

# 1. DEVELOPMENT DESCRIPTION

## 1.1 PROJECT OVERVIEW

Canal Landing, LLC proposes to construct an expansion to their boat maintenance and repair yard within approximately 17.77 acres of land located prominently along the West Commercial Street waterfront. This land area includes 5.03 acres of remainder land that the Applicant retained after the MaineDOT acquired nearly 18 acres of land from New Yard, LLC for the IMT Expansion project. The Applicant has completed the acquisition of 12.74 acres from Maine Central Railroad to fulfill their goals for a full-scale boat maintenance and marine related activities facility. The project represents an ideal reuse of a former highly industrialized property that over the years had fallen into non-use except for low frequency rail yard activities. The property maintained a prominent role in the City's Waterfront District for well over a century and a half as the Maine Central Railroad operated active business interests up until at least the 1970's. In more recent times, the site had been relatively inactive except for the limited ongoing rail operations. The Canal Landing Boat Maintenance facility and IMT expansion have now initiated a new resurgence in marine waterfront related activity along the Fore River.

The proposed project includes multiple buildings to be constructed over multiple phases along with expanded shorefront uses including a marine travel lift basin, second boat ramp, floats/docks, new or reconstructed piers and ancillary support features. The Applicant's future plans include at least three additional buildings to be constructed to support the boat maintenance and repair operations. The current Site Plan approval request is only for **Phase III** activities which are listed in Section 1.9.1 of this section. This activity was previously reviewed and approved by the Planning Board in January 2016.

The Phase III project includes site development activities involving earthwork, grading, shorefront stabilization, building construction, utilities, and overall site stabilization.

The following sections provide greater detail regarding the site's existing conditions and the proposed development program.

## 1.2 SITE OWNERSHIP

According to the ALTA/ACSM Survey completed by Owen Haskell, Inc. in April 2015, the development site contains multiple parcels as identified in the City of Portland Tax Assessor's maps. These parcels are more fully described as follows:

| <b>Chart-Block-Lot</b>  | <b>Owner</b>                                 | <b>Description</b>   |
|-------------------------|--|--|
| 59-A-3 & 4              | New Yard, LLC CCRD Book 30887; Page 2        | Consists of 5.03 acres. Land retained following the MaineDOT land taking.  |
| 60-F-1, 3 & 4<br>71-F-2 | Canal Landing, LLC CCRD Book 32239; Page 148 | Consists of a 6.75-acre area between the IMT rail track and the street; also consists of 5.99 acres of area along the waterfront, out to mean low water. |

Figures 1-12 included in Attachment A of this section depict the project location on various available resource maps. As shown, the site location is on West Commercial Street just west of the Casco Bay Bridge and between Commercial Street and the waterfront. The combined parcels have approximately 2,159.55 LF of frontage along Commercial Street. The development site is identified on the U.S.G.S Portland West 7.5 Minute Quadrangle Map.

### 1.3 PROJECT PURPOSE AND NEED

The proposed project is considered a unique opportunity to transform an underutilized, yet prominent property, into water dependent maritime use as significantly contemplated within the City's zoning and comprehensive plans. The project's community benefits include:

- Enhanced commercial/marine related opportunity and rehabilitation of a deteriorated, older industrial property.
- Rehabilitated waterfront including new/renovated pier(s), boat ramp(s) and shoreline stabilization.
- Various remedial activities related to recognized environmental conditions on the properties will be performed, thus addressing several long-standing environmental issues.
- Revitalization of an important waterfront property that has excellent access to deep water, various utilities, City services, and related shorefront amenities.
- Furtherance of the purposes of the Waterfront Port Development zone as articulated in the Land Use Ordinance to "*ensure the continued viability of the Port of Portland*" by limiting use to "*those uses which are dependent upon deep water and which contribute to port activity*".
- Creation of new buildings and site use consistent with waterfront activities in a gateway location along the busy West Commercial Street corridor. The proposed Phase III building includes the placement of Marine Retail and office services within the street front zone of West Commercial Street.
- Creation of secure storage area for marine related cargo and support. Several uses including, but not limited to, the IMT, Bath Iron Works, and others have expressed a need for secure (fenced) area for the placement of marine cargo, vehicle holding areas, etc. on the Portland waterfront and New Yard is seeking to fill this need.

### 1.4 EXISTING CONDITIONS

The site consists of approximately 17.77 acres of land that is composed of three primary areas described as follows:

1. **Retained Parcel (Map 59A, Lots 3 & 4)**: Consists of the retained 5.03-acre area owned by New Yard, LLC and it represents the retained land originally permitted by the Applicant during late 2012 – 2013. Within this land area New Yard, LLC has constructed Building A and Building B amounting to approximately 48,000 SF of building space. This parcel contains a new boat ramp and boat yard area currently in use by Portland Yacht Services.
2. **Shorefront Parcel (Map 60F, Lots 3 & 4)**: This area is irregularly shaped and contains approximately 1,581 LF of waterfront. The site area is approximately 5.99 acres. This area is currently undeveloped except for the granite revetment wall that historically supported the former waterfront pier.

3. **Street Front Parcel (Map 60F, Lot 1):** This 6.75-acre area contains approximately 2,160 LF of street front. The property is generally unoccupied although there are existing rail tracks that previously provided access to the remaining NGL Distribution facility within what will be IMT expansion area in the future. Towards the east end of this parcel, historic land use has included parking of vehicles, trailers and similar activities associated with businesses further east on Commercial Street. Most of this use was unauthorized by the previous landowner, Portland Terminal Co.

Existing development in the area includes the following:

- The City of Portland Marine Terminal and expansion area is located to the east of the site.
- Commercial activity including Nova Seafood and Graybar Electric operate out of buildings on the north side of Commercial Street.
- The Portland Star Match Co. building lines up opposite the site.
- The State of Maine now operates rail tracks into the propane storage yard and IMT expansion area. These tracks were completed very recently.

## 1.5 ACCESS CONDITIONS

The applicant has installed two new driveways (east & central as shown on plans) to allow access to New Yard's business operations. The central driveway will continue to be the primary site entrance as it aligns with a 50' wide rail track crossing. The easterly driveway will provide access to New Yard's administrative space to be located at the east end of the Phase III building. The site plans identify the alignment of the easterly driveway to the far east end of the site, where the existing pavement markings in Commercial Street afford the opportunity for left turning vehicles to queue and for thru WB movements to continue unimpeded.

Future site access will consist of the following:

- A driveway is proposed at the westerly access point. This driveway will allow access to both the street side parcel and the shorefront parcel. This driveway is also contemplated to provide access to a secured area that is proposed to offer marine cargo related land area for parking of vehicles, equipment or other marine related cargo.

## 1.6 SITE UTILITIES

The site contains numerous active and non-active utility lines. The primary utilities are identified as follows:

- The Portland Water District maintains a 48" sanitary sewer interceptor sewer along the site's entire Commercial Street frontage. A portion of this sewer is located within the site within a utility easement. The District/City also maintain two CSO lines that discharge out to the Fore River. There are no sanitary sewer service lines serving the site to the best of our understanding. The previously completed Buildings A and B discharge to an onsite private pump station that ultimately discharges to the 48" interceptor sewer. The proposed Phase III building's sanitary sewer will also connect to the existing 48" sewer interceptor.

- The Portland Water District maintains a water main in Commercial Street that varies from 12" to 16". The Applicant has previously installed a fire line and fire line meters to supply water to allow for both fire and domestic water supply service into the site. This system will be used for the remaining future shorefront buildings. New fire and domestic water supply lines will be installed from the Commercial Street main to serve the Phase III buildings located within the streetfront parcel.
- Unutil maintains a high-pressure natural gas line along Commercial Street. The Applicant continues to investigate service connections for natural gas supply to the property. Currently, Buildings A and B are served by onsite LP fuel storage tanks.
- Power to the site is supplied by Central Maine Power. Currently, there is an overhead service crossing Commercial Street to a pole from which underground facilities extend to Buildings A and B. CMP also maintains an underground transmission cable along most of the site's Commercial Street frontage. It is the Applicant's intent to extend new overhead primary power service from Commercial Street into the site and then underground to pad-mounted transformer(s). New underground secondary service runs will extend to various locations on the property including the boat ramps and storefront area. The applicant is proposing the placement of up to five (5) 12' x 24" precast concrete power sheds throughout the site. These small portable structures offer convenience to some site utilities including power and yard water services. CMP has provided a statement regarding their ability to continue supplying power to the development site (satisfies Original Condition of approval #1).

Letters were previously sent to the following utility providers requesting ability to serve for the project:

- Portland Water District (water supply)
- City of Portland Public Services (sanitary sewer)

Copies of these letters are included as Attachment B. These letters provide anticipated consumption and anticipated flow data for the site.

Plan C-4.1 shows the proposed utilities for Phase III.

## **1.7 TOPOGRAPHY AND DRAINAGE**

Owen Haskell, Inc. has completed a topographic survey of the property. The site is relatively flat with the highest points along the Commercial Street frontage, sloping to the waterfront. Site elevations along Commercial Street trend down from east to west from Elevation 18' (NGVD 1929) to Elevation 16'. The site's low areas are near elevation 9'-10' while most of the waterfront top of revetment is near elevation 9' or 10'. The High Annual Tide Line (HAT) for the Fore River is elevation 7.4' and mean low water is approximately Elevation -4.0'. The Federal Channel is also represented on the project drawings and it is generally located 60' to 120' off the shorefront. No activities are proposed beyond the Federal Channel line.

The site's runoff drains directly to the Fore River via overland flow. There are very few drainage measures on site except for several old catch basins, although there is a closed storm drainage system within Commercial Street. The Commercial Street drainage system ultimately ties into several existing CSO outfalls. The CSO outfalls will remain and be used as outfalls for site generated runoff. It is noted that these CSO outfalls are also used for discharge of runoff

associated with the IMT expansion and new rail corridors. The applicant intends to offer easements to the City benefitting the City of Portland for these existing systems.

Due to the site's historic industrial condition, much of the surface consists of sand and gravel fill, asphalt or otherwise sparsely vegetated ground surface. Future ground activities include improved surfaces to support boatyard activities, however it is contemplated that much of the yard area will be improved by the placement of the "Boatyard Surface" consisting of new gravel and crushed stone surfacing thereby aiding stormwater control and treatment. This "Boatyard Surface" treatment has been widely placed throughout the 5-acre remainder land and it has been found effective in handling the site's runoff conditions. This surface is compliant with the MeDEP Brightwork Manual.

## **1.8 SOILS CONDITIONS**

- 10 to 15 feet of sand and gravel fill – there is little to no organic surface layer throughout the site which is reflective of the site's rail yard history.
- 5 to 10 feet of silt and sand.
- 10 to 40 feet of gray clay identified as the Presumpscot formation.
- 30 to 40 feet of dense silty marine sands.
- An undetermined thickness of dense silty sand and gravel identified as glacial till overlaying bedrock.

Observed soils conditions at the ground surface include fill material containing coal ash with scarified sand and gravel. S. W. Cole Engineering completed a geotechnical investigation related to the foundation design for the Phase III building. A copy of this report can be provided upon request.

According to various investigation data, depth to groundwater varies from 3 to 7 feet and this likely varies with tidal conditions in the Fore River. Generally, the groundwater flows from the northwest to the southeast across the site.

## **1.9 PROPOSED DEVELOPMENT**

The Applicant proposes to redevelop the property in a manner consistent with the WPDZ Standards. The development program includes the following components:

### **1.9.1 ONSITE**

The development program includes continued phased development of boat maintenance facilities and ancillary marine related uses. Phase III and future Concept Plan development activities are summarized as follows:

- **Phase III – Will Include (For Which Approval Is Requested):**
  - Site clearing, stabilization and general clean-up.
  - Construction of a 19,800 SF footprint individual metal building (Building C) for marine retail and boat maintenance operations. (This requires a Conditional Use Approval).

- Establishment of yard areas and surfaces for heavy equipment, and boat display, storage or repair. (Repair and maintenance often takes place outside, particularly if the vessel is large and does not fit into a building. Boats that are out of the water for the winter season all need to have work done on them to prepare them for re-launching.)
- Installation of utilities for building use as well as future phase activities.
- A 20' x 120' storage building along the waterfront is proposed for storage of racing shells. (this building will benefit the Waynflete School racing program – as of Dec 2017 the structure has not been constructed, however a pier was installed in 2016)
- Temporary facilities including one or more portable trailers and storage buildings for sailboat masts and related boat equipment.
- A 60' x 80' steel framed multi story structure (Building D) is proposed as an office space for Portland Yacht Services and potentially for other small retail tenants.
- A 2 to 3 acre area on the west end of the street front parcel is proposed for use as a marine cargo related stack/storage yard. The applicant is seeking to construct a basic yard area with security fence/access for use by various marine operations on the waterfront. This may include use by the IMT, BIW, Sprague or other users for short term parking, storage or related operations. This is an unfilled need for this type of area on the waterfront which New Yard is seeking to address, based on interest by various third parties to the applicant.

➤ **Future Development – May Include (Require Future Separate Approvals):**

- Rehabilitation of former pier pilings for use as part of a new dock system along the waterfront. Custom Floating docks are proposed to tie into the existing system of pilings and dolphins located along the waterfront.
- A travel lift basin to be constructed of sheet piling within the westerly shoreline. The travel lift basin will allow larger vessels to be removed from the water for repairs and maintenance.
- Construction of a second concrete boat ramp along the shorefront.
- Construction of a 36,000 SF tension fabric building for boat repair operations including painting and fiberglass work.
- Construction of up to 13,500 SF metal framed structure that will include more boat repair space, operations areas and administrative support area.
- Continued expansion of the yard area and surface for boat storage and repair.
- Construction of ancillary systems including boat wash areas with water recycling systems, peripheral stormwater systems, landscaping and overall site stabilization.
- Marine retail and warehouse space within up to 36,000 to 41,625 SF in one or two buildings located in the westerly Commercial Street frontage. This space may consist of a combination of permitted and conditional uses.
- Construction of a parking area containing 80-90 parking spaces along the Commercial Street frontage just west of the proposed entrance off Commercial Street.
- Marine related uses, including, but not limited to, seafood processing and storage within one or more structures to be located on the site's far westerly side.

- Commercial street improvements for parallel or angled parking. These improvements are subject to compatibility with existing utilities including underground gas and electric. These improvements are also subject to coordination with the City's West Commercial Street planning.
- Large vessel berthing alongside and within the rehabilitated pier area.

It is the Applicant's intent to show these future activities on the Future Phase Concept Plan; however, current Site Plan and Conditional Use approvals are only being sought for the **Phase III activities**.

### **1.9.2 OFFSITE**

Site access is proposed via Commercial Street as well as from the Fore River. The Phase III primary site entrance is proposed at the existing gravel drive located approximately 1,500 LF west of the Beach Street intersection.

A second driveway is also proposed approximately 650 feet west of the Beach Street intersection generally opposite the Star Match Co. building complex. Finally, the Applicant is proposing a third entrance further west off Commercial Street. This entrance would be primarily used for the secured marine stockyard in a manner to provide separation of these patrons from the operations of the boat yard, and to provide off hour security.

## **1.10 LAND ORDINANCE REVIEW**

### **1.10.1 OVERVIEW**

The property currently lies within the City of Portland Waterfront Port Development Zone (WPDZ). Within the WPDZ district the following uses are permitted or conditioned:

#### **Permitted Uses**

- Marine repair services and machine shops
- Tug boat, fire boat, pilot boat and similar services
- Boat repair yard
- Marine cargo handling facilities, including docking, loading, and related storage
- Warehousing and storage of goods which are awaiting shipment via cargo carriers

#### **Conditional Uses**

- Marine products, wholesaling and retailing
- Boat storage facilities excluding rack storage
- Seafood processing
- Seafood packing and packaging
- Off-street parking lots, excluding parking structures

The following dimensional requirements apply in the WPDZ District:

| Dimensional Standard    | Requirement           |
|-------------------------|-----------------------|
| Minimum Lot Size        | None                  |
| Minimum Frontage        | None                  |
| Front Yard Setback      | None                  |
| Side Yard Setback       | None                  |
| Rear Yard Setback       | None                  |
| Setback from Pier Line  | 5 feet for structures |
| Maximum Lot Coverage    | 50%                   |
| Maximum Building Height | 55 feet               |

With regard to building height compliance, the proposed finished floor elevation of the Phase III buildings is 16.0 feet. While the specific building vendor has not been selected yet, it is understood that the total height of the buildings will not exceed the Code Standards. This is similar to the previously constructed Buildings A & B, each of which comply with the applicable WPDZ height requirements in place at the time of construction.

In accordance with Section 14-318.5 (no adverse impact on marine uses) the following statements support the project intentions:

- *Criteria 1 – The proposed non-water dependent use will not displace an existing water-dependent use.*

Supporting Evidence: In fact the proposed project is a water dependent use and it is not displacing any existing water related use.

- *Criteria 2 – The proposed use will not reduce existing commercial vessel berthing spaces.*

Supporting Evidence: In fact the project includes measures to improve and increase commercial vessel berthing space as the project activities contemplate pier rehabilitation and the installation of berthing spaces for vessels including tug boats or similar sized vessels.

- *Criteria 3 – The proposed non-water dependent use, structure or activities, including but not limited to access, circulation, parking, dumpsters, exterior storage or loading facilities, and other structures, will unreasonably interfere with the activities and operation of existing water-dependent uses or significantly impede access to vessel berthing or other access to the water by water-dependent uses.*

Supporting Evidence: The proposed uses are water-dependent and do not interfere with any existing water dependent uses or activities on the site.

- *Criteria 4 – The siting of a proposed non-water dependent use will substantially reduce or inhibit existing public access to marine or tidal waters.*

Supporting Evidence: The project is not non-water dependent and it will not reduce or inhibit existing public access to marine or tidal waters. It is expected that waterfront access will be improved as a result of the installation of a proposed boat ramp(s) and floating dock facilities in the future.



## **Performance Standard Compliance**

The Applicant will comply with all items listed and described in the performance standards for the WPDZ in the development of the proposed Phase III project as well as through the day to day operational activity at the site once construction of Phase III is complete. Compliance with these standards is discussed in the Impact Mitigation narrative contained in Section 3 of this submission.

The off-street parking and loading requirements will not be applicable to New Yard's business operations until future phases of the project are developed. Generally, the project involves New Yard employee parking which will vary within the yard area to allow flexibility for boat storage.

The marine retail use will involve less than 35 parking spaces based on their current demand at an existing facility.

See Section 1.14 of the report for information on noise and vibration generated by the regular operations of the site. See Section 1.15 of this report for a discussion on proposed lighting for Phase III of the project. Section 1.17 provides an overview of solid waste for the project is discussed below.

### **1.11 BRIGHTWORK MANUAL OVERVIEW**

In 2005, the Maine Department of Environmental Protection released "*Brightwork -- A Best Management Practices Manual for Maine's Boatyards and Marinas*". The goal of the manual is to help site owners and operators of marinas and boatyards to reduce pollution from their facilities by providing environmental compliance benchmarks, common sense practices that enable the benchmarks to be met, a list of regulatory references that form the basis of the benchmarks, and a series of tools to enable easier benchmark progress measuring.

The manual describes in detail, the types of toxic pollutants generated by boatyard and marina sites and the resulting environmental and economic impacts.

The manual provides guidance on how to carry out typical jobs and practices associated with boatyards and marinas and the associated benchmarks, best management practices, clean up and waste disposal, customer relations, legal requirements, etc.

The practices described include:

- Hull Preparation
- Sandblasting
- Painting
- Boat Washing
- Engine Repair and Maintenance
- Stormwater Planning
- Fueling and Fuel Storage
- Waste Management

The manual provides best management practices for each practice including containment, indoor vs. outdoor recommendations, dust emissions, managing spills, storage, labeling and disposal of various waste products.

The Applicant currently complies with the Brightwork practices within their new facilities at the Canal Landing Yard. They will continue to utilize the Brightwork Manual as a reference and adhere to the requirements set forth for all activities at the proposed site.

## 1.12 TRAFFIC

The proposed project will not result in significant impacts to the surrounding street system. The previous approval review in January 2016 included a Traffic Movement Permit which we understand remains in force. No further traffic analysis for the Phase III application renewal has been performed at this time.

The existing boatyard consists of two buildings totaling 48,000 SF of boat storage/maintenance space. There are approximately 50 employees at the site at various times. The proposed Phase III activities include the construction of buildings C and D that will include the following uses:

- An approximately 19,800 SF marine retail store (Building C)
- Approximately 12,000 SF of office and administrative support space (Building D)

### Trip Generation

The following trip generation values have been estimated using the 7<sup>th</sup> Edition of the Institute of Transportation Engineers, Inc. publication, Trip Generation. Average rates have been used to calculate the estimated trip generation in each category:

| <b>Phase 3 Land Uses – Trip Generation</b> |                |                |                 |
|--|----------------|----------------|-----------------|
| <b>Land Use</b>                            | <b>AM Peak</b> | <b>PM Peak</b> | <b>Sat Peak</b> |
| <b>Existing</b>                            |                |                |                 |
| 48,000 SF Warehouse (LUC 150)              | 27             | 29             | 6               |
| <b>Proposed</b>                            |                |                |                 |
| 19,800 SF marine retail*                   | 70             | 70             | 70              |
| 12,000 SF Office (LUC 710)                 | 19             | 18             | 28              |
| <b>Total</b>                               | <b>116</b>     | <b>117</b>     | <b>104</b>      |

\* Based on prospective tenant's typical daily transaction count. In the interest of confidentiality any further data regarding their business transaction history can be discussed directly with City staff or peer reviewers.

| <b>Future Uses – Trip Generation</b>   |                |                |                 |
|--|----------------|----------------|-----------------|
| <b>Land Use</b>                        | <b>AM Peak</b> | <b>PM Peak</b> | <b>Sat Peak</b> |
| <b>Future</b>                          |                |                |                 |
| 51,600 SF New Yard Warehouse (LUC 150) | 29             | 31             | 63              |
| 16,800 SF marine retail**              | 50             | 50             | 50              |
| 41,625 SF tenant warehouse (LUC 150)   | 24             | 25             | 51              |
| <b>Total</b>                           | <b>103</b>     | <b>106</b>     | <b>164</b>      |

\*\* Estimated – No specific tenants identified at this time

We note that the majority of the Phase 1-3 traffic associated with these businesses represents trips already on the Portland street network i.e. the New Yard activities are simply a relocation of historical activity from their former Fore Street site. The proposed retail represents traffic already affiliated with an existing Fore Street retail tenant (Hamilton Marine), who is contemplating relocation to the Commercial Street site.

New Yard is seeking to establish three driveways on Commercial Street as depicted on the Site Plans. In accordance with the previously submitted Supplemental Agreement, New Yard has the right to cross the rail tracks at each of the crossings that the MaineDOT is constructing for New Yard.

### **1.13 NATURAL FEATURES**

The development site does not contain any significant natural features including wetlands, vernal pools or other protected resources except for the shorefront edge adjacent the Fore River. The site has been developed for a period greater than 150 years and there is generally no land area that has not been disturbed or otherwise developed. Stantec previously has contacted various resource agencies regarding the site's potential to contain significant wildlife habitat, historic or archaeological resources. Findings from each of the agencies has been previously provided to the City. Copies of letters received to date are contained at the end of this section.

### **1.14 NOISE/VIBRATION**

The WPDZ has the following standards for noise and vibration:

*"Noise:*

- 1. The level of sound, measured by a sound level meter with frequency weighting network, inherently and recurrently generated within the WPDZ between the hours of 7.00 p.m. and 7.00 a.m. from industrial facilities or operation commenced on or after July 1, 1988, shall not exceed 55 dB on the A scale at or within the boundaries of any residential zone, except for sound from construction activities, sound from traffic on public streets, sound from temporary activities such as festivals, and sound created as a result of, or relating to, an emergency, including sound from emergency warning devices.*
- 2. In measuring sound levels under this section, sounds with a continuous duration of less than 60 seconds shall be measured by the maximum reading on a sound level meter set to the weighted scale and the fast meter response (L maxfast). Sounds with a continuous duration of 60 seconds or more shall be measured on the basis of the energy average sound level over a period of 60 seconds (LEQ<sub>1</sub>).*
- 3. In addition to the sound level standards otherwise established, facilities or operations established or built in the waterfront port development zone on or after July 1, 1988, shall employ best practicable sound abatement techniques to prevent tonal sounds and impulse sounds or, if such tonal and impulse sounds cannot be prevented, to minimize the impact of such sounds in residential zones. Tonal sound is defined as a sound wave usually perceived as a hum or which because its instantaneous sound pressure varies essentially as a simple sinusoidal function of time. Impulse sounds are defined as sound events characterized by brief excursions of sound pressure, each with a duration of less than one second."*

*“Vibration:*

*Vibration inherently and recurrently generated shall be imperceptible without instruments at lot boundaries. This shall not apply to vibration resulting from activities aboard a vessel or from railroad vehicle activities, or from activities on a pile supported pier.”*

It is the Applicant’s intention to comply with the noise and vibration standards above. Night time activity will be minimal. Typical sources of noise from routine boat yard jobs and practices include hull preparation, sandblasting, painting, boat washing, engine repairs and maintenance and transportation of vessels throughout the site. All these practices will be performed in accordance with the MeDEP Brightwork Manual. Temporary noise sources during construction will include pile driving, pavement grind, dump trucks delivering gravel/fill to the site.

The site is well separated from noise sensitive sites with no direct abutting impacts to abutting residential neighborhoods. The nearest residential building is approximately 800’ away from the edge of the proposed buildings and is located along the Beach Street ramp connection to the Casco Bay Bridge.

The site is surrounded by commercial/industrial uses including the International Marine Terminal to the east, Commercial activity including Nova Seafood and Graybar Electric operate out of buildings on the north side of Commercial Street. Other adjacent noise generating sources including the Casco Bay Bridge and the flight path of the Portland International Jetport.

## **1.15 LIGHTING**

The primary purpose for site lighting for Canal Landing is for security in the vicinity of the buildings and to provide lighting at key operational access points to the Fore River. Nighttime operations for the boatyard are atypical, particularly at this early phase of development. Security at the site will be supplemented by infrared cameras mounted on the buildings. With future development, and potentially increased nighttime activities, additional pole and wall-mounted full cutoff fixtures with LED lamps will be proposed.

It is important to note that light sources from abutting properties cast direct and indirect illumination onto the currently undeveloped property. The adjacent light sources include cobra head sodium lights on utility poles along Commercial Street.

Based upon the existing ambient light levels and the proposed lighting, the Applicant is comfortable that adequate lighting will be present at the property for the proposed uses. Comments from the residential neighbors during the previous review periods indicate that additional lighting to raise the overall level of light at the property is not desired.

The Applicant is requesting that the Planning Staff support a waiver by the Planning Board of the lighting standards of Section XV 4.A. Uniformity and 4.B. Illumination Levels, based upon the following:

1. Existing ambient light levels at the property are between 0 and 0.3 foot-candles at the interior and 0.8 to 1.5 fc at the edges of the lot;
2. Proposed lighting will raise the light levels needed for safe access and egress in and out of the property onto Commercial Street to reasonable average levels of 1.25; and
3. Proposed lighting will provide for security, safety, and nighttime use of the new buildings and work yards;

4. Illumination of the property to the levels required by the City Ordinance will impact the residences located uphill from the proposed project.

## **1.16 SOLID WASTE**

The proposed boatyard use will generate two types of solid waste: regular waste and hazardous waste.

Regular non-hazardous waste will be stored on site in a dumpster(s) and collected by a local solid waste company who the Applicant will form an annual contract.

Hazardous waste will be stored in accordance with the requirements of the Brightwork Boatyard Manual and collected, transported and disposed of by ENPRO Services, Inc. or another similar company. We have previously provided a letter from ENPRO identifying the most common drummed wastes generated by the Applicant's former facility on Fore Street in Portland, how they are tracked, where they are transported to and how they are disposed of. No further information related to solid waste will be provided unless requested by City Staff.

## **1.17 STORMWATER MANAGEMENT**

The development will rely on the placement of boatyard surface materials consisting of crushed stone aggregate and subbase gravels similar to what has been placed on the 5.03 acre remainder parcel. A series of catch basins will be installed to tie into the drainage system installed as part of the IMT rail construction. These systems tie into the existing CSO outfalls that discharge into the river. Additional information relating to the developments overall stormwater strategies is contained in Section 6. The Applicant will be requesting a waiver from the City's Flooding Standards due to the site's proximity to Tidal Conditions in the Fore River. We propose the placement of the "Boatyard Surface" as the primary means of water quality treatment for the site.

## **1.18 EROSION AND SEDIMENT CONTROL**

A temporary Erosion and Sediment Control Plan is included as part of the plan documents.

## **1.19 FLOODING**

The project site has been depicted graphically on a portion of the FEMA Flood Insurance Rate Map and is attached as Figure 7 and provided at the end of this section. The Phase III buildings will be constructed with a finish floor elevation of 16.0 feet, which is 6 feet higher than the 100-year flood elevation of 10.0 feet.

## **1.20 BLASTING**

Based on previous soil investigation at the site, blasting is not anticipated for construction of the project. If blasting or rock removal is required, the contractor will be required to prepare a Blasting Plan and preblast survey prior to any rock removal.

## **1.21 AIR EMISSIONS/ODORS/VAPORS**

Air emissions expected to occur as a result of, or within the project area, are as follows:

- Temporary emissions associated with construction vehicles and construction of project.

- Temporary emissions associated with vehicular travel of employees, delivery vehicles, travel lift, etc.
- Emissions associated with the heating systems for the brokerage building and tension fabric building.
- Emissions related to boat repair activity.

Odors will be generated during the construction phase of the development and during day to day operation of the proposed boatyard facility.

Short term odors or odors generated during construction include the following:

- Organic odors from earth moving during construction.
- Petroleum odors from construction equipment and vehicles used during construction for the project.
- These odors will emanate from the site and may be detectable in the immediate vicinity of the development but will dissipate through the air into the atmosphere in negligible amounts.

Long term odors or odors generated during day to day operation of the facility such as that proposed include:

- Petroleum odors from vehicles/travel lift.
- Solid Waste odors.
- Odors from boatyard activities such as painting, etc.

These odors are not likely to be offensive, as they are of low intensity and the site is not in a densely developed area. Therefore, no provisions for odor control are planned. However appropriate ventilation procedures will be utilized on site for health and safety of staff during certain boat repair activities.

Large Scale water vapor emissions are not anticipated as part of this project.

## **1.22 SUNLIGHT**

The proposed buildings at the site will not cast significant shadows onto neighboring properties, or block access to direct sunlight for structures utilizing solar energy. The Site Layout Plan and Grading and Drainage Plan show the proposed site improvements and their relationships to property lines. The grading plan shows the relative elevations of the buildings with respect to elevations along the property lines.

## **1.23 APPROVAL REQUIREMENTS**

The following permits are anticipated now or in the future:

- City of Portland Planning Board Level III Amended Site Plan Approval, Conditional Use Approval and Shoreland Zoning Approval
- City of Portland Building Permit(s)
- MeDEP Natural Resource Protection Act (NRPA) – Amended
- City of Portland Delegated Review of the Site Location of Development Act (SLDA)

- U.S. ACOE Water Quality Certification/Federal Channel Review (previously obtained for remainder land)
- State of Maine Submerged Lands Lease (previously obtained for existing float system)
- Harbor Commissioner's Review (previously obtained for the remainder land)

## **1.24 ATTACHMENTS**

Attachment A – Figures 1-12

Attachment B – Ability to Serve Letters to/from Portland Water District and the City of Portland  
Public Services

**ATTACHMENT A**

**Figures 1 – 12**





**LOCATION MAP**  
**CANAL LANDING - NEW YARD EXPANSION**  
**PORTLAND, MAINE**

SOURCE: DELORME STREET ATLAS USA 5.0

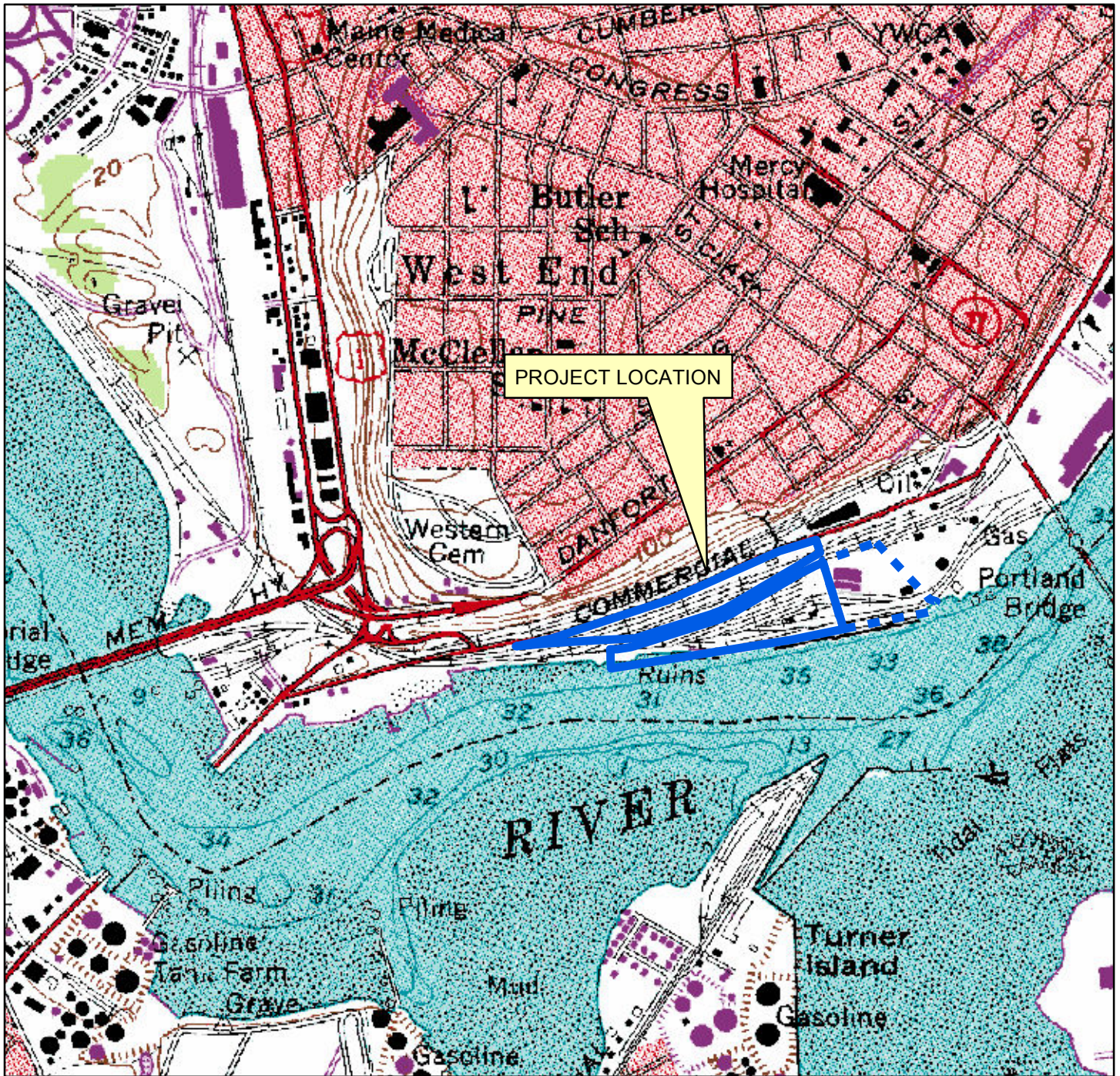


**FAY, SPOFFORD & THORNDIKE**  
**ENGINEERS · PLANNERS · SCIENTISTS**  
 778 MAIN ST, SUITE 8, SOUTH PORTLAND, ME 04106

DRAWN: DED  
 CHECKED: SRB  
 DATE: FEB 2015  
 FILENAME: 3091.04 LOCMAP  
 SCALE: 1" = 1000'

**FIGURE**  
**1**





USGS LOCATION MAP  
 CANAL LANDING - NEW YARD EXPANSION  
 PORTLAND, MAINE

SOURCE: MAINE OFFICE OF GIS



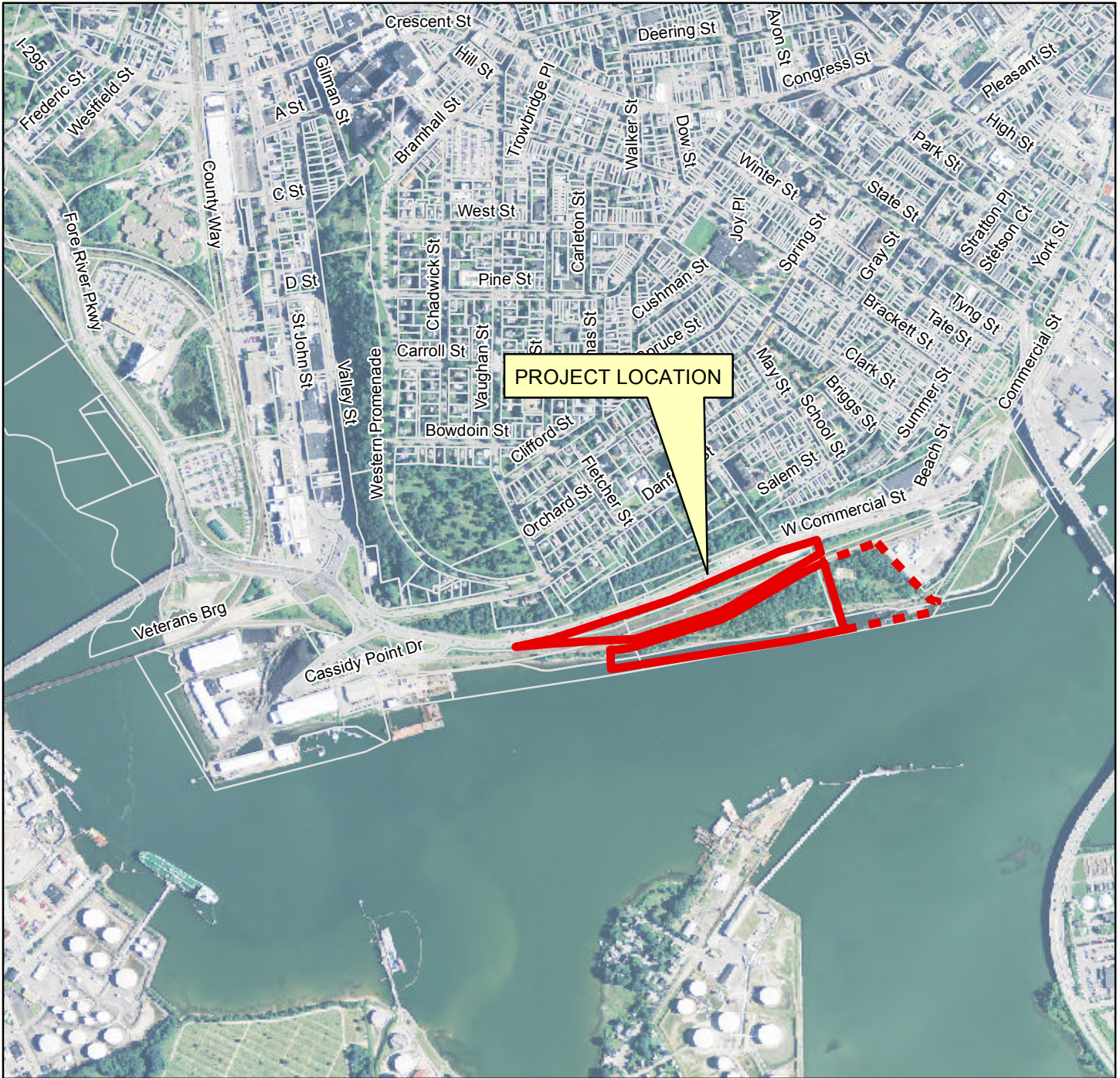
FAY, SPOFFORD & THORNDIKE  
 ENGINEERS • PLANNERS • SCIENTISTS  
 778 MAIN ST, SUITE 8, SOUTH PORTLAND, ME 04106

DRAWN: DED  
 CHECKED: SRB  
 DATE: MAY 2015  
 FILENAME: 3091.04-USGS  
 SCALE: 1 inch = 1,000 feet

FIGURE

2





**TAX MAP**  
**CANAL LANDING - NEW YARD EXPANSION**  
**PORTLAND, MAINE**

SOURCE: MAINE OFFICE OF GIS



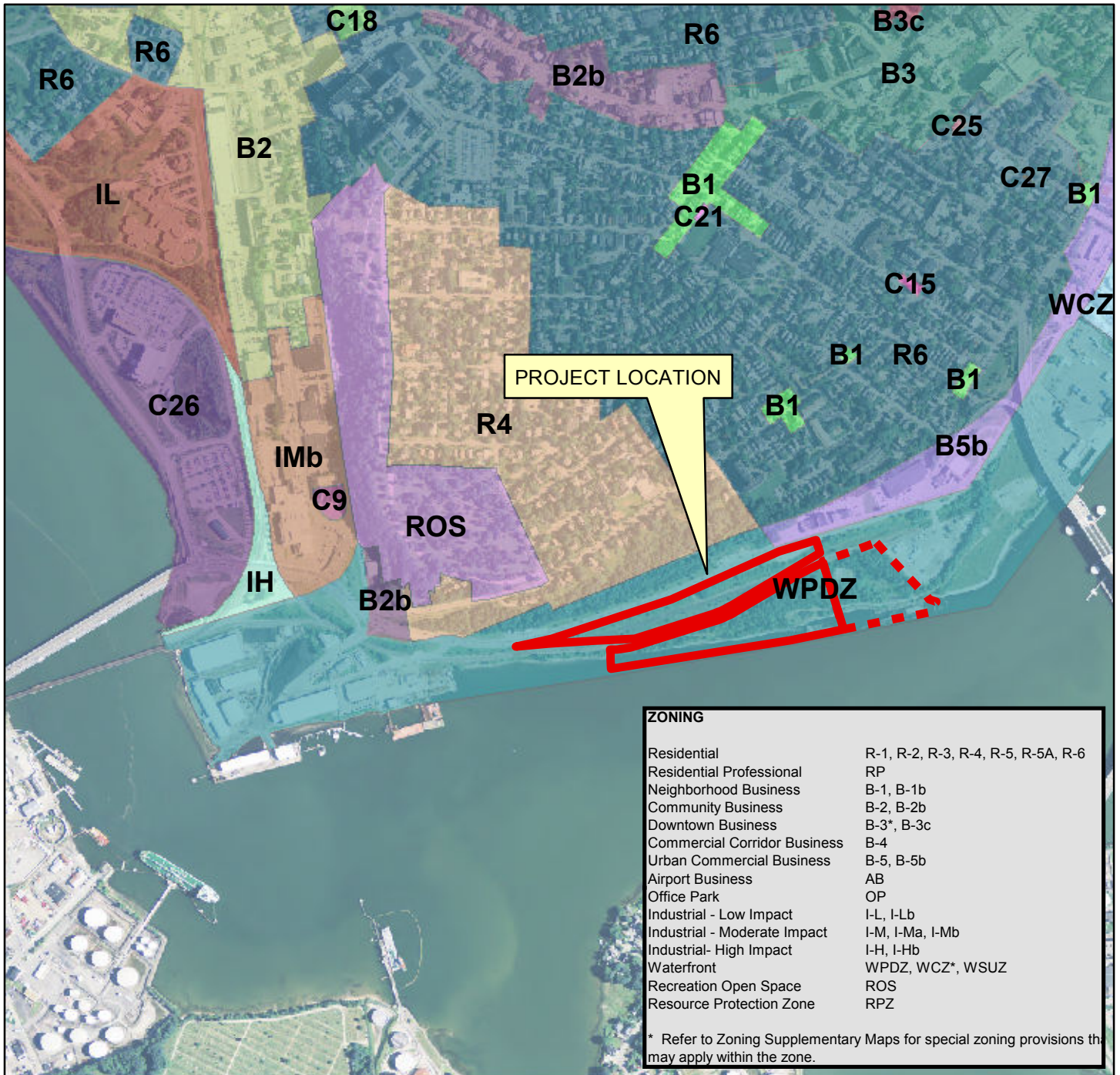
**FAY, SPOFFORD & THORNDIKE**  
 ENGINEERS • PLANNERS • SCIENTISTS  
 778 MAIN ST, SUITE 8, SOUTH PORTLAND, ME 04106

DRAWN: DED  
 CHECKED: SRB  
 DATE: MAY 2015  
 FILENAME: 3091.04-TAX MAP  
 SCALE: 1 inch = 1,000 feet

FIGURE

**3**





## ZONING MAP

### CANAL LANDING - NEW YARD EXPANSION

### PORTLAND, MAINE

SOURCE: MAINE OFFICE OF GIS



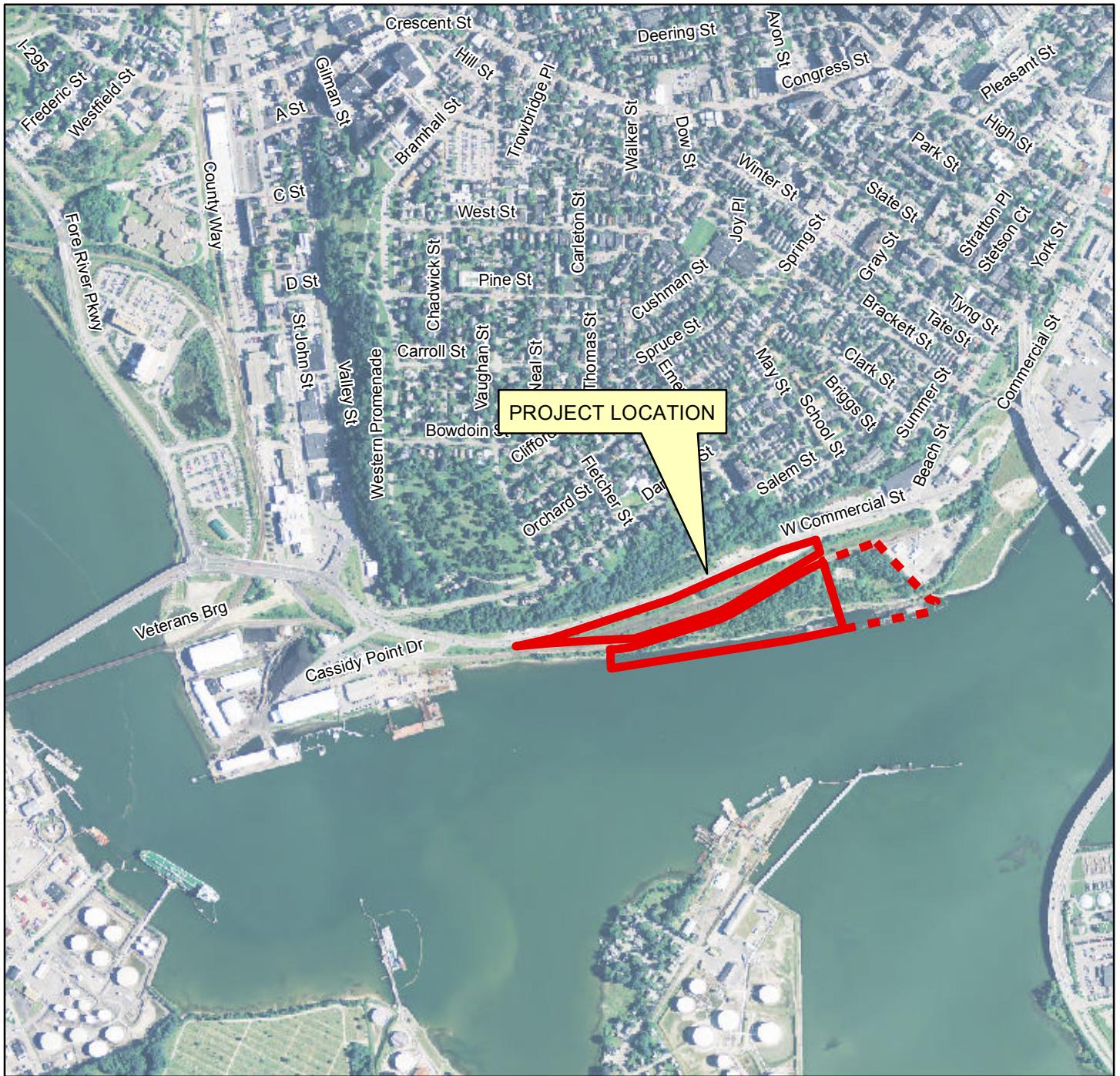
**FAY, SPOFFORD & THORNDIKE**  
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DRAWN: DED  
 CHECKED: SRB  
 DATE: MAY 2015  
 FILENAME: 3091.04-ZONING  
 SCALE: 1 inch = 1,000 feet

FIGURE

4





**AERIAL PHOTOGRAPH  
CANAL LANDING - NEW YARD EXPANSION  
PORTLAND, MAINE**

SOURCE: MAINE OFFICE OF GIS



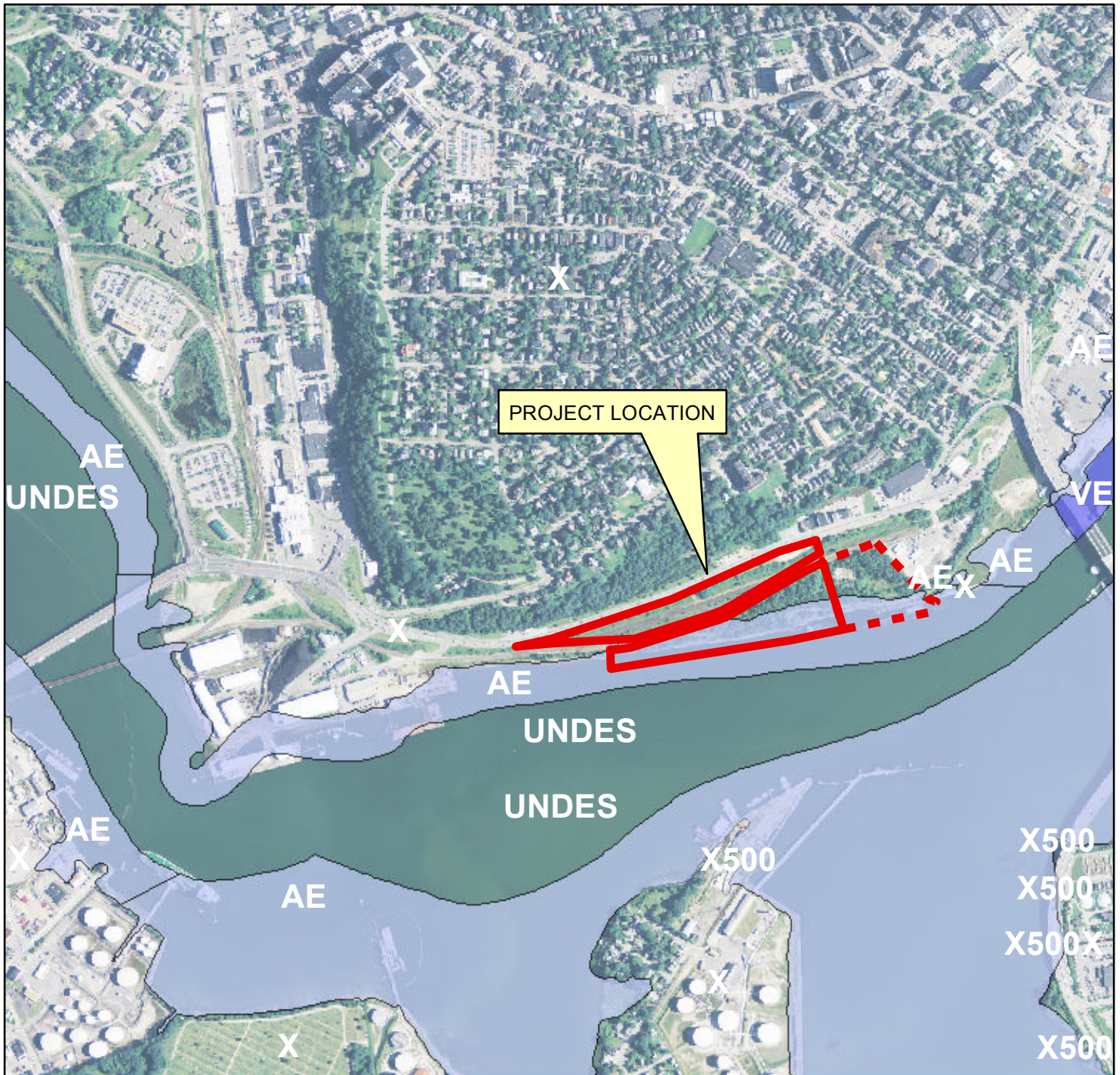
**FAY, SPOFFORD & THORNDIKE**  
ENGINEERS • PLANNERS • SCIENTISTS  
778 MAIN ST, SUITE 8, SOUTH PORTLAND, ME 04106

DRAWN: DED  
CHECKED: SRB  
DATE: MAY 2015  
FILENAME: 3091.04-AERIAL  
SCALE: 1 inch = 1,000 feet

FIGURE

**5**





**FLOOD MAP**  
**CANAL LANDING - NEW YARD EXPANSION**  
**PORTLAND, MAINE**

SOURCE: MAINE OFFICE OF GIS



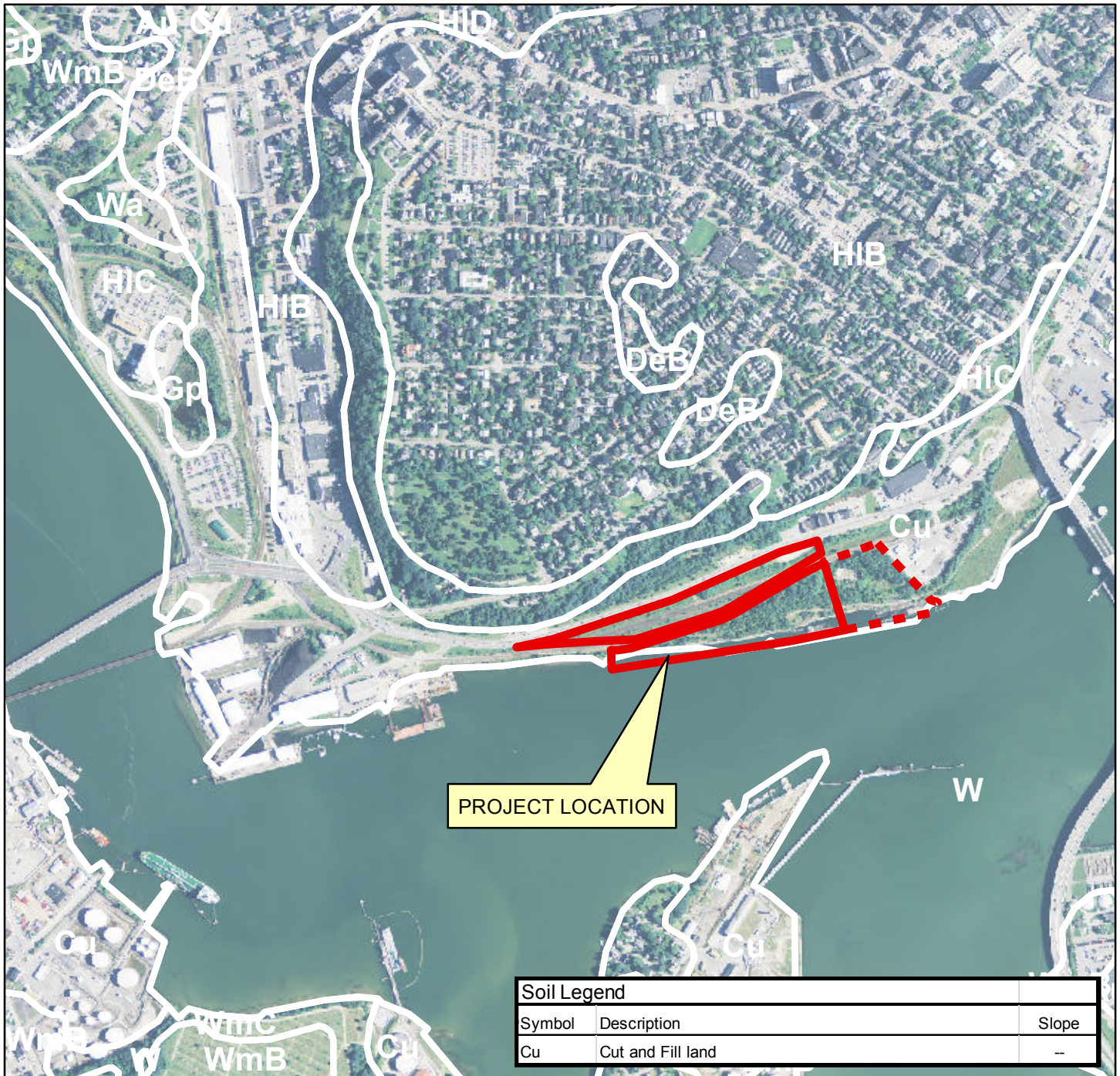
**FAY, SPOFFORD & THORNDIKE**  
 ENGINEERS • PLANNERS • SCIENTISTS  
 778 MAIN ST, SUITE 8, SOUTH PORTLAND, ME 04106

DRAWN: DED  
 CHECKED: SRB  
 DATE: MAY 2015  
 FILENAME: 3091.04-FLOOD  
 SCALE: 1 inch = 1,000 feet

FIGURE

**7**





PROJECT LOCATION

| Soil Legend |                   |       |
|-------------|-------------------|-------|
| Symbol      | Description       | Slope |
| Cu          | Cut and Fill land | --    |



## SOILS MAP

### CANAL LANDING - NEW YARD EXPANSION PORTLAND, MAINE

SOURCE: MAINE OFFICE OF GIS



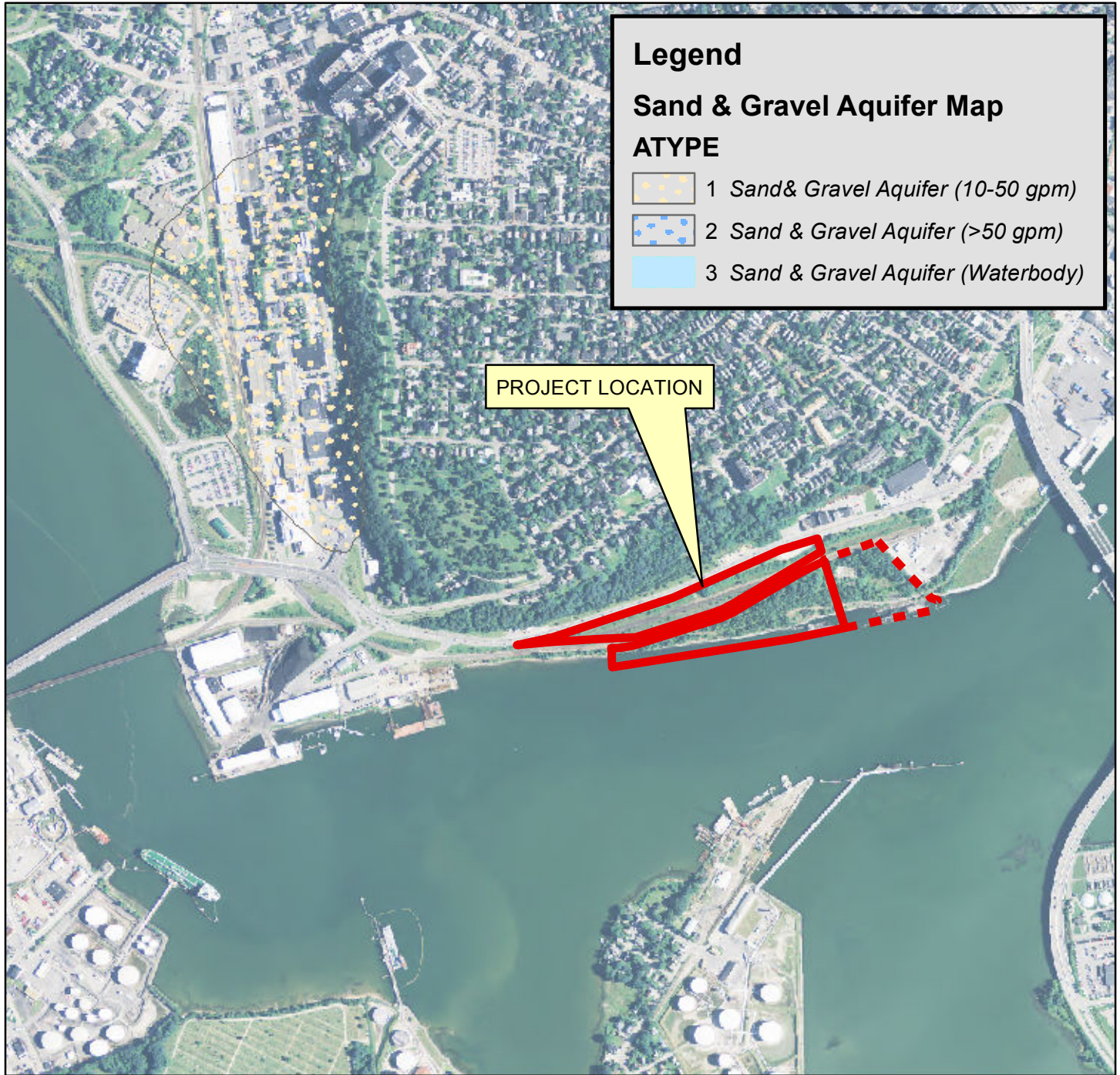
**FAY, SPOFFORD & THORNDIKE**  
ENGINEERS • PLANNERS • SCIENTISTS  
778 MAIN ST, SUITE 8, SOUTH PORTLAND, ME 04106

DRAWN: DED  
CHECKED: SRB  
DATE: MAY 2015  
FILENAME: 3091.04-SOILS  
SCALE: 1 inch = 1,000 feet

FIGURE

8






**Legend**

**Sand & Gravel Aquifer Map**

**ATYPE**

-  1 Sand & Gravel Aquifer (10-50 gpm)
-  2 Sand & Gravel Aquifer (>50 gpm)
-  3 Sand & Gravel Aquifer (Waterbody)

PROJECT LOCATION



**SAND GRAVEL AQUIFER MAP**  
**CANAL LANDING - NEW YARD EXPANSION**  
**PORTLAND, MAINE**

SOURCE: MAINE OFFICE OF GIS



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

DRAWN: DED  
 CHECKED: SRB  
 DATE: MAY 2015  
 FILENAME: 3091.04-AQUIFER  
 SCALE: 1 inch = 1,000 feet

FIGURE  
**9**





7 - Glaciomarine deposits (fine-grained facies)



**SURFICIAL GEOLOGY MAP**  
**CANAL LANDING - NEW YARD EXPANSION**  
**PORTLAND, MAINE**

SOURCE: MAINE OFFICE OF GIS



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

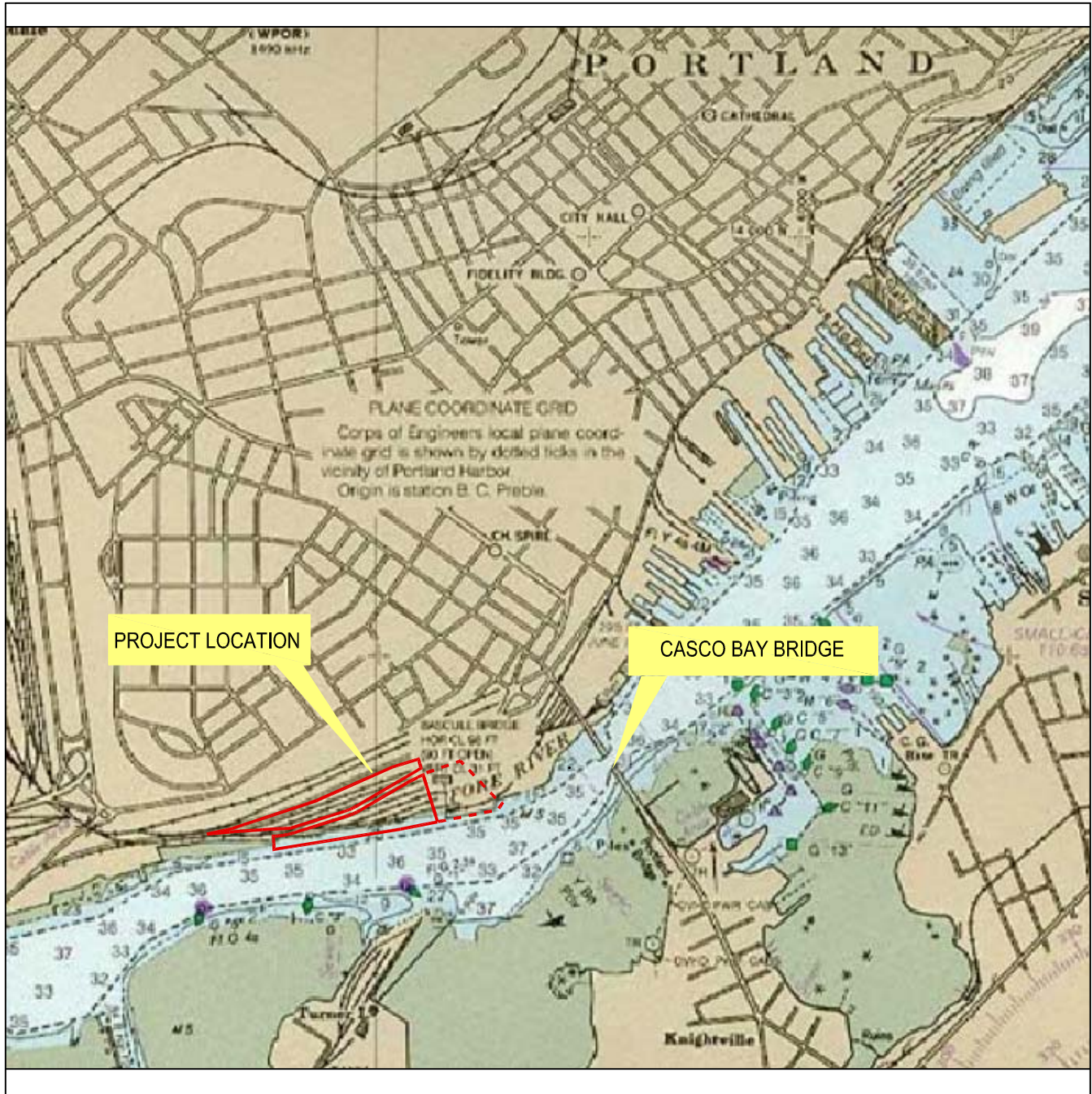
DRAWN: DED  
 CHECKED: SRB  
 DATE: MAY 2015  
 FILENAME: 3091.04-GEOLOGY  
 SCALE: 1 inch = 1,000 feet

**FIGURE**  
**10**









PORT OF PORTLAND - HARBOR CHART  
 CANAL LANDING - NEW YARD EXPANSION  
 PORTLAND, MAINE

SOURCE: PORT OF PORTLAND HARBOR CHART



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

DRAWN: DED  
 CHECKED: WGH  
 DATE: FEB 2015  
 FILENAME: 3091.04 HARBOR  
 SCALE: 1" = 1000'

FIGURE  
**12**

**ATTACHMENT B**

**Ability to Serve Letters to/from Portland Water District and  
The City of Portland Public Services**



May 21, 2015

MEANS Group  
Portland Water District  
225 Douglass Street  
P.O. Box 3553  
Portland, Maine 04104-3553

**Subject: Canal Landing New Yard – Phase III  
400 West Commercial Street  
Ability to Serve Project with Water Supply & Wastewater Collection/Treatment**

Dear Coordinator:

On behalf of Canal Landing, LLC we would like to verify the Portland Water District’s ability to provide domestic and fire supply water and wastewater capacity for their project at 400 West Commercial Street in Portland. The project site is located on all or a portion of Map 59, Block A Lots 3 & 4; Map 60, Block F, Lots 1, 2, 3 & 4; Map 71, Block F, Lots 2, 4, 5 & 6.

The project will consist of two buildings with size and use summarized as follows:

| Building     | Use           | Size (SF)        |
|--------------|---------------|------------------|
| C            | Marine Retail | 19,250           |
| D            | Marine Office | 11,000 to 12,000 |
| <b>Total</b> |               | 30,250 to 31,250 |

FST has developed a projected flow based on the existing Portland Yacht Services water and wastewater consumption records at the former Fore Street Complex, for the period August 2011 to August 2012. These flows are summarized as follows:

| Description                       | Per PWD Records | Conversion to GPD |
|-----------------------------------|-----------------|-------------------|
| Average Monthly Water Consumption | 121 HCF         | 3,106 gpd         |
| Average Monthly Wastewater Flow   | 105 HCF         | 2,618 gpd         |

Water demand for domestic consumption is expected to be similar to wastewater demands or as observed at the PYS center on Fore Street, water consumption will be slightly more than wastewater flow. We do not anticipate the use of irrigation at this time. The fire demand is unknown at this time.

We are in the process of completing the Site Plan Application for a submission to the City of Portland Planning Staff and would appreciate your response to the Planning Department.

FAY, SPOFFORD & THORNDIKE

MEANS Group  
May 21, 2015  
Page 2

Specifically, our office is interested in a letter from you indicating the following:

- The ability of the Portland Water District's pump stations and Treatment Facilities to serve the project.
- Any other factors which may affect the water and sewer service to this site.
- The ability of the collection system to accept this flow.
- Any connection service or impact fees.
- The ability of the Portland Water District to provide domestic and fire water supply to the development.

If you have any questions regarding this letter, please contact our office.

Sincerely,

Fay, Spofford & Thorndike,



Stephen R. Bushey, P.E.  
Associate

SRB/cmd

c: Phin Sprague, Portland Yacht Services

Attachment







## Portland Water District

FROM SEBAGO LAKE TO CASCO BAY

July 23, 2015

FST  
778 Main Street Suite 8  
South Portland, ME 04106

Attn: Stephen Bushey  
Re: Canal Landing Phase III – 40 West Commercial Street  
Ability to Serve with PWD Water

Dear Mr. Bushey:

The Portland Water District has received your request for an Ability to Serve Determination for the noted site submitted on May 21, 2015. Based on the information provided, we can confirm that the District will be able to serve the proposed project as further described in this letter.

### Conditions of Service

The following conditions of service apply:

- An 8-inch diameter combined fire and domestic water service was installed in 2014 to serve 40 West Commercial Street (Map 59, Block A, Lot 3). The service to this lot was allowed to be installed across the neighboring parcels (Map 60, Block F, Lots 1, 2, &3). This was allowed as an exception because, the lot seeking service does not have frontage on Commercial Street and this location had been retained as access to the site and as a utility corridor. This service may be used to serve only those buildings within the parcel that it was intended to serve. Per PWD Terms and Conditions Section 21: "No customer shall supply water to another...". If any of the abutting properties were merged with this parcel, then this existing service may be used to serve any new buildings provided that the service piping remains entirely on one parcel. This service has a single 8-inch diameter UL fire listed meter within a meter pit near the site entrance. This shall be the only meter associated with this service.
- New services may be installed from the water main in Commercial Street along the properties frontage (Map 60, Block F, Lot 1) to Building C and Building D.
- Water District approval of water infrastructure plans will be required for the project prior to construction. As your project progresses, we advise that you submit any preliminary design plans to MEANS for review of the water main and water service line configuration. We will work with you to ensure that the design meets our current standards.

### Existing Site Service

According to District records, the project site does currently have existing water service. An 8-inch diameter ductile iron water service line, located as shown on the attached water service card, provides



water service to this site. Please refer to the "Conditions of Service" section of this letter for requirements related to the use of this service.

### Water System Characteristics

According to District records, there is a 12-inch diameter cast iron water main on the north side of Commercial 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: Commercial Street 400' east of Beach Street  
Hydrant Number: POD-HYD00069  
Last Tested: 9/13/2011  
Static Pressure: 106 psi  
Residual Pressure: 100  
Flow: 1,209 GPM

### Public Fire Protection

You have not indicated whether this project will include the installation of new public hydrants to be accepted into the District water system. It is your responsibility to contact the Portland Fire Department to ensure that this project is adequately served by existing and/or proposed hydrants.

### Domestic Water Needs


The data noted above indicates there should be adequate pressure and volume of water to serve the domestic water needs of your proposed project. Based on the high water pressure in this area, we recommend that you consider the installation of pressure reducing devices that comply with state plumbing codes.

### Private Fire Protection Water Needs

You have 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.

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



December 7, 2017

Mr Brad Roland, PE  
City of Portland Public Works  
55 Portland Street  
Portland, Maine 04104-3553

**Subject: Canal Landing New Yard – Phase III  
400 West Commercial Street  
Applicant: Canal Landing, LLC  
Wastewater Capacity Application**

Dear Mr. Roland:

Our office is working as a consultant to Canal Landing, LLC on the site planning and permitting associated with the proposed Phase III of the Canal Landing New Yard Development. The project site is located on all or a portion of Map 59, Block A Lots 3 & 4; Map 60, Block F, Lots 1, 2, 3 & 4; Map 71, Block F, Lots 2, 4, 5 & 6.

The project will consist of two buildings with size and use summarized as follows:

| <b>Building</b> | <b>Use</b>    | <b>Size (SF)</b> |
|-----------------|---------------|------------------|
| C               | Marine Retail | 19,250           |
| D               | Marine Office | 11,000 to 12,000 |
| <b>Total</b>    |               | 30,250 to 31,250 |

Stantec has developed a projected flow based on the existing Portland Yacht Services water and wastewater consumption records at the former Fore Street Complex, for the period August 2011 to August 2012. These flows are summarized as follows:

| <b>Description</b>                | <b>Per PWD Records</b> | <b>Conversion to GPD</b> |
|-----------------------------------|------------------------|--------------------------|
| Average Monthly Water Consumption | 121 HCF                | 3,106 gpd                |
| Average Monthly Wastewater Flow   | 105 HCF                | 2,618 gpd                |

Water demand for domestic consumption is expected to be similar to wastewater demands or as observed at the former PYS center on Fore Street, water consumption will be slightly more than wastewater flow. We do not anticipate the use of irrigation at this time. The fire demand is unknown at this time.

Based on this modest amount of domestic flow, we trust that the City's wastewater collection and treatment system has adequate capacity to serve this project. We are in the process of completing the Amended Site Plan Application for Canal Landing Phase



Mr. Brad Roland  
December 7, 2017  
Page 2

Ill for a submission to the City Planning Staff and would appreciate your response to the Planning Department.

If you have any questions regarding the materials being submitted, please contact this office.

Sincerely,

**STANTEC CONSULTING SERVICES INC.**

Stephen R. Bushey, P.E.  
Associate  
Phone: (207) 887-3406  
Fax: (207) 883-3376  
stephen.bushey@stantec.com

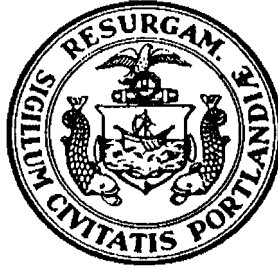
Enclosure

c: Phineas Sprague, Jr. – New Yard LLC  
Clint Marshall

V:\1953\active\195350129\Admin\Permitting\2017.12 updated level III site plan\ltr\_portland\_roland\_20171207.docx

# CITY OF PORTLAND WASTEWATER CAPACITY APPLICATION

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



Bradley Roland, P.E.  
Water Resources Division

Date: December 7, 2017

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

Site Address: 400 West Commercial Street 59-A-3, 4  
 Chart Block Lot Number: 60-F-1, 2, 3, 4  
71-F-2, 4, 5, 6

Proposed Use: Boat Maintenance/Marine  
 Previous Use: Rail Yard

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.  
 \_\_\_\_\_  
 \_\_\_\_\_

|               |   |                                     |
|---------------|---|-------------------------------------|
| Site Category | Commercial ( <i>see part 4 below</i> )      | <input checked="" type="checkbox"/> |
|               | Industrial ( <i>complete part 5 below</i> ) | <input type="checkbox"/>            |
|               | Governmental                                | <input type="checkbox"/>            |
|               | Residential                                 | <input type="checkbox"/>            |
|               | Other ( <i>specify</i> )                    | <input type="checkbox"/>            |

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

## 2. Please, Submit Contact Information.

City Planner's Name: Matthew Grooms Phone: 207-874-8725  
 Owner/Developer Name: Canal Landing LLC  
 Owner/Developer Address: 400 West Commercial Street  
 Phone: 207-774-1067 Fax: \_\_\_\_\_ E-mail: phin@portlandyacht.com  
 Engineering Consultant Name: Stephen Bushey, P.E.  
 Engineering Consultant Address: Stantec, 482 Payne Rd, Scarborough, ME 04074  
 Phone: 207-887-3478 Fax: 207-883-3376 E-mail: stephen.bushey@stantec.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: 2,600 to 3,000 GPD  
 Peaking Factor/ Peak Times: Not Applicable  
 Specify the source of design guidelines: (*i.e.* “Handbook of Subsurface Wastewater Disposal in Maine,” “Plumbers and Pipe Fitters Calculation Manual,”  Portland Water District Records,  
 Other (*specify*) \_\_\_\_\_

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

