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January 5, 2021

Halifax Zoning Board of Appeals
499 Plymouth Street
Halifax, MA 02338

Subject: **Country Club Estates – Chapter 40B Comprehensive Permit**

Dear Board Members:

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

- Comprehensive Permit Site Plan (14 sheets), revised July 22, 2020, prepared by Silva Engineering Associates, P.C. (SEA)
- Traffic Study Peer Review letter, dated May 28, 2020, prepared by Gillon Associates
- Response to comments letter, dated July 22, 2020, prepared by SEA
- Request Variances and Waivers, revised July 22, 2020, prepared by SEA
- Site Layout Plan, dated December 18, 2020, prepared by SEA
- Email (with attachments) from Alan Dias to Chairman Gaynor, dated January 5, 2021

The documents have been prepared to address comments contained in our May 18, 2020 letter to the Board as well as comments from Town departments and Boards and comments raised at the November 18, 2020 public hearing. Below are our original comments in plain text, followed by the current status of each in **bold text**. Additional/new comments are included at the end of this letter.

Comments

Zoning

1. A variance is needed from ZBL §167-7 D (2)(a) which requires that each building in a multifamily development complex be on an individual lot with continuous frontage on a public way. The proposal calls for ten buildings on a single lot. **A variance has been requested.**
2. A variance is needed from ZBL §167-11 to allow for a reduction of the required frontage of 150-feet to 110.98-feet. **A variance has been requested.**
3. A variance is needed from ZBL §167-12 A (1) which specifies that “the number of units in a multifamily development shall not exceed the number of acres in the parcel on which they are to be built.” Thirty units are proposed on 5.43 acres. **A variance has been requested.**

4. A variance is needed from ZBL §167-12 A (3) which specifies that the minimum parcel size shall be ten (10) acres. As noted above, the parcel size is 5.43 acres. **A variance has been requested.**
5. ZBL §167-12 A (6) requires a minimum of 750 square feet (s.f.) of residential floor area on the lowest level (ground floor). The architectural plans indicate that the first floor of each unit would contain about 632 s.f. **A variance has been requested. In the response letter, SEA states that “the first floor of each unit contains 672 s.f. and 240 s.f. of garage for a total of 912 s.f.”**
6. ZBL §167-12 A (7)(a) requires an automatic fire detection system for all multifamily developments. We did not find any mention of a fire detection system in the documents we reviewed. **In the response letter, SEA states that “the final building permit plans will illustrate the automatic fire detection system” and a note has been added to Sheet 7B specifying that an automatic fire detection system shall be installed in each unit.” Should the Board approve the project we suggest this be a condition of approval.**
7. ZBL §167-12 A (7)(b) requires that the watermain be looped. The proposed watermain is shown as a dead-end. ZBL §167-12 A (7)(b) also requires that the proposed hydrant system be capable of supplying the required fire flow, plus fifty percent (50%). Documentation should be provided to demonstrate that the proposed water system will provide the required fire flow in accordance with ZBL §167-12 A (7)(b). **Addressed – the watermain is shown to be looped on the revised plans and fire flow information is included on the December 18, 2020 Site Layout Plan.**
8. ZBL §167-12 B requires 2.5 parking spaces per unit. The plans indicate that there are two spaces provided for each unit. **Addressed – fifteen additional parking spaces have been added to the plans, eleven at a common mailbox area and four off the cul-de-sac turnaround.**
9. ZBL §167-28 G (3) requires a plan showing all adjacent properties within 300 feet of the project site, “including structures and their uses, parking areas, driveways, pedestrian ways and other significant features...” Only the building at 314 Plymouth Street is shown on the plans. **Addressed – adjacent properties, structures, uses, etc. have been added to the plans.**
10. ZBL §167-28 G (4)(a)[7] requires garbage and trash disposal facilities to be shown on the Site Plan. The Applicant should explain how garbage and trash will be handled and, if a dumpster is proposed, it should be shown on the plan with appropriate screening. **In the response letter, SEA states that “trash will be roll out containers with pick up by contract.”**
11. ZBL §167-28 G (4)(a)[12] requires any outside lighting, fencing, screening or signs to be shown on the Site Plan. If proposed, these items should be shown and detailed on the

plans. **Proposed light and fence locations are shown on the revised plans. However, details of the light fixtures and fencing should also be included.**

12. ZBL §167-28 H (6) requires “residential privacy provided by site and unit layout.” As proposed there would be little privacy for occupants of Units 7-20 because of their proximity to the golf course. **In the response letter, SEA states that “views of the fairways and golf greens on the Halifax Country Club is one of the selling points of these units.”**

Roadway

1. As noted above, the access roadway is proposed to access Plymouth Street at the signalized intersection at the Stop & Shop supermarket east driveway entrance. The centerline of the proposed roadway appears to be approximately 10- to 15-feet west of the centerline of the Stop & Shop driveway across Plymouth Street. The centerline of the proposed roadway should be in line with the centerline of the Stop & Shop driveway centerline. **In the response letter, SEA states that the “roadway alignment was chosen to eliminate relocation of a utility pole and ground transformer” and “the alignment is still within reason for safe traveling.” In his traffic peer review letter, Mr. Gillon recommends “moving the northbound and southbound movements separately for both capacity and safety.” If the intersection is not realigned we concur with Mr. Gillon’s recommendation to stagger the traffic light timing so that traffic exiting the site driveway and the Stop & Shop driveway will be separated and not occur simultaneously.**
2. The proposed sidewalk is shown to be immediately adjacent to the back of the Cape Cod berm. There should be a grass strip between the berm and sidewalk to provide a visual separation between vehicular and pedestrian traffic. We recommend a minimum width of five feet for the grass strip. If there is not sufficient room for a grass strip a vertical curb should be provided to protect pedestrians from vehicular traffic. **Addressed – the revised plans show vertical granite curb along the proposed driveway as well as a five foot wide grass strip between the curb and sidewalk from Plymouth Street to the driveway to Units 1 and 2.**
3. Roadway stationing should be shown in plan on the drawings. **Addressed – stationing has been added as requested.**
4. The cul-de-sac turnaround does not appear to be shown correctly in profile on Sheet 6. **The profile on Sheet 6 has been revised accordingly. However, the profile on Sheet 5 needs to be revised to reflect 1) changes to the drainage, 2) the correct rim elevation of sewer manhole 1 and 3) consistency with the hydrant location at Sta. 3+96 in plan view.**

Utilities and Stormwater Management

1. To more accurately compare pre- vs. post-development runoff, the HydroCAD calculations should model two design points, one to the wetlands on site and one to the golf course. **Revised drainage calculations are required.**
2. The impervious areas used in the recharge calculations are not consistent with the impervious areas in the HydroCAD model. **Revised drainage calculations are required.**
3. It is not clear how many roof recharge systems are proposed. The calculations indicate that one trench is required for each unit but the plans appear to show one trench for every two units (except for Units 23 and 24 where there appear to be two trenches). **In the response letter, SEA states that “each unit shall have 2-trenches” and “the calculations for the roof areas will be added in the revised report.” The revised plans show two trenches for each unit, but revised drainage calculations are required.**
4. The HydroCAD post-development subcatchment areas DV-A and DV-D include areas of brush. Areas of proposed brush should be identified/specified on the plans. **Revised drainage calculations are required.**
5. The time of concentration for subcatchment area DV-D should be six minutes (the calculations are using the same time of concentration as subcatchment area DV-C). **Revised drainage calculations are required.**
6. We note that catch basin CB1 is piped to catch basin CB2 (connected in series). While the subdivision regulations (Bylaw Chapter 235, §235-32 A (5)) allow drain pipes to extend through up to three catch basins we recommend against this. Also, the DEP SMS require catch basins to be off-line in order to take credit for 25% total suspended solids (TSS) removal (see attached TSS removal table from the SMS). In order for the stormwater system to provide the required TSS removal, the catch basins cannot be connected in series. We recommend either connection to a drain manhole or each catch basin discharge directly to the sediment forebay. **The revised plans address this issue by eliminating catch basins connected in series. However, additional changes to the drainage system have been made to the plans and revised drainage calculations are required to confirm the design changes.**
7. The catch basins should be modeled as ponds with insignificant/zero storage capacity in the HydroCAD model. **Revised drainage calculations are required.**
8. The HydroCAD model has the discharge pipe from catch basin CB2 as a 15-inch pipe whereas it is specified to be 18-inch on the plans. The HydroCAD model has the invert of the discharge pipe from catch basin CB3 at El. 67.25 whereas it is shown to be El. 67.08 on the plans. **Revised drainage calculations are required.**

9. We recommend that the sediment forebays and stormwater basins be mowed regularly during the growing season rather than twice per year as specified in the Operation and Maintenance Schedule. **In the response letter, SEA states that “the Operation and Maintenance Schedule has been revised to include more frequent mowing and inspection” and “this will be included in the revised Drainage report.” The revised drainage report is required to confirm.**
10. Aside from sewer, there are no proposed utilities shown for Units 1 and 2. **Addressed – all proposed utilities are shown for Units 1 and 2.**
11. The proposed hydrant located furthest into the development is shown in different locations in plan and profile. **This has been addressed, however, the proposed hydrant at Sta. 3+96 is not shown in plan.**
12. There is a detail for “Forced Main Cleanout Manhole” (SMH’s 1 and 4) shown on Sheet 11. A detail for SMH’s 2 and 3 should also be included. **Addressed – the detail has been revised for all proposed sewer manholes.**
13. Water and sewer services for Units 17-19 should be shown to be a minimum of ten feet apart. **The water and sewer service locations have been revised and a note added that the water services are to cross over (above) the sewer lines.**
14. We assume that the Board of Health is reviewing the septic system design so we have not commented on that.

Additional/New Comments:

1. The January 13, 2020 Comprehensive Permit Site Plan (Sheet 5) included three details (Guard Rail, Handicap Ramp and Winged Headwall) that are not on the revised plans but should be included.
2. The changes in the December 18, 2020 Site Layout Plan include the following:
 - a. Cul-de-sac turnaround diameter enlarged to 120 feet to provide unobstructed Fire Department access.
 - b. The septic system primary leaching area has been reconfigured to fit on the subject development property. The reserve area is shown to be mostly on the golf course property within an easement.
 - c. Two units (15 & 16) have been eliminated to allow for the larger turnaround and the primary septic leaching area to be on the subject development property.
 - d. Ten arborvitaes are proposed along the property line between Unit 20 and 340 Plymouth Street to provide screening.
3. Property geometry, including all existing and proposed easements should be shown on the plans.

4. The attachments to Mr. Dias' January 5, 2020 email included a Grading, Drainage & Utility Plan, for O'Reilly Auto Parts, prepared by Soli Engineering, revised June 20, 2019. This plan shows a wetlands line that conflicts with the wetlands line shown on the subject development plans. We understand that the wetland line on the O'Reilly plan was delineated by Environmental Consulting and Restoration, LLC on June 20, 2018. The wetland line shown on the subject development plans was reportedly taken from an Order of Resource Area Delineation issued by the Conservation Commission on October 21, 2015. We recommend that the Applicant file with the Conservation Commission for this project to verify the wetland delineation because the subject development plans show work within the wetlands if the delineation on the O'Reilly plan is correct.

Should you have any question, please give us a call.



Very truly yours,

AMORY ENGINEERS, P.C.

By:

A handwritten signature in blue ink, appearing to read "Patrick G. Brennan", written over a horizontal line.

Patrick G. Brennan, P.E.

PGB