**CITY OF NEWTON**
ENGINEERING DIVISION

MEMORANDUM

To: Alderman Ted Hess-Mahan, Land Use Committee Chairman

From: John Daghlian, Associate City Engineer

Re: Special Permit – 131 Otis Street

Date: June 19, 2013

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

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

*Site Plan of Land in*
*Newton, MA*
*131 Otis Street*
*Prepared by: Everett M. Brooks Company*
*Dated: May 2, 2013*

*Executive Summary:*

The 48,677 square foot (1.11 acre) lot is being subdivided into two lots that if approved will require an Approval Not Required (ANR) plan in accordance to the G.L. chapter 41 sec. 81P. No drainage study was received at the time of the review; however the plans indicate that two overflow connections are being proposed. The engineer of record needs to justify why these connections are needed when the site provides ample area for on-site retainage of the runoff as required by DEP and the DPW. The rear lot also has uncontrolled flow of runoff from the roof area to a drain manhole and proposed connection to the City drainage system.

*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 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. When a connection to the City's drainage system is proposed, prior to approval of the Building Permit a 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, upon completion of the connection to the drainage system a Post – Construction video inspection shall also take place and witnessed as described above. This is required regardless of the connection point, the intent is to ensure that there are no downstream blockages or damaged pipe so that the contractor of record is not held accountable for preexisting conditions.

3. A hydraulic capacity of the downstream drainage system needs to be evaluated and submitted to the Engineering Division. This study needs demonstrate that there will be no impact to the municipal drainage system, nor private or public property.

4. 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.

5. It is imperative to note that the ownership, operation, and maintenance of the proposed drainage system and all apparentness including but not limited to the drywells, catch basins, and pipes are the sole responsibility of the homeowners.

6. Due to the steepness of the rear driveway, one catch basin will not be sufficient to capture the runoff. A second catch basin or trench drain upstream of the proposed catch basin should be incorporated in the design.

*Environmental*:

**1.** 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.

*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 site and 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.

**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 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.***

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

*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. If a Certificate of Occupancy is requested prior to all site work being completed, the applicant will be required to post a Certified Bank Check in the amount to cover the remaining work. The City Engineer shall determine the value of the uncompleted work. *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.