Environmental Services



Engineering Services

September 17, 2020

Mr. Ryan Clapp Conservation Agent Holliston Conservation Commission 703 Washington Street Holliston, MA 01746

Re: Stormwater Design Engineering Peer Review #2

"Triangle Farm" Definitive Open Space Subdivision Mill Street, Holliston MA CMG ID 2020-164

Dear Ryan,

CMG is providing this letter report detailing our engineering peer review of the stormwater management system design for the "Triangle Farm" Definitive Open Space Subdivision in Holliston, MA. The project is located on an approximately 12.4 +/- Acre currently undeveloped parcel identified as Parcel 55.1 & 55.2 (the "Site"). The project Applicant, *Murch Prentice Realty Trust is* proposing to construct a seven (7) Lot Single-Family Residential Subdivision, access road, and associated stormwater management structures within an Agricultural – Residential District B.

CMG is in receipt of the following documents:

- Comment / Response Letter "Definitive Open Space Subdivision Plan Triangle Farm Holliston, MA" prepared by GLM Engineering Consultants, Inc., date 9/10/20.
- Site Plans entitled "Definitive Open Space Subdivision "Triangle Farm", A 7 Lot Single Family Residential Subdivision Holliston MA" prepared by GLM Engineering Consultants, Inc., date 6/15/2020, revise date 9/10/20.
- "Stormwater Management Report" for Triangle Farm Project Holliston MA prepared by GLM Engineering Consultants, Inc., date 6/15/2020, revise date 9/10/20.

GLM's plan and stormwater report revisions address the majority of CMG's August 18, 2020 civil engineering peer review comments relating to the engineering and stormwater design comments.

CMG is providing the following list of remaining comments and condition of approval recommendations based on review of the above 9/10/20 plan revisions for consideration by the Conservation Commission:

5. Proposed foundation drains and outlets should be shown on the grading & drainage plan.

GLM Response: No foundation drains are proposed at this time.

CMG Comment #2: Foundation drains may be necessary to deter flooding in the basements of the proposed houses nearest the Site wetlands areas. At a minimum, foundation drains and outlets should be shown for house lots 3, 4, & 7 as this work may be within the 100 ft. buffer zone.

6. Subdrains should be provided along all cut sections of roadway and shown on the plans.

GLM Response: The sewage disposal system design will address all grading related to the leaching field.

CMG Comment #2: Roadway subdrains are not related to the on-site septic systems and are intended to prevent high ground-water from undercutting the pavement in cut sections as part of the roadway drainage design.

10. Rip-rap apron sizing calculations for all pipe surface outlets and details must be provided for the 100-year storm event.

GLM Response: Revised See Stormwater Report.

CMG Comment #2: The proposed 8' x 10' rip-rap apron proposed on Sheet 6 of 10 appears to be adequate for the propose pipe outlets. However, there appears to be no rip-rap apron sizing calculations included in the revised submission.

23. Proposed roadway Station 0+00 to 1+00 will discharge to the Mill Street gutter line without adequate treatment. Applicant's engineer must provide BMPs to provide adequate TSS removal treatment.

GLM Response: The roadway area flowing towards Mill Street is approximately 2,450 s.f. of pavement. The peak discharge for the 2-year storm event is 0.17 cfs, less than 1.0 cfs. (See Subcatchment P5). This discharge is considered di minimis.

The weighted average TSS Removal:

 $(112,092 \text{ sf } \times 0.89 \text{ TSS})/(112,092 \text{ sf} + 2,450 \text{ sf}) = 87\% \text{ Removal}.$

CMG Comment #2: CMG is in agreement with GLM's opinion the runoff from the first 100 FT of roadway meets the definition of a *de minimus* stormwater discharge based on the above response. Recommend GLM also verify the physical site conditions preclude installation of a TSS Treatment practice (ie. lack of head differential).

29. The Site is > 1 Acre therefore an EPA NPDES Construction General Permit (CGP) registration and SWPPP is required to be submitted prior to construction. CMG recommends the Conservation Commission make this a condition of approval.

GLM Response: Applicant is agreeable to this comment.

CMG Comment #2: CMG recommends this as a Condition of Approval

35. An illicit discharge compliance statement is included within long term operation and maintenance plan. CMG recommends a signed copy of this statement be submitted to the Commission prior to construction.

GLM Response: Revise Stormwater Report.

CMG Comment #2: CMG recommends this as a Condition of Approval

If you have any questions or need additional information please contact me at (508) 864-6802.

Sincerely,

CMG ENVIRONMENTAL, INC.

David T. Faist, PE

Principal Engineer - Engineering Services