

CITY OF NEWTON
Department of Public Works
ENGINEERING DIVISION

MEMORANDUM

To: Council Rick Lipof, Land Use Committee Chairman

From: John Daghljan, Associate City Engineer

Re: Special Permit – #13-17 Gardner Street

Date: April 28, 2020

CC: Barney Heath, Director of Planning
Neil Cronin, Chief Planner
Lou Taverna, PE City Engineer
Nadia Khan, Committee Clerk

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

*13-17 Gardner Street
Newton, MA
Prepared by: Spruhan Engineering
Dated: 7-17-'19*

Executive Summary:

This permit entails the demolition of two residential homes on two separate lots, and the construction of a single *4-unit* residential building on a total combined lot of 16,579 square foot [0.38 acre]. If the special permit is approved an Approval Not Required (ANR) plan will be needed in accordance to Massachusetts General Laws Chapter 41 Section 81P requiring the two separate lots be combined into one lot.

The topography of the site varies from a high point of elevation 62-feet near the northwest corner of the lot and slope gradually towards the northeast at elevation 55-feet and to the south at elevation 56-feet. The site is surrounded with residential homes and has a combine frontage of approximately 106-feet. Sheet 2 of 4 is missing a Professional Engineers Stamp & signature.

The plan indicates an on-site stormwater collection and infiltration system for the roof and the driveway; drainage calculations were provided; however, they only included calculations for runoff captured by the roof. The design shows a stormwater collection system for the driveway with a series of catch basin that direct water to a crushed stone drainage field, however this system was not accounted for. A revised drainage report will be required before final approval. The proposed 6-unit infiltration system needs an impervious barrier along the side of the western side of the system as portions are less than 10-feet.

The design also has a retaining wall along the frontage that varies in height from (1 - 4.1 feet) as well as a wall along its eastern property line with a varying height from 1.5 feet towards the front of the lot and as high as 3.4 feet at the midpoint of the wall. Retaining walls over 3 - feet in high must have a safety fence along its length.

After completion and installation of all new municipal utilities the sidewalk and curbing should be updated to current City Standards of cement concrete sidewalks and granite curbing.

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(s) 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(s) shall be pressure tested and videotaped after final installation is complete. The sewer service will NOT be accepted until 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.
4. All sewer manhole(s) shall be vacuum tested in accordance to the City's Construction Standards & Specifications. The sewer service will NOT be accepted until the manhole(s) pass the testing requirements. 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.
2. Fire flow testing is required for the proposed fire suppression system. The applicant must coordinate this test with both the Newton Fire Department and the Utilities Division; representatives of each department shall witness the testing; test results shall be submitted in a write report. Hydraulic calculation shall be submitted to the Newton Fire Department for approval.
3. 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.
4. 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 is 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.