

CITY OF NEWTON
Department of Public Works
ENGINEERING DIVISION

Memorandum

To: Councilor Alison Leary, Facilities Committee Chair.
From: John Daghlian, Associate City Engineer
Re: Newton Commonwealth Golf Course
Date: September 27, 2021
CC: Josh Morse, Director Public Buildings
Alejandro M. Valcarce, Deputy Director
Rafik Ayoub, Project Manager
Lou Taverna, PE City Engineer
Cassidy Flynn, Committee Clerk

In reference to the above location, the following are my comments for a plan entitled:

Newton Commonwealth Golf Course
Maintenance Facilities Improvement & Renovations
Prepared by: Raymond Design Associates Inc
Dated: September 23, 2021

Executive Summary:

The project scope includes the construction of a building addition with an approximate footprint of 3,000 square feet to the existing maintenance building on the building's north side. In addition, a replacement driveway will be installed from the existing golf course parking lot to the new addition and new utilities extended to the building. The construction of the new building and driveway will result in approximately 2,100 square feet of additional impervious cover on the site. The project proposes to connect the downspouts of the addition as well as the northern half of the existing maintenance building to underground piping to a subsurface infiltration bed located south of the existing course parking lot. A deep sump catch basin will be installed at an equipment washdown pad and will connect

into the roof drainage system as well. The subsurface infiltration bed has been sized to reduce or maintain the peak flows for the 1, 2 and 10-year storm event. The 25 and 100-year storm peak flows exceed the existing, however, the volume of runoff has been reduced. DPW requires both volume and rate not be increase in post construction. The engineer of record should consider expanding the proposed system to accommodate the slight (0.33 cfs) increase in flow rate *or* use the current DPW 100-year storm event of 8.78 inches over a 24-hour period rather than the 8.86 inches for the same period. Finally, the overflow outlet is near the property line this should be redirected away from the property line. All systems less than 10 feet from abutting properties must have an impervious barrier.

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. 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).
3. The subsurface infiltration detail 14/C0.3 needs filter fabric placed over the entire system with a 3" thick layer of peastone and covered with filter fabric.

Sanitary Sewer & Domestic Water Service(s):

1. All new sewer service(s) shall be pressure tested in accordance with 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.
2. All sanitary sewer manhole(s) shall be vacuum tested in accordance with 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.
3. Fire Flow testing is required for the proposed fire suppression system. The applicant must coordinate the fire flow test with both the Newton Fire Department and the Utilities Division, representative of each department shall witness the testing. Test results shall be submitted in a written report along with hydraulic calculations that demonstrate the required size of the fire suppression system, these calculations shall be submitted to the Newton Fire Department for approval, and copies give to the Engineering Division.
4. All water services shall be chlorinated, and pressure tested in accordance with the AWWA and the City Construction Standards & Specifications prior to coming online. These tests MUST be witnessed by a representative of the Engineering Division.
5. 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.
6. If water and sewer services cannot be separated horizontally a minimum of 10-feet, the sanitary sewer shall be encased in Class B concrete.

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 shall be completed before a Certificate of Occupancy is issued. *This note shall be incorporated onto the final plans.*
7. 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.

8. *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.