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CITY OF NEWTON
ENGINEERING DIVISION

MEMORANDUM

To: Alderman Mark Laredo, Land Use Committee Chairman

From: John Daghlian, Associate City Engineer

Re: Special Permit: *255-257 Newtonville Avenue*

Date: February 26, 2016

CC: James McGonagall, Commissioner DPW
Lou Taverna, PE, City Engineer
Ted Jerdee, Director of Utilities
Alexandria Ananth, Chief Planner
David Olson, City Clerk

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

Land Use Development Plan
Issued for Special Permit
Proposed Self-Storage Facility Plans
255 -257 Newtonville Avenue
Prepared by: BL Companies
Dated: 2/5/'16

Executive Summary:

This project entails the redevelopment of a 1.7 acre parcel that currently has a couple of one story buildings which will be razed to make way for a 3-story self-storage facility of 113,517 square feet. The site is bound on the south by Newtonville Avenue, on the east by Lewis Terrace, on the north by the Masspike, and on the west by commercial property and Laundry Brook. The site is relatively hilly having a high point at 122-feet near the Newtonville Avenue & Lewis Terrace intersection and slopes downward towards the northwest towards Laundry Brook at elevation 100-feet.

The site also has two sanitary sewer easements, the first is an 8" diameter clay pipe along the northern portion of the lot, which must be relocated in order to construct the new

building, in concert with this relocation (that needs City Council approval via a filing with the Public Facilities Committee); a 20' wide easement must be granted to the City. The second sewer main a (12" diameter) clay pipe is located along the westerly property line and runs parallel to the Laundry Brook; the applicant is proposing to reline this main with an epoxy coated fiberglass sleeve thus forming a new pipe. Details of this work including by-pass pumping must be coordinated with the Utilities Division, a preconstruction conference with representative of the Utilities & Engineering Divisions and the Conservation agent shall be coordinated by the contractor of record.

The project does meet the Stormwater Management Standards; however, under post construction conditions there is a slight increase of runoff toward Newtonville Avenue, although slight; it will cause problems in the roadway during *freeze-thaw* cycles as the excess water travels across the sidewalk, driveway apron and down Newtonville Avenue. It will be required that the engineer of record design and install area drains and capture and direct the excess runoff from the front portion of the lot to the on-site "detention" system, to avoid any increase.

The drainage report indicates that the existing soil on site is a glacial till and not conducive to infiltration, the system has been designed to store the 100 years storm then allowed to drain within the required 72 hours mandated by the DEP. Clarification is needed on the Cultec system; that shows a 6" underdrain to where it discharges and a control outlet structure. Detailed elevations and profiles are needed.

Ash fill encountered on site when removed shall comply with the State & Federal DEP dust control and disposal laws. As the total site disturbance is over an acre, a Phase II General Construction (NPDES) Permit will need to be filed with DEP & EPA. A Stormwater Pollution Prevention Plan (SWPPP) will need to be developed.

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.

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. Are there any existing underground oil or fuel tanks that are to be removed, or if they have been removed evidence should be submitted to the Newton Fire Department, and Newton Board of Health.

This concludes my review, when 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 complete and consistent plans.

Recommendations:

1. Prior to and demolition & construction the applicant shall have the culvert inspected via a Closed Circuit Television Inspection (CCTV). The Engineering & Utilities Division shall be given 48 hours prior notice to the date of the CCTV inspection to arrange an Inspector to witness the inspection.

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).

3. Snow storage areas need to be identified on the site plan.

4. The existing driveway apron shall be remodeled as a compliant City sidewalk; the new driveway apron shall conform to the City's Construction standards.

5. The applicant will have to apply for a Building Permit with the Inspectional Services Department.

6. The applicant's contractor shall apply with the DPW for Utilities Connection permits. Note that the winter moratorium will be in effect on December 15th no excavations will be allowed with public right of ways until April 15th.

7. All siltation control systems shall be installed and inspected by the Conservation Commission Agent(s) prior to any construction. ***This note must be incorporated onto the final contract plans.***

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.

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**.**

Water:

1. 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.

2. 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.

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. *This note must be incorporated onto the site plan.*

7. All site work including trench restoration must being completed before a Certificate of Occupancy is issued. *This note must be incorporated onto the site plan.*

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