



November 24, 2021

Attn: Eric Schneider  
Principal Planner  
Town of Weymouth  
75 Middle Street  
Weymouth, Massachusetts 02189

**RE:           RESPONSE TO COMMENTS ON DEFINITIVE SUBDIVISION  
              Revised Subdivision Plans 11/19/2021  
              Massapoag Street, Weymouth, MA**

Dear Mr. Schneider and Members of the Board;

This letter is being submitted in response to the comments received from the Town of Weymouth, regarding the Definitive Subdivision at Massapoag Street in Weymouth, Massachusetts. The original comments, received on 5/27/2020 are shown in *italics*, Crocker Design Group, LLC (CDG) offers the following responses to each comment below, shown in **bold**.

Enclosed are the following documents in support of the project:

- 6 – 24x36 Copies of the Definitive Subdivision Plans last revised on November 19, 2021
- 6—11x17 Copies of the Definitive Subdivision Plans last revised on November 19,2021
- 6—Copies of the Response to Engineering Comments letter (This letter)
- 6—Copies of the Response to Conservation Agents Comments letter dated November 24, 2021
- 6— Copies of the Stormwater Report Last revised on November 19, 2021

**Engineering Division:**

3. *The diameter of the crushed stone area, as shown on the infiltration basin detail on sheet C-8.2, is labeled 56 feet. The R28' label on the cul-de-sac as shown on Sheet C-3 measures to the cape cod berm gutter line. The crushed Stone cannot extend under the berm, therefore the diameter of the crushed stone area should be limited to 54 feet. The calculations provided for the infiltration basin need to be revised to include a 54 foot diameter crushed stone area.*

**CDG Response: The infiltration basin in the cul-de-sac has been eliminated and replaced with two (2) new infiltration basins, one located toward the rear of Lot 1, the other at the rear of Lot 4. These basins have been sized to capture the Massapoag Street extension as well as the seven (7) private lots.**

4. *Several concerns related to the Proposed Lot Drainage Plan and supporting calcs:*

- *A full buildout conceptual development plan was not provided as requested*

**CDG Response:** The revised Site Plans, enclosed with this letter, include the full buildout program as requested. All lots have been graded, house pads, driveways and patios are sited , and all stormwater runoff is directed to the new basins.

- *BMP's required to mitigate increase in runoff for full build out of the project (including lots) should be shown on the plan.*

**CDG Response:** The enclosed revised Definitive Subdivision Plans include the full build out of the project as requested. BMP's for stormwater management include two infiltration basins located behind lots 1 and 4. Deep Sump hooded catch basins within the roadway will capture the runoff from the roadway and driveways, and water quality units as well as the infiltration basins will provide stormwater treatment and attenuation for the individual lots as well as the roadway. The prior basin design within the cul-de-sac has been deleted from the design.

- *The development on lots 1,2,3,4 and 5 will likely require significant amounts of fill to provide access to a dwelling and create usable open/ yard space. The single lot typical watershed analysis plan shown on sheet C-9 appears to underestimate the total disturbed area due to filling and does not account for impervious areas related to pools, patios, sheds, etc.*

**CDG Response:** We have revised the Proposed Conditions Watershed Analysis Plan and HydroCAD analysis (See Section 3 of the revised Stormwater Report) to incorporate the entire site. This revision takes into account site disturbance related to patios, pools, etc.

- *The infiltration trench concept shown on Sheet C-9 assumes runoff will be confined to each lot. It is typical for stormwater runoff flow paths to cross property lines. Will each lot be graded to keep runoff from draining onto an abutting lot or will the future property owners be required to control/infiltrate runoff from an abutting property?*

**CDG Response:** The new design eliminates the need for the infiltration trenches. The individual lots have been graded so that runoff flows to one of two (2) proposed infiltration basins.

- *The infiltration rates used to size the roof drywells, trench and stone bed are not consistent with the rate used to size the infiltration basin located in the cul-de-sac. The rate used to calculate the infiltration basin is based on the soils observed at the site and the Rawls Rates specified in the stormwater handbook. The calculations should be revised to be consistent with the infiltration rate used to size the infiltration basin.*

**CDG Response:** As stated above the basin within the cul-de-sac and we are providing stormwater runoff is mitigated through two (2) infiltrations basins located behind Lots 1 and 4. The infiltration rate used for Infiltration Basin 1 in the HydroCAD Model is 1.02in/hr, which per the MA Stormwater Handbook is a well-draining HSG B soil. The infiltration rate used for Infiltration Basin 2 is 2.41, which is a HSG A soil. These rates are consistent with the soil testing performed in these locations. Please refer to the test pit logs provided in Section 6 of the Stormwater Report.

- *The stone bed concept shown on Sheet C-9, proposed for the infiltration of runoff from driveways, is designed to be at a constant bottom elevation. Due to the site slopes, the proposed use of stone beds for driveway runoff is not feasible.*

**CDG Response:** The stone bed has been deleted from the revised Site Plan. As described in the responses above, stormwater mitigation will be provided through deep sump hooded catch basins, water quality units and the two (2) infiltration basins located behind Lots 1 and 4.

- *As noted in the stormwater handbook the disadvantages of infiltration trenches includes high failure rates due to improper siting and maintenance, susceptible to clogging with sediment and require frequent maintenance. How will homeowners know to properly maintain the trenches and not to remove or fill over? Each lot will require an O&M plan.*

**CDG Response:** The Definitive Subdivision Plans have been revised and removed the infiltration trenches have been deleted.

- *The infiltration trench is proposed to be located at the base of a 3:1 slope. Runoff from larger storm events will bypass the trench. The design should be revised to prevent trench bypass or short circuiting.*

**CDG Response:** The Definitive Subdivision Plans have been revised and removed the infiltration trenches have been deleted.

7. *The Engineering Division is not in agreement with removing the guardrail. Having 5-6 ft deep open infiltration system in the middle of a cul-de-sac is not a safe condition. What will stop vehicles from driving into the basin? The Engineering Division does not approve of an open basin in the middle of a cul-de-sac. The crushed stone 3:1 slope inside the basin is not stable and will not be easy to maintain. Snow pushed into basin will contaminate the stone with trash and sediment. Accessing the basin to remove sediment, trash and weeds will be difficult due to the instability of the crushed stone slope. The Engineering division recommends the use of subsurface infiltration system.*

**CDG Response: The infiltration basin within the cul-de-sac has been deleted and thus the guard rail is no longer needed and no longer shown on the plans.**

8. *Replace Catch Basin Detail D-02 shown on Sheet C-8.1 with Catch Basin with Cape Cod Berm Detail D-05.*

**CDG Response: Detail D-02 has been replaced with detail D-05 see Sheet C-8.1.**

10. *The Engineering Division does not agree. Storm water Handbook requires the emergency spillway be designed to bypass runoff from large storm events. A swale constructed as recommended will not only protect the slope from erosion, but it will also confine any discharges from FES F3 to the easement.*

**CDG Response: The stormwater system has been redesigned. The proposed infiltration basins have been designed to include emergency spillways.**

12. *Sheet C-2, upper left there appears to be a typo. We believe that it should say Town of Braintree, not Town of Weymouth in referring to the parcel in Braintree.*

**CDG Response: Title has been researched and the updated ownership of the Braintree Parcels has been revised see sheet C-2.**

13. *Sheet C-7, The profile does not show the design grades as is typically shown for roadway profile.*

**CDG response: Please see the revised on Sheet C-7 which includes grade elevations at 25' intervals.**

Mr. Eric Schneider  
November 24, 2021  
Page 5

Should you have any questions or require any further information, please do not hesitate to contact Gabe Crocker, P.E. at [gabecrocker@crockerdesigngroup.com](mailto:gabecrocker@crockerdesigngroup.com) or 781-919-0808.

Sincerely,  
Crocker Design Group LLC



Gabe Crocker P.E.  
President