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January 24, 2020

Ms. Emily Wentworth, Senior Planner/Zoning Administrator
Hingham Zoning Board of Appeals
210 Central Street
Hingham, MA 02043

Subject: 302-304 Whiting Street – Comprehensive Permit

Dear Ms. Wentworth:

This is to advise that we have reviewed the following documents related to the subject Comprehensive Permit Application:

- Transmittal letter to Chair Maguire from South Shore Habitat for Humanity, Inc. with the following attachments:
 - Development Narrative
 - Preliminary development plans (7 sheets), dated November 24, 2019, prepared by James Engineering, Inc.
 - Report on Existing Conditions
 - Preliminary scaled architectural plans (4 sheets), dated May 2, 2019, prepared by Beau Designs
 - Tabulation of Proposed Buildings
 - MA Department of Housing & Community Development project eligibility approval letter, dated September 12, 2018
 - Listing of Requested Waivers from Local Regulations, dated November 25, 2019, prepared by James Engineering, Inc.
- Letters to the Zoning Board of Appeals/Zoning office:
 - December 17, 2019 from Ms. Susan Sarni, MPH, Executive Health Officer
 - January 2, 2020 from Ms. Mary Savage-Dunham, Planning Director
 - January 2, 2020 from Chief Glenn Olsson, Hingham Police

The purpose of our review has been to evaluate conformance with the Hingham Zoning By-law (ZBL), Massachusetts Department of Housing and Community Development Comprehensive Permit Regulations (760 CMR 56.00), Hingham Board of Appeals Rules and Regulations, Section II, E, Comprehensive Permit Submittal Requirements and good engineering practice.

Background

The 41,287 square foot (s.f.) site is located off the south side of Whiting Street immediately east of the Derby Brook Condominium development. Derby Brook also abuts the south side of the property and a residential property, at 300 Whiting Street, abuts the east side of the property. Prior to construction of the Derby Brook development there were two single family dwellings on

the site. One of the dwellings still exists on site while the other has been removed. The remaining dwelling is accessed by a gravel driveway and reportedly served by an onsite septic system and a private well. The site is located in the Residence C Zoning District.

There is a perennial stream south of the property with associated wetlands that extend across the southwest property line with approximately 132 s.f. of wetlands on the site. Buffer zones for the wetlands and the Riverfront Area of the perennial stream are located on the site. The eastern/northeastern portion of the site is within a Zone II to a public well. Except for the southern portion of the site nearest the wetlands and a few trees near Whiting Street, the remainder of the site is cleared and consists of a gravel/grass surface.

The proposal calls for demolition of the existing dwelling, subdivision of the lot into two lots and construction of two, three-bedroom dwellings. The dwellings would be accessed by a shared, twenty-foot wide paved driveway off Whiting Street. Runoff from the driveway would be directed to a catch basin near the Whiting Street right-of-way which would discharge to a subsurface infiltration system consisting of concrete chambers surrounded by crushed stone. Roof runoff from the dwellings would also be directed to subsurface infiltration systems (drywells). Each dwelling would have an individual onsite septic system and water service would be provided by individual service connections to the water distribution system in Whiting Street. There is an existing utility pole on the site from which overhead electric/telephone/CATV lines service the existing dwelling. However, it is unclear how the proposed dwellings will be served by these utilities and whether natural gas is proposed.

Comments

General

1. There are access and utility easements proposed. The geometry (metes and bounds) of the easements should be shown on the plans.
2. An analysis should be provided to demonstrate that there is adequate access for the Hingham Fire Department's largest apparatus.
3. GIS mapping indicates that the dwelling on the adjacent property at 300 Whiting Street is close to the subject site's eastern property line. This dwelling should be shown on the plans to provide a perspective of how the proposed development may impact the abutter and vice versa.
4. Proposed grading indicates that the highest portion of the site will be lowered by about two feet. We understand that this is proposed to reduce the slope of the driveway coming up from Whiting Street. However, it appears that much of the remainder of the cut portions of the site could be regraded to reduce the amount of material that would be removed from the site. Proposed grading should be adjusted to provide for a balanced site to the maximum extent practicable.

5. The size of the proposed dwellings should be clarified. The civil site plans show them to be 24-ft. x 36-ft. whereas the architectural plans show them to be 24-ft. x 28-ft.
6. There appears that there may be some type of curb or berm on the northwest side of the driveway from the cutout for the catch basin extending about 38 feet southwest. We assume this would be to channel stormwater to the catch basin, however, it is not labeled.
7. Sight distance triangles at the driveway intersection with Whiting Street should be shown on the plans.
8. Proposed landscaping should be shown on the plans.
9. It appears that the plans are orientated so that north is toward the top of the page, however, no north arrows are shown on the plans.

Drainage and Erosion Control

1. Drainage calculations should be provided to document that post-development runoff will not exceed existing conditions. Calculations should include infiltration system sizing.
2. We recommend that the proposed catch basin be installed as close to the right-of-way as possible to capture the maximum amount of runoff from the driveway.
3. The Roadway Subsurface Stormwater Infiltration System detail on Sheet 3 should specify filter fabric on the top and sides of the crushed stone. This should be the same for the roof drain drywell(s).
4. There appears to be a subsurface infiltration system (drywell) located in the driveway just north of the proposed dwelling at 302 Whiting Street. However, this is not labeled and there is no proposed piping shown leading to the system. If this is a proposed infiltration system it is too close to the primary soil absorption system (SAS) for 304 Whiting Street. Title 5 requires a minimum setback distance of twenty-five feet.
5. The Eliminator Catch Basin Oil & Debris detail is shown on Sheet 5. The Precast Concrete Catch Basin detail should either show or specify The Eliminator in the catch basin.
6. Proposed erosion controls should be shown and detailed on the plans.
7. An operation and maintenance plan (O&M) for the stormwater system (catch basin and subsurface infiltration systems) should be submitted. O&M of the catch basin is particularly important as there is a treatment insert proposed which will require frequent maintenance.

Utilities

1. Proposed electric/telephone/CATV and natural gas utilities should be shown on the plans.
2. The Application materials state that the existing dwelling is served by an onsite well “in front of the house.” This well should be shown on the plans. Abandonment and decommissioning of this well will need to comply with Hingham Board of Health regulations.
3. We note that the proposed septic systems are completely located outside of the Zone II.
4. In accordance with Title 5, two deep holes are required within each primary SAS and each reserve SAS, one percolation hole and one observation hole in each. Of the eight test holes that were excavated on the site in 2003, only TP 4-4 is located within a reserve area (for 304 Whiting Street). A minimum of seven additional deep holes are required by Title 5.
5. Septic system for the proposed 302 Whiting Street (Sheet 6):
 - a. The Septic System Profile shows seasonal high groundwater at El. 140 and that it is based on test hole No. 2. Test hole TP 2-2 was excavated to El. 142.9, which was the lowest of the eight test holes excavated on site. Additional soil testing is required to verify that the required separation from groundwater will be provided.
 - b. As noted above, there are no test holes in the primary or reserve area so four test holes are required on this lot.
 - c. A portion of the proposed reserve area is within the 100-foot buffer to the wetlands. The Applicant has asked for a waiver from §IV.5 of the Board of Health Supplemental Rules and Regulations for the Disposal of Sanitary Sewage, which requires a 100-foot setback from wetlands. Title 5 only requires a 50-foot setback. However, it appears that the primary and reserve SAS’s could be reconfigured to provide the 100-foot setback.
 - d. As currently configured, the primary SAS would not meet Title 5 breakout setback requirements.
 - e. Note 9 indicates that test hole TP 2-1 had a perc rate of 7 minutes per inch (mpi) and no other perc rates are listed. However, the soil logs indicate that all four test holes had perc rates of less than 2 mpi. (These will need to be revised with the additional test hole data that is required.)
 - f. Note 19 should be revised to list the actual distance to the well on the 300 Whiting Street property (±153-ft.).
6. Septic system for the proposed 304 Whiting Street (Sheet 7):
 - a. Same comment as for 302 Whiting Street.

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- b. As noted above, there is only one test hole within the reserve area. Title 5 requires three additional test holes for this lot.
- c. Note 9 indicates that test hole TP 4-4 had a perc rate of less than 2 mpi. However, the test hole log indicates that a perc test was not performed in test hole TP 4-4. (These will need to be revised with the additional test hole data that is required.)
- d. Note 19 should be revised to list the actual distance to the well on the 300 Whiting Street property (± 122 -ft.).

We note that the plans and information that has been submitted is preliminary. We anticipate additional comments as materials are submitted.

Please give us a call should you have any question.

Very truly yours,

AMORY ENGINEERS, P.C.

By:



Patrick G. Brennan, P.E.



PGB