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July 13, 2021

To: Community Development
City of Methuen

From: Stephen J. Gagnon, PWM
Engineering Department Administrator

Subject: 33 Danton Drive
Site Plan Review

As requested, I have reviewed the plan set and Stormwater Management Report, all dated June 6, 2021, prepared by Design Consultants, Inc. Based on my review of the above I have the following comments to offer:

1. Full size pre and post development drainage area maps should be provided.
2. The stormwater analysis indicates an increase in the peak rate of stormwater runoff and volume. The project should be revised to provide 0 increase in runoff for all storm events up to 100-year.
3. A TSS Removal worksheet should be provided for the system associated with DMH-4, as this system does not utilize deep sump catch basins.
4. A turning analysis should be provided for WB-50 vehicles.
5. The diameter and material of proposed water connections should be provided.
6. Grading changes are proposed within the Danton Drive right of way. The Grading changes should be limited to the subject site.
7. The material of proposed drainage pipes should be specified.
8. A note on sheet C103 labels existing sewer main as 12" diameter, this should be revised to 24" diameter.

9. The proposed drainage system is depicted connecting to the existing drainage system in Danton Drive. The Project Engineer should confirm the existing drainage system has sufficient capacity to accommodate the proposed connection.

10. The slope of the proposed sewer service connection is specified as 0.005. The slope should be revised to a minimum of 0.020.

11. A proposed drainpipe capacity analysis should be provided.

12. A construction detail of the outlet control structure should be provided.

13. The elevations for the outlet control structure do not agree in the drainage calculations and the plan set.

14. The discharge pipe from the outlet control structure is depicted as 15" diameter in the plan set and 18" diameter in the calculations.

15. The test pit locations depicted on the plan set should be identified so the corresponding soil logs can be associated.

16. The infiltration rate for the infiltration structure should be determined according to the DEP Stormwater Manual.

17. The peak water surface elevation in the infiltration system exceeds the invert elevations for the upstream drainage system. The drainage system should be free flowing to the infiltration system for all storm events.

18. The plan should be revised to provide unique identifiers for each pipe entering/exiting manholes.

19. The jurisdiction of the Plumbing Code extends 10' from the outside face of the foundation, consequently some of the proposed drainage system would be subject. The Engineer should confirm the design is consistent with the Massachusetts Plumbing Code.

The Project Engineer should address these issues in writing.