

**PROJECT NAME:** Proposed Residential Subdivision

**PROPOSED DEVELOPMENT ADDRESS:**

1062 Ocean Avenue and Ledgewood Drive

**PROJECT DESCRIPTION:**

13 lot residential subdivision - see cover letter for more complete description.

**CHART/BLOCK/LOT:** Tax Map 415 / 414 Lots 1 / 4 **PRELIMINARY PLAN** 8/23/12 (date)  
Tax Map 415 / 414 Lots 2 / 3 **FINAL PLAN** \_\_\_\_\_ (date)

**CONTACT INFORMATION:**

**Applicant's Contact for electronic plans**  
 Name: Peter Biegel, Land Design Solutions  
 e-mail: pbiegel@landdesignsolutions.com  
 work # (207) 939 1717

<p><b>Applicant – must be owner, Lessee or Buyer</b>                  Name: TPO Properties LLC, Tim O'Donovan                  Business Name, if applicable:                  Address: 30 Ledgewood Drive                  City/State : Falmouth, ME Zip Code: 04104</p>	<p><b>Applicant Contact Information</b>                  Work #                  Home#                  Cell # (207) 450-7890 Fax#                  e-mail: ocpminc@maine.rr.com</p>
<p><b>Owner – (if different from Applicant)</b>                  Name: Same as above                  Address:                  City/State : Zip Code:</p>	<p><b>Owner Contact Information</b>                  Work # Same as above                  Home#                  Cell # Fax#                  e-mail:</p>
<p><b>Agent/ Representative</b>                  Name: Land Design Solutions (Peter Biegel)                  Address: 160 Longwoods Road                  City/State : Cumberland, ME Zip Code: 04021</p>	<p><b>Agent/Representative Contact information</b>                  Work # (207) 939-1717                  Cell #                  e-mail: pbiegel@landdesignsolutions.com</p>
<p><b>Billing Information</b>                  Name: TPO Properties, LLC (Tim O'Donovan)                  Address: 30 Ledgewood Drive                  City/State : Falmouth, ME Zip Code: 04104</p>	<p><b>Billing Information</b>                  Work #                  Cell # (207) 450-7890 Fax#                  e-mail: ocpminc@maine.rr.com</p>



A.3

**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)	Fees Paid (office use)	Other Reviews (check applicable reviews)	Fees Paid (office use)
<input type="checkbox"/> Less than 50,000 sq. ft. (\$500.00) <input type="checkbox"/> 50,000 - 100,000 sq. ft. (\$1,000) <input type="checkbox"/> 100,000 - 200,000 sq. ft. (\$2,000) <input type="checkbox"/> 200,000 - 300,000 sq. ft. (\$3,000) <input type="checkbox"/> over 300,00 sq. ft. (\$5,000) <input type="checkbox"/> Parking lots over 11 spaces (\$1,000) <input type="checkbox"/> After-the-fact Review (\$1,000.00 plus applicable application fee)	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> Traffic Movement (\$1,000) <input type="checkbox"/> Stormwater Quality (\$250) <input checked="" type="checkbox"/> Subdivisions (\$500 + \$25/lot) # of Lots <u>13</u> x \$25/lot = <u>325</u> <input type="checkbox"/> Site Location (\$3,000, except for residential projects which shall be \$200/lot) # of Lots <u>    </u> x \$200/lot = <u>    </u>  <input type="checkbox"/> Other _____ <input type="checkbox"/> Change of Use <input type="checkbox"/> Flood Plain <input type="checkbox"/> Shoreland <input type="checkbox"/> Design Review <input type="checkbox"/> Housing Replacement <input type="checkbox"/> Historic Preservation	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
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.			
<b>Plan Amendments</b> (check applicable reviews)  <input type="checkbox"/> Planning Staff Review (\$250) <input type="checkbox"/> Planning Board Review (\$500)	<b>Fees Paid</b> (office use)  <input type="checkbox"/> <input type="checkbox"/>		

A.4

## 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](http://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.**

<b>Signature of Applicant:</b> 	<b>Date:</b> 
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A.5

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

A.6

**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
<input type="checkbox"/>	<input type="checkbox"/>	1	Evidence of financial and technical capacity.
<input type="checkbox"/>	<input type="checkbox"/>	1	Evidence of utilities' capacity to serve the development.
<input type="checkbox"/>	<input type="checkbox"/>	1	Written summary of fire safety (referencing NFPA fire code and Section 3 of the City of Portland Technical Manual).
<input type="checkbox"/>	<input type="checkbox"/>	1	Construction management plan.
<input type="checkbox"/>	<input type="checkbox"/>	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 1/4 mile of an intersection identified in a previous traffic study as a failing intersection).
<input type="checkbox"/>	<input type="checkbox"/>	1	Stormwater management plan.
<input type="checkbox"/>	<input type="checkbox"/>	1	Written summary of solid waste generation and proposed management of solid waste.
<input type="checkbox"/>	<input type="checkbox"/>	1	Written assessment of conformity with applicable design standards.
<input type="checkbox"/>	<input type="checkbox"/>	1	Manufacturer's verification that HVAC and manufacturing equipment meets applicable state and federal emissions requirements.

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

## Land Design Solutions

Land Planning, Site Planning and Landscape Architecture

August 22, 2012

Mrs. Barbara Barhydt  
Development Review Services Coordinator  
Planning Division  
389 Congress Street  
Portland, ME 04101

**RE: Proposed Residential Subdivision  
(O'Donovan, Ocean Avenue and Ledgewood Drive)  
Sketch Plan Review**

Dear Barbara,

On behalf of our Client/Developer, TPO Properties, LLC, Land Design Solutions has prepared the enclosed documentation for sketch plan review for a proposed residential subdivision.

The 12.78 acre project site is made up of three parcels assembled by TPO Properties with the smallest parcel (parcel 1) fronting on Ledgewood Drive, and being the only part of the site within the Town of Falmouth boundary. The remaining two parcels equaling 11.87 acres are located within the City of Portland.

Parcel 1 – Richmond Properties LLC (Tim O'Donovan) Falmouth Tax Map R04 Lot 068 E .91 acres.

Parcel 2 – TPO Properties LLC (Tim O'Donovan) Portland Tax Map 415/414 Lot 1/4 5.76 acres.

Parcel 3 – TPO Properties LLC (Tim O'Donovan) Portland Tax Map 415/414 Lot 2/3 6.11 acres.

The small isolated portion of the parcel located at the intersection of Ledgewood Drive and Ocean Avenue, which contains an existing non-conforming residential structure and a detached garage fronting on Ocean Avenue has been split off from the larger parcel. The Applicant plans to demolish the non-conforming structure and construct a conforming structure in the future. This work is not part of the proposed subdivision project.

Over time the original properties have had numerous parcels cut out and sold leaving a linear parcel with a large area of wetland to the east and a large upland (developable) portion on the west. This project proposes to:

- Construct the entrance to the proposed subdivision development opposite Slocum Drive on Ledgewood Drive in Falmouth. The sight distance is adequate and the position of the entrance directly across from Slocum Drive is preferable from an access management

AUG 23 2012

City of Portland  
Planning Division

standpoint. The owner has spoken with the Jay Reynolds, Director of Parks and Public Works in Falmouth who has confirmed that he has no issues with the entrance location. The existing lot at this location (lot 13 on the sketch plan) will be reconfigured with the existing driveway and curb cut on Ledgewood Drive being eliminated, and a new driveway with a curb cut on the proposed subdivision drive being constructed. The existing reconfigured lot and the first 100 ft. of entrance drive are the only portions of the proposed development located within the Town of Falmouth.

- Develop the remaining 12 lots along a dead end street within the Portland City limits per the City of Portland R3 zoning criteria.

The lots will be served by public water with a water main coming off the recently extended main in Ledgewood Drive. Each lot will have its own private septic system. A soils investigation has been performed by Sweet Associates of Falmouth, Maine and test pits indicating suitable soils are shown on the sketch plan.

Bill Eaton, PE of Eaton Traffic Engineering has been retained to investigate the proposed subdivision entrance and potential traffic impacts. Mr. Eaton has prepared a letter report which is included as part of the sketch plan submission.

A wetland delineation and vernal pool investigation was done by Sweet Associates of Falmouth, Maine and a letter report prepared June 4, 2012. The letter report is included as part of the sketch plan submission. Additionally A staff member from the Maine DEP has visited the site and determined that there is a section of stream connecting two wetland areas. His field determination report is included as part of the sketch plan submission.

Given that the proposed subdivision street dead ends at the Falmouth Town line, and this adjacent land is comprised of Open Space owned by the Falmouth Land Trust with no chance of future extension of the proposed subdivision street, and the subdivision is made up of only 13 lots an esplanade and sidewalk is proposed on only one side of the street. We request a waiver from constructing the esplanade and sidewalk on both sides of the street.

We have met with Town of Falmouth Staff, Town of Falmouth Planning Board (sketch plan review) and the City of Portland Staff previously to review the project concept and process. It is our understanding that this project will need subdivision approval from both the Town of Falmouth and the City of Portland. Per our discussions with the Falmouth Planning Board while they must approve the whole subdivision their primary interest is in the direct impacts (stormwater and traffic) to the land and infrastructure within the Town of Falmouth.

Discussion at the Falmouth Planning Board Sketch Plan Review meeting included the following:

- The Town of Falmouth street width requirement is two, twelve foot wide travel lanes. However, the Falmouth Public Works Department and the Falmouth Planning Board feel the proposed subdivision street should maintain the same width through both municipalities and will defer to the City of Portland standards since the majority of the street is in Portland. The Applicant discussed this issue with Portland City Staff and has



been told that the issue was brought up with the Fire Department and their initial response is that the subdivision street should comply with the City's technical standards for a local street which is two, fourteen foot wide travel lanes.

- The Falmouth Planning Board is interested in the projects stormwater management and traffic impacts to the Ledgewood / Allen Avenue and Ledgewood / Ocean Avenue intersections.

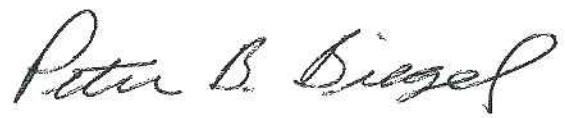
It is our understanding that state law (30-A, 4403 Municipal review and regulation, 1-A Joint Meetings) requires that all review meetings for the project be held jointly unless the reviewing authorities in each municipality agree to waive this requirement. The Town of Falmouth has agreed to grant a waiver allowing the project to proceed through the review process in each municipality independently. However, they have requested that a member of the Falmouth Planning Staff attend the Portland Planning Board meetings and that Falmouth Planning Staff be copied on project correspondence between the Applicant and the City of Portland. We are requesting that the City of Portland waive the joint meeting requirement as well.

Five (5) copies of the following items are enclosed with this cover letter as part of the sketch plan review submission:

- Letter of Agent Authorization
- Traffic Report Letter (Eaton Traffic Engineering)
- Wetland Delineation Letter Report
- Stream Field Determination (MDEP)
- Parcel Deeds
- Tax Maps
- Sketch Plan (24x36) and one copy (11x17)
- Context Plan (24x36) and one copy (11x17)

We request that we be placed on the next available workshop agenda to review the project with the City of Portland Planning Board. Please let me know if additional information is needed.

Land Design Solutions



Peter B. Biegel, RLA  
Principal

B. 4

30 Ledgewood Drive  
Falmouth, ME 04104  
June 26, 2012

**RE: TPO Properties, LLC  
Residential Subdivision**

To whom it may concern:

Please consider this letter as authorization for Land Design Solutions to act as the agent relative to the local and state permitting required for the referenced project.

Sincerely,  
Tim O'Donovan

A handwritten signature in black ink, appearing to read "Tim O'Donovan", written in a cursive style.

Owner  
TPO Properties, LLC

B.5



**EATON TRAFFIC ENGINEERING**  
67 Winter Street Suite 1 • Topsham • Maine • 04086  
Tel/Fax 207.725.9805 Cell 207.841.4200

To: Peter Biegel, Land Design Solutions  
Fm: William C. Eaton, P.E., Eaton Traffic Engineering  
Re: Proposed Residential Subdivision, Ledgewood Drive, Falmouth  
Dt: June 29, 2012

Per your request, I have performed a traffic assessment of the above noted project. The project will consist of a 14 lot residential subdivision with an access road located on the southwesterly side of Ledgewood Drive directly across from Slocum Drive. Projected trip generation from the proposed development, when fully occupied, is 140 daily vehicle trips (70 enter, 70 exit), and 14 trips (9 enter, 5 exit) during the PM peak hour (a one hour period within the range of 4:00 – 6:00 PM). There are no MDOT traffic volume data on Ledgewood Drive, but the most recent count data on Middle Road is 5,620 daily vehicles (2010 data) and on Allen Avenue, 9130 (2007).

Safety data was obtained from MDOT for the period 2009-11 for Ledgewood Drive. For the 3 year period a total 4 accidents occurred – 2 at Allen Avenue, 1 at Charlotte Drive and 1 on the link from Middle Road to Slocum Drive. There are no high crash locations in the vicinity of the site.

Intersection sight distance was measured in the field at the proposed site access drive and Ledgewood Drive. To the southwest sight distance was measured at 500 feet. To the northeast, the distance is 1000+ feet. For the posted speed of 30 MPH, these distances are more than adequate.

I trust that the above addresses your needs in this matter. Should you have any questions, please contact me.

BL

June 4, 2012

**WETLAND DELINEATION  
TIM O'DONOVAN  
LEDGEWOOD DRIVE, PORTLAND**

**INTRODUCTION:**

The purpose of this investigation is to flag and locate wetlands for the two lots shown on the survey plan. The site is located on the south side of Ledgewood Drive, starting 375 feet west of the Ocean Avenue intersection. Data used for this project includes a survey plan provided by Cullenberg Land Surveying.

The wetland delineation was conducted on November 11, 2011. The limits of the survey area are shown on the enclosed site plan, dated August 27, 2011. The investigation involved plant identification, topographic analysis, and soil auger borings. A series of flagged stations were established along the wetland/upland boundary. These flags were located by survey.

**LITERATURE REVIEW & SITE DESCRIPTION:**

The site is located on the *U.S.G.S. Portland West, Maine Quadrangle 7.5 Minute Series*. A review of the *Cumberland County Soil Survey* shows that the soil series mapped on-site are classified as Hollis very rocky fine sandy loam and Scantic silt loam. A review of the *National Wetlands Inventory Map of the Portland West Maine Quadrangle* reveals mapped wetlands on this property. There is a freshwater emergent wetland slightly touching the west end of the property and surrounding the pond off the west end. The second wetland is freshwater forested shrub and is located at the east end surrounding the old fill mound.

The survey area consists mostly of forested upland in sandy loam rocky soils with shallow bedrock. The wetland vegetation consists predominately of sensitive fern (*Onoclea sensibilis*), and common rush (*Juncus effusus*). All wetlands are located in depressional areas.

**METHODOLOGY AND CLASSIFICATION:**

The delineation of wetlands was conducted according to the *Corps of Engineers Wetlands Delineation Manual* dated January 1987, and according to performance standards and the supplemental definitions issued 1 August 1995 by the New England Division, U.S. Army Corps of Engineers. The term "wetlands" is defined by federal regulation to mean "...those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to

support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions..." (33 C.F.R. Part 323.2). In order to properly define these areas, three mandatory criteria must be met. These criteria define hydrophytic vegetation, hydric soils, and wetland hydrology. Hydrophytic vegetation fits into the wetland category when more than 50 percent of the dominant vegetation is within the range of obligate through facultative on the *National List of Plant Species That Occur in Wetlands: Northeast (Region 1)*. Hydric soil is any soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part. Wetland hydrology is the permanent or periodic inundation, or saturation of soil by groundwater for a significant period (usually two weeks or more) during the growing season. All three of the mandatory criteria, i.e., hydrophytic vegetation, hydric soil conditions, and wetland hydrology, were present within the mapped wetland areas.

The State of Maine Department of Environmental Protection Natural Resource Protection Act (Chapter 310 - Wetland and Waterbodies Protection) classifies some wetland areas as Wetlands of Special Significance. All coastal wetlands and great ponds are considered Wetlands of Special Significance. Additionally, certain freshwater wetlands are considered Wetlands of Special Significance. Freshwater Wetlands of Special Significance have one or more of the following characteristics:

- contains critically imperiled (S1) or imperiled community (S2) as defined by the Natural Areas Program (not examined in this study);
- contains significant wildlife habitat (not examined in this study);
- contain peatlands;
- located within 250 feet of a coastal wetland or GPA great pond (pond less than 10 acres in size);
- located within 25 feet of a river, stream or brook;
- contain at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water (artificial ponds or impoundments are not included);
- located within a 100-year flood plain based on Federal Emergency Management Agency flood insurance maps or other site-specific information.

The identification of a Significant Vernal Pool must be conducted according to the State of Maine Department of Environmental Protection, Natural Resource Protection Act (Chapter 335 - Significant Wildlife Habitat). The policy reads:

"A vernal pool, also referred to as a seasonal forest pool, is a natural, temporary to semi-permanent body of water occurring in a shallow depression that typically fills during the spring or fall and may dry during the summer. Vernal pools have no permanent inlet and no viable populations of predatory fish. A vernal pool may provide the primary breeding habitat for wood frogs (*Rana sylvatica*), spotted salamanders (*Ambystoma maculatum*), blue-spotted salamanders (*Ambystoma laterale*), and fairy shrimp (*Eubrachyus sp.*), as well as valuable habitat for other plants and wildlife, including several rare, threatened, and endangered

species. A vernal pool intentionally created for the purposes of compensatory mitigation is included in this definition.

“Whether a vernal pool is a Significant Vernal Pool is determined by the number and type of pool-breeding amphibian egg masses in a pool, or the presence of fairy shrimp, or use by threatened or endangered species as specified in Section 9(B). The Significant Vernal Pool habitat consists of the vernal pool depression and a portion of the critical terrestrial habitat within a 250 foot radius of the spring or fall high water mark of the depression. An activity that takes place in, on, over, or adjacent to a Significant Vernal Pool habitat must meet the standards of this chapter.”

Many natural wetland areas can be ruled out as being or containing a Significant Vernal Pool based on the following criteria: land surface morphology, permanent standing water, a permanently flowing inlet or outlet and/or the presence of fish. However, under many circumstances it is impossible to determine whether or not a particular wetland contains a Significant Vernal Pool. Under these circumstances, two or more vernal pool surveys during the Spring are required to determine whether or not a Significant Vernal Pool exists on-site.

#### CONCLUSIONS:

The conclusions of this wetland delineation are as follows:

- All wetlands within the survey area are shown on the attached site plan. Wetland was mapped according to the Corps of Engineers Wetlands Delineation Manual (1987) and classified according to the State of Maine Department of Environmental Protection Natural Resources Protection Act. Wetland was flagged with numbered striped pink/black ribbon.
- Potential Significant Vernal Pools were investigated in April 2012 and none were found to be significant.



Richard A. Sweet  
Wetland Scientist

RAS/smh

B.9



DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF LAND AND WATER QUALITY

8/14/2012

FIELD DETERMINATION FORM

CONTACT ID 9,753

CONTACT

PETER BIEGEL  
P.O. BOX 316

CUMBERLAND, ME 04021  
2079391717

PROPERTY OWNER

TIM O'DONOVAN  
TPO PROPERTIES, LLC  
FALMOUTH, ME 04104

STAFF WOOLSTON, JARED

RESOURCE RSB

DIRECTIONS

Ledgewood Drive  
Latitude 43 42'9.66"N  
Longitude 70 15'54.94"W

SITE TOWN PORTLAND  
MAP LOT

MEMO

Department staff visited the site of a proposed residential subdivision off Ledgewood Drive on August 3, 2012 and August 14, 2012. The area is an undeveloped forest with two separate freshwater wetlands as defined in 38 MRS Section 480-B(4) and a freshwater stream as defined in 38 MRS Section 480-B(9). Department staff observed insect casings attached to a submerged stone and leeches amidst mineral stream bottom. A portion of one on-site freshwater wetland contains over 20,000 square feet of emergent marsh vegetation and therefore has an associated 75-foot setback from the resource edge. Adjacent impacts outside 25 feet from the normal high water line of the stream and from the freshwater wetland containing 20,000 square feet of emergent marsh vegetation may be allowed with an acceptable Section 2 Activities Adjacent to Protected Natural Resources Permit by Rule (PBR). Additionally, the proposed access drive may include a permanent stream crossing with an acceptable Section 10 Stream Crossing PBR.

Erosion control devices must be installed and maintained on the project site during any soil disturbance activity. A Stormwater Management Law PBR or Maine Construction General Permit "NOI" and "NOT" must be filed with the Department if more than 1 acre of area is going to be disturbed on the project site at any given time during construction. Further, an Individual Stormwater Law permit must be filed with the Department if more than 1 acre of area is going to be impervious.

NAME:

RECEIVED

8/3/2012

SITE VISIT

8/3/2012

COMPLETED

8/14/2012

**WARRANTY DEED**  
(Maine Statutory Short Form)

**KNOW ALL PERSONS BY THESE PRESENTS**, that I, **KEVIN T. O'DONOVAN** of Portland, County of Cumberland, State of Maine, for consideration paid, **GRANT** with **WARRANTY COVENANTS** to:

**RICHMOND PROPERTIES, LLC** a Maine Limited Liability Company

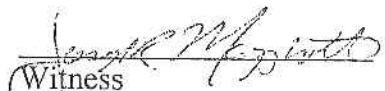
whose mailing address is: 30 Ledgewood Drive  
Falmouth, Maine 04105

the following described real estate situated in the Town of Falmouth, County of Cumberland, State of Maine:

See Exhibit A attached hereto and made a part hereof.

Being the same premises conveyed to the Grantor herein by deed of Shirley A. Lalumiere dated July 16, 1999 and recorded in the Cumberland County Registry of Deeds in Book 14918, Page 158.

IN WITNESS WHEREOF, Kevin T. O'Donovan has hereunto set his hand and seal this 7th day of March 2003.


  
Witness

  
Kevin T. O'Donovan

STATE OF MAINE  
CUMBERLAND, ss.

March 7, 2003

Personally appeared the above named Kevin T. O'Donovan and acknowledged the foregoing instrument to be his free act and deed.

Before me,  
  
Notary Public/Attorney at Law

MAINE REAL ESTATE TAX PAID



**EXHIBIT A**

A certain lot or parcel of land situated on the southwest side of Ledgewood Drive in Falmouth, County of Cumberland and State of Maine and being bounded and described as follows:

Beginning at a monument on the southwest side of Ledgewood Drive, which monument is also on the Falmouth-Portland division line and marks the boundary between the parcel of land herein conveyed and land now or formerly of Kenneth T. Forbes, et al;

Thence north  $60^{\circ} 28' 48''$  west along the northerly sideline of said Forbes land a distance of one hundred twenty-four and twenty-four hundredths (124.24) feet to a  $5/8''$  iron pin set;

Thence south  $86^{\circ} 11' 12''$  west along said Forbes land a distance of forty-four and fifty-two hundredths (44.52) feet to a  $5/8''$  iron pin set;

Thence north  $60^{\circ} 22' 56''$  west along said Forbes land and along the remains of an old stone wall a distance of four hundred eight and seventy-four hundredths (408.74) feet to a  $5/8''$  iron pin set;

Thence north  $51^{\circ} 26' 00''$  east a distance of one hundred eighty-five and ninety-nine hundredths (185.99) feet to a  $5/8''$  iron pin set at the southwesterly side of said Ledgewood Road;

Thence south  $38^{\circ} 34' 00''$  east along the southwesterly side of said Ledgewood Road a distance of three hundred twenty-two and seventy hundredths (322.70) feet to a six inch by six inch granite monument;

Thence south  $52^{\circ} 27' 59''$  east along the southwesterly side of said Ledgewood Road a distance of two hundred three and thirty-six hundredths (203.36) feet to a monument on the Falmouth-Portland division line and the point of beginning.

Excepting herefrom so much of the property as was conveyed by the Grantor herein to Timothy P. O'Donovan by deed dated March 28, 2001 and recorded in the Cumberland County Registry of Deeds in Book 16414, Page 323.

Received  
Recorded Register of Deeds  
Mar 07:2003 03:27:07P  
Cumberland County  
John B. O'Brien

C.3

MAINE  
QUIT-CLAIM DEED WITH COVENANT  
(Special Warranty Deed)

**MECAP, LLC**, a Maine Limited Liability Company with a place of business in Portland, Maine, for consideration paid, GRANTS to **TPO Properties, LLC**, with a mailing address of 30 Ledgewood Drive, Falmouth, ME 04105, WITH QUITCLAIM COVENANT, the following described premises:

A certain lot or parcel of land, together with the buildings and improvements thereon, situated on the westerly side of Ocean Avenue adjoining the division line between said Portland and the Town of Falmouth in the City of Portland, County of Cumberland and State of Maine, bounded and described as follows:

COMMENCING on said westerly side of Ocean Avenue at the point of intersection of the southerly side of Ledgewood Drive; THENCE North  $61^{\circ} 20'$  West by said Drive and the Portland-Falmouth line, one thousand twenty-seven and twenty-five hundredths (1,027.25) feet to a monument; THENCE South  $85^{\circ} 38'$  West by said Portland-Falmouth line, forty-four and fifty-two hundredths (44.52) feet to a monument; THENCE North  $61^{\circ} 20'$  West by said Portland-Falmouth line marked by a stone wall and fence, seven hundred fifty-one and eight tenths (751.8) feet to a point marked by a monument; THENCE South  $29^{\circ} 40'$  West by said Portland-Falmouth line marked by a fence and stone wall, one hundred eighty-three and seven tenths (183.7) feet to a point marked by an iron at land now or formerly of Libby; THENCE South  $60^{\circ} 50'$  East by fence and stone wall by said land of Libby, seven hundred seventy-eight and five tenths (778.5) feet to a point and corner of wall; THENCE southwesterly by jog in the stone wall by said land of Libby five (5) feet; THENCE South  $61^{\circ} 33'$  East by wall and fence, brook and across ledge and by the brook, all along the line of said land of Libby, one thousand fifty-one and five tenths (1,051.5) feet to a point in said westerly side of Ocean Avenue; THENCE North  $25^{\circ} 54'$  East along said Ocean Avenue two hundred sixteen (216) feet to the point of beginning. The above courses being taken from survey of E. C. Jordan Co. made in April 1933.

EXCEPTING AND RESERVING all that certain parcel of land conveyed by Stanley N. Brown, et al. to D. Owen Farwell in deed recorded in the Cumberland County Registry of Deeds in Book 1897, Page 103.

EXCEPTING AND RESERVING those certain parcels of land conveyed by Kenneth T. Forbes, et al. to Susan M. Forbes in deed recorded in said Registry of Deeds in Book 10676, Page 189 and Book 12246, Page 16.

EXCEPTING AND RESERVING those certain parcels of land identified as "Lot A, 24,400 S.F." and "Lot B, 20,168 S.F." on plan entitled "Sketch Plan of Land in City of Portland, Cumberland County, Maine, prepared for Susan Forbes, owner: Madeline A. Forbes, dated August

28, 2001 by Northeast Civil Solutions and recorded in said Registry of Deeds in Plan Book 201, Page 349.

Reference is further made to a Judgment of Foreclosure and Sale brought by EverHome Mortgage Company against Susan M. Forbes, PR of the Estate of Madeline A. Forbes filed in the Maine District Court, Division in Portland, Docket No. RE-08-218 and recorded in the Cumberland County Registry of Deeds in Book 28419, Page 190 for foreclosure of the mortgage recorded in the said Registry of Deeds in Book 22944, Page 180.

Being the same premises conveyed to the Grantor herein by Federal National Mortgage Association by deed dated June 29, 2011 and recorded herewith.

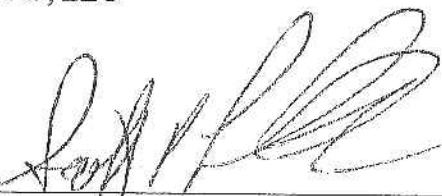
GRANTEE IS PROHIBITED FROM CONVEYING THIS PROPERTY TO A BONAFIDE PURCHASER FOR VALUE FOR A SALES PRICE GREATER THAN **\$145,200.00**, FOR A PERIOD OF 3 MONTHS FROM THE DATE OF THIS DEED. GRANTEE IS ALSO PROHIBITED FROM ENCUMBERING THIS PROPERTY WITH A SECURITY INTEREST IN THE PRINCIPAL AMOUNT GREATER THAN \$145,200.00, FOR A PERIOD OF 3 MONTHS FROM THE DATE OF THIS DEED. THESE RESTRICTIONS SHALL RUN WITH THE LAND AND ARE NOT PERSONAL TO GRANTEE. NOTWITHSTANDING THE FOREGOING, THIS RESTRICTION SHALL TERMINATE IMMEDIATELY UPON CONVEYANCE AT ANY FORECLOSURE SALE RELATED TO A MORTGAGE OR DEED OF TRUST.

IN WITNESS WHEREOF, MECAP, LLC has caused this instrument to be executed by Scott Lalumiere, its Manager, this 3<sup>rd</sup> day of June, 2011.

ATTEST:

MECAP, LLC

  
\_\_\_\_\_

BY:   
\_\_\_\_\_ Its Manager

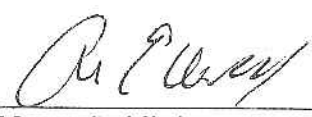
C.5

STATE OF MAINE  
COUNTY OF CUMBERLAND

June 30, 2011

Personally appeared the above named Scott Lalumiere, its Manager, and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said company.

Before me,



~~Notary Public~~/Attorney at Law

Printed Name: Alan E. W. 16

Received  
Recorded Register of Deeds  
Jul 01 2011 02:17:06P  
Cumberland County  
Pamela E. Lovley

DEED OF SALE OF PERSONAL REPRESENTATIVE  
(Testate)

Maine Statutory Short Form

Know All by these Presents,

MAINE REAL ESTATE TAX PAID

That I, **Bonnie Doughty**, of Gorham, County of Cumberland, State of Maine, duly appointed and acting Personal Representative of the **Estate of Dale A. Williams**, deceased (testate), as shown by the probate records of the Cumberland County, Maine, Docket No. 2004-144, and each person succeeding to an interest in the real property described below having waived in writing his right to receive notice of the Personal Representative's intent to sell said real property at least ten (10) days prior to the sale, by the power conferred by the Probate Code, and every other power, and **Ricky D. Williams**, joining in this deed for the limited purpose recited herein, for consideration paid, grant to:

**TPO Properties, LLC**

a Maine limited liability company organized and existing under the laws of the State of Maine and having a mailing address of 30 Ledgewood Drive, Falmouth, Maine 04105, the real property in the City of Portland, County of Cumberland, and State of Maine, being more particularly described in the attached Exhibit A and incorporated herein by reference.

Witness our hands and seals this 30<sup>th</sup> day of September, 2011

Signed, Sealed and Delivered  
In the presence of

\_\_\_\_\_

\_\_\_\_\_

The Estate of Dale A. Williams

By: Bonnie Doughty  
Bonnie Doughty

Personal Representative

Ricky D. Williams

Ricky D. Williams

 COPY

C.7

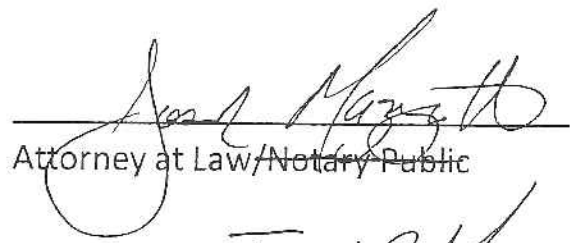
State of Maine

County of Cumberland, ss.

September 30 2011

Then personally appeared before me the above named Bonnie Doughty and acknowledged the foregoing instrument to be her free and act deed in her said capacity as Personal Representative of the Estate of Dale A. Williams.

Before me,

  
\_\_\_\_\_  
Attorney at Law/Notary Public

Printed Name: Joseph P. Mazzotta

**EXHIBIT A**  
**Ocean Avenue, Portland, Maine**

A portion of a certain lot or parcel of land together with any improvements thereon situated on the westerly sideline of Ocean Avenue in the City of Portland, County of Cumberland and State of Maine more particularly described as follows:

Commencing at the base of a 5/8 inch capped rebar or steel rod found on the aforementioned sideline of Ocean Avenue, said rebar being found 421.08 feet southwesterly from the intersection of Ocean Avenue and the sideline of Ledgewood Drive formerly known as Cobb Road in the Town of Falmouth, said rebar also marking the property of land now or formerly of the City of Portland;

Thence, along the land of the City of Portland, North  $58^{\circ} 09' 35''$  West, a distance of 385.42 feet to the **POINT OF BEGINNING OF THE PARCEL CONVEYED HEREIN;**

Thence, continuing along the aforementioned land of the City of Portland, North  $58^{\circ} 09' 35''$  West, a distance of 614.34 feet;

Thence, continuing along the aforementioned land of the City of Portland, North  $58^{\circ} 10' 20''$  West, a distance of 842.73 feet to the Town Line of Falmouth;

Thence, following the Town of Falmouth line, North  $32^{\circ} 27' 18''$  East, a distance of 207.09 feet to the land now or formerly of Madeline A. Forbes as described in a deed recorded in Book 12593, Page 042 in the Cumberland County Registry of Deeds;

Thence, along the land of the aforementioned Forbes, South  $57^{\circ} 50' 20''$  East, a distance of 778.50 feet;

Thence, continuing along the land of the aforementioned Forbes, South  $31^{\circ} 10' 15''$  West, a distance of 4.99 feet;

Thence, continuing along the land of the aforementioned Forbes, South  $58^{\circ} 33' 20''$  West, a distance of 498.08 feet to the northwesterly corner of land conveyed to Ricky D. Williams by Deed of Sale by Personal Representative from Bonnie Doughty, as Personal Representative of the Estate of Dale A. Williams dated July 2, 2004 and recorded in the Cumberland County Registry of Deeds in Book 21520, Page 218;

Thence, South  $31^{\circ} 26' 40''$  West, by said land conveyed to Ricky D. Williams a distance of 150.96 feet;

Thence, South 58° 09' 35" East, by said land conveyed to Ricky D. Williams a distance of 181.18 feet;

Thence, South 31° 50' 25" West, by said land conveyed to Ricky D. Williams a distance of 50.00 feet to the Point of Beginning.

Containing 260,202.5 square feet or 5.97 acres.

Meaning to and hereby conveying a portion of the premises conveyed to Dale A. and Eleanor F. Williams by a deed dated 6/21/1966 and recorded in the Cumberland County Registry of Deeds in Book 2692, Page 753.

Also conveying a non-exclusive easement appurtenant to the above-described premises for the purposes of pedestrian and vehicular travel and the installation of utilities on, in, above or over the area of the parcel denoted on the below referenced plan as the access to the rear of the subject parcel, and being more particularly described as follows:

Beginning at the base of a 5/8 inch capped rebar or steel rod found on the aforementioned sideline of Ocean Avenue, said rebar being found 421.08 feet southwesterly from the intersection of Ocean Avenue and the sideline of Ledgewood Drive, formerly known as Cobb Road in the Town of Falmouth, said rebar also marking the property of land now or formerly of the City of Portland;

Thence, along the land of the City of Portland and said land conveyed to Ricky D. Williams by deed recorded in the Cumberland County Registry of Deeds in Book 21520, Page 218, North 58° 09' 35" West a distance of 385.42 feet to the southeasterly corner of the above-described premises;

Thence, North 31° 50' 25" East by the southeasterly line of the above-described premises a distance of 50.00 feet to a corner in the southwesterly line of the premises conveyed to Ricky D. Williams by Personal Representative's Deed of Sale from the Estate of Dale A. Williams dated July 21, 2004 and recorded in the Cumberland County Registry of Deeds in Book 21520, Page 218;

Thence, South 58° 09' 35" East through said property conveyed to Ricky D. Williams 205 feet more or less to the southwesterly corner of land now or formerly of Patricia A. Tebbets as described in deed recorded in the Cumberland County Registry of Deeds in Book 4439, Page 112;

Thence, along the land of the aforementioned Patricia A. Tebbets by the following courses and distances:



South 70° 26' 51", a distance of 37.28 feet;

South 65° 15' 44" East, a distance of 80.89 Feet;

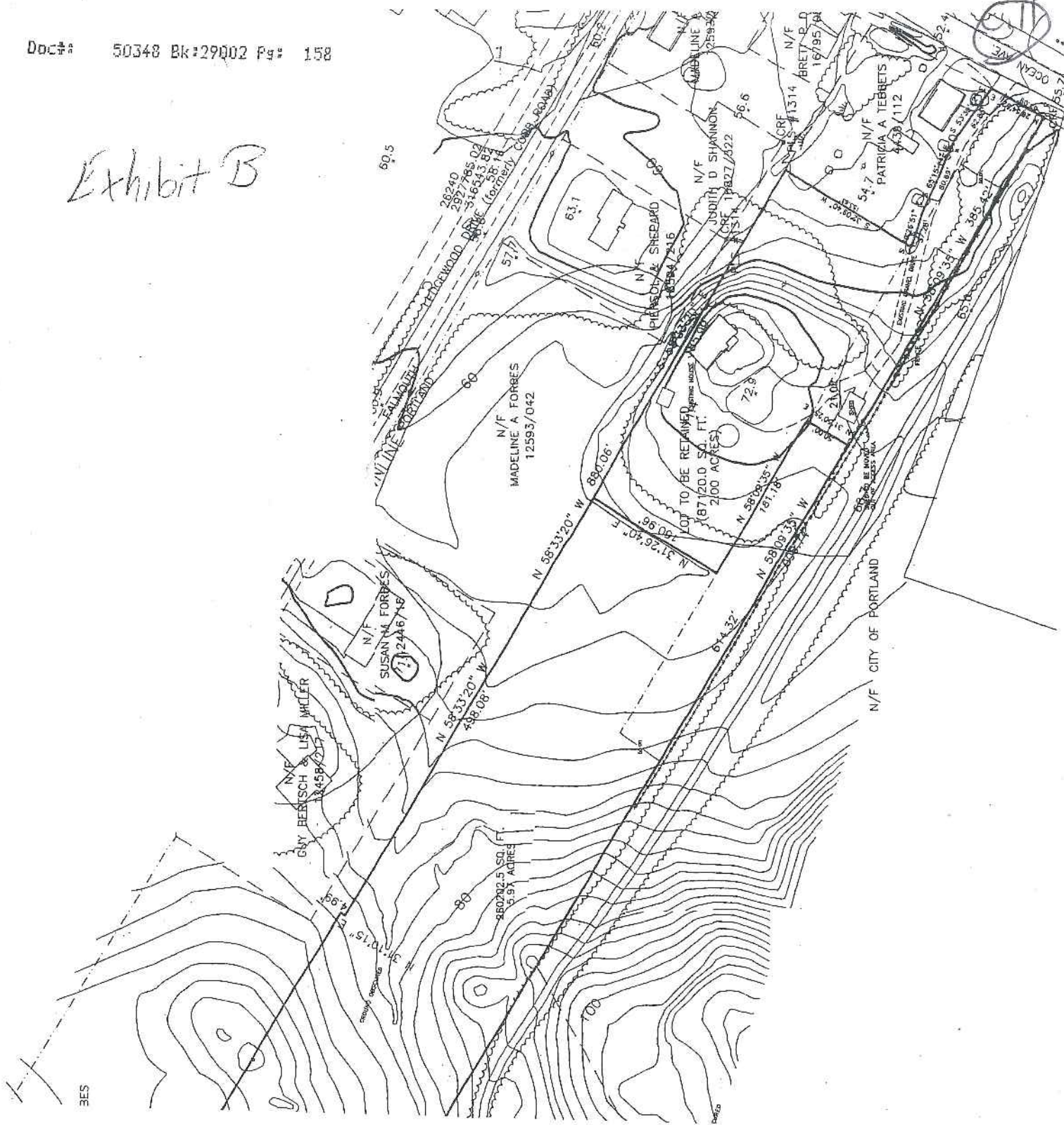
South 53° 39' 22" East, a distance of 62.80 feet to the aforementioned westerly sideline of Ocean Avenue;

Thence, along the westerly sideline of Ocean Avenue, South 28° 54' 52" West, a distance of 63.08 feet to the point of beginning.

The description of the premises and the easement conveyed herein is based upon a Standard Boundary Survey thereof entitled "Boundary Survey Plan at 1040 Ocean Ave. Portland, Maine for Dale A & Eleanor F. Williams" said plan dated November 21, 2003 and produced by Back Bay Boundary, Inc., 65 Newbury Street, Portland, Maine 04101. A copy of a portion of said Plan is attached hereto as Exhibit B.

The said Ricky D. Williams joins in this deed solely for the purpose of clarifying and confirming the description of the non-exclusive easement conveyed herein which easement was reserved in Personal Representative's Deed of Sale from Bonnie Doughty, Personal Representative of the Estate of Dale A. Williams, to Ricky D. Williams dated July 21, 2004 and recorded in the Cumberland County Registry of Deeds in Book 21520, Page 218 for the benefit of the premises conveyed herein.

Exhibit B



**City of Portland  
Quitclaim Deed**

KNOW ALL PERSONS BY THESE PRESENTS, that the City of Portland, a body politic and corporate located in the County of Cumberland, State of Maine, in consideration of one dollar (\$1.00) and other valuable consideration paid by Williams, Dale A. heirs of Portland, County of Cumberland, State of Maine, the receipt whereof is hereby acknowledged, does hereby remise, release, bargain, sell and convey and forever quitclaim unto the said Williams, Dale A. and his heirs and assigns forever, all of its right, title and interest in and to the following described real estate situated in Portland, in the County of Cumberland, State of Maine, and more particularly described as, viz.

414-A-003 415-A-017  
1030-1034 R Ocean Ave.  
261008 sf

Meaning and intending to convey the same land and building which the said grantor acquired by Tax Lien Certificates dated June 16, 2009, June 17, 2008, June 20, 2007, June 14, 2006.

The instrument above refers to recording in the Cumberland County Registry of Deeds in Book 26994 Pg 168, Book 26134 Page 044, Book 25209 Page 249, Book 24063 Page 324.

IN WITNESS WHEREOF, the said City of Portland has hereunto caused this instrument to be signed by Ellen Sanborn, its duly authorized Director of Finance, this 30th day of September 2011 A.D.

CITY OF PORTLAND

Margaret M. Abelson  
Witness

By: Ellen Sanborn  
Ellen Sanborn  
Director of Finance

STATE OF MAINE  
CUMBERLAND ss.

September 30, 2011

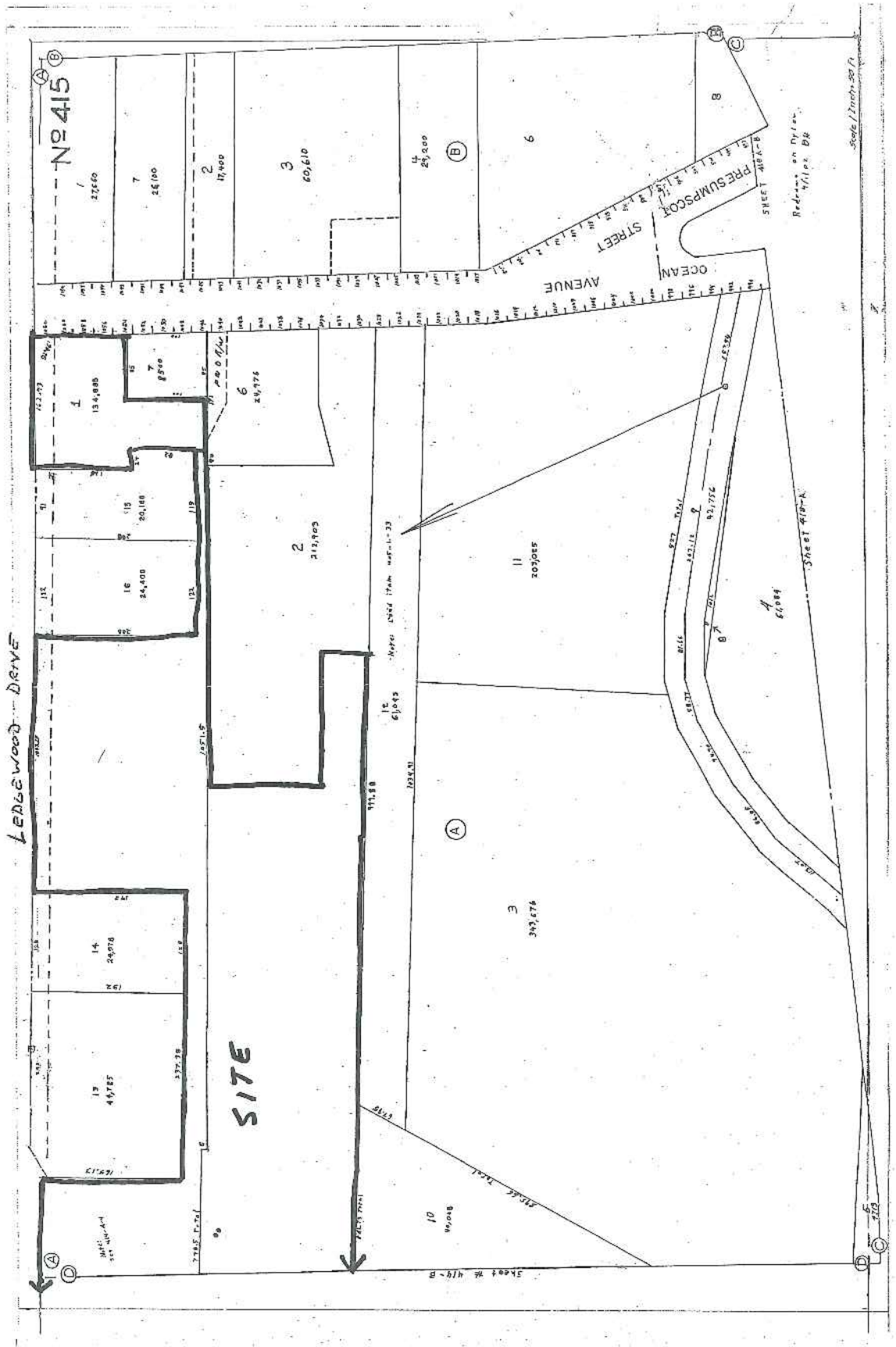
Personally appeared the above-named Ellen Sanborn in her capacity as the Director of Finance of the City of Portland, and acknowledged the foregoing instrument to be her free act and deed and the free act and deed of the City of Portland.

Before me,

Linda J. McLeod  
Linda J. McLeod, Notary Public  
Commission expires: 10/26/2015

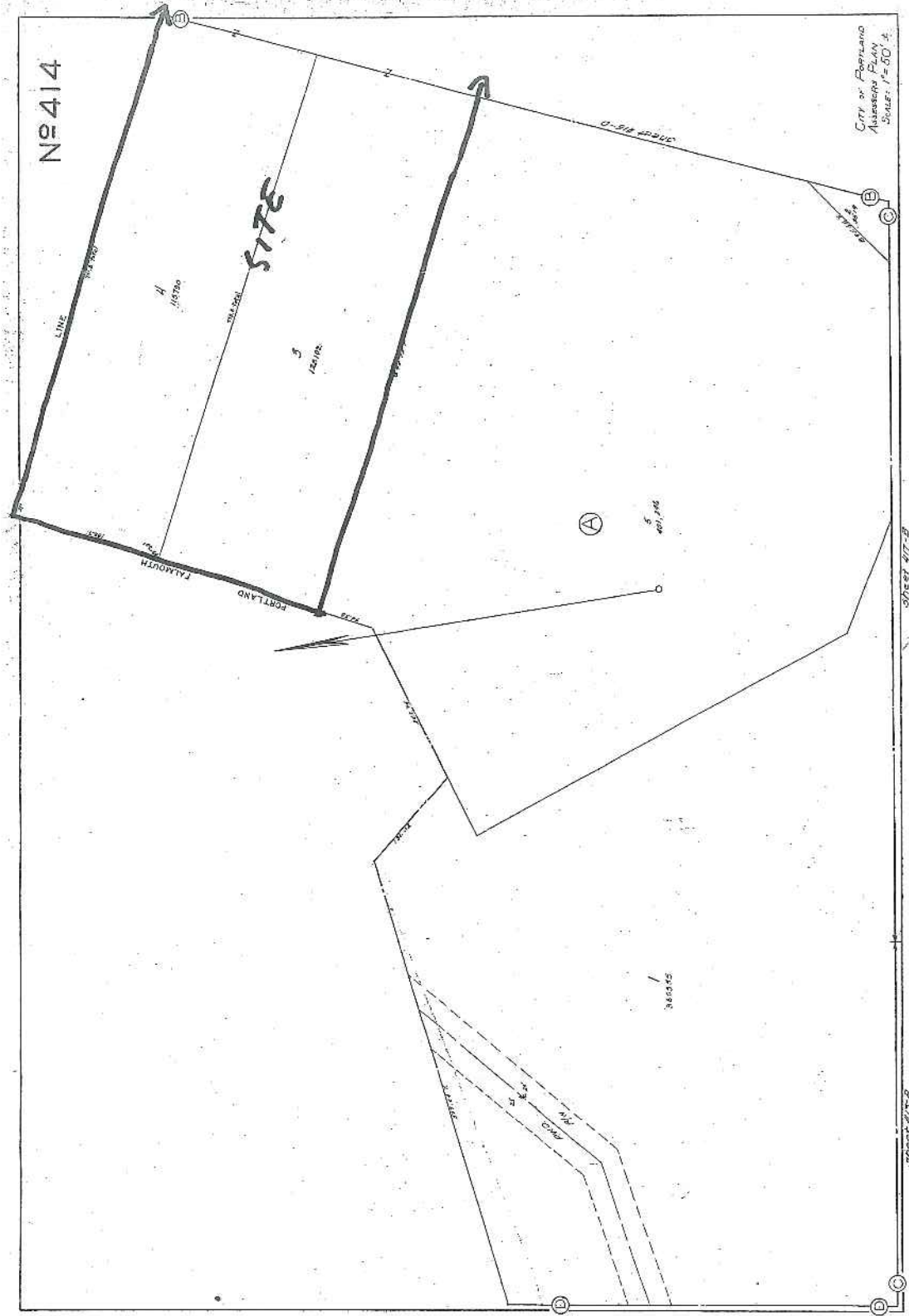
Received  
Recorded Register of Deeds  
Sep 30, 2011 03:27:19P  
Cumberland County  
Pamela E. Lovley



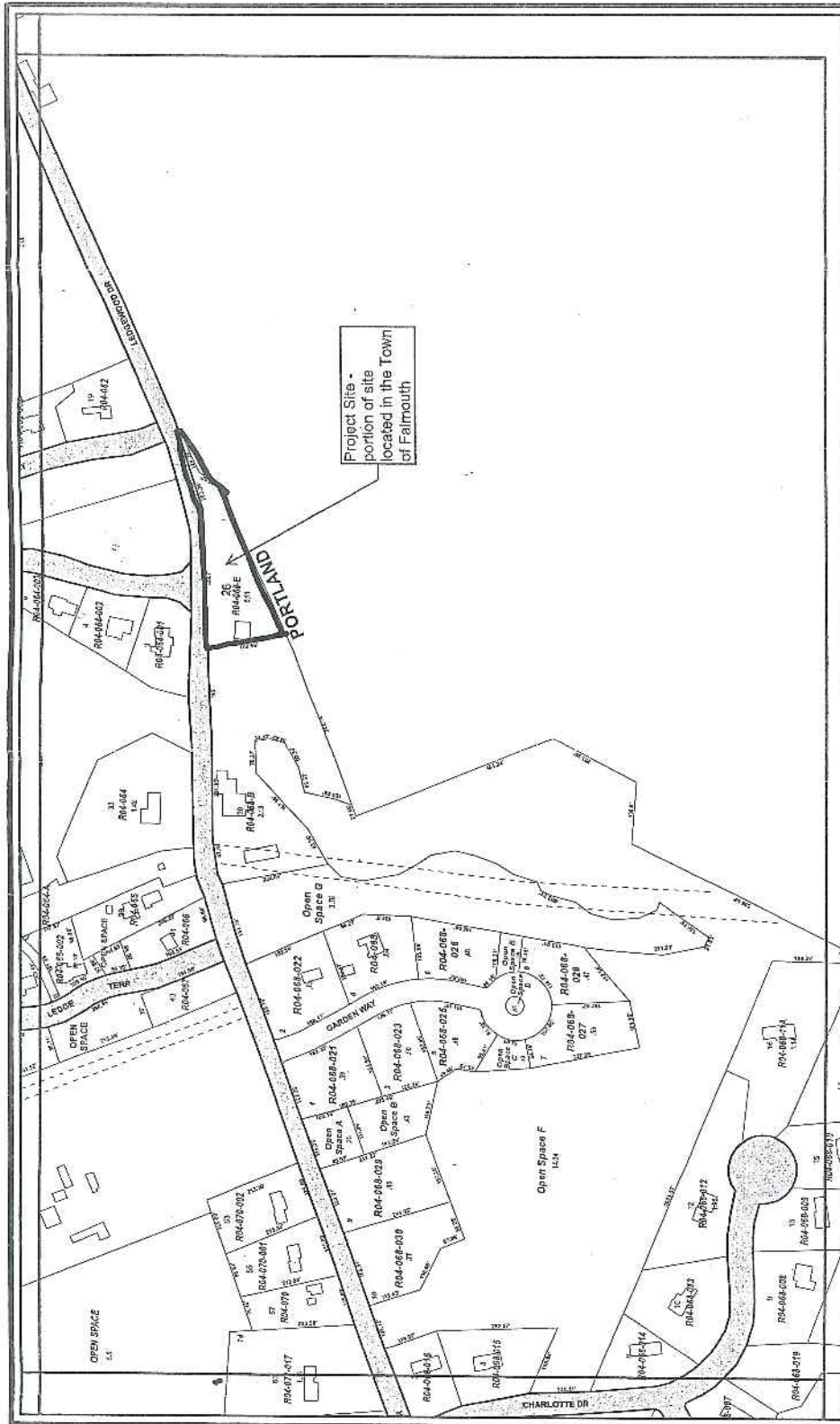


C. 14

C. 14



076 477-B  
 076 477-A  
 CITY OF PORTLAND  
 Assessor's PLAN  
 SCALE: 1" = 50' 4"



Falmouth Tax Sheet  
**512**  
 Map updated to: April 1, 2011

Index Map

464	472	474	480	484
	511	512		

# Town of Falmouth, Maine

Map Scale: 1" = 200 Feet

Legend

—	Public Water	Public Water
—	Private Water	Private Water
—	Water	Water
—	Shaded	Shaded
—	Other	Other

Map prepared by: **Spatial Solutions**  
 www.spatial-solutions.com  
 Tax sheets are intended for assessing purposes only.  
 sheets are not to be used for survey purposes of any kind.

## Land Design Solutions

Land Planning, Site Planning and Landscape Architecture

September 13, 2012

Ms. Jean Fraser  
Portland Planning Department  
Planning Division  
389 Congress Street  
Portland, ME 04101

RE: Proposed Residential Subdivision – Ocean Avenue & Ledgewood Drive  
Additional Information (Landscaping and Trail Connection)

Dear Jean,

Per our discussion yesterday I have prepared the following information to address questions related to trails and landscaping.

1. Trails – The project as proposed shows a continuation of the proposed sidewalk to the property line. The adjacent property is open space, designed as part of the “Ledges” subdivision and conveyed as open space to the Falmouth Land Trust. The developer of the Ledges worked with Portland Trails to construct trails through the open space, cross the brook and connect to the trail in the Dog Park. Our intention is to work with the Falmouth Land Trust to blaze a trail from the end of our sidewalk at the property line through their open space and connect to the existing trail and the Dog Park trail.
2. Landscaping – The project is a residential housing subdivision consisting of house lots on both sides of the proposed drive. The developer will be constructing the infrastructure and selling the undeveloped lots. The subdivision drive as proposed consists of two 14 ft. travel lanes, and on one side a 6 ft. wide curbed, grassed esplanade and a 5 ft. sidewalk, and on the other side of the drive a grassed shoulder and grassed ditch/swale for stormwater conveyance. We anticipate that the entire width of the 50 ft. right of way will be disturbed in order to construct the drive, esplanade, sidewalk and ditch so that the only remaining vegetation will be within the lots themselves.

The proposed plan shows two areas designated for stormwater management which will consist of detention basins, vegetated infiltration basin etc. We anticipate proposing plantings around these stormwater management elements which will tie them visually into the surrounding landscape.

The existing area surrounding the proposed development consists primarily of wooded residential so we do not believe buffering from abutting uses is necessary.

D.2

## Land Design Solutions

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Land Planning, Site Planning and Landscape Architecture

Per the City of Portland requirements the final plan will propose a minimum of two street trees per lot.

Should you have any questions or comments concerning the trail or landscape information provided please contact me.

Sincerely,



Peter B. Biegel, RLA, LEED AP  
Land Design Solutions



## Land Design Solutions

Land Planning, Site Planning and Landscape Architecture

September 14, 2012

Dear Neighbor:

Please join us for a neighborhood meeting to discuss plans for the development of a 14 lot single family residential subdivision, by TPO Properties LLC, on land located between Ocean Avenue and Ledgewood Drive, abutting Quarry Run Dog Park. The proposed subdivision access drive will be located off Ledgewood Drive (Falmouth), opposite Slocum Drive. The property is in the R-3 zone and partially within the town of Falmouth.

Meeting Location: Presumpscott Elementary School Library

Meeting Date: September 27, 2012

Meeting Time: 7:00 PM

The City code requires that property owners within 500 feet (except property notices must be sent to property owners within 1000 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 taken. Both the sign in sheet and minutes will be submitted to the Planning Board.

If you have any questions, please call Peter Biegel, Land Design Solutions (207) 939-1717

Sincerely,



Peter B. Biegel  
Applicant's Agent

F. 1

**Site Design Associates**  
**Consulting Engineering and Land Planning**

September 18, 2012

Peter Biegel, ASLA  
Land Design Solutions  
P.O. Box 316  
Cumberland, Maine 04021

**RE: Proposed Residential Subdivision**  
**1062 Ocean Avenue**  
**Portland, Maine**

Dear Peter:

We have undertaken a review of the sketch plan prepared by your office for the referenced project.

The subdivision will include 13 lots for single family residential homes, approximately 800 linear feet of road meeting the local road standard of the city of Portland, and open space. The road and infrastructure will be constructed by the developer, and undeveloped lots sold to individual buyers.

Under the City of Portland ordinances and technical standards, a stormwater management plan must be prepared and approved for this project. It is our understanding at this point that the development as proposed will need to meet the basic, general, and flooding standards. However, this will need to be confirmed by city staff prior to developing the final stormwater management plan.

Basic standards address erosion and sedimentation control, inspection and maintenance, and housekeeping, respectively. Basic stormwater best management practices (BMPs) such as silt fence and/or filter berms of erosion control mix, ditch checks, riprap inlet and outlet protection, temporary catch basin inlet protection, mulch, and permanent seeding will be used to prevent erosion and downstream migration of sediment during construction.

The general standard requires treatment of stormwater runoff from developed areas. In order to meet this standard, 75% of the roadway impervious area and 50% of the roadway developed area must be treated. Again, this will need to be confirmed by the city staff. This standard will be addressed by installing structural Best Management Practices (BMP's) northerly of lot 1 and on the northwesterly portion of lot 9. We anticipate the BMP's to be utilized will be underdrained grassed filters at each location.

23 Whitney Way – Topsham, Maine 04086  
Phone: (207) 449-4275      email: [info@sitedesignassociates.biz](mailto:info@sitedesignassociates.biz)

The flooding standard requires that stormwater management systems must detain, retain, or result in the infiltration of stormwater from 24-hour storms of the 2-year, 10-year, and 25-year frequencies such that the peak flows of stormwater from the project site do not exceed the peak flows of stormwater prior to undertaking the project. Although the analysis has not been completed for this project, we anticipate the flooding standard may involve the development of dry detention basins northerly of Lot 1 and on the northwesterly portion of lot 9.

Please let me know if you have any questions or comments, or require additional information.

Sincerely,  
Site Design Associates



Tom Saucier, P.E.  
President

Attachment G.1.  
for 2nd wkshop

## Land Design Solutions

Land Planning, Site Planning and Landscape Architecture

January 1, 2013

Ms. Jean Fraser  
Portland Planning Department  
Planning Division  
389 Congress Street  
Portland, ME 04101

**RE: Old Barn Estates - Proposed Residential Subdivision  
1062 Ocean Avenue & Ledgewood Drive**

Dear Jean,

We have prepared the following narrative in response to questions raised at the previous workshop and by City Planning Staff.

1. Subdivision street name – the name selected for the proposed street is Ice Pond Drive (Ice Pond Dr.) This name has been submitted and been approved by both the Town of Falmouth and the City of Portland.
2. Subdivision street length – the proposed street is approximately 760 linear feet long which is long enough to provide 65 ft. of paved street frontage to lot 8 and 115 ft. of paved street frontage to lot 9. The R.O.W. extends an additional 63 ft. past the end of the pavement which takes it all the way to the property line. The paved sidewalk terminates at the turn around with a gravel walk picking up at that point and extending to the property line where it will connect with the blazed trail.
3. The name chosen for the development is “Old Barn Estates”.
4. Septic Systems – underground wastewater disposal fields have been designed and located by Sweet Associates of Falmouth, Maine. Disposal field locations are severely limited on these lots due to shallow ledge and shallow water table. The disposal fields shown on the lots are designed as either the larger plastic chamber systems or the smaller eljen systems, based on the available area. Two locations are shown on lot 4 with the preferred location being the one near the rear of the lot. The reason for this preferred location is that it gives greater flexibility for house and backyard layout due to the narrowness of the front of the lot.
5. Lot 13 is proposed to retain its existing driveway on Ledgewood Drive. Due to questionable site distance our initial thought was to relocate the driveway to the proposed subdivision street. However, with the reconstruction of Ledgewood Drive last fall the road was raised and the site distance vastly improved, see attached memo from Eaton Traffic Engineering dated January 1, 2013 stating the

P.O. Box 316, 160 Longwoods Road, Cumberland, ME 04021  
Tel: (207) 939-1717 Email: pbiegel@landdesignsolutions.com

## Land Design Solutions

Land Planning, Site Planning and Landscape Architecture

sight distance is approximately the same as the proposed subdivision street and in his professional opinion there are no safety issues with retaining the existing driveway location. Based on this and the applicant's desire to retain a Falmouth street address since the lot is in Falmouth and the Town of Falmouth public services and schools would service the residence. The Falmouth Public Services Director and Fire Chief have indicated that they do not have an issue with the existing driveway and address. As such our proposal leaves the existing driveway in its current location. The proposed subdivision street centerline to the centerline of the driveway is 145 feet.

6. Tree save plan – During our site walk with the City Arborist and Planning Staff we were able to review the existing trees which are primarily white pine on the northern half of the site and red oak on the southern half. An issue discussed during our site walk was that with the pine trees there is great potential for blow downs when they have grown up in a forested “mass planting” situation and then areas are cleared around them causing them to lose the support of the “mass” making them vulnerable to high wind blow downs. Due to this issue we focused our tree save efforts on the oak tree areas. The proposed tree save areas are shown on Plan S-101. These tree save areas consist of a twenty 25 foot swath containing primarily large red oak trees, with a small percentage of maple along the rear of the lots adjacent to the southern property boundary (Dog Park) and the area designated as lot 16 open space (3.49 acres) which is made up of a mix of tree types located in forested upland and forested wetland.

Additionally by default the stormwater buffer areas will preserve the trees located within them, with the exception of the few areas where the subsurface wastewater disposal systems encroach. Also as a requirement of the proposed stormwater management plan lots are limited to a developed area of 15,000 s.f., given the size of the lots this will lead to additional area of undisturbed ground. With the exception of the driveway construction for lot 2 and the subsurface wastewater systems shown on lots 3 and 4 the area shown within the stream setback will remain undisturbed as well preserving more forested land.

Many of the oak trees are growing on top of ledge outcrops and end up being very shallow rooted or not rooted on all sides which make the tree very susceptible to being blown over during a strong wind weather event. Many of these “blow downs” can be seen when walking the site. Another contributing factor of these “blow downs” is that most of the oaks have multiple trunks and it is not uncommon to have a smaller trunk (4”-8”) die, fall off and decay leaving a hole near the bottom of the trunk. This hole fills collects snow and water, remaining moist making it very susceptible to decay thus weakening the strength of the tree and adding As the lots are developed and house proximity to large trees becomes apparent we request the right to remove potential tree hazards whether they are shown in the tree save area or not.

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The developer/owner has developed two other subdivisions of similar lot size, like topography and land cover (forested) in this area of Ledgewood Drive (Slocum Drive & Charlotte Drive), and it has been his experience that the people buying these lots for homes do not want to clear cut their lots as a result many trees are left as can be witnessed on the two subdivisions mentioned above.

7. **Subdivision Street Ownership** – The project proposes that the City of Portland will own the proposed subdivision street, and that the Applicant will convey the fee ownership of the portion of street that is located in Falmouth to the City of Portland.
8. **Trails** – The project as proposed shows a gravel walk continuation of the proposed sidewalk to the property line. The adjacent property is open space, designed as part of the “Ledges” subdivision and conveyed as open space to the Falmouth Land Trust. The developer of the Ledges worked with Portland Trails to construct trails through the open space, cross the brook and connect to the trail in the Dog Park. Our intention is to work with the Falmouth Land Trust to blaze a trail from the end of our sidewalk at the property line through their open space and connect to the existing trail and the Dog Park trail. We have been in contact with both the Falmouth Land Trust and Portland Trails and have received verbal support. We are in the process of coordinating a site walk to confirm our thoughts on the best route and work out any details.
9. **Lot 14 (1062 Ocean Avenue)** – This existing lot (existing house and garage) with an existing house and garage is a separate lot from the subdivision and will not be developed or sold as part of the subdivision. We realize that because it is owned by an entity under the ownership of the Applicant and the fact it is contiguous with the subdivision parcel the City has certain interests and requirements. While initially the applicant discussed and was looking to re-develop the lot prior to the subdivision being approved that has not happened. It is our hope that we can focus on the subdivision at this time and the re-development or sale of lot 14 at a later date.
10. **Fencing** – The idea of fencing along the southern border adjacent to the Dog Park was discussed with the City Arborist and City Planning Staff on site. It is our understanding that the existing chain link fence which is currently in place along part of this property line was installed by the City to prevent all terrain vehicles from entering the Dog Park from the proposed subdivision property and damaging the Dog Park trails. Much of the remaining property line has a stone wall along it. We propose to place large stones in the wall gaps so that the stone wall is continuous, and feel that as the project is built out and occupied homes about the Dog Park the issue of all terrain vehicles crossing into the Dog Park will be eliminated. The other issue discussed was the problem of subdivision home owners encroaching onto the Park land. We propose to install a small sign in the

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center of each lot rear lot line for lots 4, 5, 6, 7 & 8 that will clearly delineate the boundary and make known that encroachment is not allowed.

11. **Stormwater Management** – A stormwater report and associated plans have been prepared and are attached. The plans address both water quality as well as quantity utilizing underdrained filter basins, level spreaders and “No Disturb” buffers.
12. **Ownership and Management of Open Space and Stormwater Management Systems** - A homeowners association will be formed to own and maintain the two open space areas, and own and maintain the non street stormwater systems consisting of underdrained infiltration basins, diversion ditch, level spreaders and stormwater buffers. Easements are provided around all stormwater BMPs for drainage and maintenance purposes. The home owner’s documents are in the process of being prepared by the Applicant’s legal consul.
13. **Financial capacity** - The Applicant is working with a local financial institution to finance the project.
14. **Wetland and Stream Impacts and Mitigation** – A short stream segment running through lot #2 was identified by DEP and multiple wetland areas were delineated by Sweet Associates. A Natural Resource Protection Act PBR for a stream crossing will be required for the driveway to lot #2 and a PBR for disturbance within 75 ft. of a wetland will be required for construction of the stormwater underdrained infiltration basin on lot #9. The need for these permits has been discussed on site with DEP and we do not anticipate any issues obtaining them.
15. **Sidewalk and Curb Waivers** – The proposed subdivision is located in an area of Portland / Falmouth which has a rural feel to it, with open fields and woods surrounding the site and along Ledgewood Drive. There are a number of residential subdivisions (Slocum Drive, Charlottes Way, Garden Way) which come off Ledgewood Drive as well. In keeping with this rural character, and due to the fact that the proposed subdivision has 12 lots on a dead end drive we are proposing a subdivision street that consists of: two 14 ft. travel lanes, and on one side a vertical granite curb with a 6 ft. wide grassed esplanade, and a 5 ft. wide bituminous concrete sidewalk, and on the other side of the drive a grassed shoulder and grassed ditch/swale for stormwater conveyance. The grassed ditch will have side slopes which can be mowed (no steeper than 3:1). We are requesting a waiver to construct the sidewalk on only one side of the proposed subdivision street. We are also requesting that a waiver for sidewalk construction be granted for the property’s frontage along Ledgewood Drive (R.O.W. located in Falmouth) and the Lot 14’s frontage on Ocean Avenue. A sidewalk was constructed along the north side of Ledgewood Drive by the Town of Falmouth last fall. We are proposing a painted pedestrian crossing from our proposed sidewalk across Legewood Drive (at the Slocum Drive intersection) to the newly

P.O. Box 316, 160 Longwoods Road, Cumberland, ME 04021

Tel: (207) 939-1717 Email: pbiegel@landdesignsolutions.com

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constructed sidewalk. There are currently no other sidewalks in the vicinity of lot #14 on Ocean Avenue, so a section of sidewalk along this frontage would have no connection at this time.

16. Traffic – A traffic assessment was prepared for the project by Bill Eaton, P.E. of Eaton Traffic Engineering. His memo dated January 1, 2013 is enclosed.
17. Neighborhood Meeting Certification – A neighborhood meeting was held September 27, 2012 and certification submitted to Planning Staff September 30, 2012.
18. Draft Plat Plan – A draft Plat Plan has been prepared by Cullenberg Land Surveying. Due to the information required on the recorded plan two recording plans are being prepared.
19. Flood Plain Information – A very small portion of the site, northwestern corner of lot #9 is designated as Zone A (area of 100 year flood). We believe the flood elevation to be 64 and shown the flood boundary on plan S-101 Subdivision Plan. The FEMA mapping is attached.
20. Landscaping – Street tree and buffering plantings are shown on C-101 Lot Development and Landscaping Plan. While the technical standards call for two trees per lot at a spacing of approximately 35-45 ft. we have proposed 30 trees at approximately 50 ft. spacing in order to maintain a more regular planting scheme given the long curve in the street and potential driveway locations. Given the limited space in the R.O.W. the street trees are located approximately 10 ft. inside the R.O.W. line on the individual lots. We have proposed a mix of tree varieties so that we do not have a monoculture susceptible to one type of insect or disease. Trees have also been proposed in groupings around the underdrained stormwater filtration basins to help incorporate these land forms into the landscape. Per the proposed stormwater management plan home owners will be limited to clearing approximately 15,000 s.f. of their lot which will leave undisturbed areas of woods throughout the development.
21. Lighting – An existing street light illuminates the Slocum Drive entrance which is directly across the street from our proposed entrance, we believe this existing illumination to be adequate for our street entrance. In keeping with the rural character of the area, Ledgewood Drive and the following adjacent residential developments, all off Ledgewood Drive:
  - a. Charlottes way – entrance street light on opposite side of Ledgewood Drive, light at drive intersection within the development and one light cul-de-sac.
  - b. Northledge Terrace – no light at entrance and one light at end of drive turn around.
  - c. Slocum Drive – street light at entrance and light at end of drive turn around.



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- d. Garden Way (currently under construction) – light at entrance and one at cul-de-sac.

We propose a single pole mounted fixture at our street's turn around. We do not believe there is the need from a safety standpoint or a home owner desire to have the street fully lit, and it would be inconsistent with the adjacent developments and rural character of the area which is one of the characteristics we is attractive to the residents living here.

**Attachments:**

- Letter from Maine Historical Commission.
- Traffic Memo dated January 1, 2013 from Eaton Traffic Engineering.
- Stormwater Management report
- Fema Flood Maps
- Sidewalk and Curb Waiver Request

**Plans (two copies full size 24x36 and one copy 11x17):**

- Cover Sheet
- Subdivision Plat Plan (recording plan 1 of 2)
- S-101 Subdivision Plan (recording plan 2 of 2)
- C-101 Lot Development and Landscape Plan
- C-201 Grading, Drainage and Erosion Control Plan
- C-202 Profile Plan
- C-300 Erosion and Sedimentation Control Notes and Details
- C-301 Site Details
- C-302 Site Details
- C-303 Site Details
- D-100 Pre-Development Drainage Plan
- D-101 Off-Site Subcatchment Plan
- D-102 Post Development Drainage Plan

We request that the project be placed on the January 22, 2013 work shop agenda. Please do not hesitate to contact me with any questions or comments concerning the submitted plans or documentation.

Sincerely,



Peter B. Biegel, RLA, LEED AP  
Maine Licensed Landscape Architect  
Land Design Solutions

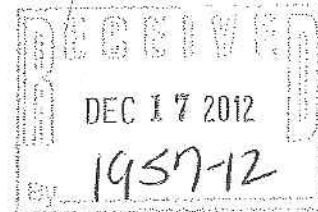
G. 7

# Land Design Solutions

Site Planning Land Planning Landscape Architecture

December 14, 2012

Mr. Earle G. Shettleworth, Jr., Director  
Maine Historical Preservation Commission  
55 Capitol Street, 65 State House Station  
Augusta, ME 04333-0065



**RE: Proposed Residential Subdivision**  
Ledgewood Drive, Falmouth, Maine

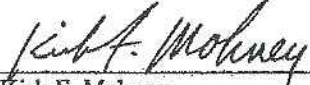
Dear Mr. Shettleworth:

Land Design Solutions is currently providing permitting and site development design assistance to TPO Properties LLC for the construction of a 13 lot residential subdivision located off Ledgewood Drive in Falmouth. A survey plan and a google earth map with the site located is also included for your information.

We request you research your data base to determine the presence of any sites in the area of historic architecture or archaeological significance, as defined by the National Historic Preservation Act of 1966. We will be submitting the project for review to the City of Portland and the Town of Falmouth in early January.

If you require further information, please contact us at 939-1717 or [pbiegel@landdesignsolutions.com](mailto:pbiegel@landdesignsolutions.com). Thank you for your assistance in this matter.

Based on the information submitted, I have concluded that there will be no historic properties affected by the proposed undertaking, as defined by Section 106 of the National Historic Preservation Act. Consequently, pursuant to 36 CFR 800.4(d)(1), no further Section 106 consultation is required unless additional resources are discovered during project implementation pursuant to 36 CFR 800.13.

  
Kirk F. Mohney,  
Deputy State Historic Preservation Officer  
Maine Historic Preservation Commission

12/26/12  
Date

Land Design Solutions



Peter B. Biegel, RLA  
Principal

Enc.

Attachment H. 1

**ete**

**EATON TRAFFIC ENGINEERING**  
67 Winter Street Suite 1 • Topsham • Maine • 04086  
Tel/Fax 207.725.9805 Cell 207.841.4200

To: Peter Biegel, Land Design Solutions  
Fm: William C. Eaton, P.E., Eaton Traffic Engineering  
Re: Proposed Residential Subdivision, Ledgewood Drive, Falmouth  
Dt: January 1, 2013

Per your request, I have performed a traffic assessment of the above noted project. The project will consist of a 14 lot residential subdivision with an access road located on the southwesterly side of Ledgewood Drive directly across from Slocum Drive. Projected trip generation from the proposed development, when fully occupied, is 140 daily vehicle trips (70 enter, 70 exit), and 14 trips (9 enter, 5 exit) during the PM peak hour (a one hour period within the range of 4:00 – 6:00 PM). There are no MDOT traffic volume data on Ledgewood Drive, but the most recent count data on Middle Road is 5,620 daily vehicles (2010 data) and on Allen Avenue, 9130 (2007).

Safety data was obtained from MDOT for the period 2009-11 for Ledgewood Drive. For the 3 year period a total 4 accidents occurred – 2 at Allen Avenue, 1 at Charlotte Drive and 1 on the link from Middle Road to Slocum Drive. There are no high crash locations in the vicinity of the site.

Intersection sight distance was measured in the field at the proposed site access drive on Ledgewood Drive following the reconstruction of Ledgewood Drive. To the southwest sight distance was measured at 425+/- feet. To the northeast, the distance is 575+/- feet. For the posted speed of 30 MPH, these distances are more than adequate to provide for safe operation.

In previous correspondence regarding this project, you have indicated the Town of Falmouth's concern with respect to the level of service at the intersections of Ledgewood Drive and Allen Avenue and Ledgewood Drive and Ocean Avenue, the need to address the concerns of the City of Portland (within which most of the lots will occur), and the driveway on Ledgewood Drive to

H.2

the existing residence at Lot 13. As noted above, the estimated PM peak hour trip generation for the proposed development is 14 vehicle trips (at full occupancy). In my opinion, even if all 14 trips entered/exited Ledgewood Drive from one of the two access roads (Ocean or Allen Avenue), the impact on the capacity and level of service would be minimal. I have discussed this issue briefly with Thomas Errico of T.Y. Lin (traffic engineer for the City of Portland) to see if he needed additional information to support this finding, and he indicated he did not (however, he advises the Portland Planning Board and does not determine their findings). With regard to the existing driveway to Lot 13 on Ledgewood Drive, the sight distance available to the driveway is essentially the same as for the intersection of Ledgewood Drive at Slocum Drive, and I see no safety issue with retaining this driveway at the existing location (as opposed to relocating it to the new subdivision access road).

I trust that the above addresses your needs in this matter. Should you have any questions, please contact me.

Insurance agent or call the National Flood Insurance Program



APPROXIMATE SCALE



**SPECIAL FLOOD HAZARD AREAS UNDAUNTED BY 100-YEAR FLOOD**

- ZONE A**  
No base flood elevations determined.
- ZONE AE**  
Base flood elevations determined.
- ZONE AH**  
Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.
- ZONE AO**  
Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE A99**  
To be protected from 100-year flood by Federal flood protection system under construction; no base flood elevations determined.
- ZONE V**  
Coastal flood with velocity hazard (wave action); no base flood elevations determined.
- ZONE VE**  
Coastal flood with velocity hazard (wave action); base flood elevations determined.

**FLOODWAY AREAS IN ZONE AE**

**OTHER FLOOD AREAS**

- ZONE X**  
Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.
- ZONE D**  
Areas determined to be outside 500-year floodplain.
- UNDVELOPED COASTAL BARRIERS†**  
Areas in which flood hazards are undetermined.



†Coastal barrier areas are normally located within or adjacent to special road hazard areas.

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

100 year Flood Zone within Project Site

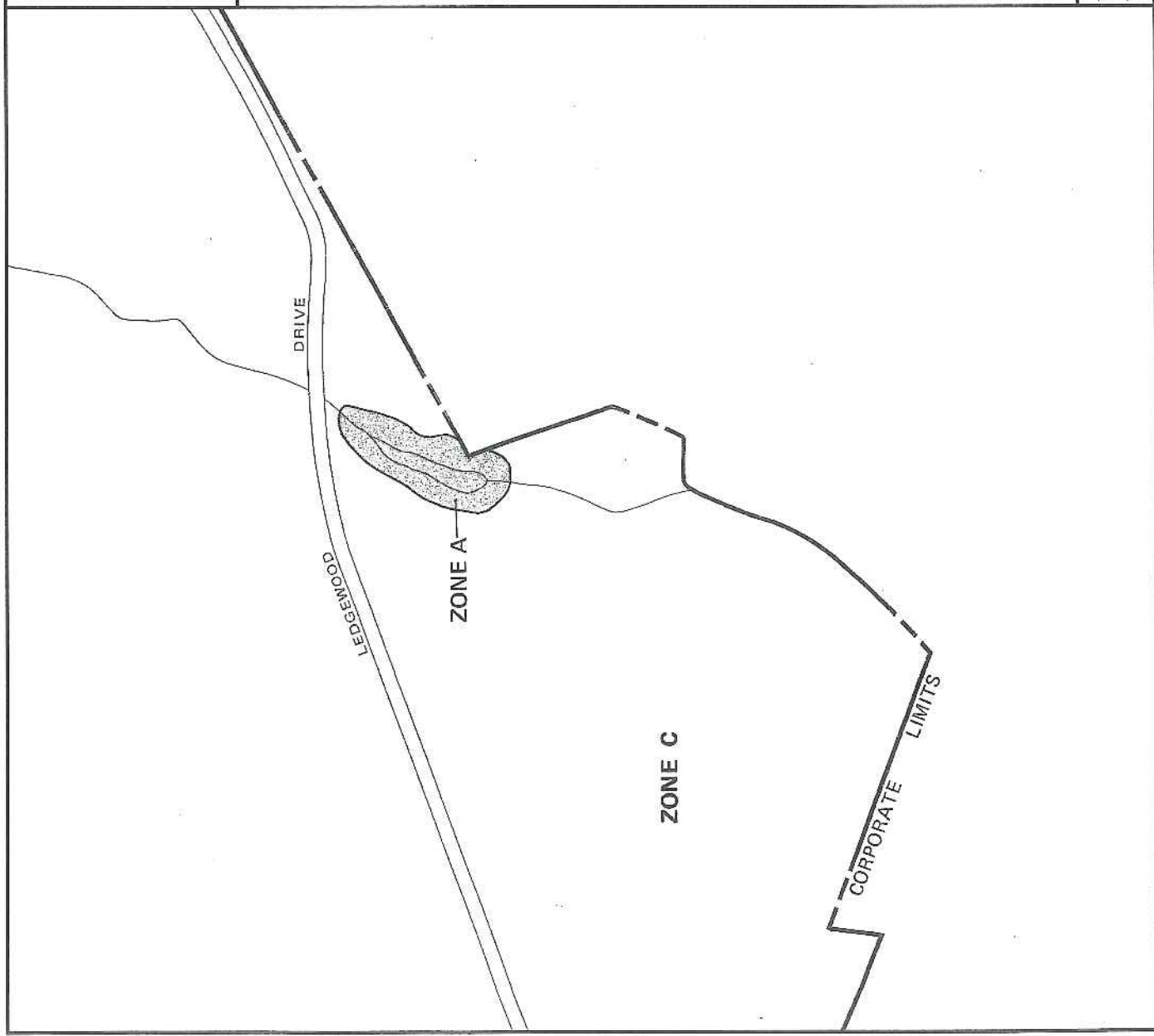
ZONE A

ZONE X

CORPORATE AVENUE

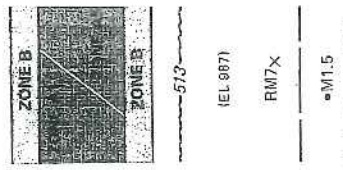
PRESUMPCOT STREET

OCEAN



**KEY TO MAP**

- 500-Year Flood Boundary
- 100-Year Flood Boundary
- Zone Designations\*
- 100-Year Flood Boundary
- 500-Year Flood Boundary
- Base Flood Elevation Line With Elevation in Feet\*\*
- Base Flood Elevation in Feet Where Uniform Within Zone\*\*
- Elevation Reference Mark
- Zone D Boundary
- River Mile



**\*EXPLANATION OF ZONE DESIGNATIONS**

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depth is between one (1) and three (3) feet; average depth of inundation are shown, but no flood hazard factor are determined.
AH	Areas of 100-year shallow flooding where depth are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factor are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flood with average depths less than one (1) foot; or areas with average depths less than one (1) foot; or areas protected by levees from the base flood (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazard.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factor not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factor determined.

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**RE: Sidewalk and Curb Waiver Request**  
**Old Barn Estates - 1062 Ocean Avenue & Ledgewood Drive**  
January 2, 2013

Per Chapter 14, Section 14-506, (b) of the City of Portland Land Use Code we respectfully request a waiver for sidewalks and curbing for the following project areas:

1. South side of the proposed subdivision street (see attached sketch Sidewalk Segment #1). The proposed subdivision street is a dead end street with 12 residential house lots having frontage. The paved street width is proposed to be 28 feet wide with a 6' wide grassed esplanade and 5' wide walk on one side, and a grassed ditch for stormwater conveyance on the other side. Conditions which we believe exist allowing the Planning Board to waive the requirement for a sidewalk and curb on one side of the proposed street are:
  - There is a safe alternative walking route which will be established with the construction of the walk on the opposite side of the proposed street. The street is a dead end with no opportunity for a future road connection do to the abutting property being open space land, in perpetuity, owned by the Falmouth Land Trust.
  - Constructing the sidewalk and curbing on both sides of the proposed street will require the full build out within the street R.O.W. with paved surface. By allowing only one side to have the sidewalk we are able to utilize a grassed roadside swale which is not only of benefit from a stormwater perspective, but also allows the potential for less impacts to existing topographic features and allows the landscape to abut the street giving a more rural landscape feel to the development.
  - Runoff from the street does not require curbing for stormwater conveyance.
2. South side of Ledgewood Drive (located within the Town of Falmouth R.O.W.) in front of Lot 13, Lot 15 open space, Lot 16 open space and Lot 14 (see attached sketch Sidewalk Segment #2). Conditions which we believe exist allowing the Planning Board to waive the requirement for a sidewalk and curb on one side of the proposed street are:
  - There is a safe alternative walking route since the Town of Falmouth constructed a sidewalk on the north side of Ledgewood Drive this past fall. To our knowledge there are no plans to construct an additional sidewalk on the south side of Ledgewood Drive at this time. The proposed subdivision sidewalk is proposed to connect to the newly constructed Ledgewood Drive sidewalk via a painted crosswalk as part of this project.

- Constructing the sidewalk and curbing on the south side of Ledgewood Drive would require the filling of Wetlands and potentially the construction of a retaining wall along Lot 14 where the existing house structure is less than 10 ft. from the edge of the pavement.
3. West side of Ocean Avenue in front of Lot 14. There is currently no sidewalk in this area of Ocean Avenue (see attached sketch Sidewalk Segment #3).
- Without other sidewalks in this area there is little expectation for pedestrian usage.
  - Given the topography along the front of the site, construction of a sidewalk would potentially require a retaining wall or the loss of an already limited amount of landscape area.





## **STORMWATER MANAGEMENT REPORT**

**OLD BARN ESTATES  
ICE POND DRIVE  
FALMOUTH, MAINE**

**JANUARY 2013**

### **Introduction**

Land Design Solutions (LDS) was retained to assist the TPO Properties, LLC in the design and permitting of a 12 unit residential subdivision located on the southerly side of Ledgewood Drive, across from the intersection of Slocum Drive in Falmouth, Maine. Although, the entrance to the site is located in Falmouth, the majority of the site is located within the City of Portland. The proposed subdivision includes the construction of a 760-foot local street and associated stormwater and landscaping amenities to access 12 approximately 0.5 acre single family residential lots. It is anticipated that, upon final construction, each lot will include approximately 5,000 square feet of impervious area and 10,000 square feet of lawn area.

This Stormwater Management Report assesses both pre-development and post-development peak runoff rates to establish appropriate control of stormwater runoff to reduce and minimize significant impact on the local environs in accordance with the City of Portland and Town of Falmouth ordinances.

### **Methodology**

The stormwater runoff analysis has been undertaken utilizing the HydroCAD Stormwater Modeling System software (Version 9.10) developed by the Applied Microcomputer Systems of Chocorua, New Hampshire. The program is based upon the TR-20 computer program and the TR-55 tabular method, both of which are based upon techniques developed by the USDA Soil Conservation Service. The analysis was undertaken for the 2-, 10-, 25- and 50-year frequencies (3.0, 4.7, 5.5 and 5.9 inches, respectively). Twenty-four hour storms with a Type III distribution were the basis for the analysis.

All storm drainage piping and detention basins have been sized for the 50-year, 24-hour storm utilizing the HydroCAD program.

### **Pre-Development Conditions**

The site of the proposed subdivision is located on Ledgewood Drive in Falmouth, across from the intersection of Slocum Drive.

The parcel consists of three parcels totaling approximately 10.5 acres of forested area. The site topography is irregular, generally in a mound and depression configuration, with shallow soil over ledge. Wetlands are located on the northern and southern portions of

the site. An intermittent stream is located on the southern portion of the property, which feeds into one of the southerly wetlands. As taken from the website of the *"Natural Resources Conservation Service, United States Department of Agriculture, Web Soil Survey,"* the predominant soil types in the development area are Hollis Fine Sandy Loam (HrB) and Hollis Very Rocky Fine Sandy Loam (HsB), which are both classified as hydrologic soil group (HSG) C/D. The southern portion of the site contains Scantic Silt Loam (Sn), which is classified as HSG D. The soil boundaries are shown on drawings D-100 Pre-development Drainage Plan, and D-102 Post-development Drainage Plan.

The northern portion of the site (SC1) drains from south to north towards a very large wetland that borders the northern side of the site, which ultimately drains to a 5-foot diameter culvert under Ledgewood Drive. A large offsite drainage area (OS1) also contributes to the wetland, which is shown on drawing D-101 Off-Site Subcatchment Plan. A small portion of the site near the proposed entrance (SC2) drains east toward Ledgewood Drive, where it leaves the site via a 15" culvert under Ledgewood Drive. The southern portion of the site and some additional off-site area (SC3) drains to a large wetland on the southern portion of the site (pond P3), which outlets to a large, well defined channel on the south side of the wetland. A section of the southerly portion of the site (SC4) drains directly to the well-defined channel south of the large wetland. A small offsite area (OS2) also drains toward the southerly wetland through two parallel 15" diameter culverts under Ledgewood Drive, and is routed around the wetland by a channel (reach R3.2).

Runoff from the site was analyzed at the large wetland on the north side of the site (AP1), the 15" culvert under Ledgewood Drive (AP2), and the large wetland on the southern portion of the site (AP3). Pre-development HydroCAD calculations and a drainage plan can be found in Appendix A. Pre-development peak flow rates at each of the analysis points are summarized in Table 1, for the 2-, 10-, 25-, and 50-year storm events.

### **Post-Development Conditions**

The project includes the construction of a 760' local street with associated landscaping, the construction of a 12' wide 300-foot driveway to access Lot 2, the construction of two grassed underdrained soil filters, and the use of vegetated buffers for stormwater treatment. The stormwater analysis was performed assuming full buildout of the subdivision, which includes an assumed 5,000 square feet of impervious area and 10,000 square feet of lawn area per lot. The lot allowances are in addition to the impervious and landscaped areas associated with the street and stormwater pond construction.

Post-development stormwater runoff from the site and tributary area was analyzed by routing stormwater flows from the various developed subcatchments through proposed conveyance and treatment measures. Post-development HydroCAD calculations and drainage plan can be found in Appendix B. Post-development peak flow rates at each of the analysis points are summarized in Table 1, for the 2-, 10-, 25-, and 50-year storm events.

### Stormwater Quantity

Stormwater quantity at AP1 is partially controlled through detention in the grassed underdrained soil filter (pond T1) located on the northern corner of Lot 9. Flow from pond T1 is released through a level spreader directly to the large wetland north of the site. Calculations indicate that the peak flow from the wetland is essentially not impacted as result of the development. The peak runoff from the site reaches the wetland well before the peak rate from the large offsite subcatchment reaches the wetland. Therefore, we anticipate there will be no impact on capacities of downstream drainage systems, including the 5' diameter culvert under Ledgwood Drive.

Stormwater quantity at AP2 is controlled by detention in the underdrained soil filter (pond T2) located in the open space on the south side of the site entrance. Pond T2 is oversized to allow for detention of stormwater prior to being discharged to the 15" culvert.

Stormwater quantity at AP3 is controlled by natural detention upstream of a proposed 30" culvert under the proposed Lot 2 driveway and by detention and attenuation in the large wetland on the south side of the site.

The detention systems were sized and analyzed through an iterative process using HydroCAD, in order to provide attenuation of post-development peak flow rates to remain at or below pre-development peak flow rates at the analysis points.

**Table 1 – Comparison of Pre and Post -Development Runoff Rates**  
Runoff rates in cubic feet per second (c.f.s.)

<b>Peak Flow Rate Table</b>				
	<b>Storm</b>			
<b>AP1</b>	<b>2</b>	<b>10</b>	<b>25</b>	<b>50</b>
PRE	122.1	270.9	346.2	384.9
POST	122.2	271.0	346.3	385.0
	<b>Storm</b>			
<b>AP2</b>	<b>2</b>	<b>10</b>	<b>25</b>	<b>50</b>
PRE	1.3	3.2	4.8	4.4
POST	0.7	2.2	3.6	4.2
	<b>Storm</b>			
<b>AP3</b>	<b>2</b>	<b>10</b>	<b>25</b>	<b>50</b>
PRE	3.5	7.9	10.2	11.4
POST	3.5	7.9	10.2	11.4

As shown in the Table 1, the peak runoff rates at analysis points AP2 and AP3 under the post-development conditions will remain essentially at or below the peak pre-development runoff rates for the 2-, 10-, 25- and 50-year storm events. The slight increases (0.1 cfs) at AP1 during the 2, 10, 25, and 50 years storms are considered

negligible considering the size of the contributing subcatchments and the size of the receiving wetland. Based on this analysis, we do not anticipate any impact on downgradient drainage systems due to the proposed development.

### **Stormwater Quality**

A number of Best Management Practices (BMPs) will be employed to manage stormwater quantity and quality associated with the proposed subdivision. The BMPs have been designed in accordance with the Maine DEP Chapter 500 rules. These measures, incorporated into the site development, will attenuate stormwater runoff rates to at or below pre-development rates and will provide water quality enhancement per Maine DEP, City of Portland, and Town of Falmouth rules and regulations.

Runoff from the road from approximately station 3+50 to the end, lots 7, 8, 9, and portions of lots 5 and 6 will be treated in pond T1. Runoff from the road, lots 5, 6, 7, and 8 is diverted by the interceptor swale on the western side of the site and directed through the culvert under the proposed trail to the pond T1. Based on the subcatchment boundaries, it is assumed that only the front portion of lots 5 and 6 will drain to pond T1. The houses from lots 7, 8, and 9 will be fitted with underdrained dripline filters to treat runoff from the roofs, thus reducing the required size of pond T1.

Runoff from the beginning of the road to station 3+50 and the front portions of lots 1, 3, and 4 will be treated in pond T2.

Runoff from lots 10, 11, 12 and the rear portions of 3, 4, 5, and 6 will be treated via buffers adjacent to residential lots.

Runoff from approximately 200 feet of the lot 2 driveway will be treated in a ditch turnout buffer with a level lip spreader.

The total required treatment area was calculated based on treating 75% of impervious area and 50% of developed area from linear portions of the site (road/driveway) and 95% of impervious area and 80% of developed area from the remainder of the site. See Table T-1 in Appendix C for treatment area calculations and pond sizing calculations.

### **Erosion Control**

BMPs such as silt fence and/or filter berms of erosion control mix, ditch check dams, riprap pipe inlet and outlet protection, temporary catch basin inlet protection, mulch, and permanent seeding will be used to prevent erosion and downstream migration of sediment during construction. The locations of temporary and permanent erosion control measures are shown on Drawing C-201 Grading, Drainage and Erosion Control Plan. Erosion and sedimentation control notes and details can be found on Drawing C-300.

**Inspection & Maintenance**

TPO Properties, LLC will be responsible for maintaining the stormwater facilities for the project until the homeowner's association takes over. An Inspection and Maintenance Plan is included as Appendix D.

**Conclusions**

The stormwater management for this project includes a variety of BMPs to control both the quantity and quality of stormwater runoff. The HydroCAD calculations show that the peak runoff rates at the analysis points under post-development conditions are estimated to be equal to or less than the peak pre-development runoff rates for the 2-, 10-, 25- and 50-year storm events. This meets the stormwater detention requirements of the City of Portland and Town of Falmouth ordinances. The proposed stormwater management BMPs are also designed to meet the Chapter 500 Basic and General standards to provide water quality enhancement.

K.6

## **SUPPORTING DATA AND CALCULATIONS**

The following material presents calculations and copies of source material used during the analysis for this study.

**Appendix A: Pre-Development HydroCAD Calculations, Pre-Development Drainage Plan, D-100, and Off-Site Drainage Plan D-101.**

**Appendix B: Post-Development HydroCAD Calculations & Post-Development Drainage Plan, D-102**

**Appendix C: Stormwater BMP Treatment Calculations**

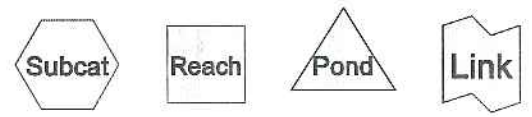
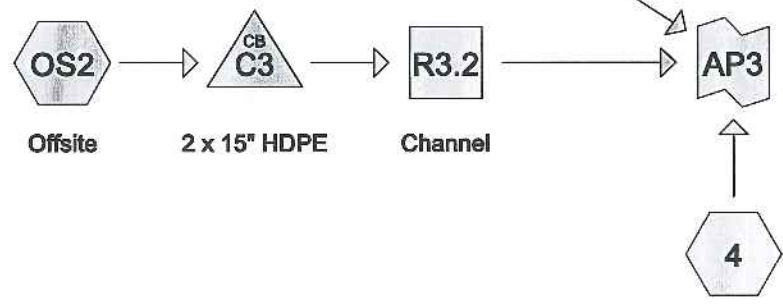
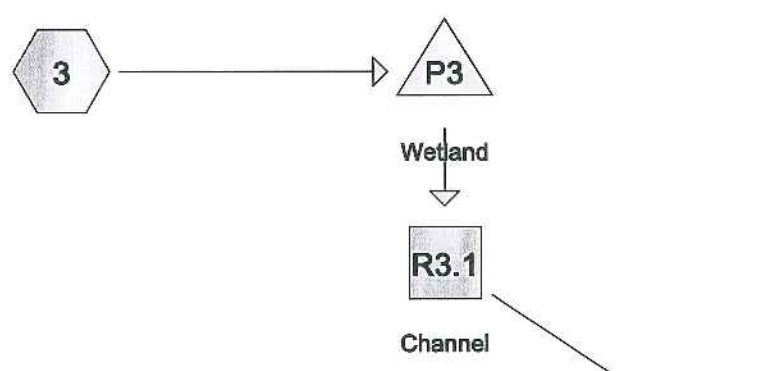
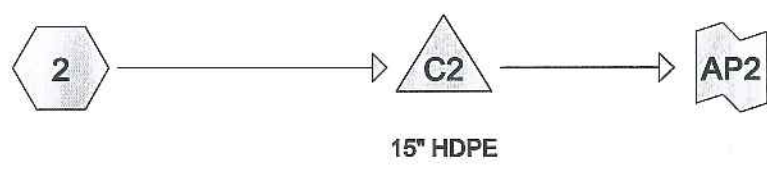
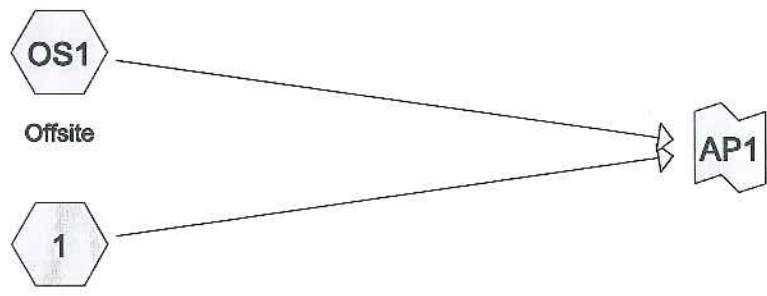
**Appendix D: Inspection & Maintenance Plan**

K.7

**Appendix A:  
Pre-Development HydroCAD Calculations  
Pre-Development Drainage Plan  
D-100, and Off-Site Drainage Plan D-101**



K.8



**Neighborhood Meeting Certification**

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

I also certify that on (date at least seven days prior to the neighborhood meeting), invitations were mailed to all addresses on the mailing list provided by the Planning Division, including property owners within 500 feet of the proposed development or within 1000 feet of a proposed industrial subdivision or industrial zone change and the residents on the "interested parties" list.

Signed,

Peter B. Brisel (Agent)

9/30/12 (date)

Attached to this certification are:

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

## Land Design Solutions

Land Planning, Site Planning and Landscape Architecture

September 14, 2012

Dear Neighbor:

Please join us for a neighborhood meeting to discuss plans for the development of a 14 lot single family residential subdivision, by TPO Properties LLC, on land located between Ocean Avenue and Ledgewood Drive, abutting Quarry Run Dog Park. The proposed subdivision access drive will be located off Ledgewood Drive (Falmouth), opposite Slocum Drive. The property is in the R-3 zone and partially within the town of Falmouth.

Meeting Location: Presumpscott Elementary School Library

Meeting Date: September 27, 2012

Meeting Time: 7:00 PM

The City code requires that property owners within 500 feet (except property notices must be sent to property owners within 1000 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 taken. Both the sign in sheet and minutes will be submitted to the Planning Board.

If you have any questions, please call Peter Biegel, Land Design Solutions (207) 939-1717

Sincerely,



Peter B. Biegel  
Applicant's Agent

9/27/12 Neighborhood Meeting Sign in sheet

Peter Biesel Consultant

Tim O'Donovan Developer

Tom Ham Resident - 20 Ledge

## Land Design Solutions

Land Planning, Site Planning and Landscape Architecture

### Neighborhood Meeting Minutes September 27, 2012

The following meeting minutes have been prepared by Peter Biegel, Land Design Solutions on behalf of the Applicant, TPO Properties.

- The Neighborhood Meeting was held in the Library of the Presumpscot Street Elementary School at 7:00 pm, Thursday September 27, 2012.
- In addition to the Developer, Tim O'Donovan and Agent, Peter Biegel there was one neighborhood resident Tom Hansen, who resides at 20 Ledge Wood Drive.
- The three plans (aerial, survey, proposed site plan) which were used at the Planning Board Workshop were on easels for viewing.
- Tim had met previously with Tom and had given him a site plan to look at so Tom was familiar with the development as proposed.
- Tim and Peter went through the discussion of road ownership, emergency response questions and open space trail connections with Tom.
- Tom had no additional questions and the meeting ended at approximately 7:35 pm.