

CITY of NEWTON
ENGINEERING DIVISION

MEMORANDUM

To: Alderman Mark Laredo, Land Use Committee Chairman

From: John Daghlian, Associate City Engineer

Re: Special Permit – 3 Auburn Street

Date: July 22, 2014

CC: Lou Taverna, PE City Engineer
Linda Finucane, Associate City Clerk
Alexandria Ananth, Chief Planner
Dan Sexton, Sr. Planner

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

*Preliminary Site Plan
Newton, MA
Prepared by: Essex Engineering & Survey
Dated: April 9, 2014
&
Plan of Land at 3 Auburn Street
Newton, MA
Dated: Feb. 15, 2014
Revised: June 26, 2014*

Executive Summary:

There are no elevations shown (no existing, no proposed) other than one spot elevation, a grading plan is needed. There is no indication of any soil testing as required, so the drainage calculation is based on an assumed percolation rate which is unacceptable. The profile for the proposed sanitary sewer needs slopes on the pipes and pipe material needs to be indicated. The sewer design cannot be confirmed since invert elevations of the existing sewer main between two manholes are not provided (this needs to be updated).

Existing overhead wires to the #1537 *Washington Street* [abutting property] need a utility easement as it cross over this property on a skewed angle and has a major sag (see photo)



The plan indicates a proposed fence is planned directly in the middle and on top of the existing Cheesecake Brook culvert which is unacceptable. The proposed fence must be located to the edge of the City drain easement.

The proposed water service for units #1 & 2 is outside of the property and will need an easement from the neighbor at #7 Auburn Street.

If the special permit is granted and since this property is adjacent to the Cheesecake Brook culvert, a Preconstruction Closed Circuit Television (CCTV) inspection shall be performed and witnessed by the Engineering Division, the applicant shall retain a contractor that specializes in CCTV inspection. The applicant shall contact the Engineering Division [48 hours] in advance to schedule an appointment. At the end of the inspection the video or CD shall be given to the inspector. Furthermore, a Post – Construction video inspection shall also take place and witnessed as described above. This is required as the intent is to ensure that there is no damage culvert so that the contractor of record is not held accountable for preexisting conditions.

Documentation for access rights across a common driveway is needed.

Construction Management:

1. Stabilized driveway entrances are needed during construction that will provide a tire wash and mud removal to ensure City streets are kept clean.

Drainage:

1. A drainage analysis needs to be performed based on the City of Newton's 100-year storm event of 6-inches over a 24-hour period. All runoff from impervious areas need to be infiltrated on site, for the project. The design of the proposed on site drainage system needs to comply with the MassDEP Stormwater Regulations and City Ordinances.
2. An on-site soil evaluation needs to be performed to obtain the seasonal high groundwater elevation, percolation rate in accordance to Title V. This information must be submitted with the drainage study. The locations of these tests need to be shown on the site plan and must be performed within 20-feet of a proposed system.
3. An Operations and Maintenance (O&M) plan for Stormwater Management Facilities needs to 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.
4. 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. A detailed profile is needed which shows the existing water main, proposed water service(s), sewer main and proposed sewer service(s) with the slopes and inverts labeled to ensure that there are no conflicts between the sewer services and the water service. The minimum slope for a service is 2.0%, with a maximum of 10%. Pipe material shall be 6" diameter SDR 35 PVC pipe within 10' of the dwelling then 4" pipe per Massachusetts State Plumbing Code. In order to verify the slopes and inverts of the proposed service connection, two manholes of the existing sanitary sewer system need to

be identified on the plan with rim & invert elevations. The crown of the service connection & the sewer man need to match.

2. 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.
3. 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 that is on the City website.
4. 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.***
5. 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.
6. The ownership and long-term maintenance of the sewer pump station, sewer main and all appurtenances of the collection system shall be the responsibility of the applicant.
7. Clarification of the final connection point for the sewer main needs to be shown.
8. There must be a 10' horizontal separation of the proposed sewer main and water main, if this cannot be achieved than the sewer main shall be encased in concrete. If the sewer main crosses above the proposed water main then the sewer main shall be encased in concrete 10' on both sides of the crossing with Class B concrete.

Water:

1. For water quality issues a fire hydrant will be required at the end of the proposed water main. This hydrant will be utilized for flushing out the main as required.

2. 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.
3. 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. As of January 1, 2009, 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. *This note must be incorporated onto the site plan.*
7. All site work must be completed before a Certificate of Occupancy is issued. *This note must be incorporated onto the site plan.*

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.