

CITY OF NEWTON  
Department of Public Works  
ENGINEERING DIVISION

MEMORANDUM

To: Council Gregory Schwartz, Land Use Committee Chairman

From: John Daghlian, Associate City Engineer

Re: Special Permit – 264 Pearl Street

Date: August 16, 2019

CC: Barney Heath, Director of Planning  
Jennifer Caira, Chief Planner  
Lou Taverna, PE City Engineer  
Nadia Khan, Committee Clerk  
Katie Whewell, Sr. Planner

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In reference to the above site, I have the following comments for a plan entitled:

*Topographic Site Plan  
Showing Proposed Conditions at  
#264 Pearl Street  
Prepared by; VTP Associates, Inc.  
Dated: June 24, 2019*

Executive Summary:

This application entails the demolition of an existing two -story dwelling and the construction of a 3-unit multifamily dwelling on a 14,608 square foot (0.33 acre) lot. The site has 60 feet of frontage on Pearl Street, and residential homes on the north, west and south sides. The site has a high point elevation of 44-feet near the existing dwelling and driveway and slopes towards the north property line at elevation 37-feet.

The plan includes the construction of an access driveway for the three units along the northern property line with a retaining wall that varies in height between 10-inches near the driveway apron off Pearl Street, to about 1 foot at midway of this property line; from which point granite curbing is to be installed that will act as a “back stop” for driveway surface runoff and directs the runoff to a catch basin at the rear corner of the driveway.

Based on the soil logs provided, the site has a high ground water elevation and the soils encountered [ash-fill and peat] are not suitable for infiltration, as such the engineer of record has designed a stormwater collection system to capture roof and driveway runoff and store it in storage tanks, after the peak of the storm has passed it is pumped to the City drainage system; before final approval of this drainage design the engineer needs to provide hydraulic capacity calculation of the City's drain network in which the overflow will be connected. In addition, a drain manhole on site will be required to allow gravity flow from the discharge point to the City's drainpipe. Pre & Post Construction Closed Circuit Television (CCTV) inspection is required.

There were some errors in the stormwater report that need correction: in the post development condition the narrative has a contradiction: one sentence states that approximately 5,733 square feet is being added; the next paragraph has a total of 6,629 square feet, this needs correction. Additionally, the calculation for buoyancy forces on the storage tanks need correction. The applicant should consider a power backup generator to provide electricity for the pump system.

A retaining wall is to be constructed along the southern property line, in which the wall height varies between 1.3 feet near Pearl Street and 4 feet beyond the midpoint of this property line, walls over 3-feet requires a safety fence.

The sidewalk and curbing along the entire frontage shall be updated to current standards following the removal of the old municipal service connection and installation for the new services.

Construction Management:

1. A construction management plan is needed for this project. At a minimum, it must address the following: staging site for construction equipment, construction materials, parking of construction worker's vehicles, phasing of the project with anticipated completion dates and milestones, safety precautions, emergency contact personnel of contractor. It shall also address any anticipated dewatering during construction, site safety & stability, and impact to abutting properties.
2. Stabilized driveway entrances are needed during construction which will provide a tire wash and mud removal to ensure City streets are kept clean.

Drainage:

1. An Operations and Maintenance (O&M) plan for Stormwater Management Facilities needs to be drafted and submitted for review. Once approved the O&M must be adopted by applicant, incorporated into the deeds; and recorded at the

Middlesex Registry of Deeds. A copy of the recording instrument shall be submitted to the Engineering Division.

2. It is imperative to note that the ownership, operation, and maintenance of the proposed drainage system and all appurtenances including but not limited to the drywells, catch basins, and pipes are the sole responsibility of the property owner(s).

Environmental:

1. Has a 21E investigation & report been performed on the site, if so copies of the report should be submitted the Newton Board of Health and the Engineering Division.
2. Are there any existing underground oil or fuel tanks, are they to be removed, if they have been evidence should be submitted to the Newton Fire Department, and Newton Board of Health.

Sewer:

1. The existing water & sewer services to the building shall be cut and capped at the main and be completely removed from the main and the site then properly back filled. The Engineering Division must inspect this work; failure to having this work inspected may result in the delay of issuance of the Utility Connection Permit.
2. With the exception of natural gas service(s), all utility trenches with the right of way shall be backfilled with Control Density Fill (CDF) Excavatable Type I-E, detail is available in the City of Newton Construction Standards Detail Book.
3. All new sewer service and/or structures shall be pressure tested or videotaped after final installation is complete. Method of final inspection shall be determined solely by the construction inspector from the City Engineering Division. All sewer manholes shall be vacuum tested in accordance to the City's Construction Standards & Specifications. The sewer service will NOT be accepted until one of the two methods stated above is completed. All testing MUST be witnessed by a representative of the Engineering Division. A Certificate of Occupancy will not be recommended until this test is completed and a written report is received by the City Engineer. ***This note must be added to the final approved plans.***

4. All sewer manholes shall be vacuum tested in accordance to the City's Construction Standards & Specifications. The sewer service will NOT be accepted until one of the two methods stated above is completed. All testing MUST be witnessed by a representative of the Engineering Division. A Certificate of Occupancy will not be recommended until this test is completed and a written report is received by the City Engineer

Water:

1. All water connections shall be chlorinated & pressure tested in accordance to AWWA and the City of Newton Construction Standards and Specifications prior to opening the connection to existing pipes.
2. Approval of the final configuration of the water service(s) shall be determined by the Utilities Division, the engineer of record should submit a plan to the Director of Utilities for approval

General:

1. All trench excavation contractors shall comply with Massachusetts General Laws Chapter 82A, Trench Excavation Safety Requirements, to protect the general public from unauthorized access to unattended trenches. Trench Excavation Permit required. This applies to all trenches on public and private property. *This note shall be incorporated onto the plans*
2. All tree removal shall comply with the City's Tree Ordinance.
3. The contractor is responsible for contacting the Engineering Division and scheduling an appointment 48 hours prior to the date when the utilities will be made available for an inspection of water services, sewer service, and drainage system installation. The utility in question shall be fully exposed for the inspector to view; backfilling shall only take place when the City's Inspector has given their approval. *This note should be incorporated onto the plans*
4. The applicant will have to apply for Street Opening, Sidewalk Crossing, and Utilities Connecting permits with the Department of Public Works prior to any construction. *This note must be incorporated onto the site plan.*
5. The applicant will have to apply for a Building Permits with the Department of Inspectional Service prior to any construction.

6. Prior to Occupancy Permit being issued, an As-Built Plan shall be submitted to the Engineering Division in both digital format and in hard copy. The plan should show all utilities and final grades, any easements and final grading, improvements and limits of restoration work. The plan shall also include profiles of the various new utilities, indicating rim & invert elevations, slopes of pipes, pipe material, and swing ties from permanent building corners. ***This note must be incorporated onto the final contract plans.***
7. All site work including trench restoration must be completed before a Certificate of Occupancy is issued. *This note must be incorporated onto the site plan.*
8. **The contractor of record shall contact the Newton Police Department 48 hours in advanced and arrange for Police detail to help residents & commuters navigate around the construction activity.**
9. *If any changes from the original approved design plan that are required due to unforeseen site conditions, the engineer of record shall submit a revised design & stamped and submitted for review and approval prior to continuing construction.*

Note: If the plans are updated it is the responsibility of the Applicant to provide all City Departments [Conservation Commission, ISD, and Engineering] involved in the permitting and approval process with complete and consistent plans.

If you have any questions or concerns please feel free to contact me @ 617-796-1023.