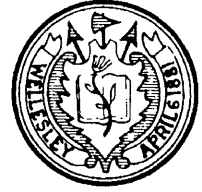


Town of Wellesley

Department of Public Works
Engineering Division



George J. Saraceno, Senior Civil Engineer

TO: Lenore Mahoney, Executive Secretary of the Zoning Board of Appeals

RE: **Delanson Circle (40B Project)**
Site Plan Review (SPR)

DATE: March 9, 2018

The Department of Public Works (DPW) – Engineering Division has received a copy of the revised plans for the proposed 40B project at Delanson Circle. The plan-set, which includes 9 sheets, should show a revision date on each sheet. The Town Engineer, David Hickey, submitted to the ZBA a separate letter summarizing DPW’s initial comments for the project, focused on concerns with water and sewer, stormwater, construction management, blasting and ledge. DPW staff met with the projects site design engineer on Friday, March 2, 2018 to discuss the revised plans. We note, that the revised plans include shifting and resizing of the building and moving the primary access drive to Linden Street, and a redesign of the on-site drainage system.

The DPW is also concerned with the stormwater design, which is improved, but is proposed in close proximity to foundations and property lines. We note that the assessment indicated that there is an increase in off-site flood volumes during intense rain events and this could impact sensitive down gradient properties. We also feel that the assessment does not adequately address the proposed condition as the foundation is significantly larger than what might be analyzed, potentially under estimating the effects of the proposal. We are also concerned that the proposed sewer flow could cause a surcharge along Linden Street where several sections of sewer main are moderately sized and pitched.

We remain concerned with the constructability of the plan and suggest that the plans provide a Construction Management Plan (CMP) that details material lay down on the property, trucking to the site, work hours, construction fence location, concrete wash down area, refueling area, and emergency contact information. The CMP should also include a project schedule that lists the duration of each task as well as construction milestones and assure compliance with NPDES.

The plans show a proposed cantilevered cement concrete retaining wall along the northwest property line. We request that the designer provide site cross sections, and provide an assessment of the walls and deep excavations near the property limits, which are another area of concern as we believe there is a potential for off-site, private property impacts. There is a note on the plan to see Landscape Plans, but no Landscape Plans are provided. There are no elevations provided indicating the proposed bottom or top of elevations of the proposed retaining wall. The plans should also show a barrier along the top of the retaining wall such as a fence or guardrail. The proposed retaining walls must be designed by a Massachusetts Registered Professional Engineer.

Provided below are DPW comments based on our review of the plans and inspection of the site.

GENERAL

1. Clearly identify the property line and street line on the Existing Conditions Plan, Sheet EX-1.
2. Show existing water services to each house on Delanson Circle. The Existing Conditions Plan, Sheet EX-1, only shows a 2" water service from Hollis Street to the cul-de-sac area in Delanson Circle.
3. There appears to be a gap in the zoning line in the area of the Delanson Circle cul-de-sac.
4. On the Existing Conditions Plan, Sheet EX-1, plan note #6 indicates the property is in Zone X of the Flood Insurance Rate Map. Verify this project is located in Zone X.
5. The applicant's geotechnical engineer has indicated that blasting may be required to remove the extensive amount of ledge on the property. We suggest that the applicant provide a pre-blast survey, method of blasting and possibly additional borings that show the depth to groundwater on the site.
6. Provide cut and fill calculations for the site and include the number of trucks required to remove ledge and gravel from the site.
7. Hollis Street will be used for drop off, deliveries, guest parking and emergency access. It is unclear if the width is adequate for these turning movements.
8. The plans should show that an existing utility pole on Hollis Street should be moved to accommodate the proposed concrete sidewalk, which should have a minimum width of four feet.
9. Clarify the finished floor elevation for the proposed parking garage as there is a discrepancy with the geotechnical report.
10. Show the location of floor drains for the parking garage and connections to the sanitary sewer system.
11. Clarify if the building requires a foundation drain and show the location, piping, direction of flow and outlet connection.
12. We recommend that the project include a system for dewatering during construction of the foundation, which may include a frac tank for filtering groundwater.
13. The applicant's designer should include a plan for sediment and erosion control for the site.
14. We recommend saw-cutting the roadway on Linden Street for the utility connections and curb cut to the parking garage.
15. Provide a legend on the Site Development Plan, Sheet C-1, that shows the various shading hatches.
16. Granite curbing removed from Linden Street could either be reused for the new curb cut or be coordinated with the Highway Division to be transported to the Highway yard.
17. Has a Hazardous Materials Survey been completed related to the proposed demolition of the five houses on Delanson Circle?
18. It would be helpful if the geotechnical soil borings information was provided on the project plans.
19. On the Construction Details Plan, C-5, add a note to the proposed detectable warning panels at wheelchair ramps shall be gray iron (CL35B) with a color to be federal yellow per Town of Wellesley standard details.
20. Provide a revised parking layout plan for the submission.
21. A plan and profile sheet should be provided for the proposed stormwater system and sanitary sewer system.

22. It would be helpful to provide a cross-section profile in both directions through the middle of project site, showing existing and proposed grades as well as existing and proposed site features
23. A proposed snow plowing and snow removal plan for the project site should be provided.

WATER & SEWER

1. We recommend a six-inch fire protection service line and valve prior to connecting into the building and a two inch tap of the six-inch fire protection service line for domestic water to the building. The domestic water line should include a valve prior to the building connection.
2. Show the location of the proposed cross-connection/back flow preventer controls and water meter. Provide a detail of the backflow preventer considered for this project.
3. Provide proposed water pipe size for proposed domestic water service and fire protection water service.
4. The Utility Plan, Sheet C-3, has a note indicating that the existing SMH inverts and 6-inch sewer be retained. It is recommended that the existing sewer pipe and sewer manhole be replaced. Also, the existing 6-inch sewer to Linden Street may be undersized for the proposed 90 units. Need to provide calculations regarding required sanitary sewer system pipe sizes.
5. The proposed water and gas services are shown as only 3 feet apart. We recommend a 10-foot separation between the two services.

STORMWATER

1. The project proposes to design an on-site stormwater system that will reduce peak flows and volumes from the site and mitigate impacts to neighboring property and Linden Street. The stormwater design includes adding a stormwater management system or detention system toward the northwest portion of the site that will convey overland flow from a wooded hill through the site via a closed drainage and infiltration system. The detention system is designed with an overflow outlet control structure that releases stormwater runoff through an 8-inch drain pipe. Three infiltration systems, P1-P3 are proposed to infiltrate stormwater from overland flow and roof runoff. The project proposes two 12-inch connects to the Town's stormwater drainage system on Linden Street, which are designed to be overflows for the on-site infiltration systems. Connections to the municipal system are granted by the DPW and site specific. There are requirements and potentially mitigation to assess the impact, and there are limit of the number and size of connections.
2. The Hydrologic Analysis for the project shows that the post-development peak rate of stormwater runoff for the site is less than the pre-development runoff for the 2-yr, 10-yr, 25-yr and 100-yr design storm. However, the post development volume should be reassessed to show that the volumes for the post-development stormwater runoff is less than pre-development stormwater runoff.
3. Clarify that the grass cover over the proposed parking garage, which is included in the HydroCAD analysis under sub-catchment 1S-2, is analyzed as impervious cover.
4. Provide an Operation and Maintenance Plan for the project that includes a statement that maintenance logs shall be provided to the Town Engineer on an annual basis.

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5. The Grading and Drainage Plan, Sheet C-2, indicates to see MEP Plans for proposed roof drains, yet MEP Plans are not provided. Need to clarify how roof drains will connect to the proposed stormwater system.
6. There is a proposed trench drain to be located across the proposed driveway off Linden Street. Trench drains typically require a significant amount of maintenance, please provide proposed maintenance plan for the proposed trench drains.

TRANSPORTATION

1. The applicant's designer should include turning movements for the drop off/pick-up (u-shaped driveway) area and fire-lane on Hollis Street. Also show vehicle turning templates for trucks showing they can make the turn from Linden Street into the proposed parking garage area.
2. The applicant may want consider reducing the number of curb cuts along Hollis Street.

LANDSCAPING

1. The revised plan-set did not include landscaping plans. We suggest that copies of the landscaping plans be submitted to the DPW for our review of the planting schedule, tree removal work, details sheet and tree and shrub planting locations.

Please feel free to contact me with any questions or comments.

Sincerely,



George J. Saraceno
Senior Civil Engineer

cc: Michael Pakstis
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