



George J. Saraceno, Senior Civil Engineer

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

**RE: Comprehensive Permit
Redevelopment of 16 Stearns Road (40B Project)**

DATE: January 15, 2019

We received a revised set of plans, drainage calculations, Operation and Maintenance Plan and response letter for the Site Plan Review project at 16 Stearns Road, a 40B project. The plans and documents were submitted to the DPW electronically via email by William R. Bergeron of Hayes Engineering, Inc. of Wakefield, MA. The changes include removing any proposed work on the portion of the Stearns Road right-of-way that is not publically accepted, adjustments to the subsurface stormwater system and the elimination of one parking space. We note that the general drafting changes that clarify and correct many of our initial comments have been made.

Other than the impact to this relatively small and isolated residential area of Town, our concerns are the ledge removal, the changes to the garage access drive and the extension of the water main to allow for the looping of two dead end mains. The new access is narrow, includes multiple reversing curves and has perpendicular parking spaces along the curves that seem problematic. The generally accepted two-way access drive, which seems appropriated for a garage with 35 parking spaces is 24', yet the applicant is proposing 20'. Between the right of way and the garage, the access drive meanders tightly with 2 compact parking spaces and 3 standard parking spaces in close proximity. We would also like the applicant to extend the water main to a connection point on school owned land, or at a minimum to the westerly edge of their frontage.

We have requested some cross-sections showing the building, the foundations, all walls, the subsurface stormwater system and the ledge profile as well as a summary from a geotechnical engineer to allow us to better understand the relationship of these structures and the impact of the proposal.

Below are comments that we feel have still not been addressed.

GENERAL

1. A construction management plan shall be submitted for the project. The construction management plan shall include staging area, hours of work, parking, dewatering location, concrete wash down area, etc.
2. The Erosion Control Plan, drawing C4, indicates proposed hay bales for siltation control will be installed in the same location as some of the proposed retaining walls. A better explanation and more detail seems necessary.
3. In the Development Prospectus, the density calculations assume 1 person per bedroom. We are concerned that this assumption is low.
4. The Cover and Index, drawing C, should be stamped, signed and dated by the designer.

5. We recommend that the legend, abbreviations, and general notes sheet was provided and placed after the cover sheet.
6. Plan sheets should make references to details on the plans.
7. Cuts and fills for the project should be quantified and construction details that assure control of the earthwork seem to be warranted, as the proposed grades indicate a 21-foot cut for the parking garage at the southeast corner of the proposed building. The ledge removal procedures must be reviewed by the Town of Wellesley Fire Department.
8. Provide a pavement markings and signage plan, including a legend for the proposed signage. Additional signage may be required for Stearns Road.
9. A Plot Plan should be provided that shows three benchmarks for the project as required for SPR, one of which should be located on-site.
10. The detail for the wheelchair ramp should include a detectable warning panel, cast iron federal yellow. A detail of the detectable warning panels should be shown separately.

STORMWATER

1. The Stormwater Management Report provides a runoff summary table for the 2-yr, 10-yr, 25-yr and 100-yr design storms, which shows a reduction in the peak runoff rate and volume for each storm event. The reduction in peak runoff rates and volumes discharging from the site is due to the three proposed infiltration systems for roof runoff, driveways and other impervious surfaces. The designer used HydroCAD v10.0 to analyze the synthetic rain events for the project.
2. For the total table at the bottom of the Runoff Summary page, the designer should revise the 2-yr storm event to show a peak runoff rate and volume produced by the site for pre and post development conditions.
3. Revise the Water Quality Volume calculation as the total peak flow rate appears to be incorrect.
4. The TSS removal worksheet shows that street sweeping in the parking lot is necessary. How often will this occur and will this requirement be included in a HMA for the property?

WATER & SEWER

1. Provide the fire flow requirements for the building and provide a description of the type of sprinkler system proposed for the building.
2. The proposed water service to the building shall be a 6-inch fire sprinkler cement lined ductile iron pipe including a gate valve (curb stop) on private property. Branching off of the 6-inch water service shall be a 4-inch domestic water pipe and gate valve.
3. The proposed 6-inch water service requires a 6"x6" tee and gate valve connection to the existing 6-inch water service. A detail of the water service connection to the main should be shown on the Utility Detail Sheet, drawing C7. A note should be added to the plans that the Town of Wellesley Water and Sewer Division shall be onsite to inspect the installation of the water service.
4. We recommend that the existing 6-inch water main on Stearns Road be looped to the existing 6-inch water service line at the Alzheimer's facility, 694 Worcester Street.
5. Indicate on the plans the location and detail of the backflow preventer valve assemble for the proposed building. The Town of Wellesley Water and Sewer Division must approve of the backflow preventer and inspect the installation.

6. Show the invert elevation at the foundation of the proposed building and include the pipe type, material and slope for the new sanitary sewer service.
7. The project should provide a narrative and include notation on the plans for the dewatering work that may be required for ledge removal, foundation and deep excavations required for the project. Dewatering details should also be shown on the details sheet. An overflow connection to the Town's drainage system during the course of dewatering requires approval from the Town Engineer.
8. Show the location of the floor drains in the parking garage and the connection to the proposed MDC gas trap.
9. The Utility Plan, drawing C3, should include the pipe type and pipe size for all utilities.
10. There should be no bends in the proposed water service line. The water service connection must be inspected by the Town of Wellesley Water and Sewer Division. A connection fee is also required prior to performing this work.
11. Provide a detail for service connection into existing sewer manhole on Stearns Road. The invert for the existing manhole on Stearns Road must be modified to suit this connection.

LANDSCAPING

1. The project submission should include a copy of the proposed landscaping plan including tree protection, details and landscape species program for the site.
2. On the Materials and Grading Plan, drawing L300, provide a table indicating quantity of trees to be cut and removed. Also, provide a table summarizing quantity, size and type of proposed plantings.
3. We recommend that the landscaping plan not use the proposed Hemlock, which has had difficulty with the Woolly Adelgid.
4. On the Landscape Plan, drawing L1, label the proposed plants shown on the site plan by the common name in the plant schedule to help identify the specific plants shown.
5. The landscaping plan should contain the proposed contours that are shown on drawing C2.
6. No bushes or trees are permitted to be planted within 10 feet of a fire alarm connection. Adjust shrub and tree location as necessary.
7. Provide a tree protection detail, which we prefer a chain link fence, to protect trees and scrubs during construction.

Please feel free to email or call me if you any questions or concerns in this matter.

Sincerely,



George J. Saraceno
Senior Civil Engineer

cc: Michael Pakstis, William Shaughnessy, Mike Quinn,
David Hickey, Douglas Stewart, Michael Zehner,
Victor Panak, Michael Grant