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

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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 abut 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 moved (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-

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

Peter B. Biegel

Land Design Solutions

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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. 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

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. Diegel

Peter B. Biegel, RLA

Principal

Enc.

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).

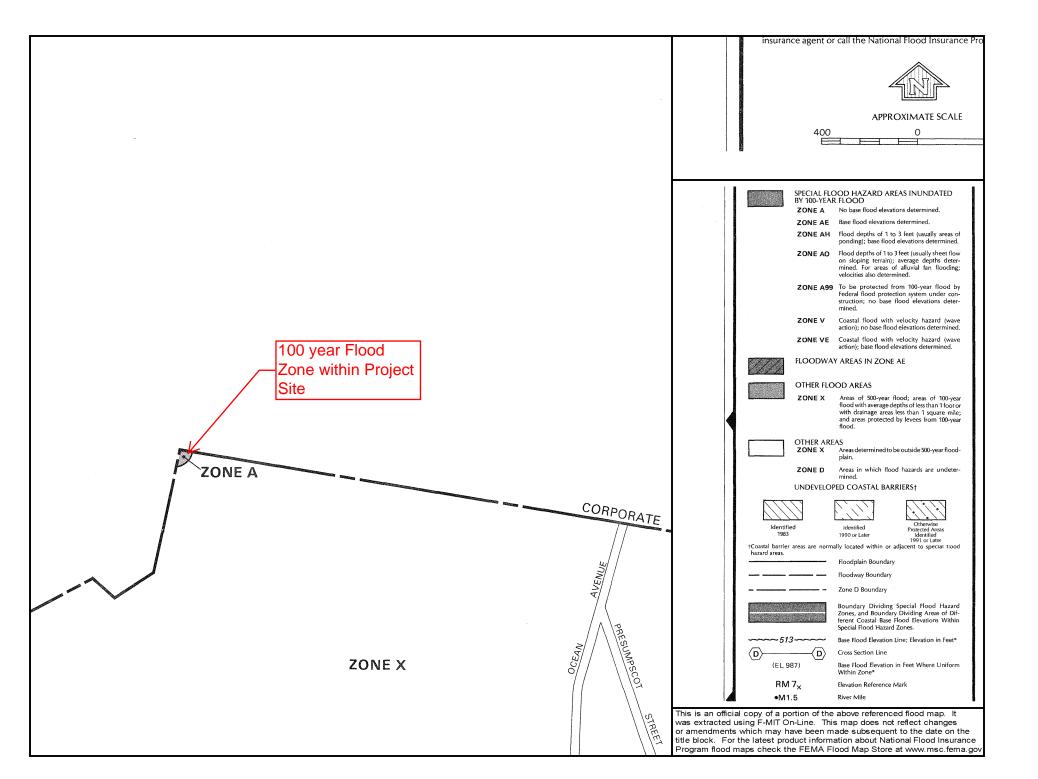
Safety data was obtained from MDOT for the period 2009-11 for Ledgewood Drive. For the 3 year period a total 4 accidents occurred – 2 at Allen Avenue, 1 at Charlotte Drive and 1 on the link from Middle Road to Slocum Drive. There are no high crash locations in the vicinity of the site.

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

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.



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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.

