtbag™ area and pump system for dewatering activities.
- Construct sedimentation facilities with riprap discharge to the Fore River.
- Construct a diversion swale to direct as much of the site to the sedimentation basins as possible including the installation of culverts and rip rap where the diversion swale passes under the construction access drives.
- Fill monitoring wells designated to be abandoned.
- Install temporary seed and mulch around the perimeter of the sedimentation facility.
- Raze existing buildings and bring the foundation holes back to subgrade.

Subsequent Phases: There is more flexibility for the contractor to schedule the work provided that the erosion control measures are in place. The measures shown on Drawing C-6.0 and C-5.1 of the plan set are the measures that need to be installed as soon as practicable during construction in subsequent phases.

This includes diversion of stormwater from the site to the sedimentation ponds, providing berms to restrict the runoff from flowing off the steep banks of the site, maintaining construction entrances, providing and use of the Dirtbag™ for pretreatment of water pumped from excavations, maintaining a crushed stone working pad around the foundation area until gravels and pavements are placed, and diversion of stormwater runoff away from the underground treatment, detention, and infiltration areas. The

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manhole details included with the drawing set include specific locations and elevations for the diversion lines. Placement of the underground systems in service shall not occur until the site has been stabilized and pavement has been allowed to "cure" for a period of three weeks.

The underground facilities and treatment units shall not be activated until authorized by the design engineer or a certified erosion control professional who has signed an affidavit indicating they have reviewed the plans, Stormwater Management, Erosion Sediment Control Plan, Stormwater O&M Manual, and any State and Local site permits issued for the project.

O. CONTRACTING PROCEDURE

The onsite components of the project will be constructed by a General Contractor under contract to the Developer. The Contractor shall submit a schedule for the completion of the work, which will satisfy the following criteria:

1. The construction sequence of Section M should generally be completed in the specified order; however, several separate items may be constructed simultaneously. Work must also be scheduled or phased to prevent the duration of areas exposed or susceptible to erosion as specified below. The intent of this sequence is to provide for erosion control and to have structural measures such as silt fence and construction entrances in place before large areas of land are denuded.
2. The work shall be conducted in sections which will:
   a) Limit the amount of exposed area to those areas in which work is expected to be undertaken during the preceding 30 days.
   b) Revegetate disturbed areas as rapidly as possible. All areas shall be permanently stabilized within 7 days of final grading and temporarily stabilized within 7 days of initial disturbance or before a predicted storm event of over ½" of rain.
   c) Incorporate planned inlets and drainage system as early as possible into the construction phase. The ditches shall be immediately lined or revegetated as soon as their installation is complete.
   d) Achieve the parking space numbers indicated in the construction phasing.
3. Once final grade has been established, the Contractor may choose to dormant seed the disturbed areas prior to placement of mulch and placement of fabric netting anchored with staples.
   a) If dormant seeding is used for the site, all disturbed areas shall receive 6" of loam and seed at an application rate of 5#/1,000 s.f.

      All areas seeded during the winter months will be inspected in the spring for adequate catch. All areas insufficiently vegetated (less than 75 percent catch) shall be revegetated by replacing loam, seed, and mulch.
   b) If dormant seeding is not used for the site, all disturbed areas shall be revegetated in the spring.
4. The area of denuded, non-stabilized construction shall be limited to the minimum area practicable. An area shall be considered to be denuded until the subbase gravel is installed in parking areas, or the areas of future loam and seed have been loamed,

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seeded, and mulched. The mulch rate shall be twice the rate specified in the seeding plan. [For example, 115#/1,000 s.f. x 2 = 230#/s.f.]

5. Within the exposed work area, temporary sedimentation sumps shall be provided any concentrated flow area with sand filter or chemical coagulation. Additional information is provided in prior sections of this narrative and on the Erosion Control Details of the plan set. Along the sedimentation sumps, barriers shall be provided at sufficient intervals to permit runoff to be accumulated to a minimum depth of 12" before overflowing.
6. The schedule shall be subject to the approval of the Owner.
7. The Contractor must maintain an accurate set of record drawings indicating the date when an area is first denuded, the date of temporary stabilization, and the date of final stabilization. On September 15 of any calendar year, the Contractor shall submit a detailed plan for stabilizing the site for the winter and a description of what activities are planned during the winter.
8. The Contractor must install any added measures which may be necessary to control erosion/sedimentation and fugitive dust emissions from the site, with adjustments made dependent upon forecasted and actual site and weather conditions.
9. The Contractor shall note that no area within 50 feet of a slope with a vertical drop of more than 3' in 50 feet shall remain denuded for a period of over 5 days before it is temporarily stabilized. Temporary stabilization shall be the installation of mulching. All other areas shall be stabilized within 7 days or before a predicted rain event. For construction between September 15 and April 15 of any calendar year, all areas shall be temporarily stabilized at the earlier time frames specified above.
10. Contractor shall be responsible for theirs and their subcontractor's compliance with LEED requirements (construction waste, low voc materials, etc.) and shall provide upon Owner request any documentation or data pertaining to these standards.
11. Certain erosion control products (such as DirtGlue™) come in a form that a release could occur on the site or into the environs. The Contractor shall include MSDS information for all products that have the potential for release to the environment and shall be responsible for implementing a safety control program for proper handling of these materials on the site.
12. The Stormwater Pollution Prevention Plan (SWPPP) is defined to consist of the Erosion Control Report, the Stormwater Management Plan, and the Stormwater O&M Plan. The SWPPP shall be maintained at a secure locked location at the contractor's field trailer from commencement of the project. These documents shall be moved to a designated locked location inside the building(s) at the period when the contractor's trailers are removed and maintained until the Notice of Termination has been filed by the Owner.

    A notice and point of contact with cell phone number shall be posted at the trailer to permit access to the records during normal work hours and in case of emergency at other times. All additions and construction records shall be copied via e-mail to the following addresses:

    sbushey@delucahoffman.com
    ddlatulip@aol.com

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The Owner reserves the right to add additional personnel to this list at the pre-construction conference or at reasonable intervals during the project.

13. The Owner will provide a copy of the NOI acceptance letter to the Contractor. This letter shall be maintained at the site with the SWPPP.

14. Any revisions to the SWPPP must be authorized in writing by the Preparer of the Plan (DeLuca-Hoffman Associates, Inc.) The Preparer of the Plan shall be permitted reasonable time to review and notify the city and other agencies of said changes. Revisions to the SWPPP will be required:

    a. Whenever the current provisions prove to be ineffective in minimizing pollutants in stormwater *discharges* from the site;

    b. Whenever there is a change in design, construction, or operation at the construction site that has or could have an effect on the discharge of pollutants; and

    c. To address issues or deficiencies identified during an inspection by the *qualified inspector*, the Department, or other regulatory authority.

15. Should the Owner notify the contractor that the activity on the site is in violation of the SWPPP, the Contractor shall at its sole cost correct the deficiencies and file a photographic log with a list of corrective actions with the Owner within 7 days of notification by the Owner.

16. The project is currently undergoing a Phase II Environmental Study. The results of this study will be provided as part of the VRAP plan and as an appendix to the SWPPP plan prior to the preconstruction conference, and shall be incorporated by reference when appended.

17. The Contractor shall engage a qualified inspector to monitor the work. This inspector shall be approved by the Owner prior to the individual being engaged on the project. This inspection shall be a part of the Contractor's Quality Control Plan for the project by the Contractor. The inspector's qualifications and duties that he shall perform are as follows:

    a. Licensed Professional Engineer or Certified Professional in Erosion Control`

    b. Covered by Workman's Compensation Insurance

    c. Experienced in this type of work, the specific erosion controls applicable to this project with a resume approved by the engineer

    d. Compensated on a unit rate basis with no incentives for reduced costs or subject to any type of compensation for passing inspections

    e. Approved by the Owner and the preparer of this plan

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The *qualified inspectors* shall conduct site inspections in accordance with the following timetable:

a. Where soil disturbance activities are on-going, the *qualified inspector* shall conduct a site inspection at least once every seven (7) calendar days.

b. Where soil disturbance activities have been temporarily suspended (e.g. winter shutdown) and temporary stabilization measures have been applied to all disturbed areas, the *qualified inspector* shall conduct a site inspection at least once every thirty (30) calendar days. The *owner or operator* shall notify the City's stormwater contact person or, in areas under the jurisdiction of a *regulated traditional land use control MS4*, the MS4 (provided the MS4 is not the *owner or operator* of the construction activity) in writing prior to reducing the frequency of inspections.

c. Where soil disturbance activities have been shut down with partial project completion, the *qualified inspector* can stop conducting inspections if all areas disturbed as of the project shutdown date have achieved *final stabilization* and all post-construction stormwater management practices required for the completed portion of the project have been constructed in conformance with the SWPPP and are operational. The *owner or operator* shall notify the City's stormwater contact person in writing prior to the shutdown. If soil disturbance activities are not resumed within 2 years from the date of shutdown, the Contractor shall have the *qualified inspector* perform a final inspection and certify that all disturbed areas have achieved *final stabilization*, and all temporary, structural erosion and sediment control measures have been removed, and that all post-construction stormwater management practices have been constructed in conformance with the SWPPP by signing the "Final Stabilization" and "Post-Construction Stormwater Management Practice" certification statements on the Notice of Termination. The *owner or operator* shall then submit the completed Notice of Termination form to the City of Portland.

At a minimum, the *qualified inspector* shall inspect all erosion and sediment control practices to ensure integrity and effectiveness, all post-construction stormwater management practices under construction to ensure that they are constructed in conformance with the SWPPP, all areas of disturbance that have not achieved *final stabilization*, all points of discharge to natural surface water bodies located within, or immediately adjacent to, the property boundaries of the construction site, and all points of discharge from the construction site.

The *qualified inspector* shall prepare an inspection report subsequent to each and every inspection. At a minimum, the inspection report shall include and/or address the following:

a. Date and time of inspection;

b. Name and title of person(s) performing inspection;

c. A description of the weather which shall be consistent with the National Weather Service Forecast Office, Portland-Gray, ME and soil conditions (e.g. dry, wet, saturated) at the time of the inspection;

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d. A description of the condition of the runoff at all points of discharge from the construction site and sampling to determine the turbidity in NTU's. This shall include identification of any *discharges* of sediment from the construction site. Include *discharges* from conveyance systems (i.e. pipes, culverts, ditches, etc.) and overland flow;

e. A description of the condition of all natural surface water bodies located within, or immediately adjacent to, the property boundaries of the construction site which received runoff from disturbed areas. This shall include identification of any *discharge* of sediment to the surface water body;

f. Identification of all erosion and sediment control practices that need repair or maintenance;

g. Identification of all erosion and sediment control practices that were not installed properly or are not functioning as designed and need to be reinstalled or replaced;

h. Description and sketch of areas that are disturbed at the time of the inspection and areas that have been stabilized (temporary and/or final) since the last inspection;

i. Current phase of construction of all post-construction stormwater management practices and identification of all construction that is not in conformance with the SWPPP and technical standards;

j. Corrective action(s) that must be taken to install, repair, replace or maintain erosion and sediment control practices; and to correct deficiencies identified with the construction of the post-construction stormwater management practice(s); and

k. Digital photographs, with date stamp, that clearly show the condition of all practices that have been identified as needing corrective actions. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report being maintained onsite within seven (7) calendar days of the date of the inspection. The *qualified inspector* shall also take digital photographs, with date stamp, that clearly show the condition of the practice(s) after the corrective action has been completed. The *qualified inspector* shall attach paper color copies of the digital photographs to the inspection report that documents the completion of the corrective action work within seven (7) calendar days of that inspection.

Within one business day of the completion of an inspection, the *qualified inspector* shall notify the owner the appropriate contractor or subcontractor of any corrective actions that need to be taken. The contractor or subcontractor shall begin implementing the corrective actions within one business day of this notification and shall complete the corrective actions in a reasonable time frame, at its sole cost.

All inspection reports shall be signed by the *qualified inspector*. The inspection reports shall be maintained on site with the SWPPP and distributed via email at the time of filing.

18. The Owner reserves the right to have quality assurance monitoring of the work. The Contractor shall, at its sole cost, cooperate with the Owner and their quality assurance monitoring of the work including maintaining an accurate schedule for performing the work. The Owner will notify the contractor if any particular elements of the work should be uncovered or available for observation by the Quality Assurance Monitor selected by the Owner. The Owner reserves the right to conduct the quality assurance monitoring during working hours at any time during the project.

P. PROVISIONS FOR MAINTENANCE OF THE EROSION/SEDIMENTATION CONTROL FEATURES

The project will be contracted to a General Contractor. The project is subject to the requirements of the local permits, and a state regulated Construction General Permit and Stormwater Permit.

This project requires the Contractor to prepare a list and designate by name, address and telephone number all individuals who will be responsible for implementation, inspection, and maintenance of all erosion control measures identified within this section and as contained in the Erosion and Sedimentation Control Plan of the contract drawings. Specific responsibilities of the inspector(s) will include:

1. Execution of the Contractor/Subcontractor Certification contained in Attachment B by any and all parties responsible for erosion control measures on the site as required by the permit authorities.
2. Assuring and certifying the Owner's construction sequence is in conformance with the specified schedule of this section. A weekly certification stating compliance, any deviations, and corrective measures necessary to comply with the erosion control requirements of this section shall be prepared and signed by the inspector(s).
3. In addition to the weekly certifications, the inspector(s) shall maintain written reports recording construction activities on site which include:
   - Dates when major grading activities occur in a particular areas.
   - Dates when major construction activities cease in a particular area, either temporarily or permanently.
   - Dates when an area is stabilized.
4. Inspection of this project work site on a weekly basis and after each significant rainfall event (0.5 inch or more within any consecutive 24-hour period) during construction until permanent erosion control measures have been properly installed and the site has been stabilized. Inspection of the project work site shall include:
   - Identification of proper erosion control measure installation in accordance with the erosion control detail sheet or as specified in this section.
   - Determine whether each erosion control measure is properly operating. If not, identify damage to the control device and determine remedial measures.

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- Identify areas which appear vulnerable to erosion and determine additional erosion control measures which should be used to improve conditions.
- Inspect areas of recent seeding to determine percent catch of grass. A minimum catch of 90 percent is required prior to removal of erosion control measures.
- All erosion controls shall be removed within 30 days of permanent stabilization except for mulch and netting not detrimental to the project. Removals shall include but not be limited to all silt fence, hay bales, inlet protection, and stone check dams.
- Accumulated silt/sediment should be removed when the depth of sediment reaches 50 percent of the barrier height. Accumulated silt/sediment should be removed from behind silt fencing when the depth of the sediment reaches 6 inches.
- Silt sacks should be removed and replaced at least every three months and at any time where the weekly inspection reveals that siltation has significantly retarded the rate of flow through the silt sack.
- Discharges should be measured during storm events to document the turbidity of stormwater discharge is <280 NTU.

5. If inspection of the site indicates a change should be made to the erosion control plan, to either improve effectiveness or correct a site-specific deficiency, the inspector shall immediately implement the corrective measure and notify the Owner of the change.
6. Arranging for an on-site meeting prior to commencing winter construction to assure that all special winter construction measures will be implemented and to review the specific requirements of this plan for winter construction.

All certifications, inspection forms, and written reports prepared by the inspector(s) shall be filed with the Owner, and the Permit File contained on the project site. All written certifications, inspection forms, and written reports must be filed within one (1) week of the inspection date.

The Contractor has sole responsibility for complying with the erosion/sediment control report, including control of fugitive dust, and shall be responsible for any monetary penalties resulting from failure to comply with these standards.

Once construction has been completed, long-term maintenance of the stormwater management system will be the responsibility of the applicant. Inspection and Maintenance items with a list of maintenance requirements and frequency are described in a separate document. In the event of defective workmanship or any failure by the contractor and its subcontractors to adhere to the Standards set forth in these documents, the Contractor shall be responsible to correct, at its sole cost, any latent defects together with reimbursement of Owner for any expenses borne by the Owner up to the time of said correction. This provision shall remain in effect beyond any stated or implied warranty period.

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Q. PRECONSTRUCTION CONFERENCE

Prior to any construction at the site, representatives of the Contractor, the Owner, and the site design engineer and any personnel identified in the permit conditions shall meet to discuss the scheduling of the site construction and the designation of the responsible parties for implementing the plan. The Contractor shall be responsible for scheduling the meeting. Prior to the meeting, the Contractor will prepare a detailed schedule and a marked-up site plan indicating areas and components of the work and key dates showing date of disturbance and completion of the work. The Contractor shall conduct a meeting with employees and sub-contractors to review the erosion control plan, the construction techniques which will be employed to implement the plan, and provide a list of attendees and items discussed at the meeting to the Owner. Three copies of the schedule, the Contractor's meeting minutes, and marked-up site plan shall be provided to the Owner.

R. APPENDICES

Attachment A – Seeding Plan

Attachment B – Sample Erosion Control Compliance Certification and Inspection Forms

Attachment C – Open Channel, Outlet Aprons, and Temporary Sedimentation Sump Computations

Attachment D – DirtGlue™ Application and Use Requirements

Attachment E – SiteOps Computer Earthwork Analysis and Summary of Proposed Earthwork

S. PLAN REFERENCES

Drawings C-6.0 to C-5.1	Erosion/Sediment Control Plans
Drawings C-8.6 to C-8.7	Erosion/Sediment Control Details and Notes

Attachment G.3.1

INSPECTION AND MAINTENANCE MANUAL FOR STORMWATER MANAGEMENT AND RELATED STORMWATER FACILITIES

CONVENIENCE STORE AND FUEL STATION PORTLAND, ME

PREPARED FOR:

CJ DEVELOPERS, INC.
35 PRIMROSE LAND
FREEPORT, MAINE 04032
(207) 865-4323

PREPARED BY:

DELUCA-HOFFMAN ASSOCIATES, INC.
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APRIL 2013

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APPENDICES

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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 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).

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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 for the project 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 Convenience Store and Fuel Station development 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

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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 Long Creek Watershed.

The proposed design will include deep sump catch basins, oil absorbent sorbent booms, underground detention including the use of an arched chamber system and StormTreat™ system tank, Filterra® 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 of 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.

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(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 area and an open detention basin. The underground units are a proprietary system called StormTech® MC-4500 Chambers. The storage portion of the 60-inch high chambers will travel to a level-lip spreader and discharge to the wetlands on the easterly side of the property. The open graded detention basin will store the water quality volume processed by the StormTreat™ units. If the detention storage volume were exceeded, water would spill over the emergency overflows weir at the northeast corner of the detention basin.

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 water quality volume will be detained in the open detention basin and bleed through the treatment measure (StormTreat™). A 4 ft dia. Manhole will control the release from the StormTreat Units with an orifice cap on the outlet pipe. Runoff for storm events larger than 1" will overflow a 6 ft long weir wall and enter the underground storage system. The proposed underground storage systems will serve as a detention pond controlled by the hydraulic outlet control structure. The outlet control structure will be designed to detain the runoff from the 2, 10, and 25-year storm events with a slow release through the restricting orifice plate. Therefore, flow is anticipated to be released during and after every major storm event. Minor events will filter 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 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 CJ Developers, Inc. 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:

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- 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

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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 that transports the flow to water quality units. 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, sediment forebay, isolator row 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

G.3.10

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 CJ Developers, Inc.

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.

G.3.11

A WELL STABILIZED VEGETATED SWALE SHOWS LITTLE SIGNS OF EROSIVE 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.

G.3.12

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.

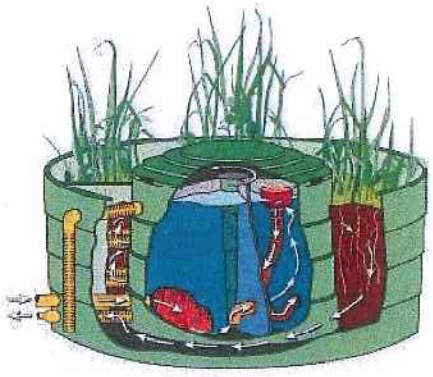
5. Perform (maintenance of) pretreatment devices as required in this manual.

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. 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".

G.3.14

H. PARKING LOT CLEANING

To protect the catch basin sediment sumps, underground storage, 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.

I. LITTER

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

J. 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.

6.3.15

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 A.

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.

6.3.16

APPENDIX A

Sample Inspection Logs

CONVENIENCE STORE AND FUEL STATION
PORTLAND, MAINE

STORMWATER MANAGEMENT
UNDERGROUND DETENTION
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:			

6.3.17

CONVENIENCE STORE AND FUEL STATION
PORTLAND, MAINE

STORMWATER MANAGEMENT
UNDERGROUND DETENTION
MONTHLY INSPECTION & MAINTENANCE LOG

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

6.3.18

CONVENIENCE STORE AND FUEL STATION
PORTLAND, MAINE

STORMWATER MANAGEMENT
UNDERGROUND DETENTION
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:

6.3.19

6.3.20

APPENDIX B

Permits for Project

(To be Added at a Subsequent Time)

G.3.21

APPENDIX C

Summary Checklist
Inspection and Maintenance

6.3.22

Stormwater Management System Maintenance Program Summary Checklist						
		Frequency				
Item	Commentary	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
Underground detention	Inspect for standing water not anticipated, sedimentation, outlet control, inlets. Jet Stream sediment removal from Isolator Row				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 should be swept at mid winter and spring. Power washing with an appropriate vacuum/power wash vehicle should be done once a year.			X	X	
Litter	Litter should be removed daily.					

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207.775.1121
FAX 207.879.0896

Attachment G.4.1

- SITE PLANNING AND DESIGN
- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- PERMITTING
- AIRPORT ENGINEERING
- CONSTRUCTION ADMINISTRATION

EXTRACT of Submission MDEP

April 9, 2013

Ms. Alison Moody
Maine Department of Environmental Protection
Industrial Stormwater Inspection
312 Canco Road
Portland, Maine 04103

Subject: **Convenience Store and Fuel Station Development – 2282 Congress Street**
Long Creek Individual Waste Discharge Application
Applicant: Portland Property Holdings, LLC

Dear Alison:

On behalf of the Applicant, Portland Property Holding, LLC (c/o CJ Developers, Inc.), we are pleased to provide (2) two copies of the accompanying Long Creek Individual Application for Post-Construction Discharge of Stormwater to the Long Creek Watershed package. The submission package includes the completed application, a check in the amount of $396.53, and accompanying plan set. These materials represent the design development for the proposed Convenience Store for the property generally bounded by Congress Street (north), Maine Turnpike (east), Skyway Drive (south), and Community Substance Abuse Center (west). It is the Applicant's intent to construct a 3,850 s.f. convenience store and fuel station. The development site is an approximately 3.24-acre area that is currently undeveloped. The Applicant currently has rights to a purchase and sale agreement signed by CJ Developers, Inc. to acquire the properties from the current Owner. The enclosed documents demonstrate Portland Property Holding, LLC's rights to the property and that they are in good standing with the Secretary of the State.

The Applicant will be responsible for obtaining a third party to complete the required stormwater inspections, maintenance, reporting and Good House Keeping. The enclosed draft contract from Stormwater Compliance, LLC is an approved company for this scope of work in the Long Creek Watershed.

The Applicant will negotiate a site specific financial contribution to satisfy the stream restoration requirement with the Long Creek Watershed Management District. If you have any questions regarding these materials please contact this office.

Sincerely,

DeLUCA-HOFFMAN ASSOCIATES, INC.

Stephen R. Bushey, P.E.
Senior Engineer

SRB/cmd/smk

Attachments

c: David Latulippe, CJ Developers, Inc.
Wes Thames, Priority Group
Jean Fraser, City of Portland

R:\3118-Convenience Store, Portland, ME\Admin\Permitting\MeDEP\3118 2013.04.09-Moody-IndvSWDischargeRev.doc

6.4.2

DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF LAND & WATER QUALITY

FOR DEP USE
L-_____
ATS#_____
Fees Paid_____
Date Received_____

Long Creek Individual Stormwater Discharge Application

This application is for an individual permit for post-construction discharge of stormwater to the Long Creek Watershed

APPLICANT INFORMATION:		AGENT INFORMATION:	
1. Name of Applicant:	Portland Property Holdings, LLC c/o CJ Developers Inc. Attn: David Latullipe	6. Name of Agent:	Steve Bushey, P.E. DeLuca-Hoffman Assoc., Inc.
2. Applicant's Mailing Address:	35 Primrose Lane Freeport, ME 04032	7. Agent's Mailing Address:	778 Main Street South Portland, ME 04106
3. Applicant's Phone #:	207-865-4323	8. Agent's Phone # :	207-775-1121
4. Email address (REQUIRED-permit will be sent via email:)	ddlatulip@aol.com	9.E-mail address REQUIRED-permit will be sent via email	sbushey@delucahoffman.com
5. Applicant's Fax #: (if available)		10. Agent's Fax # (if available):	207-879-0896

PROJECT INFORMATION:			
11. BILLING ADDRESS:	35 Primrose Lane, Freeport, ME 04032		
12. Location of Project: (Road, Street, Rt #)	2282 Congress Street	13. Town / City:	Portland, Maine

14. Annual Stormwater Discharge Permit Fee:	☒ Base Fee plus Annualized Permit Renewal Service Fee = $302 N/A ☒ Discharge Fee @ $23.14 per Acre = N/A Total Fee: $ 396.53
15. Brief description of project along with construction schedules:	New commercial development on 3.24 acre property located on the south side of Congress Street, west of the Maine Turnpike Authority in Portland, Maine. The project includes a 3,850 SF Convenience Store/Fuel Station with 14 filling dispenser positions. An ATM drive-thru will be provided. Site access will be off Congress Street. Construction is anticipated to begin in June 2013.
16. You must meet each and every one of the criteria listed to the right Checking each box means you have addressed that issue in your application: Chapter 521, Sec. 9-A(a)(1)(2)(3)(4):	**Individual Permit Standards:** ☒Erosion/Sed Control, Inspection and Maintenance, Housekeeping Sec.9-A(a)(1) Appendices A, B, C Chapter 500, Sec. (A) ☒Stormwater Treatment Standards Sec. 9-A(a)(2) Chapter 500, Sec. 4 (B) ☒ BMP inspection and maintenance Sec. 9-A(a)(3) ☒On-going Monitoring Plan, Sec.9-A(a)(4)

DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF LAND & WATER QUALITY

G.4.3

FOR DEP USE
L-_____
ATS#_____
Fees Paid_____
Date Received_____

17.The rules for stream restoration allow for several options to comply and obtain a permit. Check the choices you have made towards stream restoration or mitigation: **Chapter 521, Sec. 9-A(b)(1)(2)(c) and (d)**	**Stream Restoration Standards:** ❑Mitigation from Past Stormwater Discharges from Applicant's Property Sec. 9-A(b)(1) ☒Financial Contribution to a Watershed Management Plan and In- stream and/or Riparian Restoration Activities in Plan Sec.9-A(b)(2) ❑Credit for Watershed and Contributions Sec..9-A(c) ❑Additional Requirements Sec. 9-A(d)
18.Brief description of how the standards for stream restoration will be met:	The applicant will make a financial contribution to the Long Creek Watershed based on negotiations with the Long Creek Watershed Management District.

19.Location of Parcel:	**Latitude:**	N43° 39'1"	**Longitude:**	W70° 19'59"	**UTM Easting:**	392,478 meters	**UTM Northing:**	4,833,917 meters
20. Title, Right or Interest;	❑ own		❑ lease		☒ purchase option (attached)		❑ written agreement	
21. Tax Map Numbers:	**Lot Number:**		A012		**Tax Map Number:**		237	
22. Deed Reference #'s:	Book #		2931 / 14515 / 8551		Page #:		239 / 145 / 125	
23. DEP/CCSWCD Staff Previously Contacted:			Alison Moody					
24. Photos of Project included?			If yes, check here ☒					
25. FEES, Amount Enclosed:			$396.53					

SIGNATURES / CERTIFICATIONS ON PAGE 3

DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF LAND & WATER QUALITY

G.4.4

FOR DEP USE
L-_____
ATS#_____
Fees Paid_____
Date Received_____

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:

CERTIFICATIONS / SIGNATURES

"I certify under penalty of law that I have personally examined the information submitted in this document and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment. 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.

Further, I hereby authorize the DEP to send me an electronically signed decision on the permit I am applying for with this application by e-mailing the decision to the electronic address located on the front page of this application (see #4 for the applicant and #9 for the agent."

Signed:_____ **Title**_____ **Date:**_____

Notice of Intent to Comply with Maine Waste Discharge Law, Chapter 521, Section 9 - A	**With this Maine Waste Discharge Law application form and my signature below, I am filing notice of my intent to carry out work which meets the requirements of the Maine Waste Discharge Law, Chapter 521, Section 9 -A. I have read and will comply with all of the Chapter 521, Section 9 - A standards.** **Signed** _____ **Date:** 4/9/13

FORM A
6/2/10

ADDITIONAL SIGNATURES / CERTIFICATIONS

FORM A 6/2/2010

The person responsible for preparing this application and/or attaching pertinent site and design information hereto, by signing below, certifies that the application for a discharge of post construction of stormwater to the Long Creek approval is ~~complete~~ and accurate to the best of his/her knowledge.

Signature: _____

Name (print): Stephen R. Bushey, P.E.

Date: April 9, 2013

Re/Cert/Lic No.: _____
Engineer Maine P.E. 7429
Geologist _____
Soil Scientist _____
Land Surveyor _____
Site Evaluator _____
Active Member of the Maine Bar _____
Professional Landscape Architect _____
Other _____

Jean Fraser - Fwd: 2282 Congress Street - # ME5S0006

From: "Bo Kennedy" <bkennedy@DelucaHoffman.com>
To: <JF@portlandmaine.gov>
Date: 5/9/2013 3:34 PM
Subject: Fwd: 2282 Congress Street - # ME5S0006

Jean

Please find the email below from Alison with the Dep stating our status.

Thank you

Bo

Sent from my iPhone

Begin forwarded message:

> **From:** "Moody, Alison R" <Alison.R.Moody@maine.gov>
> **Date:** May 9, 2013, 12:29:34 PM EDT
> **To:** "'bkennedy@DelucaHoffman.com'" <bkennedy@DelucaHoffman.com>
> **Subject: 2282 Congress Street - # ME5S0006**
>
> Good afternoon Bo, as you know the Department has accepted for processing Portland Property Holding□□□s LLC□□□s permit application for Post Construction Discharge of Stormwater within the Long Creek Watershed. At this time, the project is in the technical review stage. The Department is in receipt of your April 29th letter addressing a few initial questions the we had upon a close review of the application material. Once Ben Viola returns from vacation he will review the information you submitted on April 29thand continue his review, if there are any additional questions we will contact you. Once our technical review process is complete and a review of the draft license has been performed within the Department, it will then be subject to a formal public comment period of (30) days. If the Department receives any comments on the draft permit, response to those comments will be drafted.
>
> If you have any questions please don□□□t hesitate to ask.
>
> Alison R. Moody
> Industrial Stormwater Inspector
> Maine DEP
> 312 Canco Road
> Portland, ME 04103
> (207) 615-8936

Attachment H.1

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207.775.1121
FAX 207.879.0896

- SITE PLANNING AND DESIGN
- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- PERMITTING
- AIRPORT ENGINEERING
- CONSTRUCTION ADMINISTRATION
- LANDSCAPE PLANNING

March 21, 2013

Mr. Rico Spugnardi, Means Coordinator
Portland Water District
225 Douglass Street
PO Box 3553
Portland, Maine 04104-3553

Subject: **Proposed Multi-Use Development**
2282 Congress Street, Portland, Maine
Request for Ability to Serve Letter

Dear Mr. Spugnardi:

Our office has been retained by CJ Developers, Inc., which has a Purchase and Sale Agreement for the property at 2282 Congress Street in Portland, to prepare site plans and assist with permitting for a new structure on the lot (Map 237, Block 'A' Lot 01). On behalf of the developer, we are requesting a letter affirming that the proposed project can be served by the municipal water supply system.

The project will consist of the construction of a new convenience store/fuel station and drive thru ATM machine. The building will have a total size of approximately 3,850 square feet. A copy of a 2013 Survey Plan has been attached to this letter for reference. The proposed convenience store will likely be served by a 2" Domestic service water main. We understand there is a 12" main in Congress Street with an existing hydrant across the street along the frontage of the site. It is anticipated that the site's service will extend off Congress Street. We are interested in knowing if there are any existing stubs extended to the site.

The projected water use using the Maine State Plumbing Code and vendor information are as follows:

Use	Demand (Chapter 5 – Maine Subsurface Waste Water Disposal Rules)	Design Flow
Gas/Service Station with Convenience Store	400 gpd/Water Closet @ 1 Water Closet 15 gpd/Employee @ 4 Employees	460 GPD
	Total Mixed Use Water Usage Required:	**460 GPD**

Based on this modest amount of flow, we trust that the existing water supply system has adequate capacity to serve this project. We are in the process of completing the Site Plan Application for a submission to the City Planning Staff.

If you have any questions concerning this request, please contact me.

Sincerely,

DeLUCA-HOFFMAN ASSOCIATES, INC.

Bo Kennedy, P.E.
Project Engineer

BEK/smk

Enclosures: Survey Plan

R:\3118-Convenience Store, Portland, ME\Admin\Correspondence Out\Utility Contacts\3118 2013.03.21-Spugnardi-ABS Water.doc

H.3

Portland Water District

From Sebago Lake To Casco Bay

April 16, 2013

DeLuca-Hoffman Associates, Inc.
779 Main Street, Suite 8
South Portland, ME 04106

Attn: Bo Kennedy, P.E.
Re: 2282 Congress Street, Portland
Ability to Serve with PWD Water

Dear Mr. Kennedy:

The Portland Water District has received your request for an Ability to Serve determination for the noted site submitted on March 21, 2012. 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 Service

According to District records, the project site does not currently have existing water service.

Water System Characteristics

According to District records, there is a 12-inch diameter ductile iron water main on the north side of Congress Street and a public fire hydrant located across the street from the site.

The current data from the nearest hydrant with flow test information is as follows:

Hydrant Location:	Congress Street 100' west of Blueberry Road
Hydrant Number:	POD-HYD01624
Last Tested:	6/29/2010
Static Pressure:	70 psi
Residual Pressure:	68 psi
Flow:	1,363 GPM

225 Douglass Street P.O. Box 3553 Portland, Maine 04104-3553
Phone: 207.774.5961 Fax: 207.761.8307 Web: www.pwd.org

Public Fire Protection

It is anticipated that this 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 indicated that the anticipated water usage required is 460 gallons per day. The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of the proposed convenience store/fuel station.

Private Fire Protection Water Needs

You have not indicated whether 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. Should private fire protection be required, please share these results with your sprinkler system designer so that they can design the fire protection system to best fit the noted conditions. If the data is out of date or insufficient for their needs, please contact the MEANS Division to request a hydrant flow test and we will work with you to get more complete data.

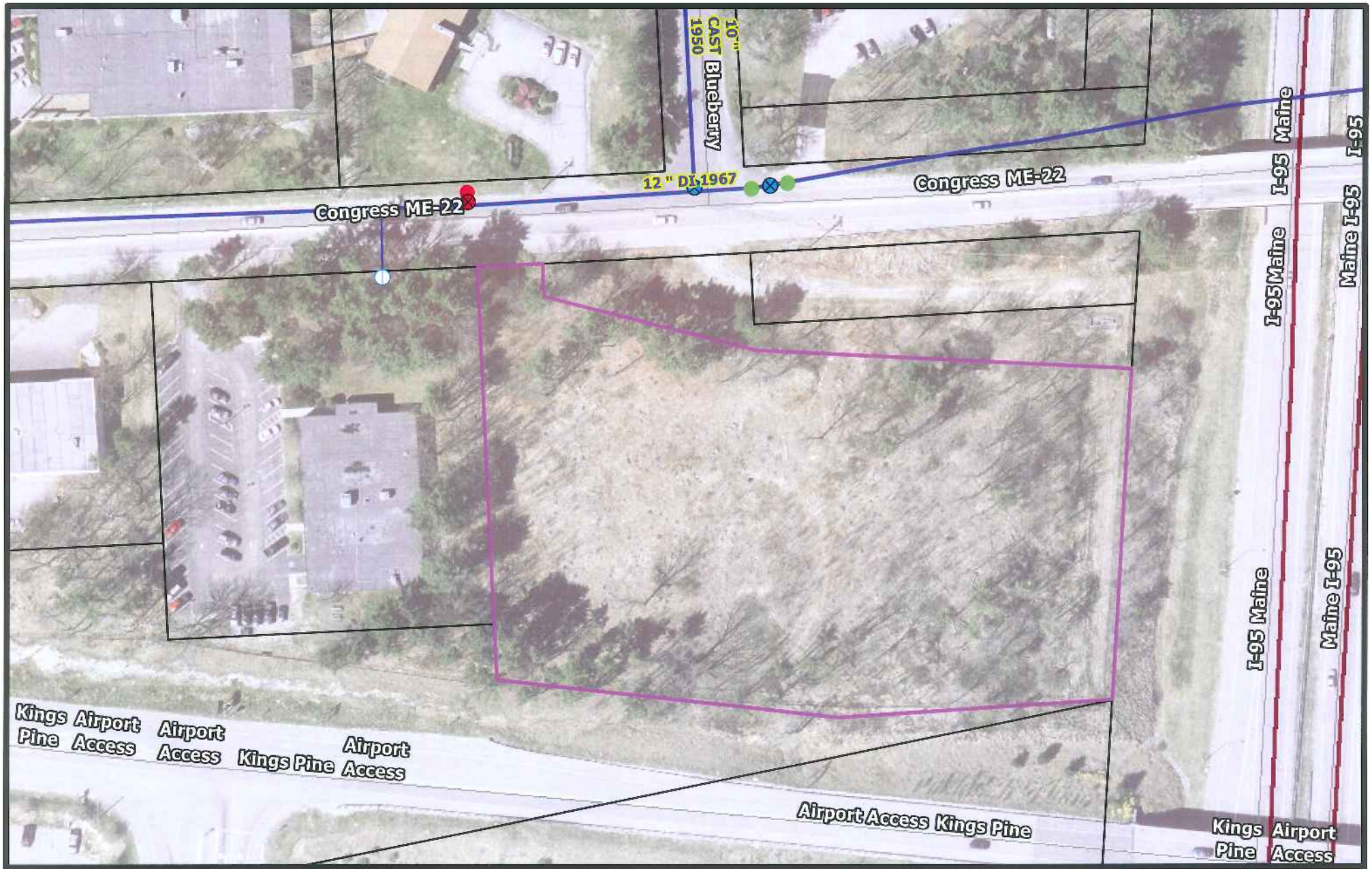
Conditions of Service

The ability to serve request indicated that a new convenience store/fuel station is proposed at this site. The District can confirm that the water main in Congress Street has sufficient capacity to support this proposed use. New services may be installed to serve this site through the properties own frontage along Congress Street or through the proposed access/utility easement from the Maine Turnpike Authority. The services should enter the property at least 10-feet from any side property lines.

We advise that you submit any preliminary design plans to MEANS for review of the water service line configuration. We will work with you to ensure that the design meets our current standards. If the District can be of further assistance in this matter, please let us know.

Sincerely,
Portland Water District

Glissen Havu, E.I.
Design Engineer



2282 Congress Street

Portland

PORTLAND WATER DISTRICT
225 Douglass Street
Portland, ME 04104

Scale 0 25 50 100 150 200 Feet — 1 inch = 100 feet

Legend

Air Valve	Connection	Combined Service	Manhole	
Blow Off	Attribute Change	Domestic Service	CSO	
By Pass	Reducer	Fire Service		Gravity
Distribution	Hydrant	Private Hydrants		Force
Transmission	Hydrant Control	Meter Pits		

N

Disclaimer: This map is suitable for preliminary study and analysis and is based on PWD record information. PWD is not liable for any damages whatsoever resulting from inaccurate data or from errors made in the location and marking of its infrastructure.

Drawn By: GJH	Prepared For: DeLuca-Hoffman Associates
Scale: As Noted	Date: March 21, 2013 GH

H. 6

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207.775.1121
FAX 207.879.0896

- SITE PLANNING AND DESIGN
- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- PERMITTING
- AIRPORT ENGINEERING
- CONSTRUCTION ADMINISTRATION

May 6, 2013

Ms. Jean Fraser, Planner
Planning and Urban Development Department
City of Portland, Maine
389 Congress Street
Portland, Maine 04101-3509

Subject: **Convenience Store and Fuel Station Development**
2282 Congress Street
Final Site Plan Application
Additional Items

Wastewater.

Dear Jean:

As per your request by email today, we are pleased to provide the accompanying Photometrics Plan and a revised Project ~~Data Sheet related to the proposed Convenience~~ Store/Fuel Station at 2282 Congress Street. This should complete our application package for the ~~May 14, 2013~~ Planning Board. Our office spoke with David Margolis-Pineo and confirmed he is satisfied with our Wastewater Application and that a capacity to serve letter is forthcoming.

~~Please find one (1) hard copy of the revised~~ Project Data Sheet, and one each of 11x17 and full size copies of the Photometrics Plan. ~~These materials were emailed to you today in PDF version.~~

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

Sincerely,

DeLUCA-HOFFMAN ASSOCIATES, INC.

Stephen R. Bushey, P.E.
Senior Engineer

SRB/smk

Attachments

c: David Latulippe, CJ Developers, Inc.
Wes Thames, Priority Group

R:\3118-Convenience Store, Portland, ME\Admin\Permitting\Local\Level III Site Plan Application\3118 2013.05.06-Fraser-Addtl Items.doc

4.7

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207.775.1121
FAX 207.879.0896

- SITE PLANNING AND DESIGN
- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- PERMITTING
- AIRPORT ENGINEERING
- CONSTRUCTION ADMINISTRATION
- LANDSCAPE PLANNING

March 26, 2013
Revised April 23, 2013

Mr. Frank Brancely
City of Portland
Department of Public Services
55 Portland Street
Portland, Maine 04101-2991

Subject: **Proposed Multi-Use Development**
2282 Congress Street, Portland, Maine
Wastewater Capacity Application

Dear Mr. Brancely:

Our office has been retained by CJ Developers, Inc., which has a Purchase and Sale Agreement for the property at 2282 Congress Street in Portland, to prepare site plans and assist with permitting for a new structure on the lot (Map 237, Block 'A' Lot 012). On behalf of the developer, we are requesting a letter affirming that the proposed project can be served by the municipal wastewater treatment system.

The project will consist of the construction of a new convenience store/fuel station and drive thru ATM machine. The building will have a total size of approximately 3,850 square feet. A copy of a 2013 Survey Plan has been attached to this letter for reference. The proposed convenience store will likely be served by an 8" private sewer extending northerly toward Hutchins Drive where it ties into a 10" public main as shown on the enclosed figure. It is anticipated that the site's service will extend off from the adjacent lot with a private service.

The projected water use using the Maine State Plumbing Code and vendor information are as follows:

Use	Demand (Chapter 5 – Maine Subsurface Waste Water Disposal Rules)	Design Flow
Gas/Service Station with Convenience Store	400 gpd/Water Closet @ 1 Water Closet 15 gpd/Employee @ 4 Employees 1 gpd/Parking Space @ 32 Spaces	492 GPD
	Total Mixed Use Water Usage Required:	**492 GPD**

Based on this modest amount of flow, we trust that the existing wastewater collection and treatment system has adequate capacity to serve this project. Additionally, our office proposes a 1,000-gallon grease trap will be used for a small kitchen/food preparation area within the convenience store. We are in the process of completing the Site Plan Application for a submission to the City Planning Staff.

If you have any questions concerning this request, please contact me.

Sincerely,

DeLUCA-HOFFMAN ASSOCIATES, INC.

Bo Kennedy, P.E.
Project Engineer

BEK/smk

Enclosures: Survey Plan

R:\3118-Convenience Store, Portland, ME\Admin\Permitting\Local\Wastewater Capacity Application\3118 2013.03.26-Brancely-WWCapacity Rev.doc

H.9

CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

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

Date: 03-26-13

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

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

Site Address: 2282 Congress Street

Chart Block Lot Number: 237, A, 012

Proposed Use: Mixed-Use Commercial
Previous Use: Undeveloped
Existing Sanitary Flows: 0 GPD
Existing Process Flows: 0 GPD
Description and location of City sewer that is to receive the proposed building sewer lateral.

The site does not currently have a sewer service.

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

Clearly, indicate the proposed connections, on the submitted plans.

2. Please, Submit Contact Information.

City Planner's Name: Jean Fraser Phone: 207-874-8728
Owner/Developer Name: CJ Developers, Inc.
Owner/Developer Address: 35 Primrose Lane, Freeport, ME 04032
Phone: 207-865-4323 Fax: E-mail: ddlatulip@aol.com
Engineering Consultant Name: Bo Kennedy, DeLuca-Hoffman Associates, Inc.
Engineering Consultant Address: 778 Main Street, Suite 8, South Portland, ME 04106
Phone: 207-775-1121 Fax: 207-879-0896 E-mail: bkennedy@delucahoffman.com

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

3. Please, Submit Domestic Wastewater Design Flow Calculations.

Estimated Domestic Wastewater Flow Generated: 492 GPD
Peaking Factor/ Peak Times: Estimated to be 8 times daily flow and equal to 2.5 gal/min. Peak time is projected to be 11:00am-2:00pm (lunchtime)
Specify the source of design guidelines: *(i.e.__"Handbook of Subsurface Wastewater Disposal in Maine," __"Plumbers and Pipe Fitters Calculation Manual," __Portland Water District Records, Other (specify)* See attached letter dated March 26, 2013

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

H.10

4. Please, Submit External Grease Interceptor Calculations.

Total Drainage Fixture Unit (DFU) Values: _____

Size of External Grease Interceptor: 1,000 Gallons

Retention Time: _____

Peaking Factor/ Peak Times: _____

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

5. Please, Submit Industrial Process Wastewater Flow Calculations

Estimated Industrial Process Wastewater Flows Generated: N/A GPD

Do you currently hold Federal or State discharge permits? Yes ___ No ___

Is the process wastewater termed categorical under CFR 40? Yes ___ No ___

OSHA Standard Industrial Code (SIC): *(http://www.osha.gov/oshstats/sicser.html)*

Peaking Factor/Peak Process Times: N/A

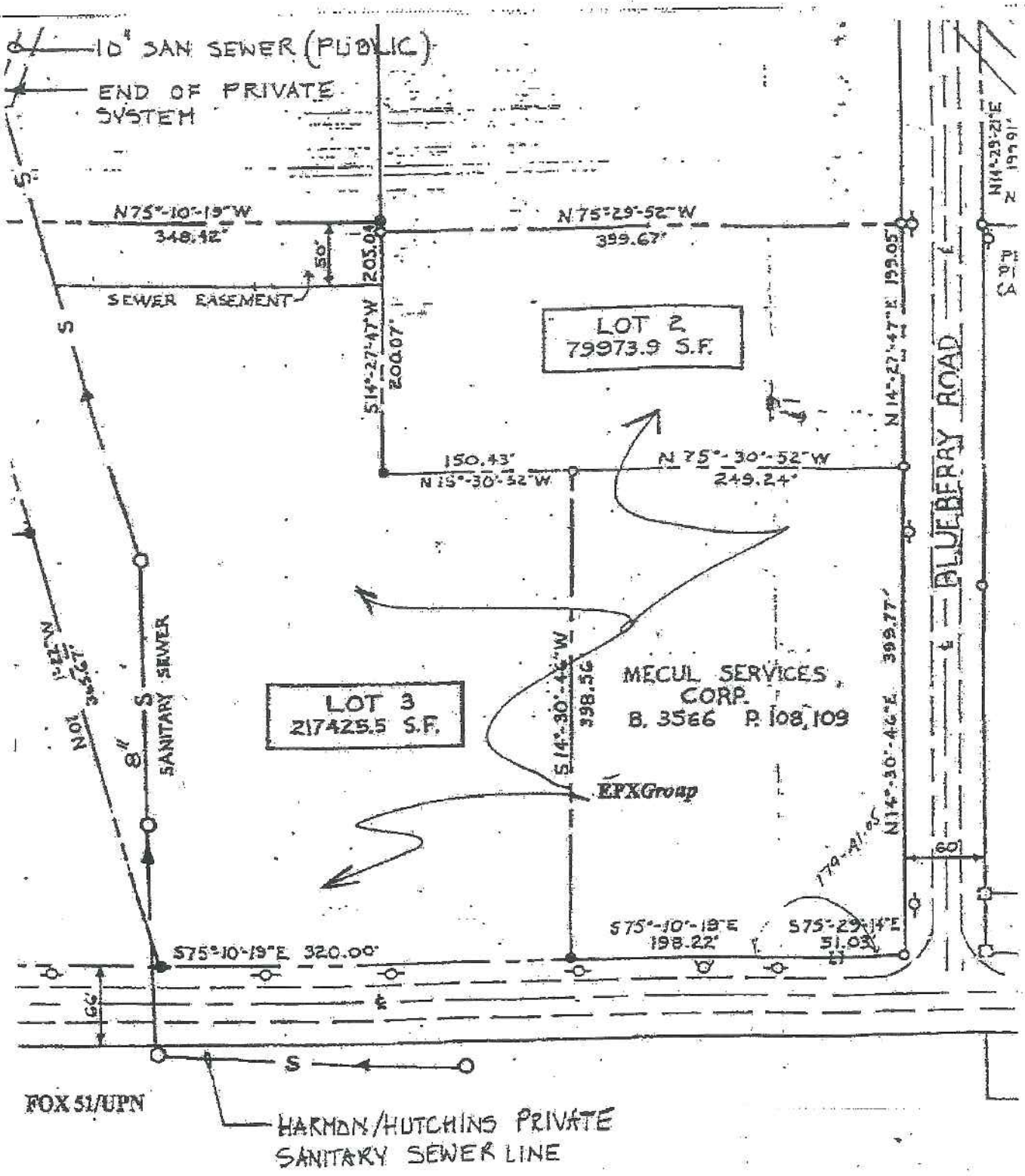
Note: On the submitted plans, please show where the building's domestic sanitary sewer laterals, as well as the building's industrial-commercial process wastewater sewer laterals exits the facility. Also, show where these building sewer laterals enter the city's sewer. Finally, show the location of the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

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

Notes, Comments, or Calculations:

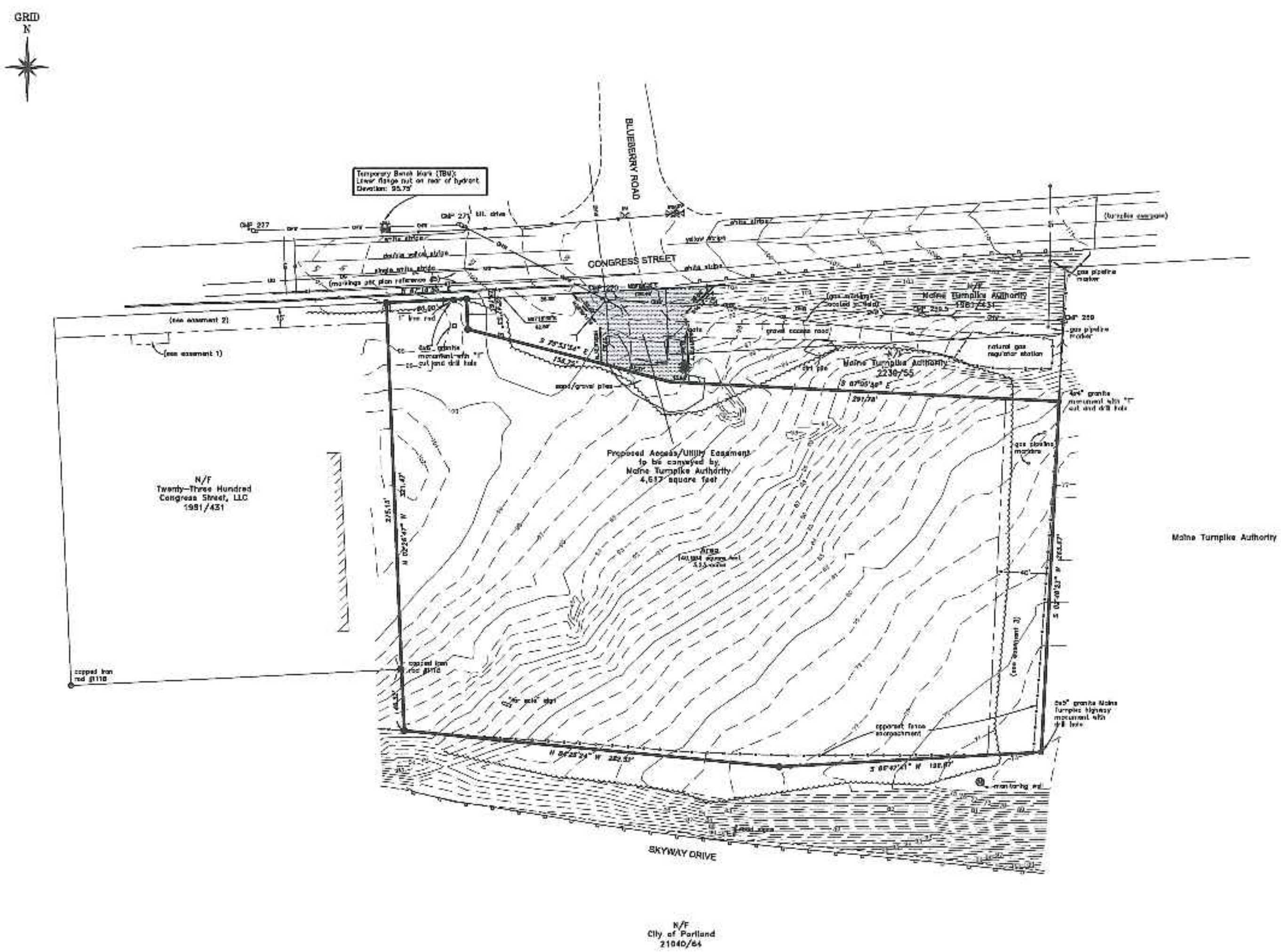
1. See attached plans for sanitary sewer layout, rim and invert elevation and details.
2. The average daily flow is estimated to be 25 gallons per day from the fixtures draining to the external grease trap. 1,000 gallons is considered the smallest permissible tank size for an external grease interceptor and will be more than sufficient for this development.

A.11



SYSCO/JORDAN'S

1" = 100'



LEGEND

- Monument – found
- Iron marker – found
- Iron marker – to be set (#5 rebar)
- Property line (locus)
- Property line (abutter)
- Easement line
- Chain link fence
- Guard rail
- Edge of pavement
- Edge of gravel
- Curb
- Sign
- Utility pole
- Guy wire
- Gas valve
- Water valve
- Fire hydrant
- Overhead utility line
- Underground water line
- Underground gas line
- Underground telephone line
- Contours (1ft)
- Contours (5ft)
- N/F — Now or formerly of
- 1234/567 — Deed reference (Book/Page)
- Tree line
- Coniferous tree
- Existing building

NOTES

1) Book and Page references are to the Cumberland County Registry of Deeds, unless otherwise noted.

2) Bearings are referenced to grid north, Maine State Plane Coordinate System, NAD83, West Zone.

3) Elevations are based on NGVD 1929. Benchmark is a flange bolt on a fire hydrant. Elev. 98.75'.

4) Utility information on this plan is approximate, based on location of visible features and information contained on plans and drawings provided by others. DigSafe and/or the appropriate utilities should be contacted prior to any construction.

5) Property lies within Zone X based on FIRM Community #230051 Panel #12-C, dated Dec. 8, 1998. It does not lie within a special flood hazard area.

6) Project area was covered by snow and ice at the time of the survey and some features may have been obscured and not shown on this plan.

PLAN REFERENCES

1) Maine Turnpike Authority plan of Section 1 – Kittery to Portland. Supplemental Sheet No. 2, made by Howard, Needles, Tammen & Bergendoff, dated August 1947.

2) Maine Turnpike Authority plan of Section 1 – Kittery to Portland, Congress Street Property Plan Supplemental Sheet No. 11, made by Howard, Needles, Tammen & Bergendoff, dated July 1954, recorded in Plan Book 41, Page 65.

3) Maine Turnpike Authority plan of Property and Right of Way Plans Section 1 – Kittery to Portland, Jetport Interchange Project drawing number ROW01, ROW02, ROW04 and ROW05, dated February 1997.

4) Maine Turnpike Authority plan of Property and Right of Way Plans Section 1 – Kittery to Portland, Jetport Interchange Project drawing number Supplemental 101 and Supplemental 102.

5) Standard Boundary & Topographic Survey made for Hutchcourt, L.L.C. by DEST Associates, Inc. dated March 1999 and revised through September 2, 1999, recorded in Plan Book 199, Page 412.

EASEMENTS OF RECORD

1) Sewer easement conveyed to Hutchcourt, L.L.C. by Robert F. Balducci, Jr. in Book 10032, Page 299.

2) Sewer line easement reserved by Harry A. Harmon and George M. Hutchins in Book 3426, Page 278.

3) Utility easement conveyed to Northern Utilities, Inc. by Harry A. Harmon and George M. Hutchins.

OWNERS OF RECORD

Hutchcourt, L.L.C. Book 15017, Page 281

SCALE IN FEET

40 0 40 80

1" = 40'

CERTIFICATION

This survey conforms to the current standards of practice set forth by the Maine State Board of Licensure for Land Surveyors.

Rex J. Croteau P.L.S. #2273

STATE OF MAINE — REX CROTEAU 2273 — PROFESSIONAL LAND SURVEYOR

Rev. 1	04/11/13	access/utility easement	RJC

PLAN OF

Boundary Survey

2383 Congress Street — Portland, Maine

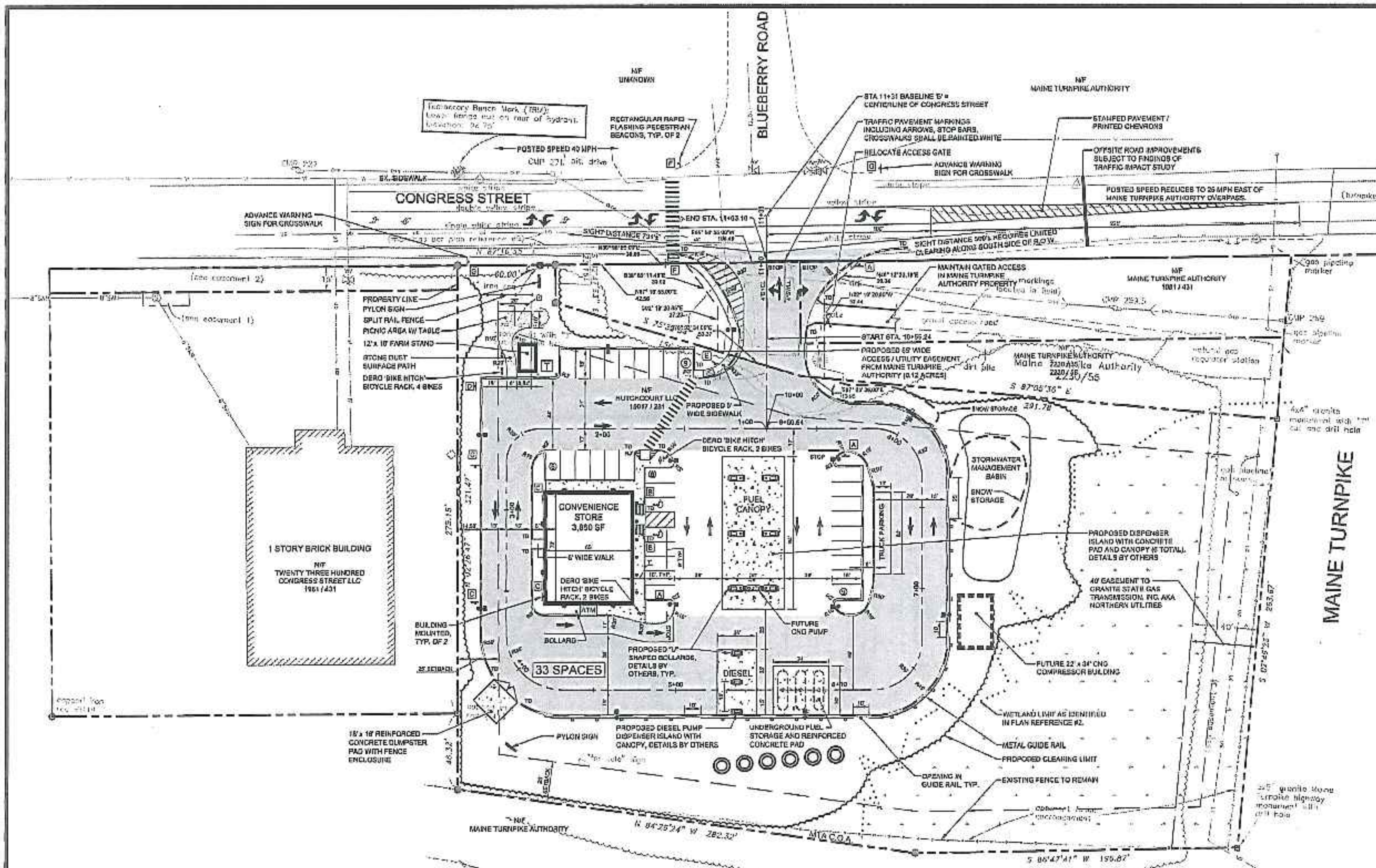
MADE FOR

Priority Group, LLC

2 Main Street — Topsham, Maine

JOB #213008	DATE: Mar. 13, 2013	SCALE: 1" = 40'
BOOK #836	Titcomb Associates, 133 Gray Road, Falmouth, Maine 04105 (207)797-9199	
07/2013/213008		
FILE #8242		

H.12



PARCEL SIZE 3.24 ACRES

PARCEL SIZE	3.24 ACRES
CITY OF PORTLAND, MAINE - PERFORMANCE STANDARDS	
	EXISTING INDUSTRIAL MODERATE IM
CRITERIA	REQUIRED
USE - CONVENIENCE STORE W/ FUEL STATIONS	PERMITTED BY CONDITIONAL ZONING
MINIMUM LOT SIZE	NONE
FRONT YARD SETBACK	1' FROM THE FRONT PROPERTY LINE FOR EACH 1' OF BUILDING HEIGHT
REAR YARD SETBACK SIDE YARD SETBACK	1' FROM EACH SIDE OR REAR FOR EACH 1' OF BULDING HEIGHT UP TO 25'
MAXIMUM HEIGHT	75'
MAXIMUM IMPERVIOUS SURFACE RATIO	75%
PAVEMENT SETBACK FROM LOT BOUNDARIES	10'
MINIMUM STREET FRONTAGE	60'
MAXIMUM FLOOR AREA RATIO	-
MINIMUM LOT WIDTH	-

SURFACE MATERIAL LEGEND

- HEAVY DUTY BITUMINOUS CONCRETE PAVEMENT
- STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT
- PORTLAND CEMENT CONCRETE
- STONE DUST

CURB LEGEND

- MONOLITHIC CONCRETE CURB - PART OF SIDEWALK
- C.I.P. SLIPFORM CONCRETE CURB - SLOPED MOLD WHERE NOT ADJACENT TO SIDEWALK
- TYPE 1 VERTICAL GRANITE CURB - MDOT 609.11
- TD — TIPDOWN

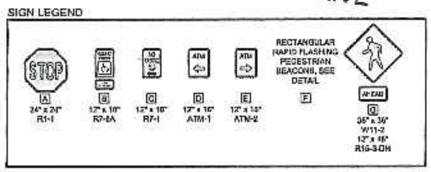
NOTES:

1. RECORD OWNER OF PROPERTY:
   HUTCHCOURT LLC BY DEEDS RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 15017, PAGE 281. PROPERTY IS LOCATED IN THE CITY OF PORTLAND ON TAX MAP 237, LOT A012.
2. PROPERTY IS LOCATED WITHIN THE INDUSTRIAL (IM) ZONE. ZONING IS SUBJECT TO REVIEW BY THE MUNICIPALITY.
3. PROPERTY IS LOCATED IN FLOOD ZONE 'X' BASED ON F.I.R.M. PANEL 2230051-C012C EFFECTIVE DEC. 8, 1980 AS DEPICTED IN THE CITY OF PORTLAND, MAINE CUMBERLAND COUNTY. ZONE 'X' IS NOT DESIGNATED AS AN AREA OF SPECIAL FLOOD HAZARD.

PLAN REFERENCES:

1. STANDARD BOUNDARY & TOPOGRAPHIC SURVEY PREPARED BY TITCOMB ASSOCIATES, INC. DATED MARCH 13, 2013.
2. COMPOSITE PLAN PREPARED FOR CJ DEVELOPERS, INC. BY ALBERT FRICK ASSOCIATES, INC. DATED 04.02.12.

SIGN LEGEND



PRELIMINARY - NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION
3	04.18.13	REVISED PER CITY STAFF COMMENTS
2	04.09.13	SUBMITTED TO MEDEP STORMWATER DISCHARGE PERMIT
1	03.28.13	SUBMITTED TO CITY OF PORTLAND
REVISIONS		

STATE OF MAINE — STEPHEN R. BUSHEY — 7420 — LICENSED PROFESSIONAL ENGINEER
P.E. STEPHEN BUSHEY
LIC # 7420

PROJECT: MULTI-USE DEVELOPMENT
2282 CONGRESS ST., PORTLAND, ME

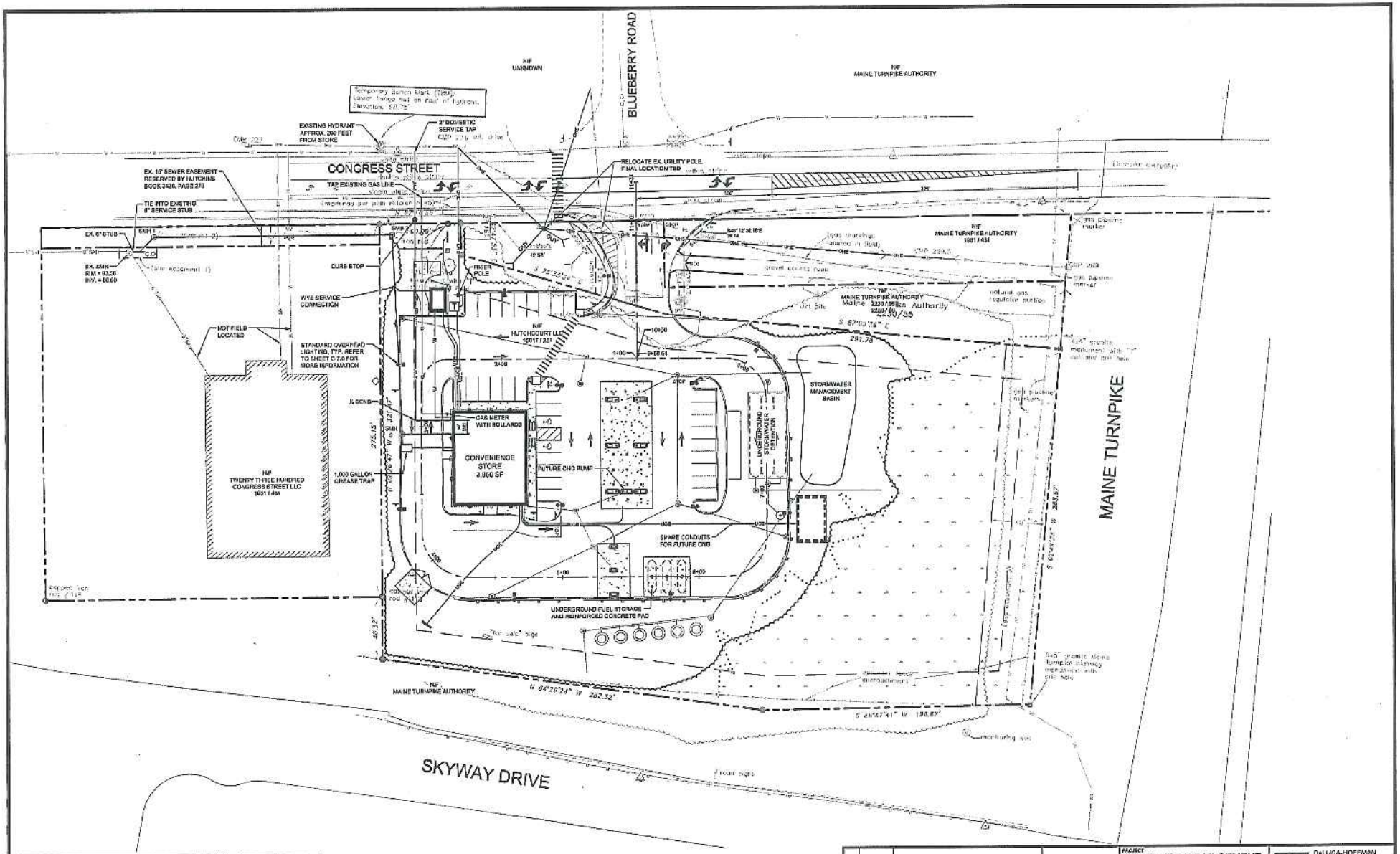
SHEET TITLE: SITE LAYOUT PLAN

CLIENT: CJ DEVELOPERS, INC.
35 PRIMROSE LANE, FREEPORT, MAINE 04032

DeLUCA-HOFFMAN ASSOCIATES, INC.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, ME 04106
207.775.1121
WWW.DELUCAHOFFMAN.COM

DRAWN:	CMW	DATE:	MAR. 2013
DESIGNED:	SRB	SCALE:	1" = 30'
CHECKED:	SRB	JOB NO.	3118
FILE NAME:	3118-SP		
SHEET	C-2.0		

H.B.



SANITARY SEWER APPURTENANCE SCHEDULE			
ID	RIM	INV. IN / SIZE / FROM	INV. OUT / SIZE / TO
SMH 1	MATCH EX.	88.89 / 8" / SMH 2	88.79 / 6" / EX. SMH
SMH 2	93.09	90.31 / 8" / SMH 3	90.21 / 6" / SMH 1
SMH 3	89.40	84.13 / 6" / BLDG 84.13 / 4" / GREASE TRAP	84.03 / 8" / SMH 2
1,000 GAL. GREASE TRAP		83.71 / 4" / BLDG	84.46 / 4" / SMH 4

(IN FEET)
1 inch = 30 ft.

NORTH

PRELIMINARY - NOT FOR CONSTRUCTION

REV.	DATE	DESCRIPTION
3	04.16.13	REVISED PER CITY STAFF COMMENTS
2	04.09.13	SUBMITTED TO MEDEP STORMWATER DISCHARGE PERMIT
1	03.28.13	SUBMITTED TO CITY OF PORTLAND

REVISIONS

PROJECT
MULTI-USE DEVELOPMENT
2282 CONGRESS ST., PORTLAND, ME

SHEET TITLE
UTILITY PLAN

CLIENT
CJ DEVELOPERS, INC.
35 PRIMROSE LANE, FREEPORT, MAINE 04032

DeLUCA-HOFFMAN ASSOCIATES, INC.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, ME 04106
207.775.1121
WWW.DELUCA-HOFFMAN.COM

DRAWN:	CMW
DESIGNED:	SRB
CHECKED:	SRB
FILE NAME:	3119-SP
DATE:	MAR. 2013
SCALE:	1" = 30'
JOB NO.	3119
SHEET	C-4.0

F 1 of 4

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207.775.1121
FAX 207.879.0896

- SITE PLANNING AND DESIGN
- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- PERMITTING
- AIRPORT ENGINEERING
- CONSTRUCTION ADMINISTRATION

H.15

March 21, 2013

Ms. Kelly Fowler
Unitil Service Corp.
PO Box 3586
1075 Forest Avenue
Portland ME 04103

Subject: Proposed Multi-Use Development
2282 Congress Street, Portland, Maine
Request for Ability to Serve Letter

Dear Ms. Fowler:

Our office has been retained by CJ Developers, Inc., which has a Purchase and Sale Agreement for the property at 2282 Congress Street in Portland, to prepare site plans and assist with permitting for a new structure on the lot (Map 237, Block 'A' Lot 01). On behalf of the developer, we would like to verify Unitil's ability to provide Natural Gas Service to the site and determine any impact fees.

The project will consist of the construction of a new convenience store/fuel station and drive thru ATM machine. The building will have a total size of approximately 3,850 square feet. A copy of a 2013 Survey Plan has been attached to this letter for reference. The proposed convenience store will likely be served by a service extension off from the 4" main crossing the site. We understand there is a 4" main in Congress Street which turns off road at the entrance to the project site and continues parallel with the easterly boundary line. We are interested in knowing if there are any existing stubs extended to the site. Additionally, the applicant is planning for a future compressed natural gas fueling station as shown on the enclosed concept plan.

The project is still in the process of determining specific tenant requirements; therefore, our office has not projected usage requirements. We would like to use this opportunity to notify you of our development intentions and determine the feasibility of incorporating natural gas into our site plan.

Specifically, our office is interested in a letter from you indicating the following:

- The ability of Unitil to serve the project. Specific site flow requirements will be computed and forwarded upon completion.
- Any connection service or impact fees.
- Notification of any Unitil plans to upgrade the service in this area.

H.16

If you have any questions regarding this letter, please contact our office.

Sincerely,

DeLUCA-HOFFMAN ASSOCIATES, INC.

Bo Kennedy, P.E.
Project Engineer

BEK/smk

Attachment

c: David Latulippe-

R:\3118-Convenience Store, Portland, ME\Admin\Correspondence Out\Utility Contacts\3118 2013.03.21-Fowler-Unitil-ABS Natural Gas.doc

H.17

Unitil
Northern Utilities, Inc.

March 28, 2013

Bo Kennedy, P.E.
Deluca-Hoffman
778 Main Street, Suite 8
South Portland, ME 04106

Dear Mr. Kennedy:

Re: Proposed Multi-Use Development, 2282 Congress St, Portland

Thank you for your interest in using natural gas for the above referenced project.

Unitil does have natural gas in the vicinity of this project and has determined that it can provide service to serve the gas needs of the proposed building. Unitil welcomes the opportunity for further discussions regarding this project. We would expect the cost to service the building would minimal but would need additional information in order to accurately determine the cost. As discussed, we cannot provide an ability to service letter for the proposed CNG facility without additional information. However I can say that the location for the proposed CNG facility is optimal given the proximity to our high pressure station adjacent to the proposed new facility.

If you have any further questions or require additional information, please contact me directly at (207) 541-2543 or at carpenters@unitil.com .

Sincerely,

Scott Carpenter

Scott Carpenter
Business Development Representative

1075 Forest Avenue,
Portland, ME 04103-3321

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207.775.1121
FAX 207.879.0896

H. 18

- SITE PLANNING AND DESIGN
- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- PERMITTING
- AIRPORT ENGINEERING
- CONSTRUCTION ADMINISTRATION

March 21, 2013

Mr. Jamie Cough
Central Maine Power
162 Canco Road
Portland, ME 04103

Subject: **Proposed Multi-Use Development**
2282 Congress Street, Portland, Maine
Request for Ability to Serve Letter

Dear Jamie:

Our office has been retained by CJ Developers, Inc., which has a Purchase and Sale Agreement for the property at 2282 Congress Street in Portland, to prepare site plans and assist with permitting for a new structure on the lot (Map 237, Block 'A' Lot 01). On behalf of the developer, we are requesting a letter affirming that the proposed project can be served by the CMP supply system.

The project will consist of the construction of a new convenience store/fuel station and drive thru ATM machine. The building will have a total size of approximately 3,850 square feet. A copy of a 2013 Survey Plan has been attached to this letter for reference. The proposed convenience store will be served by a three phase power service. We understand there is a three phase power line along Congress Street in front of the site. It is anticipated that the site's service will extend off Congress Street. We will be interested in knowing which existing pole the project service will need to come from.

We trust that the existing power supply system has adequate capacity to serve this project. We are in the process of completing the Site Plan Application for a submission to the City Planning Staff.

We look forward to your review of this request and a summary of your findings and any updated cost projections for the project you may be able to provide. Please include in your assessment for any costs that could be associated with the following:

- Upgrades to nearby CMP infrastructure
- All onsite overhead and underground improvements
- Impact fees or connection fees
- CMP engineering costs

H. 19

Please contact our office with any questions.

Sincerely,

DeLUCA-HOFFMAN ASSOCIATES, INC.

Bo Kennedy, P.E.
Project Engineer

BEK/smk

Attachment

c: David Latulippe

R:\3118-Convenience Store, Portland, ME\Admin\Correspondence Out\Utility Contacts\3118 2013.03.21-CMP-Cough.doc

H.20

4/4/2013

Bo Kennedy, P.E.

DeLuca-Hoffman Associates, Inc.
778 Main Street, Suite 8
South Portland, ME 04106
Sent via email to: bkennedy@DelucaHoffman.com

RE: Ability to Serve Letter for 2282 Congress Street, Portland, ME.

Dear Mr. Kennedy:

CMP has the ability to serve your proposed project located at 2282 Congress Street in Portland, Maine, in accordance with our CMP Handbook (web link below). We can provide you the desired pad or pole mounted transformers per your request and city approval, in accordance with our CMP Standards Handbook. If you have any questions on the process, or need help in completion of the documents, please feel free to contact me.

New Service Milestones

- Call 1-800-565-3181 to establish a new account and an SAP work order.
- Submit any electronic drawings (PDF (preferred) or DWG files) of the site layout and proposed electrical connections if you have them.
- Submit Load information. Please complete this CMP spreadsheet using load information
- Submit the easement information worksheet. Please complete this CMP form and either email or fax back to us.
- Preliminary meetings with CMP to determine the details of job
- Field planner design appointment to cost out job and develop CMP Invoice.
- Submit invoice for payment.
- Easements signed and payment received.
- Job scheduled for completion after the electrical inspection has been received.

This process can take several months, depending upon several factors including transformer delivery, potential substation upgrades, return of completed paperwork, and other jobs in the system that may be ahead of yours. In addition, contact with the other utilities, including telephone and cable, should be commenced as soon as practical. They may have additional work or charges in addition to the CMP work required to bring your project on line.

162 Canco Road Portland, ME 04103
Tel (800) 750-4000
207-842-2367 office
207-458-0382 cell
207-626-4082 fax

www.cmpco.com

Attachment H.21

PORTLAND MAINE

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Public Services Department
Michael J. Bobinsky, Director

6 May 2013

Mr. Bo Kennedy, P.E.,
Project Engineer,
DeLuca-Hoffman Associates, Inc.,
778 Main Street, Suite 8,
South Portland, Maine 04106

RE: The Capacity to Handle Wastewater Flows, from a Proposed Multi-Use Development, at 2282 Congress Street.

Dear Mr. Kennedy:

The existing Stroudwater Interceptor Sewer, a ten-inch asbestos concrete pipe, located northerly, between Hutchins Drive and Blueberry Road, across Congress Street, from the proposed development, has adequate **capacity to transport,** while The Portland Water District sewage treatment facility, located off Marginal Way, has adequate **capacity to treat,** the total anticipated increase in wastewater flows of **330 GPD**, from the proposed service station and convenience store.

Anticipated Increase in Wastewater Flows from the Proposed Development:

1 Proposed Water Closet @ 250 gpd/water closet	= 250 GPD
4 Proposed Employees @ 12 gpd/ employee	= 48 GPD
32 Proposed Parking Spaces @ 1 gpd	= 32 GPD
Total Anticipated Increase in Wastewater Flows for this Project	**= 330 GPD**

The City needs to approve your grease trap and manhole designs prior to construction. The detail of your proposed one thousand (1,000) gallon grease interceptor, as well as the detail of your manhole does not meet City standards.

H.22

The City combined sewer overflow (C.S.O.) abatement consent agreement (with the U.S.E.P.A., and with the Maine D.E.P.) requires C.S.O. abatement, as well as storm water mitigation, in order to offset any increase in sanitary flows, from all projects.

If the City can be of further assistance, please call 874-8832.

Sincerely,
CITY OF PORTLAND

Frank Brancely

Frank J. Brancely, B.A., M.A.
Senior Engineering Technician

FJB

CC: Jeffrey Levine, Director, Department of Planning, and Urban Development, City of Portland
Barbara Barhydt, Development Review Services Manager, Department of Planning, and Urban Development, City of Portland
Jean Fraser, City Planner, Department of Planning, and Urban Development, City of Portland
David Margolis-Pineo, Deputy City Engineer, City of Portland
Michael Farmer, P.E., Project Engineer, City of Portland
Bradley A. Roland, P.E., Environmental Projects Engineer, City of Portland
John Emerson, Wastewater Coordinator, City of Portland
Rhonda Zazzara, Field Inspection Coordinator, City of Portland
Harold Downs, Senior Wastewater Technician, City of Portland
Jane Ward, Administrative Assistant, City of Portland

Attachment I 1

(see Plan 10 for Photometric)

VISIBLE LIGHT, INC.
Manufacturers' Representatives

SUBMITTAL PACKAGE

PROJECT:

DISTRIBUTOR: **CED**

ELECTRICAL CONTRACTOR: **Carmel Electric**

Submitted 1/14/13
By: Jeremy Archambault

I.2

VISIBLE LIGHT, INC.
Manufacturers' Representatives

Request for Clarification

Fixture Types: All fixtures

Manufacturer: Lighting Science Group / KW Industries / Baselite

Clarification Needed: Please confirm white finish for all fixtures

Fixture Type: S / S1

Manufacturer: Lighting Science Group

Clarification Needed: Please specify color temperature and distribution

I. 3

VISIBLE LIGHT, INC.

Manufacturers' Representatives

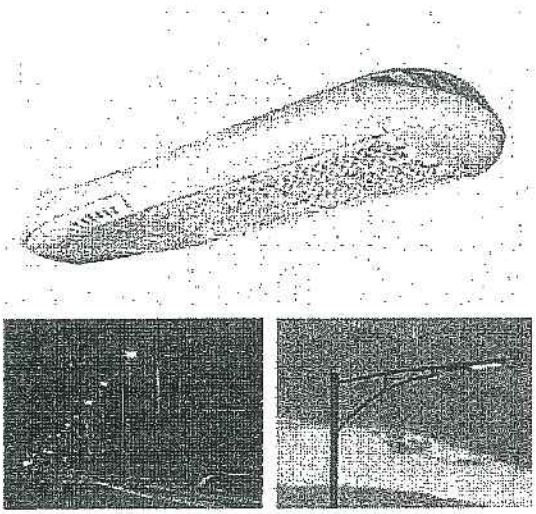
Job Name	
Distributor	CED
Electrical Contractor	Carmel Electric
Visible Light Project Manager	Jeremy Archambault
Visible Light Salesman	Steve Taylor

FIXTURES				
QTY	TYPE	MFG	CATALOG #	VOLT
1	S	LIGHTING SCIENCE GROUP	LSR4-XX-XX-MVOLT-2D-NR-WH	UNV
	S	KW INDUSTRIES	SSP22-4.0-11-WHT-2-SC	
1	S	KW INDUSTRIES	FB1008-12-2-WHT-2	
	S2	LIGHTING SCIENCE GROUP	LSR4-XX-XX-MVOLT-2B-NR-WH	UNV
	S2	KW INDUSTRIES	SSP22-4.0-11-WHT-2-SC	
	S2	KW INDUSTRIES	FB2180-12-2-WHT-2	
	WP	LIGHTING SCIENCE GROUP	WP CW DP SRF WH	UNV
	A	BASELITE	M712/44 - WOR70MH 120/277 - E2/44	UNV

Submitted by:	Job Name:	Catalog Number:	Type:
VISIBLE LIGHT, INC. Manufacturers' Representatives		LSR4-XX-XX-MVOLT-2B-NR-SH-WH	S

Prepared By | Catalog # | I. 4

Project | Comments



Prolific | LSR3 & LSR4 Roadway

Features[1]

Wattage	100W, 150W
Lumen Output Range	9,285–13,890
Color Temperature (Cct)	4000K, 5000K
Color Rendering Index (Cri)	70 (4000k) and 65 (5000k)
Rated Life L70	>100,000 hrs @ 25°C >85,000 hrs @ 40°C
Housing	Die Cast and Extruded Aluminum
Finish	Grey, Black, Bronze Powder Coat
Optical Distributions	Type II, Type III, Type IV Type II Streetside Optimized, Type III Streetside Optimized, Type V
Mounting Options	Fits standard 1-¼" to 2" Mast Arm; 38 - 61mm, 4-bolt internal
Dimensions	37.3"L x 8.0"W x 3.8"H 947.42mm x 203mm x 96.52mm
EPA (Sq. Ft.)	1.0
Weight	25lbs
Driver Voltage	120-277 VAC @ 50-60 Hz
Operating Temperature	-40°C to +50°C (-40°F to +122°F)
Power Factor (PF)	≥0.9
Total Harmonic Distortion (THD)	<20%
Off State Power	0
Warranty	5 Year Limited
Certifications	RoHS compliant, cULus listed, ETL listed, 3G Vibration rating*, DesignLights Consortium
Environment	WET IP66 LED Module IP65 LED Driver

[1]Consult www.lsgc.com for 5000K IES and LM79 report
*4-bolt mounting required for 3G vibration rating

Benefits

- Sustainable Design:
- Custom arrayed optics to reduce the use of plastics.
- No tertiary optical losses.
- Use of recycled and recyclable corrosion resistant materials.
- Full cutoff optics meet Dark Sky requirements
- Holistic Thermal Design:
- Underdriving LEDs to improve efficiency and system life.
- Use of premium grade alloys for enhanced thermal conduction.
- Electronics are isolated and sealed from the optical chamber.
- Fits standard 1 ¼" to 2" mast arm.

Typical Applications Include:

- Roadways
- City Streets
- Campuses
- Residential Streets
- Parking Lots

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I.S

Submitted by:	Job Name:	Catalog Number:	Type:
VISIBLE LIGHT, INC. Manufacturers' Representatives		LSR4-XX-XX-MVOLT-2B-NR-SH-WH	S

LSR3 & LSR4

PLEASE SPECIFY COLOR TEMP & DISTRIBUTION

PRODUCT ORDERING INFORMATION

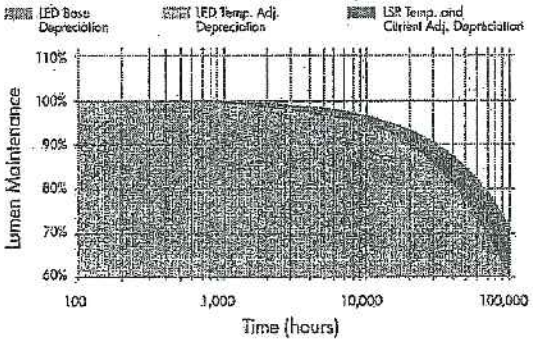
EXAMPLE: LSR3 NW R2 MVOLT 2B PCR PC HS GR

Family	Color Temp	Optical Distribution		Voltage		Mounting		Receptacle		Options		Accessories	Finish	
LSR3 100W	NW	White 4000K	R2	Type II	MVOLT	Multi-Volt	2B	2-bolt (standard)	PCR	Photocontrol Receptacle (standard)	PC	Twist-lock Photocontrol	HS	House Side	GR	Grey (standard)
LSR4 150W	CW	White 5000K	R3	Type III	480	480 Volt	4B	4-bolt (slipfitter)	NR	No Photocontrol Receptacle	SH	Shorting Cap			BLK	Black
			R2SS	Type II Streetside Optimized											BZ	Bronze
			R3SS	Type III Streetside Optimized											WH	WHITE
			R4	Type IV												
			R5	Type V												

LSR3 & LSR4 Performance Specifications[2]

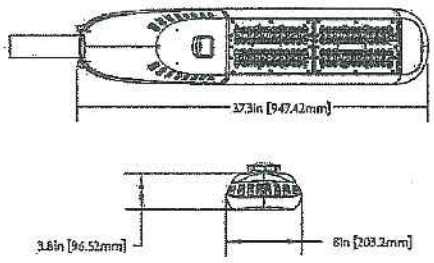
Performance Package	Optic	IES BUG Rating			Input Watts	4000K CCT			Total Current @ 120V	Total Current @ 240V	Total Current @ 277V	L70 Life (hrs)	
		B	U	G		Delivered Lumens	Efficacy (LPW)	CRI	Power Factor				@ 25°C	@ 40°C
LSR3	R2	2	1	2	100W	9206	93	70	≥ 0.9	0.82	0.42	0.39	> 100K	> 85K
	R2SS	2	2	2		9006	90			0.82	0.42	0.39		
	R3	2	1	2		9165	94			0.82	0.42	0.39		
	R3SS	2	2	2		9579	96			0.82	0.42	0.39		
	R4	2	1	2		9440	95			0.82	0.42	0.39		
	R5	3	1	1		9477	98			0.82	0.42	0.39		
LSR4	R2	3	1	3	150W	12800	85	70	≥ 0.9	1.24	0.63	0.56	> 100K	> 85K
	R2SS	2	2	2		12416	83			1.24	0.63	0.56		
	R3	3	1	2		11430	84			1.24	0.63	0.56		
	R3SS	2	2	2		13230	85			1.24	0.63	0.56		
	R4	3	1	2		13934	93			1.24	0.63	0.56		
	R5	3	1	1		13230	88			1.24	0.63	0.56		

Lumen Maintenance Projections



[1] LSR lumen maintenance projections are based on 100% system operation at a 25°C ambient temperature. Lumen maintenance projections are based on mfg. LM80 performance and drive current and in situ temperature measurements.

Dimensions



All mounting hardware included with each unit.
[1] Required for 3G vibration rating.
[2] Consult www.lsgc.com for 5000K IES and LM-79 report.

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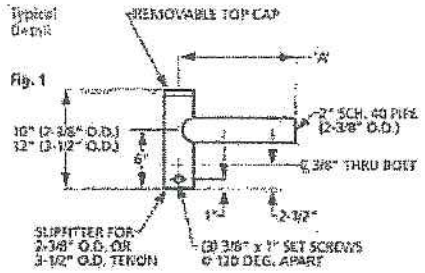
I.6

Submitted by:	Job Name:	Catalog Number:	Type:
VISIBLE LIGHT, INC. Manufacturers' Representatives		FB1000-12-2-WHT-2	S

FB - Spoke

Pole Top Luminaire Mounting Adaptors



Finish

Standard - The exterior surface is cleaned with an alkaline rinse to remove surface contaminants and shot blasted to specifications as published by the Steel Structures Painting Council Standards SSPC-SP10. The exterior surface is chemically pretreated with an iron phosphate conversion coating then rinsed with ambient fresh water containing special surfactants and sealers forming a dry tight micro-crystalline coating. A polyester thermosetting powder coating applied to the surface of the substrate to a minimum of 3 mils is standard on all color finishes. The internal surface including the powder coated area at the base-end is coated with [illegible], a thermoplastic hydrocarbon resin system specially formulated for application over untreated steel surfaces, to a thickness of 3 mils. The internal coating shall contain special corrosion inhibitors and is capable of passing 1000 hours of salt spray exposure (ASTM B-117).

Series: **FB** - *Spoke*
No. of Arms & Orientation: **1** Arm Spread: **12**
Slipfitter: **2** - *2 3/8" O.D. Tenon*
Finish: **WHT** - *Standard - White*
Pole Mounting: **2** - *2 3/8" O.D. Tenon*

Catalog No.	No. of arms	Arm Spread 'A'(in.)	Slipfitter	EPA	WT. (lb.)
FB1000-12	1	12	2	0.5	20

FB1000-12-2-WHT-2

Email This Page

Choose Different Bracket Type Main Menu

I.7

Submitted by:	Job Name:	Catalog Number:	Type:
VISIBLE LIGHT, INC. Manufacturers' Representatives	[redacted]	SSP22-4.0-11-WHT-2-BC	S

SSP Square Non-Tapered Steel Poles

Pole Shaft

The pole shaft is one piece construction, being fabricated from a weldable grade carbon steel structural tubing which has a uniform wall thickness of 11 gauge (0.1196"). The pole shaft material shall conform to ASTM A-500 Grade C with a minimum yield strength of 50,000 psi. The pole shaft has a full length longitudinal resistance weld and is uniformly square in cross-section with flat sides, small corner radii and excellent torsional properties.

Base Plate

The anchor base is fabricated from a structural quality hot rolled carbon steel plate that meets or exceeds a minimum yield strength of 36,000 psi. The anchor base telescopes the pole shaft and is circumferentially welded top and bottom. All welds are performed in accordance with the American Welding Society specification AWS D1.1, latest edition.
Bolt Circle: 8.00" **Sq. Dim. :** 8.00" **Thickness:** 0.75" **Conduit Opening:** 3.50"
Consult KW representative for non-standard dimensions.

Anchor Bolts

Anchor bolts are fabricated from commercial quality hot rolled carbon steel bar that meets or exceeds a minimum yield strength of 55,000 psi. Four properly sized anchor bolts, each with two regular hex nuts and washers, are furnished and shipped with all poles unless otherwise specified. Anchor bolts shall have the threaded end galvanized a minimum of 8 inches in accordance with ASTM A-153. Fully galvanized anchor bolts are available upon request.

Handhole

An oval reinforced gasketed handhole, having a nominal 3 " x 5 " inside opening, located 1' - 6" above base, is standard on all poles. A grounding provision is located inside the handhole ring.

Finish

Standard - The exterior surface is cleaned with an alkaline rinse to remove surface contaminants and shot blasted to specifications as published by the Steel Structures Painting Council Standards SSPC-SP10 (near white). The exterior surface is chemically pretreated with an iron phosphate conversion coating then rinsed with ambient fresh water containing special surfactants and sealers forming a dry tight micro-crystalline coating. A polyester thermosetting powder coating applied to the surface of the substrate to a minimum of 3 mils is standard on all color finishes. The internal surface including the powder coated area at the base-end is coated with [redacted], a thermoplastic hydrocarbon resin system specially formulated for application over untreated steel surfaces, to a thickness of 3 mils. The internal coating shall contain special corrosion inhibitors and is capable of passing 1000 hours of salt spray exposure (ASTM B-117).

Series: SSP - *Square Non-Tapered Steel Poles*
Nominal Height: 22' Base Diameter: 4.0" Gauge: 11
Finish: WHT - *Standard - White*
Mounting Designation: 2 - *2 3/8 " x 4 " TENON*
Options: BC - *Base Cover*

Height (ft.)	Pole Shaft (in.) x (in.) x (ft.)	Gauge	Handhole Size (in.)	Anchor Bolt (in.) x (in.) x (in.)	Bolt Circle (in.)	80 MPH ($ft.^2$)	90 MPH ($ft.^2$)	100 MPH ($ft.^2$)	Ship Wt. (lbs.)
22	4.0 x 22.0	11	3 x 5	0.75 x 17 x 3	8	6.9	4.3	2.3	182

SSP22-4.0-11-WHT-2-BC

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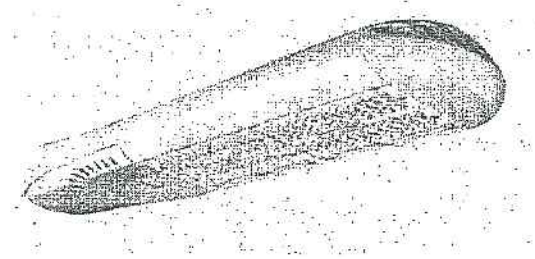
Choose Different Pole Type **Main Menu**

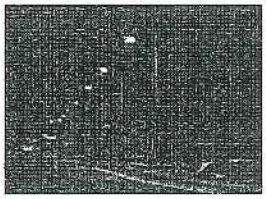
I.8

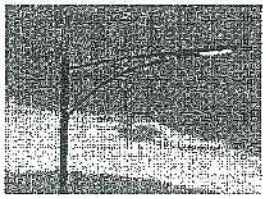
Submitted by:	Job Name:	Catalog Number:	Type:
VISIBLE LIGHT, INC. Manufacturers' Representatives		LSR4-XX-XX-MVOLT-2E-NR-SH-WH	S2

Prepared By | Catalog #

Project | Comments







Benefits

- Sustainable Design:
- Custom arrayed optics to reduce the use of plastics.
- No tertiary optical losses.
- Use of recycled and recyclable corrosion resistant materials.
- Full cutoff optics meet Dark Sky requirements
- Holistic Thermal Design:
- Underdriving LEDs to improve efficiency and system life.
- Use of premium grade alloys for enhanced thermal conduction.
- Electronics are isolated and sealed from the optical chamber.
- Fits standard 1 ¼" to 2" mast arm.

Typical Applications include:

- Roadways
- City Streets
- Campuses
- Residential Streets
- Parking Lots

Prolific | LSR3 & LSR4 Roadway

Features[1]

Wattage	100W, 150W
Lumen Output Range	9,285–13,690
Color Temperature (Cct)	4000K, 5000K
Color Rendering Index (Cri)	70 (4000k) and 65 (5000k)
Rated Life L70	>100,000 hrs @ 25°C ≥ 85,000 hrs @ 40°C
Housing	Die Cast and Extruded Aluminum
Finish	Grey, Black, Bronze Powder Coat
Optical Distributions	Type II, Type III, Type IV Type II Streetside Optimized, Type III Streetside Optimized, Type V
Mounting Options	Fits standard 1-¼" to 2" Mast Arm; 38 - 61mm, 4-bolt Internal
Dimensions	37.3"L x 8.0"W x 3.8"H 947.42mm x 203mm x 96.52mm
EPA (Sq. Ft.)	1.0
Weight	25lbs
Driver Voltage	120-277 VAC @ 50-60 Hz.
Operating Temperature	-40°C to +50°C (-40°F to +122°F)
Power Factor (PF)	≥0.9
Total Harmonic Distortion (THD)	<20%
Off State Power	0
Warranty	5 Year Limited
Certifications	RoHS, cULus Listed, Intertek, 3G Vibration Rating[2], DesignLights Consortium
Environment	IP66 LED Module IP65 LED Driver

[1]Consult www.lsicg.com for 5000K IES and LM79 report
[2]4-bolt mounting required for 3G vibration rating

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I.9

Submitted by:	Job Name:	Catalog Number:	Type:
VISIBLE LIGHT, INC. Manufacturers' Representatives		LSR4-XX-XX-MVOLT-2B-NR-SH-WH	S2

LSR3 & LSR4

PLEASE SPECIFY COLOR TEMP & DISTRIBUTION

PRODUCT ORDERING INFORMATION

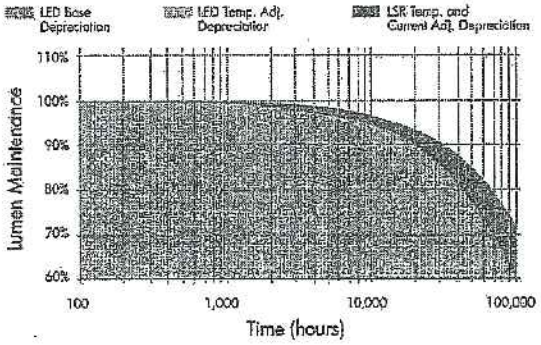
EXAMPLE: LSR3 NW R2 MVOLT 2B PCR PC HS GR

Family	Color Temp.	Optical Distribution		Voltage		Mounting		Receptacle		Options		Accessories		Finish	
LSR3 100W	NW White 4000K	R2	Type II	MVOLT	Multi-Volt	2B	2-bolt (standard)	PCR	Photocontrol Receptacle (standard)	PC	Twist-lock Photocontrol	HS	House Side	GR	Grey (standard)
LSR4 150W	CW White 5000K	R3	Type III	480	480 Volt	4B	4-bolt Internal[1]	NR	No Photocontrol Receptacle	SH	Shorting Cap			BLK	Black
		R2SS	Type II Streetside Optimized											BZ	Bronze
		R3SS	Type III Streetside Optimized											WH	WHITE
		R4	Type IV												
		R5	Type V												

LSR3 & LSR4 Performance Specifications[2]

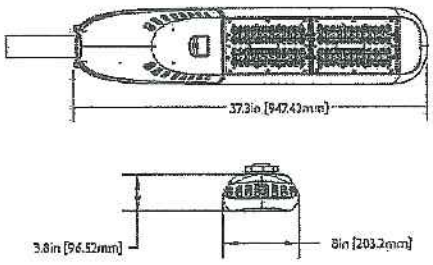
Performance Package	Optic	IES BUG Rating B	U	G	Input Watts	4000K CCT Delivered Lumens	Efficacy (LPW)	CRI	Power Factor	Total Current @ 120V	Total Current @ 240V	Total Current @ 277V	L70 Life (hrs) @ 25°C	@ 40°C
LSR3	R2	2	1	2	100W	9206	93	70	≥ 0.9	0.82	0.42	0.39	>100K	>85K
	R2SS	2	2	2		9006	90			0.82	0.42	0.39		
	R3	2	1	2		9145	94			0.82	0.42	0.39		
	R3SS	2	2	2		9579	96			0.82	0.42	0.39		
	R4	2	1	2		9440	95			0.82	0.42	0.39		
	R5	3	1	1		9477	98			0.82	0.42	0.39		
LSR4	R2	3	1	3	150W	12800	85	70	≥ 0.9	1.24	0.63	0.56	>100K	>85K
	R2SS	3	2	3		12416	83			1.24	0.63	0.56		
	R3	3	1	3		13430	84			1.24	0.63	0.56		
	R3SS	3	2	3		13230	85			1.24	0.63	0.56		
	R4	3	1	3		13934	93			1.24	0.63	0.56		
	R5	3	1	1		13230	88			1.24	0.63	0.56		

Lumen Maintenance Projections



LSR lumen maintenance projections are based on 100% system operation at a 25°C ambient temperature. Lumen maintenance projections are based on mfg. LM80 performance and drive current and in situ temperature measurements.

Dimensions



All mounting hardware included with each unit.
[1] Required for 3G vibration rating.
[2] Consult www.lsgc.com for 5000K IES and LM-79 report.

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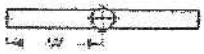
I.10

Submitted by:	Job Name:	Catalog Number:	Type:
VISIBLE LIGHT, INC. Manufacturers' Representatives		FB2180-12-2-WHT-2	S2

FB - Spoke

Pole Top Luminaire Mounting Adaptors

Fig. 2 

Finish

Standard - The exterior surface is cleaned with an alkaline rinse to remove surface contaminants and shot blasted to specifications as published by the Steel Structures Painting Council Standards SSPC-SP10. The exterior surface is chemically pretreated with an iron phosphate conversion coating then rinsed with ambient fresh water containing special surfactants and sealers forming a dry tight micro-crystalline coating. A polyester thermosetting powder coating applied to the surface of the substrate to a minimum of 3 mils is standard on all color finishes. The internal surface including the powder coated area at the base-end is coated with [illegible], a thermoplastic hydrocarbon resin system specially formulated for application over untreated steel surfaces, to a thickness of 3 mils. The internal coating shall contain special corrosion inhibitors and is capable of passing 1000 hours of salt spray exposure (ASTM B-117).

Series:**FB** - *Spoke*
No. of Arms & Orientation: **2 @ 180°** Arm Spread: **12**
Slipfitter: **2** - *2 3/8" O.D. Tenon*
Finish: **WHT** - *Standard - White*
Pole Mounting: **2** - *2 3/8" O.D. Tenon*

Catalog No.	No. of arms	Arm Spread 'A'(in.)	Slipfitter	EPA	WT. (lb.)
FB2180-12	2 @ 180°	12	2	0.6	27
FB2180-12-2-WHT-2					

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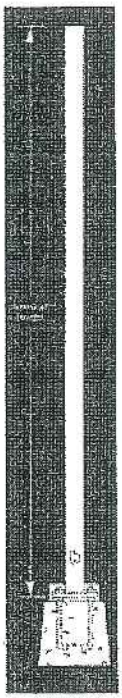
Choose Different Bracket Type **Main Menu**

I.11

Submitted by:	Job Name:	Catalog Number:	Type:
VISIBLE LIGHT, INC. Manufacturers' Representatives		SSP22-4.0-11-WHT-2-BC	S2

SSP Square Non-Tapered Steel Poles



Pole Shaft
The pole shaft is one piece construction, being fabricated from a weldable grade carbon steel structural tubing which has a uniform wall thickness of 11 gauge (0.1196"). The pole shaft material shall conform to ASTM A-500 Grade C with a minimum yield strength of 50,000 psi. The pole shaft has a full length longitudinal resistance weld and is uniformly square in cross-section with flat sides, small corner radii and excellent torsional properties.

Base Plate
The anchor base is fabricated from a structural quality hot rolled carbon steel plate that meets or exceeds a minimum yield strength of 36,000 psi. The anchor base telescopes the pole shaft and is circumferentially welded top and bottom. All welds are performed in accordance with the American Welding Society specification AWS D1.1, latest edition.
Bolt Circle: 8.00" **Sq. Dim.:** 8.00" **Thickness:** 0.75" **Conduit Opening:** 3.50"
Consult KW representative for non-standard dimensions.

Anchor Bolts
Anchor bolts are fabricated from commercial quality hot rolled carbon steel bar that meets or exceeds a minimum yield strength of 55,000 psi. Four properly sized anchor bolts, each with two regular hex nuts and washers, are furnished and shipped with all poles unless otherwise specified. Anchor bolts shall have the threaded end galvanized a minimum of 8 inches in accordance with ASTM A-153. Fully galvanized anchor bolts are available upon request.

Handhole
An oval reinforced gasketed handhole, having a nominal 3 " x 5 " inside opening, located 1' - 6" above base, is standard on all poles. A grounding provision is located inside the handhole ring.

Finish
Standard - The exterior surface is cleaned with an alkaline rinse to remove surface contaminants and shot blasted to specifications as published by the Steel Structures Painting Council Standards SSPC-SP10 (near white). The exterior surface is chemically pretreated with an iron phosphate conversion coating then rinsed with ambient fresh water containing special surfactants and sealers forming a dry tight micro-crystalline coating. A polyester thermosetting powder coating applied to the surface of the substrate to a minimum of 3 mils is standard on all color finishes. The internal surface including the powder coated area at the base-end is coated with [illegible], a thermoplastic hydrocarbon resin system specially formulated for application over untreated steel surfaces, to a thickness of 3 mils. The internal coating shall contain special corrosion inhibitors and is capable of passing 1000 hours of salt spray exposure (ASTM B-117).

Series:**SSP** - *Square Non-Tapered Steel Poles*
Nominal Height: **22'** Base Diameter: **4.0"** Gauge: **11**
Finish: **WHT** - *Standard - White*
Mounting Designation: **2** - *2 3/8 " x 4 " TENON*
Options: **BC** - *Base Cover*

Height (ft.)	Pole Shaft (in.) x (in.) x (ft.)	Gauge	Handhole Size (in.)	Anchor Bolt (in.) x (in.) x (in.)	Bolt Circle (in.)	80 MPH ($ft.^2$)	90 MPH ($ft.^2$)	100 MPH ($ft.^2$)	Ship WT. (lbs.)
22	4.0 x 22.0	11	3 x 5	0.75 x 17 x 3	8	6.9	4.3	2.3	182

SSP22-4.0-11-WHT-2-BC

Email This Page

Choose Different Pole Type **Main Menu**

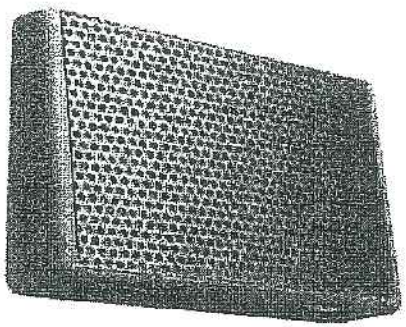
I. 12

Submitted by:	Job Name:	Catalog Number:	Type:
VISIBLE LIGHT, INC. Manufacturers' Representatives	[illegible]	WP CW UP SRF WH	WP

LightingScience
Changing the way the world experiences light

Prepared By
Project

Catalog #
Comments



Lighting Science's WallPack luminaire provides excellent perimeter and security lighting. This versatile and distinct LED-based wallpack provides unlimited options to illuminate and enhance exterior and interior applications. Clean, sophisticated lines blend seamlessly with architectural elements. Our lightweight, low footprint aluminum fixture and wide power range is easy to install since no special ballast or voltage source is required. This easy to install design allows for simple surface mount installations.

Benefits

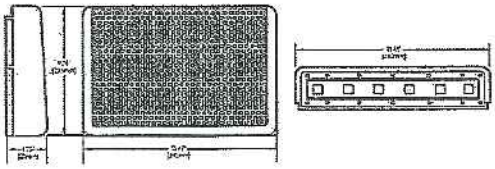
- Up to three times longer life at approximately half the energy consumption of conventional sources.
- Significantly longer life leads to reduced maintenance and material costs.
- Good color rendering for enhanced visibility and safety.
- Instant on/instant re-strike.
- Typical Applications Include:
- Perimeter and security lighting for industrial and commercial buildings
- Schools
- Garages

WallPack

Features*	Ultra High Performance
Lumen Output	
(at operating temperature)	3340
Input Power (Watts)	60W
Efficacy (lm/w)	56 (lm/w)
Color Temperature (CCT)	6500K
Color Rendering Index (CRI)	77
Rated Life	
L70	50,000 Hours
Housing	Aluminum
Lens	Flat Tempered Glass
Mounting Options	Surface Mount
Dimensions	15.43" x 9.25" x 4.78" (392mm x 235mm x 121mm)
Operating Temperature	-30°C to +40°C
Voltage	120-277 VAC @ 50-60 Hz
Rated Power Factor	
120V	0.5
277V	0.2
Rated Power Factor	> 0.9
Off State Power	Zero
Weight	15lbs (7kg)
Certification	RoHS
Environment	WET

* All values are nominal unless noted. Consult website for complete IES & LM-79 data.

Dimensions



877-799-5743 | www.lsgc.com
1227 South Patrick Drive Building 2A | Satellite Beach, FL 32937

I.13

Submitted by:	Job Name:	Catalog Number:	Type:
VISIBLE LIGHT, INC. Manufacturers' Representatives	[illegible]	WP CW UP SRF WH	WP

WallPack

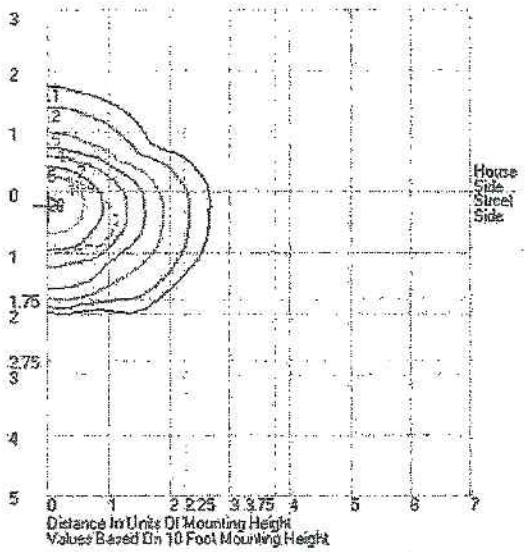
ORDERING INFORMATION

EXAMPLE: WP CW UP MVOLT SRF BZ

Product		Color Temp		Performance		Mounting		Colors	
WP	WallPack	CW	White 6500K	UP	Ultra High Performance	SRF	Surface Mount	BZ	Bronze (std.)
								BLK	Black
								WH	White
								SV	Silver

All mounting hardware included with each unit.

Polar Graph



Zonal Lumen Summary

Zone	Lumens	% Fixt.
0–30	1344	40.30
0–40	2039	61.10
0–60	3085	92.40
0–90	3337	100
0–180	3338	100

LightingScience

North America • Australia • Europe

877-959-5742 | www.lsgc.com
1227 South Patrick Drive Building 2A | Satellite Beach, FL 32937

I. 14

Submitted by:	Job Name:	Catalog Number:	Type:
VISIBLE LIGHT, INC. Manufacturers' Representatives		M712/44 WOR70MH 120/277 E2/44	A

EMBLEM SHADES

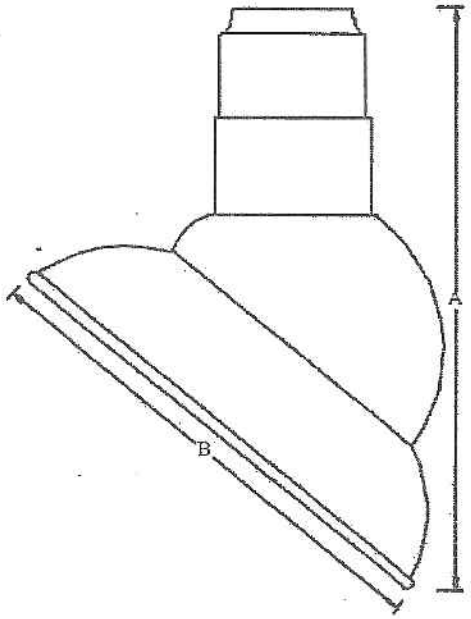
PREPARED BY: _____

TYPE: _____

JOB NAME: _____

CERTIFICATION: UL LISTED WET LOCATION

MODEL#	A (Height in Inches)	B (Diameter in Inches)
M707	8 3/4	7
M710	10	10
M712	12	12
M718	14	14



FINISH-Available in high quality powder coat.

LAMP HOLDERS- Accommodates **Incandescent** medium base porcelain socket, copper shell with nicked plate, rated 250V, 660W. **Compact Fluorescent** 4 pin heat resistant thermoplastic socket accommodates 26/32W (Gx24q-3 base) and 42W (Gx24q-4 base). Twist lock design provides for vibration and earthquake resistance, rated 75W, 600V. **High Intensity Discharge (H.I.D.)** medium base, 4KV pulse start socket, rated 660W/600V.

MOUNTING- 1/2" or 3/4" tapped hub is supplied. Top or side mount available. Fixtures are pre-wired with 48" or 96" leads. Available with cord or stem sets.

REFLECTOR- Spun from heavy gauge 1100-0 aluminum, ranging in thickness from .050 to .125. Galvanized is from 20 gauge sheets. Copper is spun from .040 gauge and 110 soft alloy.

MODEL#	FINISH	LIGHT SOURCE		
		INC	CF	HID(MH & HPS)
M707	40,41,42,43,44,45,46,48,49,50, 51,52,53,54,55,57,58,59,60,61, 62,63	100W	26W*	35 OR 50W*
M710		150W	26,32, OR 42W*	35,50,70, OR 100W*
M712		200W	26,32, OR 42W*	35,50,70, OR 100W*
M718		300W	26,32, OR 42W*	35,50,70, OR 100W*

*** FOR REMOTE BALLAST SEE MOUNTING SOURCE**

GLASS:
MOUNTING SOURCE:
ACCESSORIES:

PLEASE CONFIRM WHITE FINISH

PHONE: 877-999-1990
FAX: 877-999-1955

12260 EAST END AVE. CHINO, CA 91710

c UL LISTED
wet location

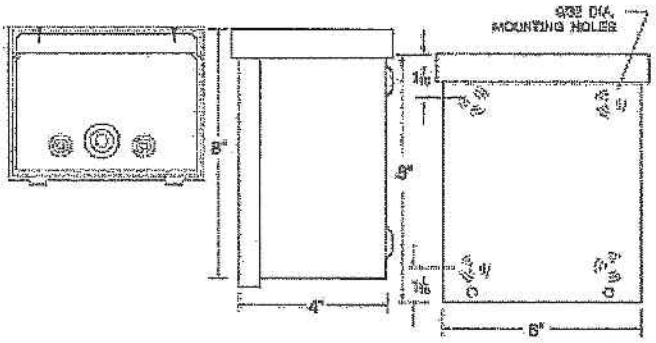
I.15

Submitted by:	Job Name:	Catalog Number:	Type:
VISIBLE LIGHT, INC. Manufacturers' Representatives	[illegible]	M712/44 WOR70MH 120/277 B2/44	A

Ballast - HID

Weathertight Outdoor Remote Ballast - **WOR**

- Dual Voltage
- High Power Factor
- Powder Coated Finish
- KO's are for 1/2" fittings
- Minimum distance between ballasts is 12"



Catalog #	Lamp	ANSI#	Distance to Lamp	Starting Temp.
WOR50HPS 120/277	50WHPS	S 68	35'	-40° F or -40°C
WOR70HPS 120/277	70WHPS	S 62	35'	-40° F or -40°C
WOR100HPS 120/277	100WHPS	S 54	35'	-40° F or -40°C
WOR50MH 120/277	50WMH	M 110	15	-20° F or -30°C
WOR70MH 120/277	70WMH	M 98	15	-20° F or -30°C
WOR100MH 120/277	100WMH	M 90	20	-20° F or -30°C
WOR150MH 120/277	150WMH	M102	10	-20° F or -30°C

I.16

Submitted by:	Job Name:	Catalog Number:	Type:
VISIBLE LIGHT, INC. Manufacturers' Representatives		M712/44 WOR70MH 120/277 E2/44	A

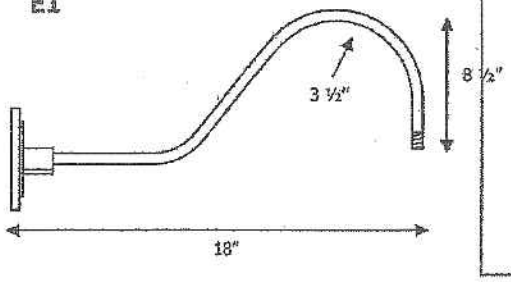
½" DIAMETER ARM EXTENSIONS

PREPARED BY: _____

TYPE: _____

JOB NAME: _____

E1



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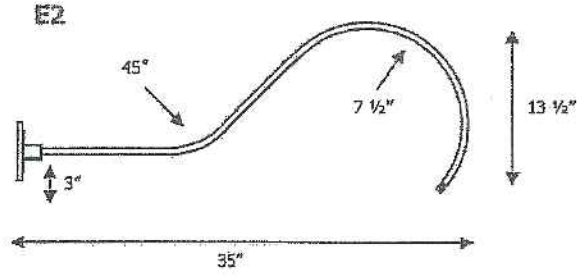

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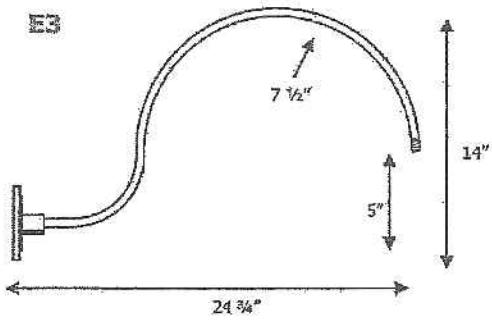
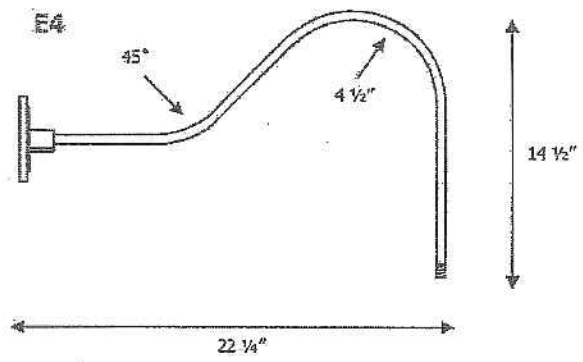
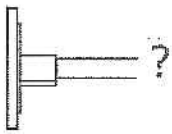


E4

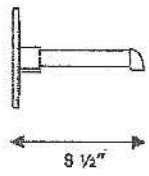


E14



BASELITE WILL TAKE YOUR SKETCH AND FABRICATE A CUSTOM ARM EXTENSION TO MEET YOUR NEEDS

E16



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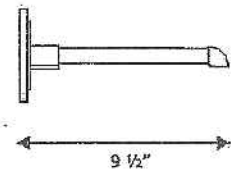


BASELITE CORPORATION

PHONE: 877-999-1990
FAX: 877-999-1955

12260 EAST END AVE. CHINO, CA 91710

Attachment J

PROPOSED CONSTRUCTION MANAGEMENT PLAN FOR THE CONVENIENCE STORE/FUEL STATION DEVELOPMENT AT 2282 CONGRESS STREET, PORTLAND, MAINE

CONSTRUCTION APPROACH NARRATIVE:

The core element of the plan is to have the Project Management Team and the Field Supervision Team working together out of a field trailer to be located on the property throughout the duration of construction. This Team will include the General Contractor's Project Manager and Supervisory Team. The Owner's Representative (Wes Thames) and contractor will ensure clear and timely communication within the General Contractor Team including their Subcontractors. The objective will be seamless coordination of project activities. Project Management will be overseen by a Senior Project Manager working out of the General Contractor's home office. The General Contractor will locate a Project Manager and one or more Superintendents on the site for direct oversight and management of the infrastructure work, site work and building construction.

The work involves the site clearing and new building construction. This work will require coordination with the adjacent property owners along Congress Street.

Key issues to be addressed include:

- Public safety and continued accessibility along the adjoining streets, principally Congress Street. Construction signage notifying passing motorist of entering/turning vehicles will be posted each side of the jobsite along Congress Street.
- Communication with Abutters
- Traffic Management
- Off Street Parking for Workforce. No parking will be allowed on Congress Street or Skyway Drive.
- Coordination of material deliveries
- Laydown and material storage areas including job trailers, if applicable
- Crane pads and erection sequences for any exterior or rooftop work
- Utility location including managing temporary utilities during construction and interruptions to service in the surrounding vicinity.
- Waste Management
- Designated areas for stockpiled or stored materials
- Snow Removal
- Street Opening Permitting

The General Contractor will work with the City of Portland, Owner and other entities to coordinate with the various off site construction activities including all utilities work within the Public Right-of-Ways.

Attachment K.1

Neighborhood Meeting Certification

I, David Latulippe of CJ Developers, Inc. hereby certify that a neighborhood meeting was held on April 10, 2013 at the Greater Portland Board of Realtors office on Congress Street, Portland, Maine at 4:00 pm.

I also certify that on at least ten (10) days prior to the neighborhood meeting, invitations were mailed to the following:

1. All addresses on the mailing list provided by the Planning Division which includes property owners within 500 feet of the proposed development or within 1000 feet of a proposed industrial subdivision or industrial zone change.

2. Residents on the "interested parties" list.

3. A digital copy of the notice was also provided to the Planning Office (jmv@portlandmaine.gov) and the assigned planner to be forwarded to those on the interested citizen list who receive e-mail notices.

Signed,

David Latulippe 4/17/13 (date)

Attached to this certification are:

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

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207.775.1121
FAX 207.879.0896

K. 2

- SITE PLANNING AND DESIGN
- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- PERMITTING
- AIRPORT ENGINEERING
- CONSTRUCTION ADMINISTRATION

March 29, 2013

Dear Neighbor:

Please join us for a Neighborhood Meeting to discuss our plans for a Convenience Store/Fuel Station located at 2282 Congress Street, Portland, ME.

Meeting Date: April 10, 2013

Meeting Time: 4:00 PM

Meeting Location: Greater Portland Board of Realtors Building
2271 Congress Street
Portland, Maine

The City Code requires that property owners within 500 feet (except notices must be sent to property owners within 1,000 feet for industrial zoning map amendments and industrial subdivisions) of the proposed development and residents on an "interested parties list" be invited to participate in a neighborhood meeting. A sign-in sheet will be circulated and minutes of the meeting will be taken. Both the sign-in sheet and minutes will be submitted to the Planning Board.

If you have any questions, please contact Steve Bushey, DeLuca-Hoffman Associates, Inc. at 207-775-1121.

Sincerely,

DeLUCA-HOFFMAN ASSOCIATES, INC.

Stephen R. Bushey, P.E.
Senior Engineer

SRB/smk

Note:
Under Section 14-32(C) and 14-525 of the City Code of Ordinances, an applicant for a Level III development, subdivision of over five lots/units, or zone change is required to hold a neighborhood meeting within three weeks of submitting a preliminary application or two weeks of submitting a final site plan application, if a preliminary plan was not submitted. The neighborhood meeting must be held at least seven days prior to the Planning Board Public Hearing on the proposal. Should you wish to offer additional comments on this proposed development, you may contact the Planning Division at 874-8721 or send written correspondence to the Planning and Urban Development Department, Planning Division 4th Floor, 389 Congress Street, Portland, ME 04101 or by email: to bab@portlandmaine.gov.

K. 3

Sign In Sheet Neighborhood Meeting

Site Plan Approval

Proposed Fuel Station and Convenience Store

2282 Congress Street, Portland, Maine

April 10, 2013

Name	Address
[illegible]	2271 Congress St. Pltd.

K.4

Neighborhood Meeting Notes

Request for Site Plan Approval

Proposed Fuel Station and Convenience Store

2282 Congress Street, Portland, Maine

April 10, 2013 from 4:00 to 4:20 pm

CJ Developers, Inc. made a brief presentation on the proposed project stating the project included a gas station, convenience store, branch bank and diesel pump. Access to the site would be on Congress Street in line with Blueberry Road. The site would be served by public water and sewer, natural gas and electricity. The conceptual site plan, rendered building elevations, an aerial photograph and a photo of a recently developed fuel station were provided as part of the presentation. Tom Gorrill from Gorrill-Palmer also attended to answer any traffic related questions. Following the presentation, the attendees were given the opportunity to ask questions and state any concerns.

The following are notes on what each attendee's comments:

Joe Malone – No comment

Kelley Craig (Greater Portland Board of Realtors) – Asked if the proposed development is going to include a McDonalds because there was a McDonald's was shown on the photograph of a recently developed fuel station. We responded that a McDonald's was not part of the proposed development.

Attachment L.1

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207.775.1121
FAX 207.879.0896

- SITE PLANNING AND DESIGN
- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- PERMITTING
- AIRPORT ENGINEERING
- CONSTRUCTION ADMINISTRATION

April 23, 2013

Ms. Jean Fraser, Planner
Planning and Urban Development Department
City of Portland, Maine
389 Congress Street
Portland, Maine 04101-3509

Subject: **Convenience Store and Fuel Station Development**
2282 Congress Street
Final Site Plan Application
Response to Preliminary Review Comments Dated April 10, 2013

Dear Jean:

On behalf of CJ Developers, Inc. and Portland Property Holdings, LLC, we have reviewed your emails dated April 10, 2013 and April 18, 2013 and offer the following responses to staff and peer review comments. For ease of reference, we have included your comments (italics) and our response follows.

PRELIMINARY REVIEW COMMENTS – EMAIL APRIL 10, 2013

Comment 1:

The most fundamental issue is Right, Title and Interest: We have a 10.25.2013 e-mail from the MTA Right of Way Manager that was submitted in support of the zoning amendment. It stated:

> *"David Latulippe and CJ Developers have submitted an application to the Maine Turnpike Authority to obtain an easement across MTA land to access Congress Street in conjunction with a proposed gas station and convenience store. A preliminary review by MTA staff concluded that the proposal was complete enough to present to the Board of the Maine Turnpike Authority as soon as a mutually acceptable offer of compensation is reached."*

I don't believe any further documentation has been submitted, and we need updated and more definite evidence of the applicant's right, title and interest over the MTA land before this can go for PB Hearing.

Response:

The MTA is currently considering the easement request and it will be at a committee review within the next two weeks. We anticipate that a written agreement will be in hand prior to the May 14, 2013 Planning Board meeting. In addition to this agreement, we have attached

documents related to the assignment of rights from CJ Developers, Inc. to Portland Property Holdings, LLC, who will become the applicant for the proposed development.

Comment 2:

The area of pavement: The area seems excessive, especially in light of the reduced program (bank has been omitted); we would like to see a justification for the following:

- *The number of parking spaces: there appear to be about twice the zoning requirement – this triggers the need for a parking analysis (Ordinance requirement Section 14-526 (a) (4) a. 3.) which should be submitted asap (also please confirm the proposed number of spaces – the plan states 33 while the application data sheet says 32);*
- *Bicycle Parking: if you are not proposing to provide the required number of bicycle spaces you need to request a waiver with evidence of why the development is expected to generate reduced demand (see 14-526 (a) (4) b) – bicycle parking would be for both employees and customers;*
- *The aisle widths: some substantially exceed the City's technical standards and we would like to see turning templates and other information that explains the need for such wide aisles. Please clarify if one-way or two-way traffic movement especially on west side.*

Response:

The number of parking spaces proposed exceeds the number of spaces required by the City of Portland Land Use Code as referenced above because of the anticipated peak hour parking demand for this type of use. The applicant feels this is the proper amount of spaces to create a convenient and successful development. The parking demand can be supported by projecting the number of spaces required during the peak hour. The following table uses the 4th Edition ITE Parking Generation Manual to compute parking demand (excerpt attached).

TABLE 1 – PARKING DEMAND – ITE PARKING GENERATION					
Proposed GLA (SF)	**Proposed GLA (1,000 SF)**	**Average Peak Period Demand Per 1,000 SF GLA (Weekday)**	**# of Spaces Required at 2282 Congress Street Based on Peak Demand (Weekday)**	**Average Parking Supply Ratio Per 1,000 SF GLA of Study Sites**	**# of Spaces Required Based on Comparison to Study Sites**
3,850	3.85	8.38	32.26	13.1	50.4

As demonstrated in the table above, the parking demand is anticipated to require approximately 32 to 50 spaces. Although the site plan exceeds the City requirements for proposed parking spaces, our office feels the applicant has minimized the parking to the extent practicable.

- The proposed site plan incorporates the City of Portland's Standard Dero Bike Hitch Bicycle Parking Posts throughout the site. The enclosed site plan has been amended to add 2 more spaces for a total of 8 bike spaces on the site. This exceeds the site's requirement for 6.4 bike spaces (32 spaces/10 spaces x 2 bike spaces = 6.4).
- The expanded aisle widths are required to provide clear movement of tractor trailer trucks around the site. The enclosed AutoTurn simulation figures show the need for the aisle widths provided.

Comment 3:

Location of dumpster: The dumpster should be located in a less prominent location and away from Congress Street and from public circulation and activity (e.g. not next to picnic area as proposed); please clarify the anticipated truck access for its removal/emptying.

Response:

The dumpster pad location has been relocated to the southwest corner of the development as shown on the enclosed Site Layout Plan C-2.0.

Comment 4:

Fire Department issues: You have outlined in a letter dated April 1 to Captain Chris Pirone how the project addresses Fire Department issues and I suggest you contact him asap to further clarify the proposals so he can determine whether the site plan is satisfactory.

Response:

Our office has prepared the enclosed figure which shows a fire truck maneuvering around the site. Captain Pirone has verbally outlined the following related to the Fire Department review:

1. State Fire Marshall approval is required.
2. Access routes shall be a minimum of 20' wide.
3. The fuel canopy overhang clearance shall be at least 13'-1". We are providing a clearance of 14'-6".
4. There shall be a fire hydrant in close proximity to the site. The nearest hydrant is on Congress Street and is located directly opposite the site's northwest corner. The hydrant is located approximately 270' from the building.
5. The building does not require a sprinkler system nor is one proposed.

Comment 5:

Landscape and Lighting: The scale of paved areas, the limited planting, and the proposed "Prolific" light fixture are not consistent with the Conditional Zoning Agreement requirement that "*CJD shall include Landscape, Architectural and Lighting Plans that achieve a campus like character for the project". Also the application narrative refers to proposed (landscape) buffering along Congress Street and Skyway Drive, but this is not expressed on the Landscape Plan. Please also note that the lighting proposals need to meet the standards set out in the Technical Standards (copy attached- see specific standards in 12.5 and 12.6) and at present do not meet those standards (waivers are unlikely to be recommended). The photometric plan calculations need to show the average, maximum and uniformity ratio for the specified areas.*

Response:

- Our office has met with Jeff Tarling of the City of Portland to review the Landscape Plan. The enclosed Plan Sheet C-5.0 has been revised to add a greener feel to the picnic area by relocating the dumpsters and adding plantings, widening internal islands, and the addition of plantings per Mr. Tarling's request.
- The lighting plan presented was prepared by Philip Infurna of Visible Light, Inc. to meet the IESNA standard as provisioned by the City of Portland Ordinance and described in an excerpt of an April 18, 2013 email from Philip Infurna below:

  "The key elements in the City of Portland outdoor lighting standards are:

  - Max pole height 20 ft. – except in industrial / commercial use areas where the maximum is 30 ft.
  - Min 0.2 foot candles
  - Max 5.0 foot candles
  - Average 1.25 foot candles
  - Max / Min ration of uniformity 20:1
  - Max illumination at property line 0.1 foot candles except where abutting areas of non-sensitive uses

  These standards regarding light levels are not appropriate, common or safe for our project retail operations and in particular self-service gas stations, drive through restaurants and convenience stores that are open very late. We used the IESNA recommended practice as our guide in the design we proposed.

  Please note that the City of Portland Technical Manual also state in the regulations (ref. 12.2.1):

L.5

"Proposed uses that demonstrate a need to exceed the specific site lighting limits for safety and reasonable exercise of the proposed use must provide a professionally produced lighting plan which adheres to the current Illuminating Engineering Society of North America (IESNA) recommendations for the proposed use."

This is the broader scope path for exceeding the limits that I mentioned above.

We have indeed already provided a professionally produced lighting plan.

Having an illuminated gas station canopy, it is physically impossible to meet the standards as set forth by the City of Portland. IESNA recommendations call for much higher light levels. I believe this application would clearly fall under the category of "need to exceed".

The plan we provided does indeed satisfy the IESNA recommendations for this application.

We know that this portion of Congress Street is a non-residential area which is commercial & industrial in nature and adjacent to the Maine Turnpike. The abutters here are commonly abutters which are non-sensitive as described in the City of Portland standard. Therefore, I believe our max. foot candle level at the property lines (0.5 fc) and proposed 22 ft. pole height are within the broader scope of the City of Portland standards."

REVIEW COMMENTS – EMAIL APRIL 18, 2013

Landscape

Comment 1:

The project needs to include a greater number of trees around the parking lot to meet the parking lot landscape standard (in site plan ordinance) and the CZA objectives re campus like character. The City Arborist (Jeff Tarling at JST@portlandmaine.gov - 874 8820) has noted several areas where trees may be able to be planted, but before making suggestions he would like to discuss with the applicant.

Response:

The Landscape Plan has been modified to include additional plantings per our discussion with Mr. Tarling. We also note the addition of a small (12'x18') wood framed accessory building that is planned for use as a seasonal farm stand. The applicant is seeking to encourage local farmers to use the stand for the display and sale of form products and related products.

Traffic

The following are Tom Errico's initial preliminary comments on the site plan and may not be representative of all issues. Per the Planner's request these are being provided quickly given the project schedule.

Comment 1:

It is suggested that the pedestrian facility between Congress Street and the proposed convenience store building be as direct as possible. This may require the loss of some of the 9 parking spaces located along the front of the property.

Response:

The sidewalk access is limited to within the easement granted by the MTA. Additionally, the pedestrian sidewalk needs to avoid the area designated for utility pole relocation on MTA's property. The proposed sidewalk is in the most appropriate location to meet these two criteria.

Comment 2:

Parking supply seems excessive for the type and scale of the proposed land use. Supporting documentation on the parking needs shall be provided.

Response:

Refer to the applicant's response to Comment 2 of the April 10, 2013 email.

Comment 3:

Auto-turn analyses shall be provided that supports on-site circulation aisle widths and the width of the driveway entrance on Congress Street. The applicant should also provide information on the number of large trucks anticipated to enter and exit the site.

Response:

The AutoTurn analyses for large vehicles (WB-67 tractor trailers and fire trucks) are enclosed with this letter. Based on the site's location, large semi-trailers are expected to commonly visit the site thus warranting a good circulation layout.

Comment 4:

It is unclear whether there are vehicle circulation restrictions on site (e.g. one-way vs. two-way). Signage and pavements markings shall clearly support proposed circulation restrictions.

Response:

Pavement marking arrows, stop bars and stop signs have been added to the enclosed amended Site Layout Plan C-2.0 to clarify vehicle circulation.

Comment 5:

Many aisle widths exceed City standards and waivers from our technical standards may be necessary. As noted above, supporting information will be required before I render any decision on waivers.

Response:

The enclosed figures of the AutoTurn simulation for large vehicles supports the need for the proposed pavement aisle widths.

WATER QUALITY/STORMWATER MANAGEMENT, ETC. REVIEW COMMENTS – WOODARD & CURRAN DATED APRIL 18, 2013

Comment 1:

MaineDEP Chapter 500 Basic, General and Flooding Standards:

a. *Basic Standards: Plans, notes, and details have been provided to address erosion and sediment control requirements, inspection and maintenance requirements, and good housekeeping practices in general accordance with Appendix A, B, & C of MaineDEP Chapter 500. In addition, the Applicant has included inspection and reporting requirements in reference to Chapter 32 of the City of Portland Code of Ordinances.*
b. *General Standards: The proposed StormTreat Systems will provide adequate stormwater quality control in compliance with the General Standards.*
c. *Flooding Standard: The Applicant has sufficiently demonstrated compliance with the Flooding Standard for the 2, 10 & 25-year storm events.*

Response:

Our office concurs with the reviewer's assessment.

Comment 2:

Because the project site falls within the Long Creek Watershed, the Applicant has noted that they are required to obtain a Waste Discharge Permit issued by the MaineDEP. We understand that the Applicant is working with MaineDEP and the Long Creek Watershed Management District (LCWMD) regarding the details of review and oversight for issuing this permit. We request that the Applicant provide an update to this process, and ultimately a copy of the permit for the

project record. Because the Applicant will be an individual permit holder within the Long Creek Watershed, they will be subject to Stream Restoration and Monitoring Fees collected and manage by the LCWMD.

Response:

The Applicant provided a copy of the MeDEP Waste Discharge Permit Application to the City Planning Office on April 12, 2013. A copy of the executed permit will be provided upon receipt.

Comment 3:

The Applicant has presented an acceptable means of managing the flow and quality of stormwater runoff generated from the new impervious surfaces; however, we encourage the Applicant to review the drive lane widths and parking spaces against the functions and needs of the facility, and reduce impervious surface wherever determined to be practical.

Response:

The enclosed AutoTurn figures demonstrates the need for oversized aisle widths. The parking demand analysis detailed in Comment 2 of the April 10, 2013 email demonstrates the need for the number of proposed parking spaces. The applicant feels they have prepared a plan which will serve the functions and needs of the development while limiting the proposed impervious surfaces to the extent practicable.

Comment 4:

The plans should include proposed pipe invert elevations, pipe materials & sizes, and manhole/catch basin structure rim elevations.

Response:

The enclosed Grading and Drainage Plan C-3.0 includes a storm drain appurtenance schedule with details such as size, rim and invert elevations.

Comment 5:

Please provide clarification, potentially additional plan view notes/details, for the pipe configuration and weir system located within structure A3 and the header/discharge pipes associated with the StormTreat system.

Response:

The Applicant has added detail regarding these design elements. They are shown on Sheets C-9.0 and C-9.1.

Comment 6:

The Applicant should verify that the following requirements for the proposed Underground Storage Tank (UST) are being coordinated with the appropriate agencies:

- *Registration of the new UST system with the MaineDEP, per Section 4 of Chapter 691 Rules for Underground Oil Storage Facilities.*

Response:

The Applicant will file the registration of the new UST system with the MeDEP upon construction.

Comment 7:

The Applicant has noted that gas and electric utilities are currently being coordinated and therefore are not specified on the plans. Any updates to the site plan to accommodate these utilities should be submitted to the City for review and approval. Furthermore, the Applicant is currently awaiting confirmation of capacity to serve from all utilities; confirmation should be forwarded to the City upon receipt.

Response:

We have attached copies of the Ability to Service letters from Unitil, Portland Water District and CMP. The approval from the Sanitary Department will be provided under a separate cover upon receipt.

Comment 8:

The following details should be provided:

a. Rip Rap Slope Protection

b. Level Lip Spreader

c. Bituminous Driveway Apron

Response:

An additional Sheet (C-8.8 Erosion Control Details) provides details for rip rap slope protection and the level lip spreader. A detail of the bituminous driveway apron and pavement sawcut has been added to Sheet C-8.3 (Site Details).

L.10

Comment 9:

The Plans should identify snow storage locations.

Response:

Snow storage locations are shown on the enclosed Site Layout Plan C-2.0.

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

Sincerely,

DeLUCA-HOFFMAN ASSOCIATES, INC.

Stephen R. Bushey, P.E.
Senior Engineer

SRB/smk

Attachments: Attachment A – Certificate of Good Standing and Option Agreement
Attachment B – Excerpt of 4th Edition ITE Parking Generation Manual
Attachment C – AutoTurn Simulation Figures
Attachment D – Utility Ability to Serve Letters
Revised Plan Sheets

c: David Latulippe, CJ Developers, Inc.
Wes Thames, Priority Group

R:\3118-Convenience Store, Portland, ME\Admin\Permitting\Local\Level III Site Plan Application\3118 2013.04.23-Fraser-ComRes#1.doc

L. 11

ATTACHMENT A

State of Maine Certificate of Good Standing and Assignment of Option Agreement

included in Attachment C

L.12

ATTACHMENT B

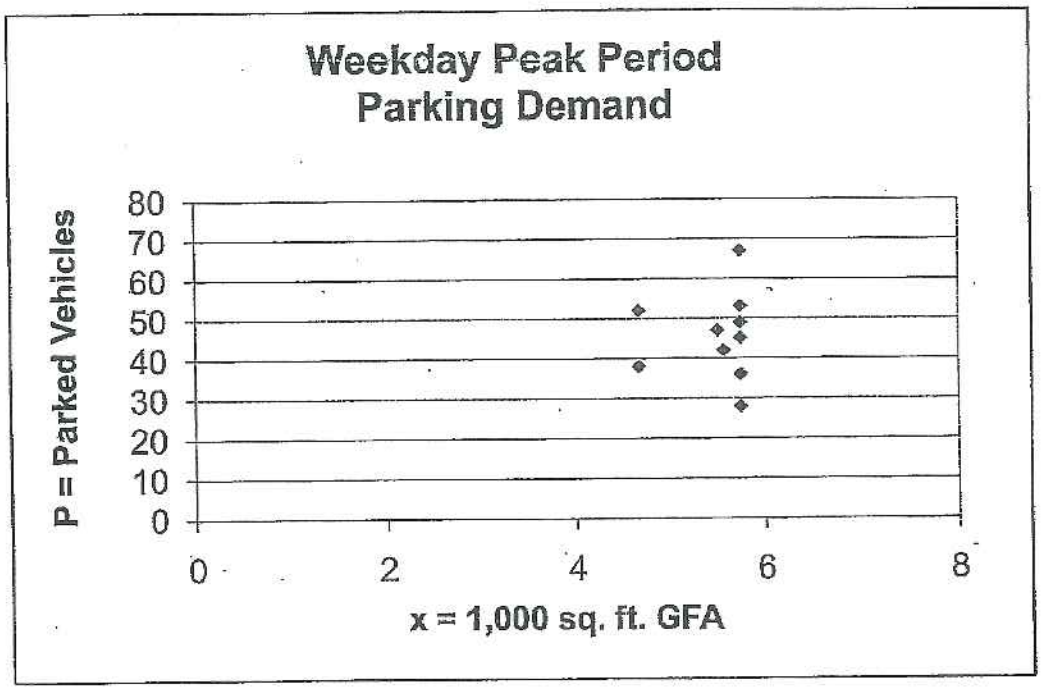
Excerpt from 4th Edition ITE Parking Generation Manual

L.13

Land Use: 853
Convenience Market with Gasoline Pumps

Average Peak Period Parking Demand vs. 1,000 sq. ft. GFA
On a: Weekday

Statistic	Peak Period Demand
Peak Period	12:00–1:00 p.m.
Number of Study Sites	10
Average Size of Study Sites	5,500 sq. ft. GFA
Average Peak Period Parking Demand	8.38 vehicles per 1,000 sq. ft. GFA
Standard Deviation	2.02
Coefficient of Variation	24%
Range	4.88–11.67 vehicles per 1,000 sq. ft. GFA
85th Percentile	10.50 vehicles per 1,000 sq. ft. GFA
33rd Percentile	7.83 vehicles per 1,000 sq. ft. GFA



L. 14

Land Use: 853
Convenience Market with Gasoline Pumps

Description

The convenience markets surveyed sell gasoline, convenience foods, newspapers, magazines and often beer and wine. This land use includes convenience markets with gasoline pumps where the primary business is the selling of convenience items, not the fueling of motor vehicles. Convenience market (open 24 hours) (Land Use 851), gasoline/service station with convenience market (Land Use 945) and gasoline station with fast-food and convenience market (Land Use 949) are related uses.

Database Description

The database contained a mix of suburban and rural study sites. Parking demand ratios at the suburban sites were similar to those at the rural sites and, therefore, the data were combined and analyzed together.

- Average parking supply ratio: 13.1 spaces per 1,000 square feet (sq. ft.) gross floor area (GFA) (10 study sites).

Study Sites/Years

Maurice River, NJ (1999); Medford, NJ (1999); Berlin, NJ (2006); Logan Twp, NJ (2006); Medford, NJ (2006); Pennsauken, NJ (2006); Absecon, NJ (2007); Cream Ridge, NJ (2007); Egg Harbor Twp, NJ (2007); Millville, NJ (2007); Pennsauken, NJ (2007); Rio Grande, NJ (2007); Vineland, NJ (2007)

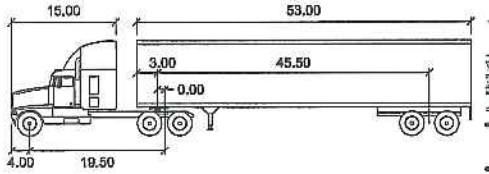
4th Edition Source Numbers

1117, 1133

L.15

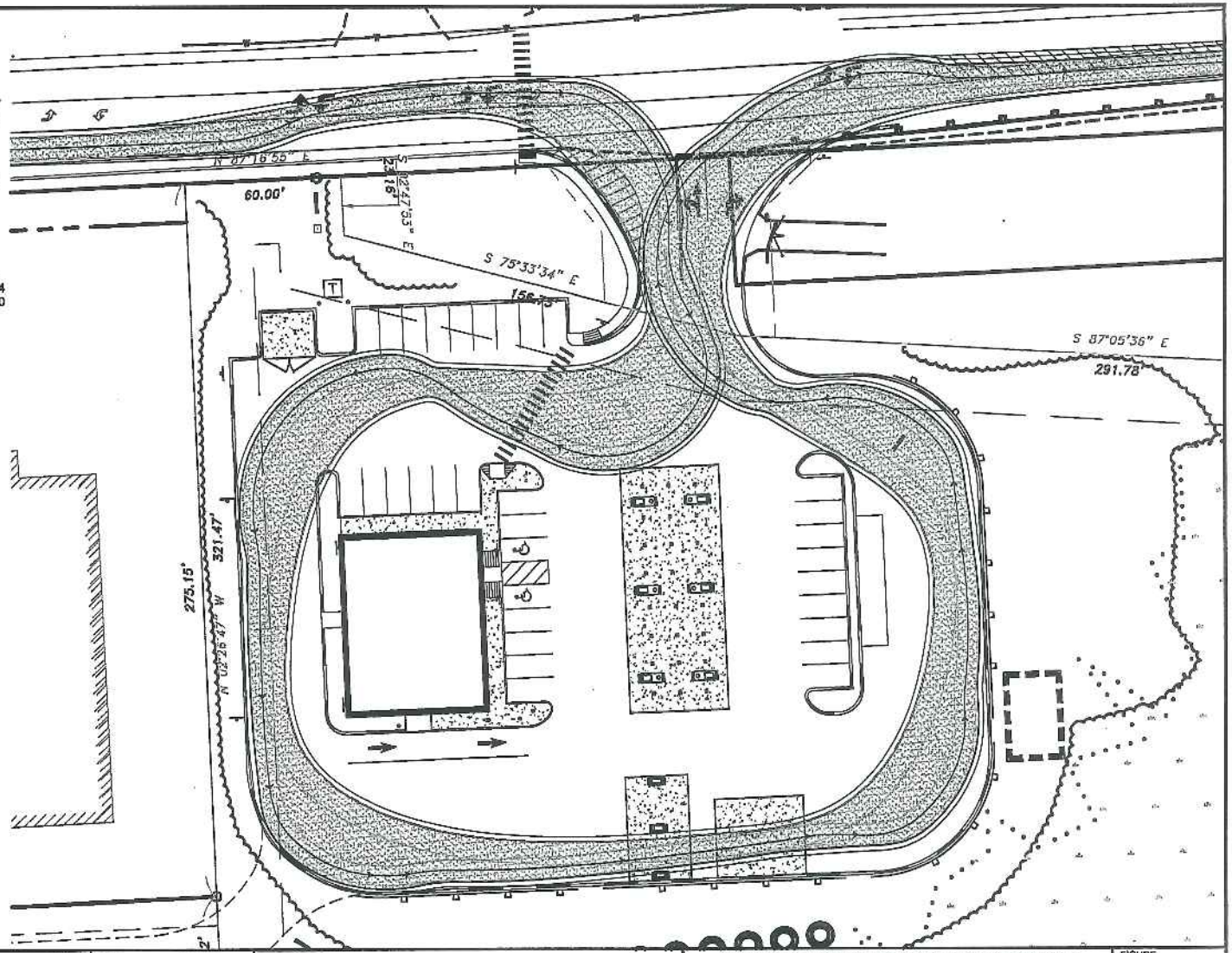
ATTACHMENT C

AutoTurn Simulation Figures



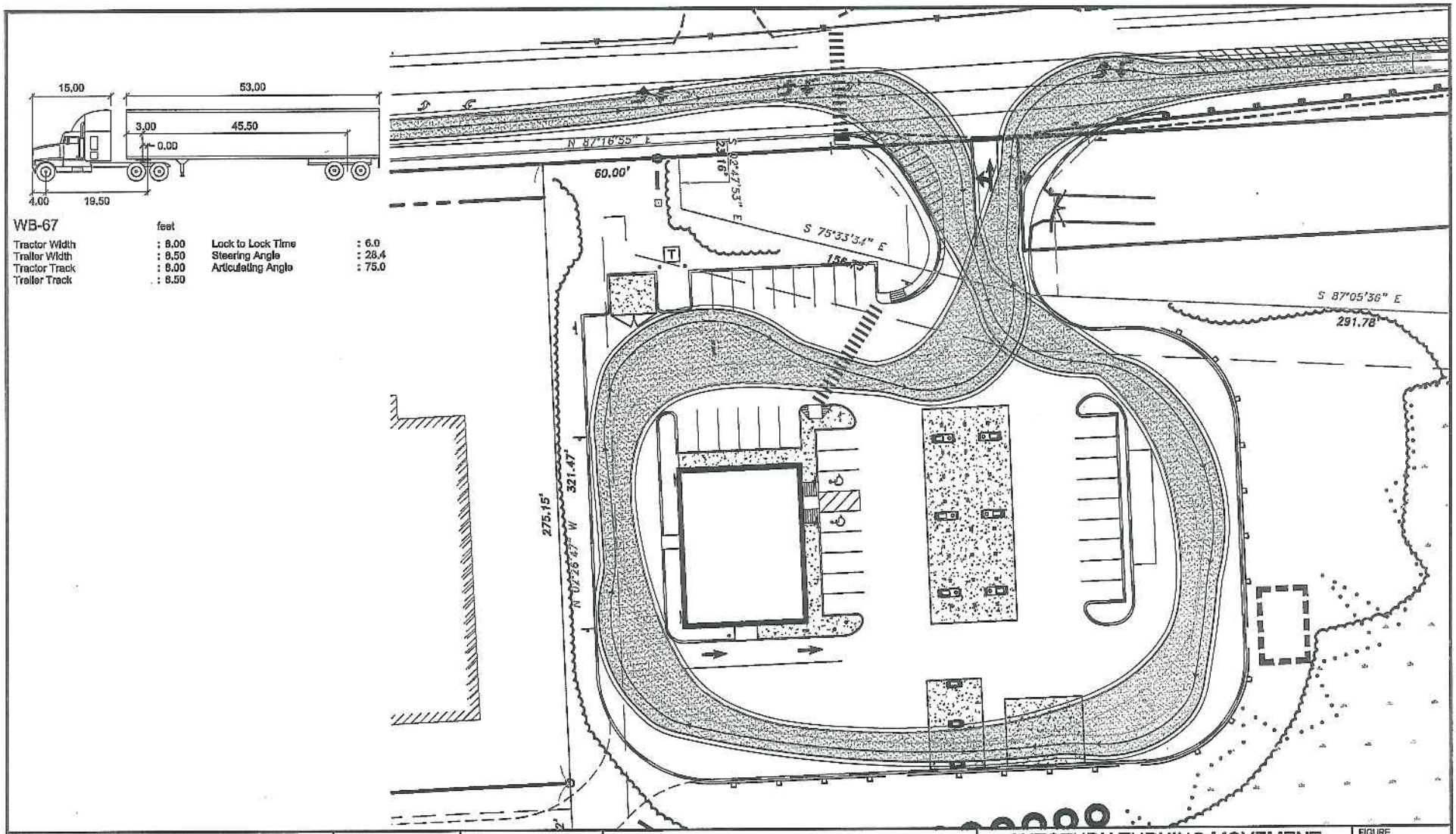
WB-67 feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 28.4
Tractor Track	: 8.00	Articulating Angle	: 75.0
Trailer Track	: 8.50		



DH	DeLuca-Hoffman Associates, Inc. 778 MAIN STREET, SUITE 8 SOUTH PORTLAND, ME 04106 207.775.1121 WWW.DELUCAHOFFMAN.COM	DRAWN: BEK	DATE: 04.18.13	MULTI-USE DEVELOPMENT PORTLAND, ME	AUTOTURN TURNING MOVEMENT ANALYSIS AASHTO 2011(US) WB-67 AT 5MPH
		DESIGNED: BEK	SCALE: 1" = 40'		FIGURE AT-1
		CHECKED: SRB	JOB NO. 3118		
		FILE NAME: 3118-AUTOTURN.DWG			

L.16



DH	DeLuca-Hoffman Associates, Inc. 778 MAIN STREET, SUITE 8 SOUTH PORTLAND, ME 04106 207.775.1121 WWW.DELUCAHOFFMAN.COM	DRAWN: BEK	DATE: 04.18.13	MULTI-USE DEVELOPMENT PORTLAND, ME	AUTOTURN TURNING MOVEMENT ANALYSIS AASHTO 2011(US) WB-67 AT 5MPH
		DESIGNED: BEK	SCALE: 1" = 40'		FIGURE AT-2
		CHECKED: SRB	JOB NO. 3118		
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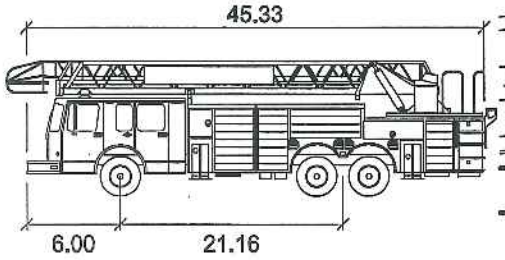
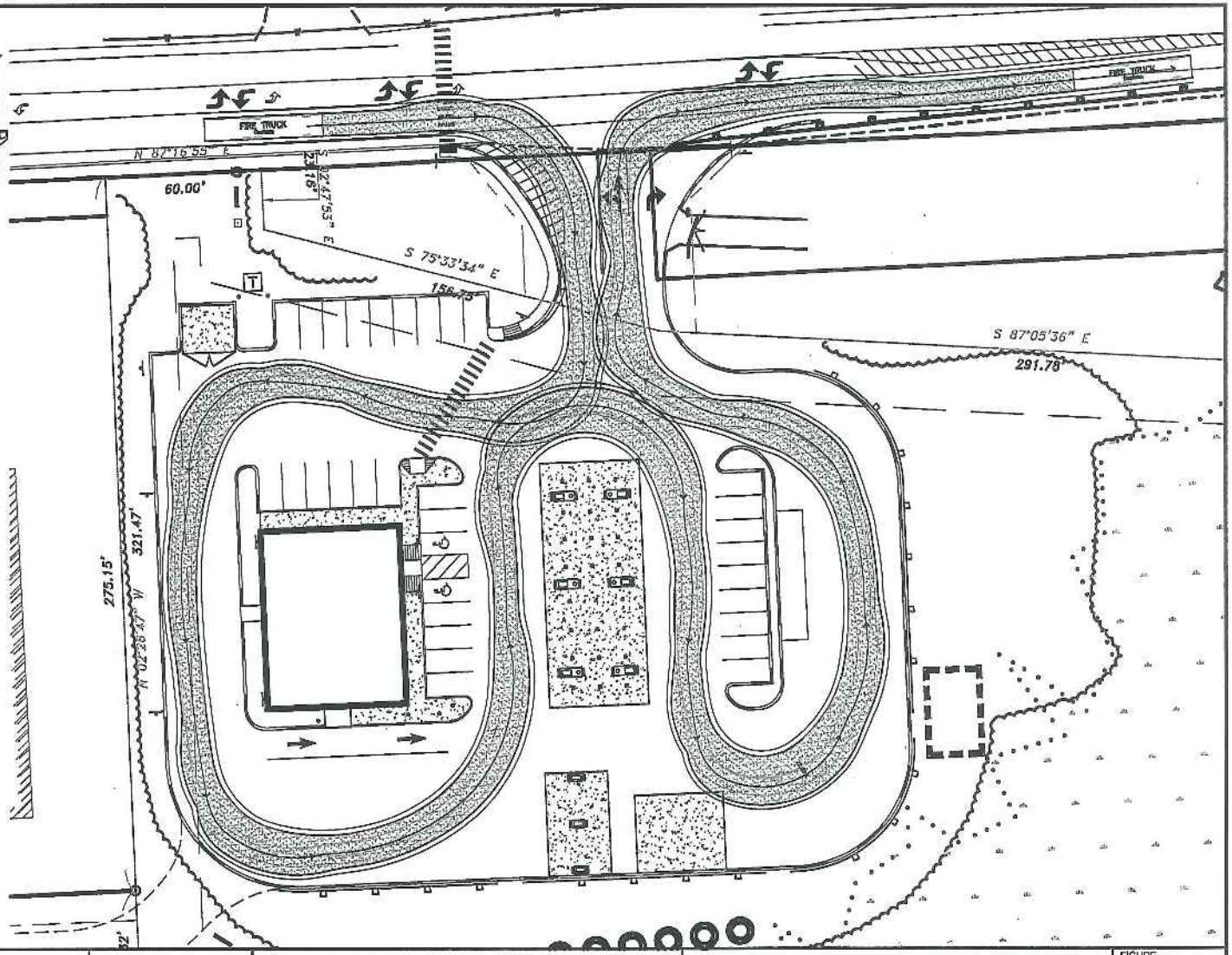


FIRE TRUCK

	feet
Width	: 8.50
Track	: 8.00
Lock to Lock Time	: 6.0
Steering Angle	: 40.0



DH	DeLuca-Hoffman Associates, Inc. 778 MAIN STREET, SUITE 8 SOUTH PORTLAND, ME 04106 207.775.1121 WWW.DELUCAHOFFMAN.COM	DRAWN: BEK	DATE: 04.18.13	MULTI-USE DEVELOPMENT PORTLAND, ME
		DESIGNED: BEK	SCALE: 1" = 40'	AUTOTURN TURNING MOVEMENT ANALYSIS FIRE TRUCK AT 5MPH
		CHECKED: SRB	JOB NO. 3118	FIGURE AT-3
		FILE NAME: 3118-AUTOTURN.DWG		

C.19

Included in Attachment H.

ATTACHMENT D

Utility Ability to Serve Letters:

Unitil
Portland Water District
Central Maine Power

Attachment M.

From: David Latulippe <ddlatulip@aol.com>
To: <JF@portlandmaine.gov>
CC: <sbushey@delucahoffman.com>, <bkennedy@delucahoffman.com>, <jhoward@priorityrealestategroup.com>
Date: 4/24/2013 7:00 AM
Subject: 2282 Congress St - Cpnvenience Store w/ Farm Stand

Jean,

Per our discussion the other day, we have decided to add a small farm stand as part of the convenience store for our development at 2282 Congress St. We included a farm stand in our convenience store/gas station development we did last year in Topsham and it has received a very positive response from the community.

The farm stand will be used on a seasonal intermittent basis similar to a "farmers market" and managed by the convenience store. They invite local farmers to use the stand, rent free, to sell their locally grown produce, flowers and other related products such as Christmas trees and wreaths.

We have placed the farm stand in the small landscaped area in the western corner of the site beside Congress St. There are several convenient parking adjacent to the stand.

We have researched the Land Use ordinance and would consider the farm stand an accessory use to the permitted convenience store and major auto service station uses. Further, the definitions of "retail" and "retail establishment" state: retail, combined with gasoline, diesel or propane fuel sales shall be considered a single use for zoning purposes and shall constitute a major or minor auto service station.

Should you have any questions or need any additional information, please do not hesitate to contact me.

David Latulippe

Attachment No. 1

DeLUCA-HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

778 MAIN STREET
SUITE 8
SOUTH PORTLAND, MAINE 04106
TEL. 207.775.1121
FAX 207.879.0896

- SITE PLANNING AND DESIGN
- ROADWAY DESIGN
- ENVIRONMENTAL ENGINEERING
- PERMITTING
- AIRPORT ENGINEERING
- CONSTRUCTION ADMINISTRATION

May 2, 2013

Ms. Jean Fraser, Planner
Planning and Urban Development Department
City of Portland, Maine
389 Congress Street
Portland, Maine 04101-3509

Subject: **Convenience Store and Fuel Station Development**
2282 Congress Street
Final Site Plan Application
Response to Review Comments Associated with April 23, 2013 Submission

Dear Jean:

Based on our meeting of April 30, 2013 and May 2, 2013 review from Jeff Tarling we offer the following responses to staff and peer review comments. For ease of reference, we have included your paraphrased comments (italics) and our response follows.

FINAL REVIEW COMMENTS

Comment 1:

Parking volume and Scale of impervious surface area for the development.

Response:

Per our discussion, the development team has accessed the circulation patterns and layout for opportunities to remove impervious area while maintaining adequate circulation, parking, etc. The accompanying revised site plan reflects a modification to the layout whereby the easterly side of the development is realigned to reduce the extent of pavement area, at least in the initial phase of development. The applicant is seeking to retain the ability to expand the easterly development edge in the future, to the original design limits, if in the event that CNG operations become a reality or overall development activity for tractor trailer parking, etc. warrants this additional area. We propose to maintain the drainage and stormwater systems as originally designed, therefore minimizing additional work if the pavement areas are expanded in the future. The realignment of the pavement layout reduces the impervious area by approximately 5,178 SF or 7.6% of the original 1.57 acres of impervious area. The overall parking supply is reduced from 32 spaces to 26 spaces. We note that two vehicle spaces for future electric vehicle charging stations are now proposed on the easterly side of the site. We have completed the attached AutoTurn figures depicting a WB-50 & WB-67 semi-trailer vehicles maneuvering around the site as requested by Tom Errico.

Comment 2:

The sidewalk alignment from Congress Street should be realigned to nearly a 90 deg. crosswalk to the storefront.

Response:

We have realigned the crosswalk from Congress Street to meet this recommendation. It eliminates a parking space on the north side of the site.

Comment 3:

The northwest corner of the pavement surface should be rounded rather than square.

Response:

We have chosen to sign and provide pavement markings in this corner area to allow for a loading zone for the Farm Stand operators. This will provide a small area for the operator(s) to load and unload when they are using the farm stand.

Comment 4:

The dumpster location should be realigned to plan for a future driveway connection to Skyway Drive.

Response:

We have reviewed the current location and possible realignment locations along the southerly pavement edge. We have determined that shifting the dumpster easterly results in significant filling and grading impacts, thus we are requesting that the dumpster location remain as designed. If the Skyway Drive connection becomes a reality then the dumpster can be shifted at that time.

Comment 5:

The pavement markings on the westerly entrance drive edge should be modified to be a 1" raised concrete surface.

Response:

We have modified the site plan to include the 1" raised concrete surface in this area.

Comment 6:

The lighting layout should be modified to address City lighting standards and styling.

Response:

The revised lighting plan eliminates the fixtures along the westerly edge of the site. In addition, the computation of lighting coverage in the area of the front of the store has been corrected to be compliant with the City standards. The revised lighting plan will be submitted under separate cover.

We trust that the revised site plan and lighting plans adequately address the latest Staff comments on the project and we look forward to presenting the project to the Planning Board at their May 14th Public Hearing.

Comment 7:

Issues related to Right, Title and Interest.

Response:

We have completed the accompanying application form containing Portland Property Holdings, LLC as a co-applicant along with CJ Developers, Inc. We understand this will adequately address the Team's interest in the development as well as the Conditional Zoning Agreement.

JEFF TARLING REVIEW COMMENTS OF MAY 2, 2013

Comment 1:

The recent landscape plan increases the tree planting and campus feel as requested, however would like to offer the following recommendations / conditions:

a) ***Congress Street Edge*** *– In the location of the proposed 'picnic area' would like to see a greater amount of tree save / thinning then clearing. The existing birch trees and native vegetation can be thinned to allow for the garden, the value of the screening and tree save is a higher value in regards to the overall landscape function. I can meet with the applicant project team if helpful.*

Response:

Our office has revised the landscape plan between the picnic area and Congress Street to require selective trimming in lieu of clearing. The plan also requires a pre-clearing meeting is held with the contractor.

b) ***Tree Saves*** *– I would like to see a greater attempt to save the mature existing trees along the project edges. These White Pine in particular offer important structure to the current landscape feel. Reducing the pavement edge along the west & Skyway Drive edge by either narrowing the driveways / parking lot or shifting the built development away from the edges. The tree save areas should be shown or mentioned on the plan and protected in the field following our standard 'tree-save' recommendations. This would include the area along Congress Street and the important Shagbark Hickory.*

Response:

The plan has been modified to address the concerns adjacent to Congress Street (including the Shagbark hickory).

Although the site plan has been modified to reduce impervious area by about 7.6%, it is not recommended by our office that the development area is shifted easterly because of the additional natural resource and clearing impacts that would occur as a consequence. The landscape plan does propose replacement of trees along the westerly boundary.

The area in the southwest (Skyway Drive) corner is noted to be an area of select trimming and clearing only.

c) ***Additional Trees Along the Parking Lot*** *– In the area near the stormwater feature the recent plan did not show the additional trees requested. Having trees and/or shrubs is important so this area does not appear void of vegetation. We should be able to resolve this with an additional grouping of three to five trees. I can meet to review this condition as well if needed.*

Response:

The revised plan provides an additional 5 trees along the easterly pavement edge between the pavement and the stormwater management facility.

Overall the revised landscape plan is improved, following up on the possible planting on the Maine Turnpike / City street right of way (outside the UNITEL right of way) is hopeful.

Response:

Our office is happy to meet with Mr. Tarling in the field to mitigate any remaining concerns prior to construction.

DeLUCA HOFFMAN ASSOCIATES, INC.
CONSULTING ENGINEERS

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

Sincerely,

DeLUCA-HOFFMAN ASSOCIATES, INC.

Stephen R. Bushey, P.E.
Senior Engineer

SRB/smk

Attachments: AutoTurn Figures
Application form
Revised Plan Sheets

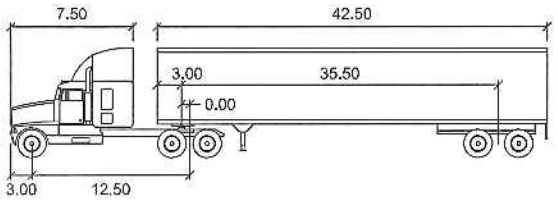
c: David Latulippe, CJ Developers, Inc.
Wes Thames, Priority Group

R:\3118-Convenience Store, Portland, ME\Admin\Permitting\Local\Level III Site Plan Application\3118 2013.05.02-Fraser-ComRes#2.doc

N.6

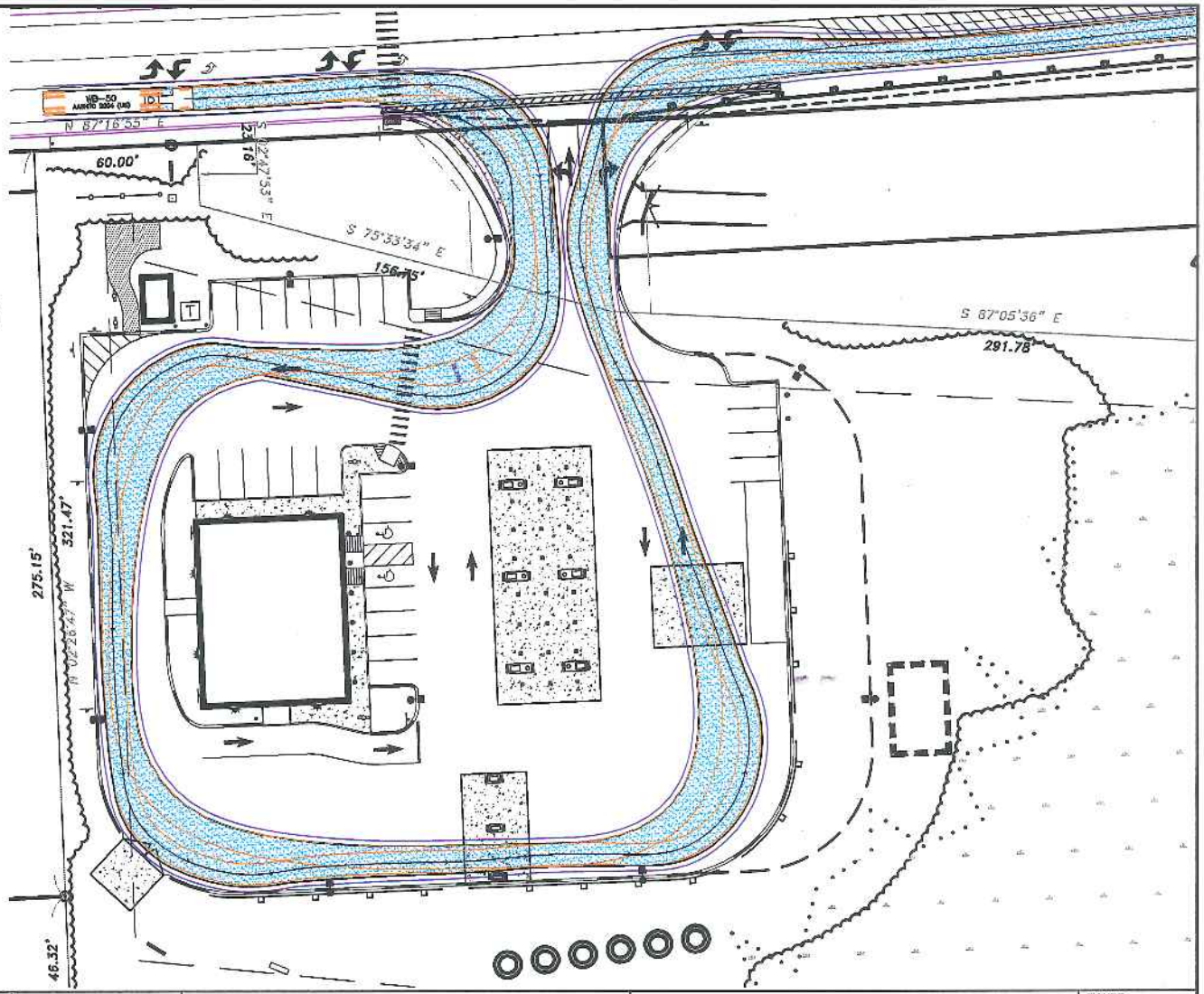
ATTACHMENT A

WB-50 AutoTurn Figure
WB-67 AutoTurn Figure

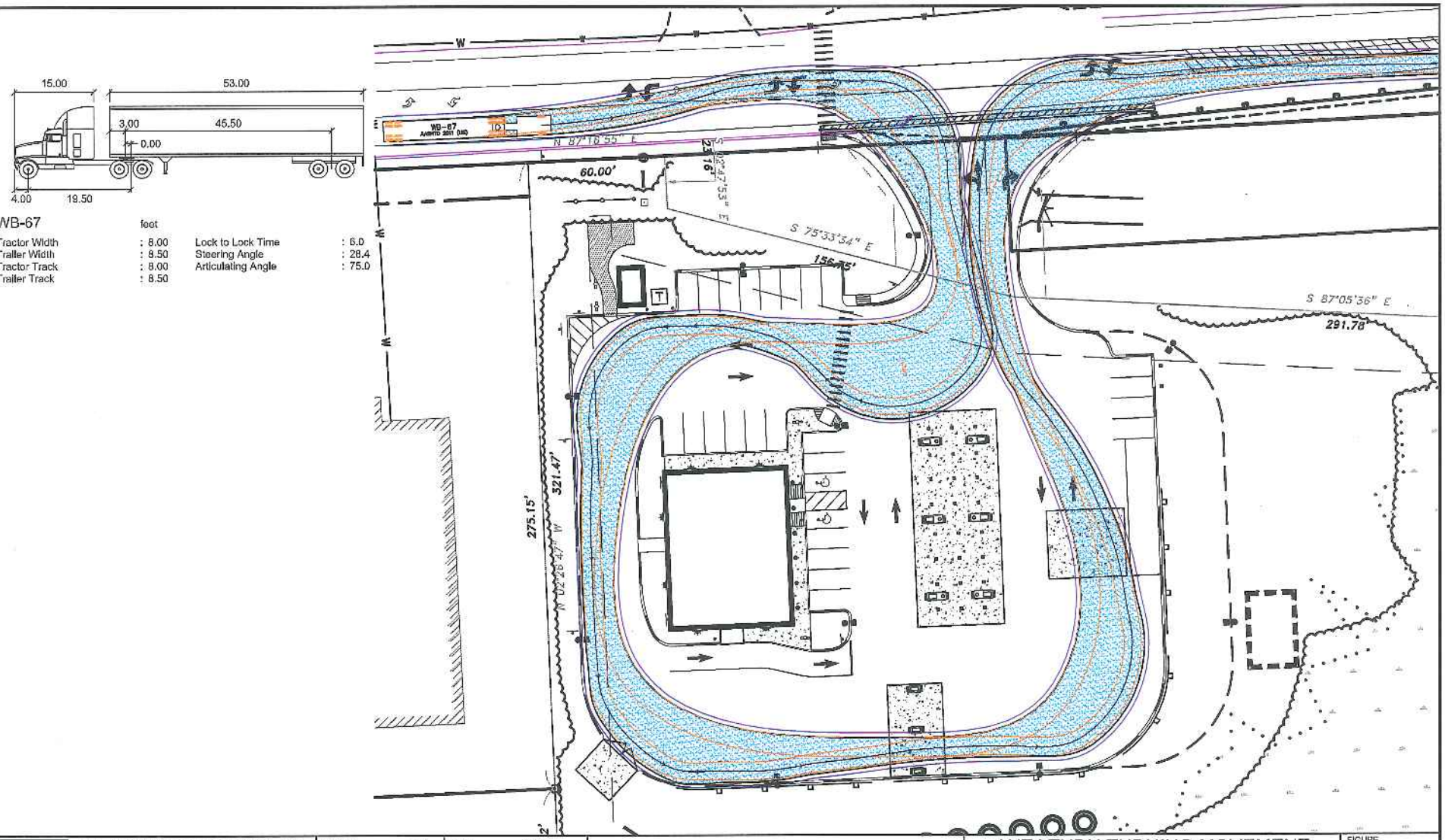


WB-50 feet

Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 17.7
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.50		



DH	DeLuca-Hoffman Associates, Inc. 778 MAIN STREET, SUITE 8 SOUTH PORTLAND, ME 04106 207.775.1121 WWW.DELUCAHOFFMAN.COM	DRAWN: BEK	DATE: 04.18.13	MULTI-USE DEVELOPMENT PORTLAND, ME	AUTOTURN TURNING MOVEMENT ANALYSIS AASHTO 2011(US) WB-50 AT 5MPH	FIGURE AT-5
		DESIGNED: BEK	SCALE: 1" = 40'			
		CHECKED: SRB	JOB NO. 3118			
		FILE NAME: 3118-AUTOTURN.DWG				



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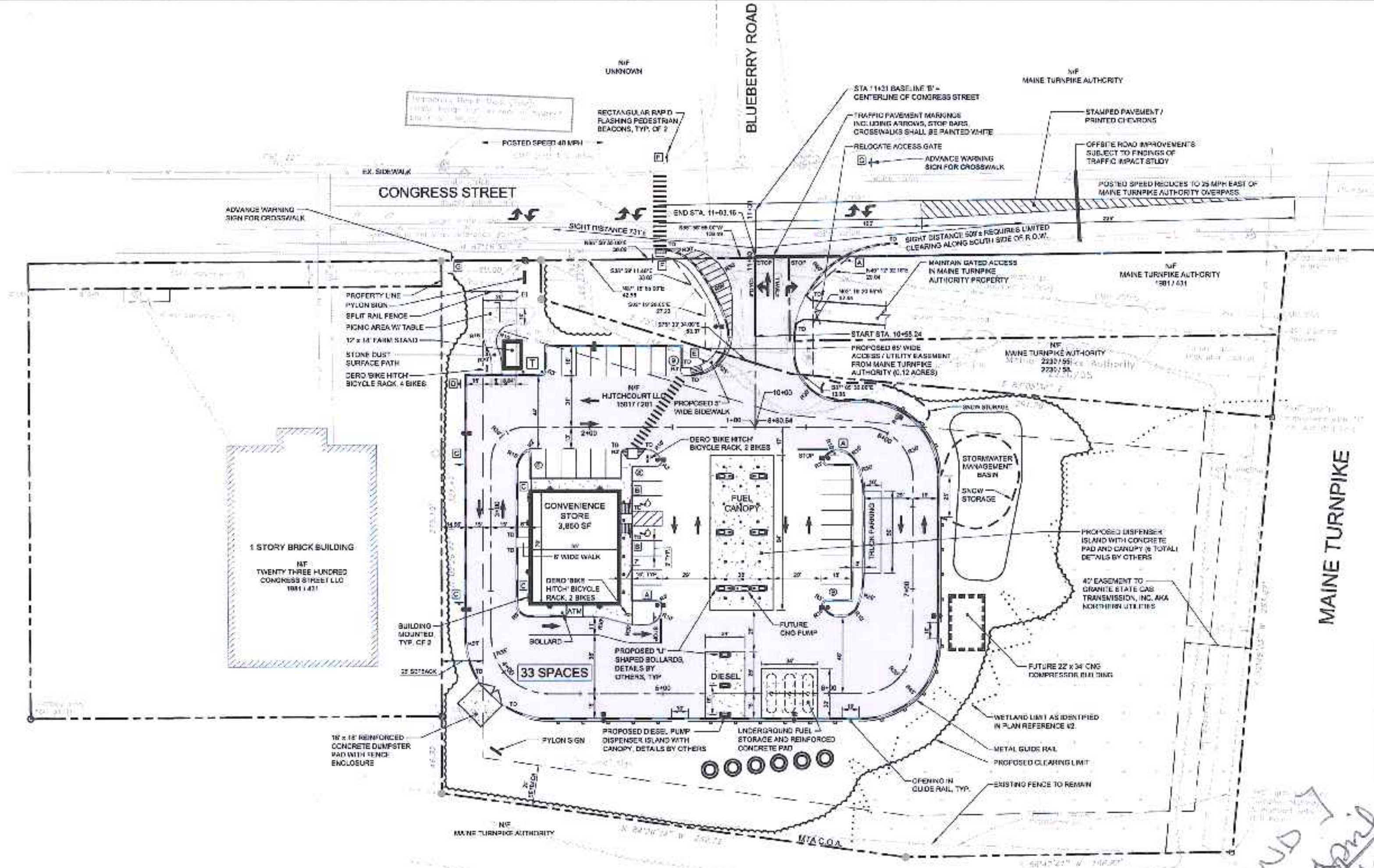
		DESIGNED: BEK	SCALE: 1" = 40'		FIGURE AT-2
		CHECKED: SRB	JOB NO. 3118		
		FILE NAME: 3118-AUTOTURN.DWG			

8 N

Attachment O.1



PARCEL SIZE	3.24 ACRES
CITY OF PORTLAND, MAINE - PERFORMANCE STANDARDS	
	EXISTING INDUSTRIAL MODERATE IM
CRITERIA	REQUIRED
USE - CONVENIENCE STORE W/ FUEL STATIONS	PERMITTED BY CONDITIONAL ZONING
MINIMUM LOT SIZE	NONE
FRONT YARD SETBACK	1' FROM THE FRONT PROPERTY LINE FOR EACH 1' OF BUILDING HEIGHT
REAR YARD SETBACK SIDE YARD SETBACK	1' FROM EACH SIDE OR REAR FOR EACH 1' OF BUILDING HEIGHT UP TO 25'
MAXIMUM HEIGHT	75'
MAXIMUM IMPERVIOUS SURFACE RATIO	75%
PAVEMENT SETBACK FROM LOT BOUNDARIES	10'
MINIMUM STREET FRONTAGE	60'
MAXIMUM FLOOR AREA RATIO	-
MINIMUM LOT WIDTH	-

SURFACE MATERIAL LEGEND

- HEAVY DUTY BITUMINOUS CONCRETE PAVEMENT
- STANDARD DUTY BITUMINOUS CONCRETE PAVEMENT
- PORTLAND CEMENT CONCRETE
- STONE DUST

CURB LEGEND

- MONOLITHIC CONCRETE CURB - PART OF SIDEWALK
- C.I.P. SLIPFORM CONCRETE CURB - SLOPED MOLD WHERE NOT ADJACENT TO SIDEWALK
- TYPE 1 VERTICAL GRANITE CURB - MDOT 609.11
- TD — TIPDOWN

NOTES:

1. RECORD OWNER OF PROPERTY: HUTCHCOURT LLC BY DEEDS RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 15017, PAGE 201. PROPERTY IS LOCATED IN THE CITY OF PORTLAND ON TAX MAP 237, LOT A012.
2. PROPERTY IS LOCATED WITHIN THE INDUSTRIAL (IM) ZONE. ZONING IS SUBJECT TO REVIEW BY THE MUNICIPALITY.
3. PROPERTY IS LOCATED IN FLOOD ZONE 'X' BASED ON F.I.R.M. PANEL #230051-0012C EFFECTIVE DEC. 8, 1998 AS DEPICTED IN THE CITY OF PORTLAND, MAINE CUMBERLAND COUNTY. ZONE 'X' IS NOT DESIGNATED AS AN AREA OF SPECIAL FLOOD HAZARD.

PLAN REFERENCES:

1. STANDARD BOUNDARY & TOPOGRAPHIC SURVEY PREPARED BY TITCOMB ASSOCIATES, INC. DATED MARCH 13, 2013.
2. COMPOSITE PLAN PREPARED FOR CJ DEVELOPERS, INC. BY ALBERT FRICK ASSOCIATES, INC. DATED 04.02.12.

SIGN LEGEND

A	B	C	D	E	F	G
24" x 24" R1-1	12" x 18" R7-8A	12" x 18" R7-1	12" x 18" ATM-1	12" x 18" ATM-2	RECTANGULAR RAPID FLASHING PEDESTRIAN BEACONS, SEE DETAIL	30" x 30" W11-2; 12" x 18" R10-3-DH

NORTH

1 inch = 30 ft.

PRELIMINARY - NOT FOR CONSTRUCTION

[BACKGROUND As submitted April now superceded by reduced impervious version]

REV	DATE	DESCRIPTION
3	04.15.13	REVISED PER CITY STAFF COMMENTS
2	04.09.13	SUBMITTED TO MEDEP STORMWATER DISCHARGE PERMIT
1	03.25.13	SUBMITTED TO CITY OF PORTLAND
REVISIONS		

STATE OF MAINE — STEPHEN B. BUSHEY — No. 7429 — LICENSED PROFESSIONAL ENGINEER

P.E. STEPHEN BUSHEY
LIC. # 7429

PROJECT
MULTI-USE DEVELOPMENT
2282 CONGRESS ST., PORTLAND, ME

SHEET TITLE
SITE LAYOUT PLAN

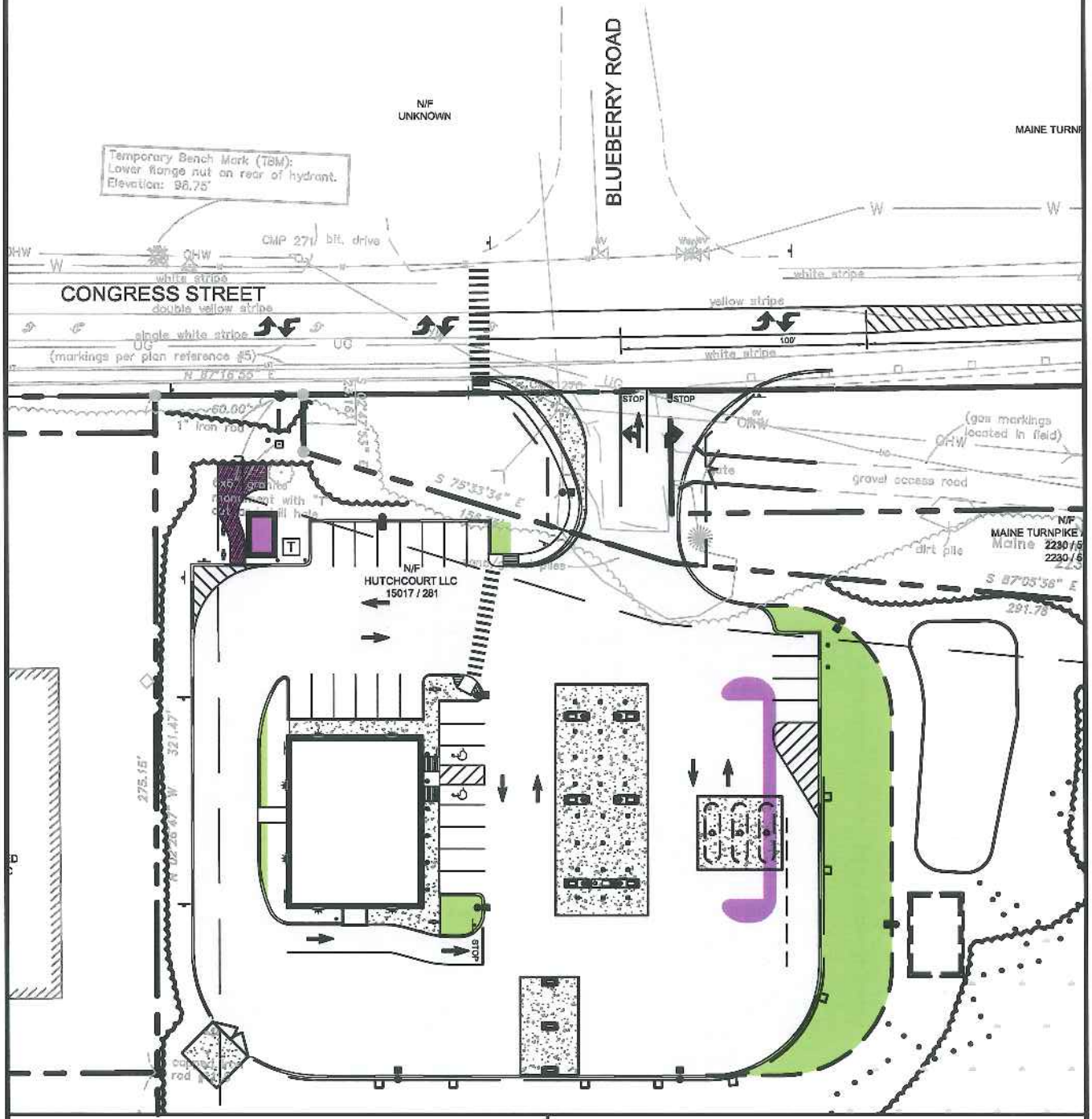
CLIENT
CJ DEVELOPERS, INC.
35 PRIMROSE LANE, FREEPORT, MAINE 04032

DeLUCA-HOFFMAN ASSOCIATES, INC.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, ME 04106
207.775.1121
WWW.DELUCA-HOFFMAN.COM

DRAWN:	CMW	DATE:	MAR. 2013
DESIGNED:	SRB	SCALE:	1" = 30'
CHECKED:	SRB	JOB NO.:	3118
FILE NAME:	3118-SP		
SHEET	C-2.0		

Attachment 0-2

	IMPERVIOUS AREA (AC)	NET CHANGE (SF)
TOTAL ONSITE IMPERVIOUS AREA	1.42	
ADDITIONAL IMPERVIOUS AREA	+0.03	+1,143
REDUCED IMPERVIOUS AREA	-0.15	-6,321
TOTAL REMAINING IMPERVIOUS AREA	1.31	-5,178



MULTI-USE DEVELOPMENT

2282 CONGRESS ST., PORTLAND, ME

REDUCED IMPERVIOUS AREA BASED ON CITY STAFF COMMENTS

DeLuca-Hoffman Associates, Inc.
778 MAIN STREET, SUITE 8
SOUTH PORTLAND, ME 04106
207.775.1121
WWW.DELUCAHOFFMAN.COM

DRAWN:	CMW	DATE:	MAY 2013	FIGURE 1
DESIGNED:	BEK	SCALE:	1" = 60	
CHECKED:	SRB	JOB NO.	3118	
FILE NAME:	3118-SP			