

February 3, 2022

Millbury Planning Board  
127 Elm Street  
Millbury, Massachusetts 01527

**RE: 1497 Grafton Road (aka 0 Grafton Road)**

Dear Members of the Board:

This letter is in response to comments received by this office on January 5, 2022 from the Town's consultant, Stantec regarding the above referenced project. We have reviewed these comments and provide the following responses. For clarity we have inserted Stantec's comments followed by our responses in bold.

Our responses are as follows:

### **STORMWATER MANAGEMENT**

The Stormwater Management Report is included under a separate cover of the same name with the Site Plan submission. The report includes a narrative with attachments that address the Town's General Bylaws for Stormwater Management, which includes Municipal Code Chapter 13.15 Post-Construction Stormwater Management of New Developments and Redevelopments which identifies information required for the Board to evaluate the environmental impact, effectiveness, and acceptability of the proposed measures, as well as meet the Massachusetts Stormwater Management Standards as set by the Department of Environmental Protection (DEP). Stantec offers the following comments for the Board's consideration. The following list refers to the Millbury Planning Board Submission of Stormwater Plan Review Checklist. Our review has only included "design" related items as part of the checklist.

g) In general, the location of existing and proposed utilities are identified on the Site Plan.

*We recommend pipe diameter and direction of flow of existing culvert at Grafton Road be identified on the plan.*

**The culvert information has been added to the Site Plans.**

i) The existing site hydrology is shown on the Site Plans.

l) Seasonal high groundwater elevation has been provided on Sheet 2 of 8, entitled Existing Conditions.

*We note test pit no.1 is not located within the footprint of the propose subsurface infiltration chamber system and recommend an additional test pit be performed by JMGA.*

**A confirmatory test hole will be performed in the area of the proposed infiltration system prior to construction.**

- m) Existing and proposed ground cover and runoff coefficients have been provided in the Stormwater Report.
- n) A drainage area map showing pre and post conditions have been provided in the Stormwater Report.
- o) See general stormwater comments at the end of this letter report.
- p) The location of proposed improvements has been identified on the plans.
- q) *A sequence of construction has been provided in the Stormwater Report. We recommend the construction sequence be added to the Site Plan.*

**The construction sequence has been added to the Erosion & Sedimentation Control Plan (Sheet 7 of 9).**

- r) A maintenance schedule during construction has been provided.

#### MassDEP Stormwater Standards

1. No new stormwater conveyances (e.g., outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.

*The applicant provided rip-rap sizing calculations to confirm no erosion or scour at Outlet 1. We recommend discharge from the outlet be redirected to the existing vegetated wetland and required maintenance (removal of sediment/debris) be performed on the existing buried culvert.*

**The outlet has been redirected toward the wetland. Required maintenance for the outlet has been added to Operation & Maintenance Plan.**

2. Standard 2 – Stormwater management systems must be designed so that post-development peak discharge rates do not exceed pre-development discharge rates. As identified in the summary, the project will not result in an increase in peak flows under post- development conditions for the 2, 10, and 100-yr storm events.

*As noted in the Stormwater Management Report, proposed infiltration chamber system is designed for the 2 through 100-year storm events. It appears modifications to the storm drainage system may be required to ensure during the 25 through 100-year storm events, the estimated drainage areas as identified in the analysis are tributary to the proposed infiltration chamber system. We recommend JMGA provide additional hydraulic calculations identifying the proposed closed drainage system capacities for storm events greater than the 25- year event.*

**Hydraulic calculations have been provided showing the drainage system has the capacity to handle the 100-year storm event.**

3. Loss of annual recharge to groundwater should be eliminated or minimized using infiltration measures including environmentally sensitive site design, low impact development techniques, stormwater best management practices, and good operation and maintenance. At a minimum annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type. The applicant provided calculations to confirm the annual recharge from the post-development approximated pre-development conditions.

*We note the calculations included an infiltration rate of 8.27 inches/hour which is not in agreement with the infiltration rate of 1.02 inches/hour associated with a sandy loam as identified in the test pit log. We recommend this item be addressed by JMGA*

**The infiltration rate has been revised to 1.02 inches/hour.**

4. Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). This Standard is met when:
  - a) Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan, and thereafter are implemented and maintained.
  - b) Structural stormwater best management practices are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook; and
  - c) Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook

*The applicant provided a worksheet and calculations to confirm the stormwater management system is designed to meet the required TSS removal rate of 80% and required water quality volume.*

**No response necessary.**

5. For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If through source control and/or pollution prevention all land uses with higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the proponent shall use the specific structural stormwater BMPs determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Water Act, M.G.L. c. 21, §§26-53 and the regulations promulgated thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.

*The project is not associated with a land use with higher potential pollutant load;*

*therefore, this standard is not applicable.*

**No response necessary.**

6. Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area, require the use of specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas, as provided in the Massachusetts Stormwater Handbook. A discharge is near a critical area if there is a strong likelihood of a significant impact occurring to said area, considering site-specific factors. Stormwater discharges to Outstanding Resource Waters and Special Resource Waters shall be removed and set back from the receiving water or wetland and receive the highest and best practical method of treatment. A “stormwater discharge” as defined in 314 CMR 3.04(2)(a) 1 or (b) to an Outstanding Resource Water or Special Resource Water shall comply with 314 CMR 3.00 and 314 CMR 4.00. Stormwater discharges to Zone I or Zone A are prohibited unless essential to the operation of a public water supply.

*The project is not associated with stormwater discharges near a critical area; therefore, this standard is not applicable.*

**No response necessary.**

7. 7. A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions

*This project is a new development; therefore, this standard is not applicable.*

**No response necessary.**

8. A plan to control construction-related impacts including erosion, sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented. An erosion and sedimentation control plan are included as part of the site plan submittal.

*The Erosion Control Plan (Sheet 6 of 9) identifies the erosion control barrier/limit of disturbance along segments of the site. We recommend the erosion control/limit of disturbance line be extended around the entire site perimeter (northerly property line).*

**The limit of disturbance is now shown around the entire site perimeter.**

9. A long-term operation and maintenance plan shall be developed and implemented to ensure that stormwater management systems function as designed. An operation and maintenance plan are included as part of the stormwater report submittal.

*We recommend the Applicant provide information regarding the following: snow storage, vehicle washing and management of de-icing chemicals.*

**This information has been added to the Operation & Maintenance Plan.**

**10.** All illicit discharges to the stormwater management system are prohibited.

*An illicit discharge statement was included as part of this submission.*

**No response necessary.**

## **GENERAL COMMENTS**

### **Stormwater**

1. The Stormwater Report Calculations for G-613-POST list the ADS\_StormTech MC-3500 as 20 chambers in 2 rows. The site plan shows that there are 15 chambers. We recommend this item be addressed by JMGA

**The stormwater calculations and site plans now both show 28 chambers in 4 rows.**

2. We recommend cross section of the proposed subsurface infiltration chambers as shown on sheet 7 of 8 identify items such as existing grades and seasonal high groundwater.

**This information has been added to the cross section detail.**

3. We recommend additional information/specification be provided regarding the proposed polyethylene barrier and fill material as shown on the impervious barrier detail located on sheet 7 of 8

**The detail for the barrier has been revised to indicate the use of 40 mil polyethylene and specifications have been provided. Fill material shall be free of boulders, organics or other deleterious materials. Backfill shall be placed and spread uniformly in successive lifts not to exceed 12” in loose thickness. Each layer shall be compacted to a minimum of 95% of maximum density.**

Respectfully,

*John Grenier*

John Grenier  
J.M. Grenier Associates Inc.

cc: Parklund Place, LLC