

**CITY OF NEWTON  
DEPARTMENT OF PUBLIC WORKS  
ENGINEERING DIVISION**

MEMORANDUM

To: Alderman Mark Laredo, Land Use Committee Chairman

From: John Daghlian, Associate City Engineer

Re: Special Permit – 112 Needham Street

Date: January 30, 2015

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

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

*Proposed Conditions  
112 Needham Street  
Newton, MA  
Prepared by: R.E. Cameron & Associates Inc.  
Dated: 1/14/15*

*Executive Summary:*

An existing one story commercial building is to be razed and a new two story building with on-site parking on the ground floor and retail space above is proposed. The plan indicates that an on-site drainage system is proposed, however; no drainage study or report was received for evaluation. Furthermore the infiltration trench that surrounds the building is too close to the property lines; the engineer of record should consider expanding the proposed system in the front of the property and eliminate the infiltration trench. The applicant will have to apply to MassDOT for the proposed modifications of the curb cut on the state road. The site plan does not indicate any proposed grading for

the final product. Finished grades are needed and the plans should be stamped by a Professional Engineer.

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.
3. A temporary construction safety fence is needed surrounding the property for the duration of the project.

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 25-feet of a proposed system.

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 sewer manhole is needed where there is 90° bend in the flow of the sewerage.
2. 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.
3. 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. ***This note must be added to the final approved plans.***
4. Use City of Newton Details as they are in PDF format on the City's website.
5. 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.
6. As Needham Street has been repaved within the last year, the utility trenches and roadway will have to be milled 25' on both sides of the utility trenches from curb line to curb line; then paved with 1-1/2" of Type I-1 Bituminous Concrete. This is a state road and will require MassDOT approvals.
7. All new sewer service and/or structures shall be pressure tested or video taped 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.***

8. 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.***

Water:

1. Water service(s) are needed for the building. A minimum 1" Type K copper service is needed for the project.
2. The Newton Fire Department and or the State Building Code may require a fire suppression system for the proposed building the applicant must submitted plans to the Newton Fire Department for review & 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 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 Permits with the MassDOT. Utilities Connection permit 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. If a Certificate of Occupancy is requested prior to all site work being completed. *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.

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