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October 20, 2021

Via Regular and Electronic Mail (dnellis@keyportonline.com)

Borough of Keyport
Unified Planning Board
PO Box 60
Keyport, NJ 07735

Attn: Denise Nellis

**Re: *Flood Damage Prevention Ordinance Review
25 E. Front Street
Block 80, Lot 1.02
Keyport Professional Plaza, LLC
Keyport Borough, Monmouth County, NJ
KUPB-21-10
Our File No. HKPE0080.01***

Dear Ms. Nellis:

Our office is in receipt of the following submittals from the Board Engineer for preliminary review with respect to the Borough's Flood Damage Prevention Ordinance in the course of obtaining an amended site plan approval and variance:

- Completeness, Planning, and Engineering Review and Fee Determination, dated August 12, 2021, prepared by T&M Associates
- Architectural Floor Plans and Elevations prepared by Ricardo Perez, AIA, Perez & Radosti Associates, p.c., dated June 12, 2021, consisting of two (2) sheets
- Gulls View Apartments Site Plans, prepared by Menlo Engineering, dated May 28, 2019, revised through June 18, 2021, consisting of 13 sheets
- Stormwater Pump Report for Gulls View Apartments, Block 80, Lot 1.02, prepared by Menlo Engineering Associates, Inc., dated May 28, 2021 received by our office on June 17, 2021

This letter shall serve as a preliminary review to confirm the project's flood zone determination and establish minimum required finished floor elevations, and other floodproofing criteria to which the project will be subject. This report also addresses the existing stormwater pumping station, which was required to be in proper working order to the satisfaction of the Board Engineer and be a continuing obligation of the applicant and its successors in title to maintain the structure as outlined in resolution item 5 in the March 28, 2019 Unified Planning Board resolution.

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CONSULTING AND MUNICIPAL ENGINEERS

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Flood Damage Prevention Ordinance Review

This application has been reviewed in accordance with the current Flood Damage Prevention Ordinance adopted May 21, 2013 with revisions dated July 16, 2013 and September 3, 2013, as found in Chapter 15 of the municipal code.

A. Project Description

The Applicant has requested Amended Site Plan and Use Variance approval to demolish a portion of an existing office building and construct an addition to add 54 residential apartments with an interior courtyard, and a 37-space parking structure.

B. Special Flood Hazard Area Determination

The latest available FEMA Flood Insurance Rate Map (FIRM) Panel No. 34025C0029G, dated January 30, 2015 indicates that the proposed structure is located within Zone AE with a base flood elevation (BFE) of 13 NAVD 88. The site is located landward of the limit of moderate wave action (LiMWA); therefore, V-Zone construction standards would not apply. The effective FIRM, dated September 25, 2009, indicates portions of the site are located in Zone AE, with a base flood elevation of 11 NAVD 88, and a portion of the site within Zone X. The site is not located within a floodway.

For the purposes of design and construction, the Applicant shall make use of the best available mapping, which shall be taken as the 2015 Preliminary FIRM and a BFE of 13.

Due to the scope and location of the project, the Applicant may need to obtain a CAFRA permit in accordance with N.J.A.C. 7:7, and in doing so, demonstrate full compliance with NJDEP Flood Hazard Area rules (N.J.A.C. 7:13).

C. Flood Damage Prevention Design Standards

In accordance with the Borough's Chapter 15 "Flood Damage Prevention Ordinance", all new construction must be undertaken using methods and practices that minimize flood damage, including utilities. Our preliminary review finds the following:

1. The finished floor elevation (FFE) of the ground floor parking garage is set at 14.0 NAVD 88, which provides one (1) foot of freeboard from the BFE, in accordance with the Ordinance section 15-5.2 (a) 1.
2. On the eastern side of the building, the eastern stair tower as well as the trash room are proposed below the BFE (elevation 8.0). Enclosed areas below the base flood elevation shall only be used for building access or storage. While the stair



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tower is permitted for building access, additional information is required for the trash room including if any equipment or utilities are proposed within the room.

Any area below the base flood elevation that is utilized for access or storage shall contain enclosure openings in accordance with Ordinance section 15-5.1 [e] and ASCE 24-14 section 2.7. Building access areas shall be designed in accordance with ASCE 24-14 chapter 8.

Lastly, considering the trash room is below the bottom floor and only stair access is provided, the Applicant should discuss how ADA accessibility will be provided to the trash room for residents disposing of their trash.

3. Water and gas services are proposed to enter the building in the southwest corner of the garage in a utility room one (1) foot above the BFE, in accordance with the Ordinance.
4. The electric service is proposed to enter the building on the northern side of the garage in a utility room one (1) foot above the BFE, in accordance with the Ordinance. The electrical transformer located on the northern side of the building shall also be set a minimum of one (1) foot above the BFE or as directed by the utility to minimize damage from flooding.
5. Sanitary manhole castings on site located below the base flood elevation shall be provided by watertight gaskets and manhole inserts to prevent the infiltration of floodwater.
6. The final design of the utilities shall be in accordance with Ordinance section 15-5.1 [c] and ASCE 24-14 chapter 7.

It should be noted that this letter does not constitute an exhaustive review of the project, materials, or means and methods of construction nor does this grant final approval from the Borough's Floodplain Manager or Construction Official. Prior to the issuance of building permits, the Applicant shall be required to submit a Floodplain Development Permit, at which time additional information will be requested for review by this office and the Construction Official. Furthermore, the Applicant shall provide our office with an Elevation Certificate for the structure prior to issuance of a Certificate of Occupancy.

Stormwater Pump Station Review

The Applicant proposes a stormwater pump station, including dual pump setup within a fiberglass wet well on Block 80, Lot 1.02, located on the north side of the proposed residential apartment building. The report indicates that the pump station will collect approximately 0.92 acres of surface drainage from the proposed building, parking lot, and landscaped space. This area includes all existing parking lot areas up to the rear of the Crestview Cove townhouses, from Broad Street to



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the Hook and Ladder property line, and through the existing parking lot up to its driveway along East Front Street. The pump station will discharge through a 12" ductile iron pipe to the existing 30" RCP storm sewer along Broad Street.

Based on the above, we offer the following comments:

1. The Applicant shall confirm the rim elevation of the wet well, which appears to be proposed at elevation 13±. FEMA PFIRM panel 340250029G shows the location of the pump station to be in Zone AE13. The rim of the wet well shall be situated at least one (1) foot above the base flood elevation.
2. The Applicant shall provide emergency backup power for the pumps in the event of an electrical outage, which often coincides with heavy precipitation storm events.
3. The Applicant shall remove the existing non-functioning stormwater pump station on Lots 1.10 and 1.11 and restore said area with landscaping. A plan shall be provided for this restoration.
4. The Applicant shall confirm the ultimate discharge point(s) of roof runoff from the existing Crestview Cove townhomes. If any portion of this roof runoff is directed towards the parking lot, the drainage area contributing to the pump station shall be revised and pump design revised as necessary.
5. The report indicates that the wet well shall be a six-foot (6') diameter fiberglass wet well. The existing pump station is an 8'x12' by 11' deep concrete wet well that provides a volume of 1,056 cubic feet, or 7,900 gallons. Although the depth of the pump station has not been provided, the volume of the 6' diameter wet well at a depth of 11' is 311 cubic feet (2,326 gallons) or approximately 30 percent of the existing pump station. The report should be updated to indicate that the wet well provides sufficient volume to ensure that the contributory drainage inlets will not be surcharged during the design storm event (100-year storm); otherwise a larger wet well shall be provided.
6. The Borough has recently observed flooding on East Front Street during high intensity, short duration rain events. The events have consisted of rainfall amounts of up to 2" in a half hour. The report should be updated to ensure that the wet well provides sufficient volume to ensure that the contributory drainage inlets will not be surcharged during these high intensity, short duration storm events; otherwise a larger wet well shall be provided.
7. A plan should be provided for the connection of the 12" force main in to the existing 30" storm sewer pipe on Broad Street, including inverts of the existing pipes and the method for connection to the existing 30" storm pipe.



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8. The Applicant shall provide an updated grading and drainage plan for the site that is consistent with the latest pump station design and comments provided above.

It is recommended that any approval granted by the Board shall be conditioned upon the Applicant addressing these comments and ensuring that the pump station is in operation prior to the issuance of any certificate of occupancy for the building.

Should you have any questions or require additional information, please do not hesitate to contact our office.

Very truly yours,

CME Associates


Trevor J. Taylor, PE, PP, CME, CFM
Certified Floodplain Manager
Borough Engineer's Office

TJT:MZ

cc: Francis Mullan, PE, CME – Planning Board Engineer
Mark Leckstein – Planning Board Attorney
Keyport Professional Plaza, LLC – Applicant
Gregory Oman, PE – Applicant's Engineer
Ricardo Perez, AIA – Applicant's Architect
James F. Clarkin, III – Applicant's Attorney
George Falco – Borough Construction Official
Laurie Graham – Borough Technical Assistant