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March 28, 2018

Medway Conservation Commission
155 Village Street
Medway, Massachusetts 02053

Subject: Response to Comments from TetraTech,
Timber Crest Estates, Notice of Intent (DEP File #216-914)
Job #OE-2765

Dear Commission Members,

On behalf of Timber Crest LLC, we are providing responses to the Stormwater and Stream Crossing comments in Tetra Tech's (TT) letter dated February 6, 2018. In addition, updated plans are submitted herewith:

- Conservation Permitting Plans, revised March 15, 2018.
- Drainage Report, revised March 15, 2018.
- Draft Stormwater Pollution Prevention Plan (site contractors are not yet identified).

Our responses below are numbered to correspond to the 25 comments in TT's letter.

Stream Crossing Standards

1. A significant plan change has been made based on the acquisition an easement on 13 Fairway Lane that will be used for an emergency access to connect cul de sac Road H to Fairway Lane, such that Road I and the emergency access road with box culvert at Wetland Crossing #2 has been eliminated. In addition, a bridge is now proposed at Wetland Crossing #3 to span the majority of the BVW and all of the intermittent stream bank, in compliance with "Optimum Standards" of the MA Stream Crossings Handbook, June 2012. We continue to use a 3-sided box culvert at Wetland Crossing #1 in compliance with the General Standards, where the only wetland resource area is an intermittent stream behind 13 Ohlson Circle, representing relatively low habitat value.

As a result, these changes provide a number of positive mitigation factors as follows:

- alteration to bordering vegetation wetlands has been significantly reduced to 3,408 s.f. total for the project (of that only 1,390 s.f. is permanent wetland fill required for the bridge crossing at Road F/Wetland Crossing #3; see plans for more info).
- 4 house lots have been eliminated along the former Road I, resulting in the preservation of significantly more trees in upland and wetland areas, and less fragmentation of the surrounding vernal pool habitat.

- Stream channel hydrology is preserved.
2. As suggested, the applicant is providing a bridge to span the intermittent stream at Wetland Crossing #3 (Road F) in compliance with Optimum Standards, and a box culvert is provided at Wetland Crossing #1 where an emergency access road is planned (see response #1).
 3. Measured perpendicular to the banks, the bankfull stream widths at Crossings 1 and 3 are approximately 8' and 11' respectively. These dimensions are used in the Stream Crossing Calculations shown on detail Sheet 42. Additional notes and other details have been added to the box culvert and bridge crossing details.
 4. As suggested, a bridge is now proposed at Wetland Crossing #3 that eliminates any disturbance to the stream bed.
 5. With the use of the bridge to maintain the stream bed, analysis of stream velocities are unnecessary.
 6. As noted in response #1, the bridge at Wetland Crossing #3 is in compliance with the Optimum Standards.
 7. As noted in response #1, with the use of the bridge to maintain the stream bed at Wetland Crossing #3, the stream banks shall be preserved. The box culvert details include notes on reconstructing the banks after installation of the water and sewer lines. No further analysis of stream hydraulics is necessary.

General Stream Crossing Comments

8. We have indicated that Wetland Crossing #1 should be conducted during dry season, and the applicant is willing to discuss appropriate seasonal work conditions for Wetland Crossing #3 where the stream channel is to remain undisturbed.
9. We are proposing triple-stacked Filter Mitt as silt fence at both wetland crossings where work will either be done during dry season (crossing 1) and/or there is no work within the stream channel (crossing 3).

MA DEP Stormwater Management Standards

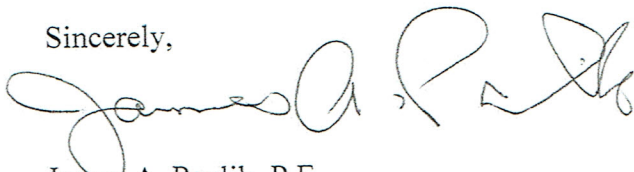
10. Drawdown calculations for all infiltration BMPs, including leaching chamber beds and rain gardens, have been added to Appendix E of the Drainage Report.
11. Appropriate water quality volume calcs with 1.0 inch runoff are provided for all applicable infiltration basins with rapid infiltration.
12. Refer to Appendix F-4 for water quality tank bypass calcs.
13. The basins have been redesigned such that there are no Extended Dry Detention Basins in the revised plans. Detention Basins 8A and 10 are now designed as dry basins with no TSS removal (they provide rate control only), and the former basin 11 is now Water Quality Swale #2.
14. The TSS calcs for Water Quality Swale #2 (formerly Det. Basin 11) have been updated to eliminate street sweeping and to reflect the current treatment train (see Appendix F).
15. The 5-acre difference noted in the comment between pre- and post-development areas is attributable to the use of roof drains on most of the homes in the project. Roof drains will be required to handle the 100-year storm, as noted in the Post-Development Calculations and on the roof drain detail.
16. The details have been revised to reference the proper Test Pits in the detail sheets.
17. Infiltration Basin#1 was raised to provide 4' separation, and Basins 4 and 14-16 have mounding calcs.

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18. All stormwater basins have outlets in upland areas and tailwater conditions are not expected. HydroCAD otherwise accounts for tailwater conditions within the runoff models between reaches and ponds. No changes necessary.
19. The exfiltration rate was changed to 2.41 in/hr. in the HydroCAD for Inf. Basin 16, to match the drawdown calc.
20. A 6" stone layer has been added beneath LC-3 and LC-4, and elevations adjusted in both HydroCAD and in the plan details.
21. LC-4 has 1 outlet to Detention Basin 10, and HydroCAD was changed accordingly.
22. The Water Quality Tank details have been updated to provide tank dimensions and provision for a 4' permanent water depth.
23. Monitoring well depths of 20' or limiting soil depth are now shown on the basin details.
24. Leaching Chamber beds 3 and 4 are located outside the rights of way, and have been used to reduce runoff volumes as well as some rate control.
25. The Drainage Report and DEP Stormwater Form are stamped.

Should you have any comments or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "James A. Pavlik". The signature is fluid and cursive, with a large initial "J" and "P".

James A. Pavlik, P.E.
Principal

cc: Mounir Tayara, Timber Crest
DEP, CERO