CITY OF NEWTON
Department of Public Works
ENGINEERING DIVISION

MEMORANDUM

To: Council Mark Laredo, Land Use Committee Chairman

From: John Daghlian, Associate City Engineer

Re: Special Permit – 85 Fuller Terrace

Date: February 14, 2017

CC: Lou Taverna, PE City Engineer
Nadia Khan, Committee Clerk
Alexandria Ananth, Chief Planner
Michael Gleba, Sr. Planner

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

Topographic Site Plan
Newton, MA
Showing Existing Conditions at
#85 Fuller Terrace
Prepared by: VTP Associates Inc.
Dated: September 27, 2016

Executive Summary:

This application entails the conversion of the existing 2-family structure into a single family unit and adding a second dwelling unit attached via garages. The site is relatively flat having a high point at elevation of 70-feet near the northeast corner of the lot and gradually slopes down to a low point of approximately 66-feet at back of the existing sidewalk along Fuller Terrace. In accordance of the Utilities Division water & sewer policy; separate water services and new sanitary sewer services are required. The project also needs a stormwater collection and infiltration system in accordance to the DPW policy. Finally, in concert with all the utility work that is required, the applicant will be

required to update the existing damaged driveway apron and sidewalk along the entire frontage of the property, (see photo below) to City standards.

Existing driveway apron

House under renovation

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. A drainage analysis needs to be performed based on the City of Newton's 100-year storm event of 8.78 -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.

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. 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. Use City of Newton Details in lieu of the details submitted they are in PDF format on the City's website.

4. 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.

5. 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.***

6. 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. *This note shall be incorporated onto the plans*

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 being 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.

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