Town Engineer
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Commonwealth of Massachusetts

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TO: John Lee, Chair
Board of Appeals

FROM: Carl Balduf,
Town Engineer

RE: Modification to Proposed Multifamily Development Summer Street Walpole, Ma
Aka Cedar Edge Comprehensive Permit (40B)

DATE: September 6, 2023

We have received the following via digital submission and hard copy:

- Email request for comments from Patrick Deschenes to Department Heads on 6/12/2023 & 6/18/2023 requesting comments by 7/13/2023.
- A sixty two (62) page 24"X36" Civil plan set titled "Site Plan For Proposed Multifamily Development Walpole, Ma." dated June 20, 2023 and prepared by Howard Stein Hudson of Chelmsford, Ma for FRH Realty LLC of Burlington, Ma & 55 SS LLC of Westford, Ma.
- A two page memorandum from Raymond Willis, P.E. of Onsite Engineering to Patrick Bogle, P.E. of Howard Stein Hudson addressing design issues for a revised wastewater (pumping) system design dated September 27, 2022 and revised July 12, 2023.
- A single page letter from David E. Hale Manager 55 SS LLC to Mr. Scott Gustafson Superintendent Walpole Water & Sewer Department summarizing design revisions to proposed development including a reduction in proposed pump stations dated June 7, 2023.
- An eight page letter from Sean Reardon, P.E., Vice President of Tetra Tech to Mr. John Lee, Chair (Walpole Board of Appeals) dated August 15, 2023.
- Various other application materials received via digital submission on or about 6/12 & 6/18/2023.

General
This office concurs and supports the Peer Review comments provided by Tetra Tech dated August 15, 2023. I will not go over/repeat each comment line by line (or the August 21, 2023 responses by HSH which appear to be shifted one number less than the original comment from #1-24 and after #24 the HSH responses appear to start at #1 again), however, I will emphasize support for the peer review on the following comments;

1. Comment #14 (HSH response #13) regarding the length of driveways at townhouses. There should be adequate room to park in the driveways without obstructing the sidewalk.
2. Comment #17 (HSH response #16) addressing the design of Infiltration System #2. The applicant's response is not acceptable. The requested summary of test pits with surface elevations should be provided at this time and the System #2 re-designed regardless of the original approval. Re-designing systems during construction should be reserved unforeseen conditions only. Verification of soil/groundwater elevations at construction should be a condition.
3. Comment #21 & #22 (HSH response #20 & #21) regarding the lack of soil test pit information at Infiltration System #3 & #4. Do not agree with applicant's response. Test pits should be performed during design per DEP requirements. As evidenced by my own observation during soil testing conditions/groundwater elevations varied significantly around the site.
4. Comment #23 (HSH Response #23) the applicant provided cut Sheets for a diesel generator leading one to assume that the site will not be serviced by gas. **The question about gas service should be answered as it will impact the utility layout and may have offsite implications.**
5. Comments #32-45 (HSH response #1-12) regarding Stormtech Infiltration System Design. Reinforce Peer Review Comments, particularly with regard to small difference in invert of isolator row and need for soil testing.

Wastewater

I agree with the assumptions and design approach outlined in the letter from Mr. Hale to the Sewer and Water Superintendent as well as the design summary form Mr. Wills of Onsite Engineering. The current wastewater system design with a single lift station is a better design. However, I recommend the triplex pump design proposed in the original submission be retained. The additional pump provides added reliability as well as additional range to meet unexpected peak flows. Furthermore, I note that the plans show two lift stations just north of Building 1000 which are referred to as "Low Pressure System #1 & #2" and just north of Building 2000 is "Low Pressure System #3" for which there are no details. **It is still a multi pump station design.**

Items In addition to Peer Review;

6. Sheet C.11, Erosion Control & Demolition Plan; Line work and labelling not very clear. Erosion control line and limit of work not distinguishable.
7. Sheet C.12, Overall Plan; Building numbers (addresses) do not agree with those assigned by the Town. Revise to Town assigned addresses/building numbers.
8. **Profile Sheets have not been provided as they were in the original submission. Very difficult to review utility revisions without them**.
9. Sheet C.19, Grading and Drainage Plan 1; Labels are provided for the Stormtech Infiltration System but the structures and outline of the system north of Building 1000 are not shown.
10. Sheets C.24-C.28, Utility Plans Sheets 1-5; List all sewer inverts on plan structure labels.
11. Sheets C.24-C.28, Utility Plans Sheets 1-5; Provide finish floor and/or top concrete elevation for all buildings.
12. Sheet C.24, Utility Plan 1; Building 1000 has 11 sewer services exiting the building. The original approved design for Building #1 had one sewer. Apartment style buildings typically have one sewer service. Given the importance of the single service it should have a SMH where it connects to the main (the same for other multi-unit sewer tie in).
13. Sheet C.24, Utility Plan 1; Based upon limited invert information, it appears that sewer from SMH 21 to SMH 18 is shallower than the normal 7' depth for sewer. Design should be revised

deeper to keep sewer below water main and services. It would appear that the sewer in this area could be lowered if it were routed to SMH 14. This would lower SMH 31&32, thus lowering shallow sewer along the east side of Building 1000 as well.

14. Sheet C.24, Utility Plan 1; The design shows Proposed Low Pressure System #1, #2, #3 with #2 & #3 apparently serving the floor drains in Buildings 1000, and 2000. An oil water separator will be required prior to these injector pumps. All three low pressure systems reference Detail Sheet C.47. On Sheet C.47 no detail exists for these systems. #2 and #3 will require explosion proof pump motors, wiring and internal fixtures/components.
15. Sheet C.25, Utility Plan 2; Proposed Sewer Pump Station #1 should have a reference to a Detail Sheet(s).
16. Sheet C.25, Utility Plan 2; No sewer rim and invert table provided on this Sheet for Building 11000 (however this building is designed correctly with one sewer service). Provide SMH at connection to sewer main.
17. Sheet C.26, Utility Plan 3; The plan shows a number of townhouse (ownership) units. The units show a single sewer service for each building. If units share a common service then a maintenance agreement must be in place for each unit to share in responsibility for maintenance/repairs. An SMH should be provided where the common sewer joins the main and a cleanout where the building sewer meets the service line (about 10' outside building). In the absence of a common sewer maintenance agreement the units shall have separate sewer services for each building. Regardless of common maintenance agreements separate water services need to be provided to each unit with a shutoff behind the sidewalk (or a similar distance of edge travelled way if no sidewalk). Water services to be 1" type K Copper with buffalo style curb stop boxes. Each ownership unit shall have a water meter and reader meeting Walpole Water Dept. specifications. Fire service may be common to each building. The size needs to be specified. Anything over 2" diameter shall be c.l.d.i. and shall have an anchor tee and gate at the main.
18. Sheet C.27, Utility Plan 4; Revise note at top right of page to coordinate with Town of Walpole Water Dept.
19. Sheet C.28, Utility Plan 5; Revise note at right of page to coordinate with Town of Walpole Water Dept. for water connection and Town of Walpole Engineering Dept. for Sewer Connection.
20. Sheet C.28, Utility Plan 5; At SMH 27 add note (See Detail Sheet C.47).
21. Sheet C.28, Utility Plan 5; Recommend revising label for Air Release Manhole #3 to #2 as there are now only two air release manholes (coordinate to revise details on Sheet C.47).
22. Sheet C.28, Utility Plan 5; Show a mill and overlay (2") in Summer Street at the site entrance the width of Summer Street from entrance rounding to entrance rounding (to repair the utility cuts).
23. Sheet C.28, Utility Plan 5; Provide a plan detail for exact location of RRFB (on other side of railroad tracks). Provide plan enlargement as well as detail of base and equipment.
24. Sheet C.25, C.26, C.27 Utility Plan 2, 3, & 5; Revise labels for force main from Pump Station #1 to be 4" diameter on all sheets. Town would prefer cement lined ductile iron for force main material.
25. Sheet C.25, C.26, C.27 Utility Plan 2, 3, & 5; Current design has force main meandering within roadway, front walkways and in general all over the plan. Consider running force main in common trench with gravity sewer. May require adjustment of other utilities.
26. Sheet C.46, Water & Sewer Connection Detail Sheet 8; Remove and replace with Town of Walpole Standard Details the Tapping Sleeve, Typical Fire Hydrant Connection, Typical Water Service Connection, and Typical Gate Valve Installation Details. Remove the Typical Saddle

Connection as all service to main connections shall be SDR 35 gasket joint sanitary wyes (8”X6”). Any 8” to 8” should be through a sewer manhole.

27. Sheet C.47, Water & Sewer Connection Detail Sheet 9; It would appear the detail for Air Release Manhole #2& #3 can be eliminated (no 3” force main in this design modification). Air Release Manhole #2 may be added to label for Air Release Manhole #1 as they should be the same.
28. Sheet C.47, Water & Sewer Connection Detail Sheet 9; It would appear that Cleanout Valve Manhole #2 may also be eliminated and the detail for Manhole #1 may apply to both Cleanout Valve Manhole #1 and #2.
29. Sheet C.47, Water & Sewer Connection Detail Sheet 9; Missing details for Pump Station #1; Section View, Plan View, Valve Chamber Plan View & Section View. Also missing similar details for Low Pressure Systems #1, #2, #3. Low Pressure System #2 and #3 to be explosion proof construction.
30. Sheet C.47, Water & Sewer Connection Detail Sheet 9; Missing detail for Oil/Water Separator (to be shown prior to Low Pressure System #2 & #3 handling floor drains for Bldg. 100 & 2000).

We remain available should you and/or the Board have any questions.

Cc;
Richard Mattson, Director of Public Works
Scott Gustafson, Sewer & Water Superintendent
Patrick Deschenes, Community & Economic Development Director
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