



JC ENGINEERING, INC.

Civil & Environmental Engineering

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March 20, 2024

Town of Wareham
Planning Board
Attn: Mike King, Chair
54 Marion Road
Wareham, MA 02571

RE: Responses to Second Peer Review as prepared by Allen & Major, Inc.
Hidden Trails Definitive Subdivision Plan

Dear Chair King and Members of the Commission:

JC Engineering, Inc. (JCE) has received the following documents from Allen & Major, Inc. (A&M) pertaining to the previously submitted Hidden Trails Definitive Subdivision Plan and Special Permit for a Residential Cluster Development & Site Plan Review, revised February 9, 2024, as prepared by JCE:

- Second Peer Review letter addressed to the Town of Wareham Planning Board, Attn: Michael King, Chair, dated February 26, 2024

Comments from A&M are shown in italics followed by responses from JCE. Also attached is the revised Definitive Subdivision Plan of Hidden Trail, dated 3/20/24 (Plan), and revised Stormwater Report (relevant sections only), dated 3/20/24 (Report), for review.

Wareham By-Laws and Zoning By-Laws

1. *Issue resolved, no further comment.*
2. *Issue resolved, no further comment.*

Site Plan & Drainage Calculations

3. *Design Point 4 (Off-Site to Cranberry Bogs) continues to show a slight increase in runoff volume during the 10-year event that should be reviewed. **Additional stormwater controls have been added to the Plan, including updated Note #7 on Sheet 4 of 25 and updated Drywell Detail on Sheet 22 of 25. The stormwater calculations have also been revised to show that the peak runoff rates and volumes do not increase for Design Point 4 for the 2, 10, 25, and 100-year storm events.***
4. *Issue resolved, no further comment.*
5. *Issue resolved, no further comment.*

6. *Issue resolved, no further comment.*
7. *The groundwater mounding calculations have been provided as requested. The design engineer should review the mounding calculation associated with infiltration basin 4 as the calculated mound is 2.67' whereas the separation to the estimated seasonal high groundwater table is 2.4'. **The groundwater mounding calculations previously showed that the groundwater mounding would not break-out above the surface beyond the footprint of the infiltration basin. To avoid any mounding within the footprint of the infiltration basin during a 100-year storm event, the bottom basin elevation depicted on the Plan has been increased to 2.7 feet above seasonal high groundwater. Infiltration Basin 4 no longer intercepts the mounded elevation of groundwater during a 100-year storm event, thereby not impacting any necessary storage volume. The table for the Results of Mounding Calculations of the Report as well as the Water Quality Volume, Infiltration Drain-Down, and Sediment Forebay Sizing Calculations have been updated.***
8. *Issue resolved, no further comment.*
9. *Issue resolved, no further comment.*
10. *The applicant has provided the requested note as located on Sheet 4 of 25 that describes the requirement for drainage on each lot and supplemental drainage as needed. The note references lot numbers that should be added to the key sheet to avoid any confusion. The location of the note is such that it may be overlooked under future design that the Planning Board may wish to include a condition in any approvals to ensure drainage is accounted for properly. **Issue resolved, no further comment. We agree a condition in the approval document regarding the above matter will be beneficial. The lot numbers have been added to the key sheet.***
11. *Issue resolved, no further comment.*
12. *Issue resolved, no further comment.*
13. *Issue resolved, no further comment.*
14. *Issue resolved, no further comment.*
15. *Issue resolved, no further comment.*
16. *Issue resolved, no further comment.*
17. *Issue resolved, no further comment.*
18. *Issue resolved, no further comment.*
19. *Issue resolved, no further comment.*
20. *The applicant has provided street trees as requested. The Subdivision Rules do not list street tree species and size, however, the applicant may wish to add these to the plans. The Planning Board may wish to consider this as a clerical condition to any approvals issued. **Issue resolved, no further comment. The Street Tree Planting detail has been updated to include the minimum tree height in accordance with the Subdivision Rules, as well as a***

note to specify the tree species to be planted, pending availability at time of installation.

21. *Issue resolved, no further comment.*
22. *Issue resolved, no further comment.*
23. *A&M acknowledges the applicant's response to the positioning of catch basins noted in comments a through d above. The designer has positioned the catch basins in locations that are viable and should be installed accordingly with appropriate oversight during construction. However, the Subdivision regulations do note the requirement for catch basins at each intersection. The applicant should consider including this as a waiver for the Planning Board to consider. The drainage as proposed is functionality equivalent to structures that could have been installed at each intersection. A&M defers to the Planning Board, no further comment. **No comment necessary.***
24. *Issue resolved, no further comment.*
25. *Issue resolved, no further comment.*
26. *Issue resolved, no further comment.*
27. *Issue resolved, no further comment.*
28. *Issue resolved, no further comment.*
29. *Issue resolved, no further comment.*
30. *The Planning Board may wish to consider a condition requiring a submission of the SWPPP for record at the time of submission to the EPA under the NPDES program and that all inspection reports can be made available to both the Planning Board and Conservation Commission as required. **This appears to be an appropriate condition that can be added to the approval document(s).***
31. *Issue resolved, no further comment.*
32. *Issue resolved, no further comment.*

Additional Comments

33. *The applicant is proposing the same model water quality treatment unit for the project (CDS 2015-4). From previous experience, the CDS units have specific flow rates required for each model. The applicant should confirm that the appropriate structure is being utilized onsite as opposed to the blanket use of a singular model where the water quality flow rate may not be acceptable to the manufacturer. This is notes on DMHs 12 and 22. **The sizing software available on-line from the manufacturer's website results in the above mentioned model number required for the specified flow rates with this project. Updated documentation has been included in the Report. We acknowledge that it is customary to confirm model sizes with the manufacturer prior to ordering structures.***

34. *There is no easement provided for the relocated and existing gravel cart paths that would span proposed lots 27 through 32, 35, and Parcel 59. Easement areas have been added to the Plans where said cart paths encroach upon the proposed lots.*

Statement on Waivers

A&M offers the following comments on the requested waivers for consideration by the Planning Board.

1. *This waiver has been removed and is no longer applicable. No comment necessary.*
2. *This waiver has been removed and is no longer applicable. No comment necessary.*
3. *The applicant denotes this waiver has been removed and they intend to utilize concrete curb adjacent to sidewalks and bituminous throughout. Section VI.H allows bituminous curb when "in the judgement of the Planning Board, because of grades, curves or traffic, their installation is warranted." While a waiver for bituminous is not required, A&M defers to the Board's opinion on the use of this curb type throughout the subdivision. It appears that the Board's updated Rules and Regulations no longer require any justification to utilize the berms currently proposed for this development.*
4. *The fire chief has issued an opinion on a letter dated December 5, 2024 that the use of fire alarms is antiquated and not required in support of this waiver. No comment necessary.*

Sincerely,



Bradley M. Bertolo, EIT, CSE
Project Engineer

Cc: Sarajon Realty, LLC