HAYES ENGINEERING, INC.

Memorandum

TO: George J. Saraceno, Senior Civil Engineer
Department of Public Works
Engineering Division

CC: Lenore Mahoney, Executive Secretary, Zoning Board of Appeals

DATE: September 26, 2019

RE: Responses to Engineering Memo dated July 2, 2019 received by Applicant on September 17, 2019 for the Site Plan Review (SPR) – #130, #136 & #140 Worcester Street

The responses to the items of concern will be outlined in bold type as requested and as noted below.

The Town of Wellesley Department of Public Works (DPW)- Engineering Division has received a copy of the design package and cover letter from your office dated May 30, 2019 for a Comprehensive Permit and SPR for the redevelopment of the property located at #130, #136 and #140 Worcester Street. The hearing date for the project is scheduled for June 18, 2019. The Owner of the project is SEB Wellesley, LLC (the applicant). The applicant's design team consists of Hayes Engineering, Inc. (Engineer) of Wakefield, MA, Vanasse & Associates. (Traffic Engineer) of Andover, MA, Bohler Engineering (Landscape Architect) and Cube3 Studios (Architect) of Lawrence, MA. The documents provided include a Mitigative Drainage Study dated April29, 2019, Official Development Prospectus dated May 2019, traffic study, architectural plans, General Civil Plans, and lighting plan dated May 10, 2019. The applicant must provide a copy of the Site Plan Approval Review Plans and Submittal Checklist.

The proposed project is a 40 B submittal and all required documents consistent with this process have been submitted.

The applicant is proposing a 40-unit Multi-Family Residential40B apartment complex located at #130, #136 and #140 Worcester Street. The total land area is approximately 37,511 square feet. There are two single family homes and other structures that are proposed to be removed. The proposed construction footprint for the apartment complex is 13,584 square feet. The proposed building consists of 4 levels plus the parking level with a proposed building height of 58'-6". The proposed parking lot shows in parking table on the Layout Plan, Sheet C6, 63 parking spaces. We counted 62 parking spaces, (approximate 1.50 parking ratio) which includes compact, standard and accessible parking spaces. In the Official Development Prospectus, the reference to parking should be revised accordingly. The project includes the construction of a new 5-foot wide concrete sidewalk along Worcester Street. The sidewalk will be accessible from the proposed apartment building via a sidewalk, crosswalk and accessible ramps. Other site features include an on-site drainage system, parking garage, parking lot, new curb cuts, loading and trash area, new utilities, site lighting, granite curbing, grading and landscaping. Public transportation services are available such as the Metro-West Regional Transit Authority (MWRTA). The project is not located within the Water Supply Protection District. The project is located in a Single Residence 10,000 (SR-10) square foot Zoning District.

The number of parking spaces shown on the plan is 63 spaces which includes the drop off space.

The applicant as part of the 40B process is proposing a list of waivers, which include a drainage review, tree protection and preservation and upgrade of inadequate ways. The complete list is provided in the projects application, section 10.

No response required

The project is located in close proximity to a Bordering Vegetated Wetland and Riverfront area. There is approximately 10.1% considered Riverfront area within the site. The applicant should provide a copy of the NOI and Order of Conditions for the project. The plans show a Local IVW Offsite Restoration Area. Provide information on the conditions from the Wetlands Protection Committee, status of the restoration area and completion due date.

A Notice of Intent and request for an Order of Conditions will be made upon completion of the Comprehensive Permit Public Hearing Process. The Applicant is fully aware that the filing is necessary and that a full Order of Conditions will be a prerequisite to receiving a building permit.

The project proposes an on-site stormwater drainage system that consist of 4 catch basins for the parking lot and driveways and two infiltration systems. Stormwater runoff from the roof and driveways are directed to the proposed infiltration systems. Stormwater that enters the parking garage is discharged from floor drains to the sanitary sewer system. The increased impervious surfaces on the site, i.e. roof and parking lot stormwater flows are directed to the on-site infiltration systems. The Stormwater Management Report provided includes addressing the Massachusetts Stormwater Management Standards.

No response required

The traffic consultant VHB prepared the traffic analysis for the new apartment complex and concluded the project should include a new sidewalk on Worcester Street, signage, consideration of using public transportation if available, appropriately sized curb cuts, school bus waiting area, pavement markings, removal of snow windrows within site driveways, vegetation trimmed and consideration to use electric vehicles charging stations. The traffic analysis performed for the projects shows new traffic generated for the project to be 216 new vehicle trips on an average weekday. Most of the recommendations have been shown on the plans. Turning templates for Wellesley Engine 2 and Wellesley Tower 2 have been provided and show that the vehicles and other emergency vehicles move through the site without obstructions. We recommend that the site provide ingress to the site from both curb cuts proposed for the project.

The design of the site requires a one way driveway along the front of the site. The discussions with the Town's Traffic consultant Robert Nagi from VHB actually suggested adjusting the easterly driveway geometry to prevent vehicles from trying to enter from the exit only driveway. The suggested modification has been made to the driveway on the revised plans.

The Natural Resources Conservation Service shows that the site mainly consists of soil group Swansea muck with a soil Type of B/D. Merrimac-Urban land complex, a Type A soil is also located in close proximity to the site. Six test pits deep observation hole (DOH) were performed on the site, including percolation tests. The depth of the DOH ranged from 72 inches to 96 inches. Groundwater was observed from 56 inches to 81 inches. Redoximorphic features were observed from 46 inches to 61 inches. The soil consists of sandy soil. The percolation test results showed percolation rates from 6 min. /inch to 15 min. /inch. The soils should be suitable for infiltration purposes.

No response required

Provided below are DPW comments regarding the proposed SPR Project.

GENERAL

1. Show on the plans that any existing curb cuts must be closed by installing granite curbing, loam and seed. The applicant should show this proposed Work on the requested permit from MassDOT to create two new curb cuts on Worcester Street.

   The recommended design details will be added to MassDOT Permit request

2. The plan elevations must be shown on the Town of Wellesley benchmark system. Revise the plans accordingly. Add a note to the plans that the elevations are on the Town's

benchmark system.

The proposed site will be required to file for an Order of Conditions from the Wellesley Conservation Commission and also a Mass DOT Curb Cut Permit. These submittals need to be on the datum provided. The datum is NAVD 88. To convert elevations to the Wellesley Benchmark System add 6.28 feet as noted on sheets C-2& C-3.

3. The applicant is proposing a new curb cut and driveway entry from Worcester Street onto Alpine Street. How would the driveway entrance geometry change if a developer decided to provide access from Worcester Street to their lot off of Warren Street and Russell Street? We recommend that the applicant's attorney review the proposed work within the "paper street" and provide information on ownership of the "paper street", pelmanent ownership of the "paper street" and who has rights to the "paper street."

   The suggested use of Warren Street and Russel Street for access is not feasible since these streets are unconstructed and mostly within wetland resource areas. The primary entrance coming off of Route 9 and utilizing Alpine Street is the only feasible design approach.

4. Provide a "Do Not Enter" sign for traffic on Worcester Street eastbound side that may

attempt to enter the second driveway curb cut into the site.

The addition of the sign will be added to the plans.

5. We have listed in our Accepted/Unaccepted Streets List that Alpine Street is a "Paper Street". The applicant should define what procedures/requirements may be necessary to make the "Paper Street" a formal private way or public way. The applicant should discuss with the Planning Department the necessary requirements for updating the roadway, including but not limited to sidewalks, utilities, street lights, road 'Width, frontage, etc.

   The Applicant is not proposing to use Alpine Street to create frontage it is only being used for a driveway access and associated utilities. The Applicant has land rights to use the way as long as the use does not obstruct future. A legal opinion is being submitted for the public record relating to this issue. The Applicant has submitted a Comprehensive Permit Application, as such, no other local permits will be requested from any local permit granting authorities (e.g. Planning Board). The ZBA and Engineering Department will determine the design specifications for the proposed entrance driveway.

6. The applicant is proposing new curb cuts and utilities on Worcester Street which require approval from Mas OOT. The applicant must provide the approval letter to construct the curb cuts and utilities including the permit from MassDOT prior to construction.

   The Applicant understands that a MassDOT Curb Cut Permit will be required and will be a condition to the Building Permit. This MassDOT Permit cannot be issue until the local ZBA approval is issued. A copy of the MassDot Permit will be provided to the ZBA upon receipt.

7. Provide a copy of the deed that shows the combining of the lots #130, #136 & #140 Worcester Street. The Plot Plan shows two separate owners, Worcester Road Realty Trust and Dean B. Cartwright as the owners of the property. We recommend providing the new deed and Homeowners Association agreement (HOA), with the new ownership information.

   The Applicant would expect this requirement to be a condition of the building permit. Combining the lots at this juncture is not feasible or practical as a local permit has not yet been issued.

8. Provide the Town with a copy of the HOA, which should include snow plowing/storage requirements, operation and maintenance requirements for on-site drainage system and utilities, parking lot maintenance, solid waste storage and1naintenance, etc.

   As this is a rental building, there will be no Homeowner's association. All property maintenance and associated obligations will be handled by the project owner and it's Management Company. A full operations and maintenance plan inclusive of all aforementioned areas will be a condition of the building permit.

9. Provide a copy of a dewatering plan, which could be included on the Erosion Control

The proposed construction is expected to be above the groundwater levels except potentially for the sewer connection. If dewatering is required it will be pumped to an onsite depressed area lined with crushed stone as shown on the Erosion and Control Plan.

10. On the Details Plan, Sheet C10, show the pavement thickness for the Vertical Granite Curb detail, which is typically 2.5" binder course and 1.5" wearing course.

    The suggested thicknesses have been added to the plan.

11. Provide cut and fill calculations for the site.

    The information will be provided.

12. The project must include a Construction Management Plan (CMP) that consists of work hours, material staging, contractor parking, traffic management, truck routing to and from the site and emergency contact information. The CMP must be approved by the Town of Wellesley Police Department and Town of Wellesley DPW. Show the location of the temporary concrete wash area during construction on the Civil Plans.

    A Construction Management Plan will be submitted by the Applicant under separate cover.
    The washout area will be shown on the Erosion Control Plan Sheet C-5 as noted above.

13. We recommend that the applicant provide a copy of the landscaping plans for the project, including planting details, tree protection details and proposed tree and plant schedule for the project.

    A Landscape Plan has been provided with the submittal. A landscaping plan inclusive of construction level details will be submitted as part of the Building Permit Application.

14. MassDOT repaved Worcester Street in 2018 and it is expected there will be a 5-year moratorium on cutting into the pavement.

    Applicant will work with MassDOT relative to potential work as needed.

WATER & SEWER

1. The total estimated water consumption is 8,590 gallons per day. The total estimated sewer discharge is 7,810 gallons per day.

    No response required.

2. In front of the property, there is a 12-inch sanitary sewer main that flows from west to east on the eastbound lane of Worcester Street and eventually flows to the Haggerty Pump Station on Boulevard Road.

3. A 10-inch water line is located on the eastbound side of Worcester Street. The applicant proposes to connect a new water line to the existing 10-inch water main on Worcester Street. The plan should show the existing 10-inch water main on Worcester Street. We recommend that a 6-inch fire protection service line connect directly to the building with a separate 4-inch domestic water service line tapped from the 6-inch fire protection service line, including gate valves for each service be shown on the plans. It appears that the plans show the fire protection and domestic water lines but further clarification is required.

   The proposed connection will be made as outlined.

4. Provide the location and information on the backflow prevention device and water meter proposed for the new building. The installation of the backflow prevention device must be inspected by the Town's Water and Sewer Division.

   The final construction drawings will include all requested details as part of the building permit set submittal.

5. There is an existing fire hydrant on Worcester Street approxinlately 180 feet to the east of the property between 1 and 3 Dearborn Street. There is also a fire hydrant at approximately 180 feet to the west of the property on Town of Wellesley land. We reconlmend that a hydrant be proposed within the new site at the discretion of the Town of Wellesley Fire Department. The proposed fire hydrant shall include a 6-inch gate valve and connection from the 6-inch fire protection line.

   A fire hydrant has been added to the plans in the location selected by the Wellesley Fire Department.

6. We recommend a straight connection for the proposed sanitary sewer connection from the building to the sewer manhole on Worcester Street. The proposed floor drain connection from the MDC manhole should be connected to the straight section of the 6- inch service pipe. No bends are allowed in the proposed sewer pipe without a cleanout or sewer manhole. A sewer profile must be provided and should show the location of the proposed stormwater infiltration system above the proposed sewer service pipe. We require a detail of the proposed cleanout in the parking garage. The cleanout must be accessible for maintenance of the sewer pipe. Show the location of the existing sewer main on Worcester Street.

   The proposed sewer connection to the sewer manhole has been changed as requested.
   The existing sewer manhole is shown on the plans.
   The final plumbing plans will include the location of the garage cleanout and additional cleanout can be placed on the outside to facilitate maintenance.

7. Provide a detail of the sleeve for the sewer service connection. We recommend using ductile iron pipe for the sleeve.

The sleeve has been changed to ductile iron and a detail is shown on Sheet C-11.

STORMWATER

1. Stormwater runoff from the roof and driveway areas is directed to two on-site infiltration systems. The first systen1, which is located in the front parking lot, consists of 125 Cultec Contractor Field Drain C-4l-ID units, including a manhole and header unit prior to discharge from the parking lot on both sides of the system. The 20-Cultec Field Drain C-4 chambers, which are connected to a Vortsentry catch basin unit located in the second driveway area. The drainage analysis shows a reduction in peak rate of runoff and volume for the 2-yr, 10 yr., and 25-yr and 100-yr rainfall events using HydroCAD.

   No response required

2. The proposed infiltration system located under the loading/trash truck area should be

accessible for routine maintenance of the system. Show the inspection ports for both on-site infiltration systems.

The inspection ports have been added to the systems.

3. The applicant's engineer provided an Operation and Maintenance Plan for the on-site stormwater drainage system and a Long-Term Pollution Prevention Plan for the site dated April 11, 2019.

   No response required.

4. Show the location of the silt sack proposed for the project, which should be installed in the existing catch basin on Worcester Street and also in the proposed catch basins when completed.

   The silt sack locations and notes have been added to sheet C-5.

5. The Mitigative Drainage Study should include a copy of the HydroCAD analysis for the storm events analyzed for the project.

   The HydroCad files were submitted with the Mitigative Drainage Study.

REFUSE

1. A total of 1,581 lbs. /day of solid waste will be generated from the site. There will be a total of three-two yard dumpsters on-site to provide for recycling and refuse, which will be hauled away by a private company and disposed of at an approved facility outside of the Town of Wellesley.

   No response required.

If I can be of any further assistance, feel free to contact me at bbergeron@hayeseng.com

Sincerely,

William R. Bergeron P.E.

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