

CITY OF NEWTON
Department of Public Works
ENGINEERING DIVISION

MEMORANDUM

To: Council Rick Lipof, Land Use Committee Chairman

From: John Daghlian, Associate City Engineer

Re: Special Permit – 23 Johnson Place

Date: September 8, 2020

CC: Barney Heath, Director of Planning
Jennifer Caira, Deputy Director
Lou Taverna, PE City Engineer
Nadia Khan, Committee Clerk
Neil Cronin, Chief Planner
Michael Gleba, Sr. Planner

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

Proposed Construction
23 Johnson Place Newton, MA
Prepared by: Hayes & Associates
Dated: July 15, 2020

Executive Summary:

This application entails the demolition of the existing building and the erection of two buildings having a total of 4-units. The site is 16,767 square feet [0.38 acre] with 104-feet of frontage, and surrounded by residential homes long the north, east, and westerly property lines. The high point of the lot is at elevation 62-feet near Johnson Place, and slopes gently towards rear of the house then slopes downward to a low point of elevation 48-feet at approximately 1:1 slope.

The existing driveway will be removed and landscaped. A new driveway will be provided on the left side of the proposed buildings. This area will be significantly excavated to accommodate garages that are proposed at the basement level for each unit. A segmental block retaining wall will facilitate the grade change and lowering of this area to accommodate the garage/basement

level. The wall runs along the westerly property line from the frontage to approximately 20 feet from the rear lot line at which point it turns 90-degrees and connects to the foundation of the new building, the wall has a varying height and at its highest point is over 7-feet. This wall acts as a backstop for stormwater runoff from sheeting onto abutting property. Near the rear property line, a block segmental retaining wall between 3-4' high will be constructed to provide a level area for a lawn and a backyard. All walls over 3-feet in height will require a safety fence along the top of the wall.

The engineer of record has designed a stormwater collection and infiltration system to capture and infiltrate all the runoff from the new development, although the methodology is correct, the City's 100-year storm event is 8.78-inches over a 24 hour period, not 8.62-inches as reported; updated calculations will be required. Additionally, an Operations & Maintenance Plan is needed for the long-term performance of the stormwater system which should include intervals for: inspections, cleaning, and sweeping of the driveway.

New water & sanitary sewer services will be provided for the new units. Upon completion and installation of all utilities new concrete sidewalks granite curbing shall be installed.

Construction Management:

1. A construction management plan is needed for this project. At a minimum, it must address the following: staging site for construction materials and equipment, parking for construction workers vehicles, phasing of the project with anticipated completion dates and milestones, safety precautions, emergency contact personnel of the general contractor. It shall also address anticipated dewatering during construction, site safety & stability, siltation & dust control, and noise impact to abutters.
2. Stabilized driveway construction entrance(s) will be required for the duration of the construction which will provide a truck wash to prevent tracking of mud and silt onto City streets.
3. Catch basins within and downstream of the construction zone will be required to have siltation control installed for the duration of the project and must be identified on the site plan.

Drainage:

1. An Operations and Maintenance (O&M) plan for the long-term maintenance of the proposed stormwater management facilities needs to be drafted and submitted for review. Once approved the O&M must be adopted by the applicant/property owner,

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.

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, trench drains, and pipe(s) are the sole responsibility of the property owner(s).

Environmental:

1. Has a 21E Investigation and report been performed on the site, if so, copies of the report should be submitted to the Newton Board of Health and Engineering Division.
2. Are there any existing underground oil or fuel tanks? Have they been removed, if they have been, evidence of the proper removal should be submitted to the Newton Fire Department and the Board of Health.

Sanitary Sewer & Domestic Water Service(s):

1. Existing water and sewer services to building(s) shall cut and capped at the respective mains and completely removed from the main(s) and its entire length and properly backfilled. The Engineering Division must inspect and approve this work, failure to having this work inspected will result in delay of issuance of the new Utility Connection or issuance of a Certificate of Occupancy.
2. All new sewer service(s) shall be pressure tested in accordance to the City Construction Specifications & Standards and inspected via Closed Circuit Television CCTV inspection after installation is completed. A copy of the video inspection and written report shall be submitted to the City Engineer or his representative. The sewer service will NOT be accepted until the two methods of inspection are completed AND witnessed by a representative of the Engineering Division. A Certificate of Occupancy will not be recommended until these tests are completed to the satisfaction of the City Engineer.
3. All sanitary sewer manhole(s) shall be vacuum tested in accordance to the City's Construction Standards & Specifications, the sewer service and manhole will NOT be accepted until the manhole(s) pass the testing requirements. 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 to the satisfaction of the City Engineer and a written report of the test results is submitted to the City Engineer.

4. With the exception of natural gas service(s), all utility trenches within the right of way shall be backfilled with Control Density Fill (CDF) Excavatable Type I-E up to within 18-inches of the asphalt binder level, after which Dense Grade Gravel compacted to 95 % Proctor Testing shall be placed over the CDF. Details of this requirement is the Engineering Division website "Standard Construction Details".
5. All water services shall be chlorinated, and pressure tested in accordance to the AWWA and the City Construction Standards & Specifications prior to coming online. These tests MUST be witnessed by a representative of the Engineering Division.
6. Approval of the final configurations of the water service(s) shall be determined by the Utilities Division, the engineer of record shall submit a plan to the Director of Utilities for approval.

General:

1. All trench excavation shall comply with Massachusetts General Law Chapter 82A, Trench Excavation Safety Requirements, and OSHA Standards to protect the general public from unauthorized access to unattended trenches or excavations. Trench Excavation Permit is required prior to any construction. This applies to all trenches on public and private property. *This note shall be incorporated onto the final plans.*
2. All tree removal shall comply with the City's Tree Ordinance.
3. The contractor of record 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 services 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 Engineer's Inspector has given their approval. *This note shall be incorporated onto the final plans.*
4. The applicant shall apply for a Building Permit with the Inspectional Services Department prior to ANY construction.
5. Before requesting a Certificate of Occupancy, an As Built plan shall be submitted to the Engineering Division in both digital and paper format. The plan shall show all utilities and final grades, any easements and improvements and limits of restoration. The plan shall include profiles of the various new utilities including but not limited to rim & invert elevations (City of Newton Datum), slopes of pipes, pipe materials, and swing ties from permanent building corners. The as built shall be stamped by both a Massachusetts Registered Professional Engineer and Registered Professional Land Surveyor. Once the As built plan is received the Engineering Division shall perform a final site inspection and

then make a determination to issue a Certificate of Occupancy. *This note shall be incorporated onto the final plans.*

6. All site work including trench restoration, sidewalk, curb ,apron and loam border (where applicable) shall be completed before a Certificate of Occupancy is issued. *This note shall be incorporated onto the final plans.*
7. The contractor of record shall contact the Newton Police Department 48-hours in advanced and arrange for Police Detail to help residents and commuters navigate around the construction zone.
8. If any changes from the final approved design plan that are required due to unforeseen site conditions, the contractor of record shall contact the design engineer of record and submit revised design and stamped full scale plans for review and approval prior to continuing with construction.
9. *The engineer of record shall add the following attestation to the plans when applying for a building permit:*

I certify that the construction so shown was inspected prior to backfill and that all work conforms with the Approved Plan and meets or exceeds the City of Newton Construction Standards.

Signature

Note: If the plans are updated it is the responsibility of the applicant to provide all City Departments [ISD, Conservation Commission, Planning 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 at 617-796-1023.