

April 2, 2026

Anne Capra  
Director, Planning and Conservation  
Town of South Hadley  
116 Main Street, Room U6  
South Hadley, MA 01075



**Re: 65 Old Lyman Road  
Stormwater Peer Review**

Dear Ms. Capra:

On behalf of the Town of South Hadley, McClure Engineering Company, Inc. (McClure), working in conjunction with BETA Group, Inc. (BETA), has completed a stormwater review of the documents prepared for the proposed South Hadley Electric Light Department (SHELD) Headquarters Complex at 65 Old Lyman Road.

## **BASIS OF REVIEW**

McClure conducted a stormwater peer review of the following items for compliance with the MassDEP Stormwater Management Standards and Town of South Hadley Chapter 200 requirements:

- Stormwater Management Report entitled **Stormwater Management Report, South Hadley Electric Light Department Headquarters**; prepared by Fuss & O'Neill, Inc.; dated March 2, 2026 / Revised March 11, 2026 signed and stamped by Daniel F. Delany, MA P.E. No. 48477.
- Plans (17 Sheets) entitled **South Hadley Electric Light Department New Administration & Operations Center – Permit Set**; prepared by Fuss & O'Neill, Inc.; dated March 2, 2026; signed and stamped by Daniel F. Delany, MA P.E. No. 48477

## **COMMENTS**

### **Stormwater Report Review**

1. The Stormwater Checklist indicates that Bioretention is proposed as part of the project. This is not consistent with the plans, which do not appear to include Bioretention. The Applicant should revise the Checklist.
2. The Stormwater Checklist indicates the project is a mix of New Development and Redevelopment. The report narrative indicates the project is not considered a Redevelopment project. The provided calculations are not consistent with the project being a mix of New Development and Redevelopment. The Engineer should revise the Checklist to indicate that the project is a New Development.
3. Stormwater Checklist, Standard 1: The Engineer indicates that outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth. Compliance with Standard 1 requires Rip Rap Apron Calculations. The Applicant should provide calculations for apron length and rip rap sizing to confirm the ground surface can withstand with discharge velocities at each outlet. Recommend dimensioning the rip rap aprons where shown on the plans.
4. Stormwater Checklist, Standard 3: The Engineer indicates that Runoff from all impervious at the site is *not* discharging to the Infiltration BMP and that calculations are provided showing that the drainage area contributing runoff to the infiltration BMP is sufficient to generate the required recharge volume. This does not appear to be accurate and it

appears that all impervious areas are discharging to the infiltration BMPs. The Engineer should remove the checkmark from the box or otherwise provide the calculations if required.

5. Stormwater Checklist, Standard 3: It appears that the infiltration basins are used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm. In this case, if separation to ESHGW is less than four feet, a mounding analysis must be provided. The Engineer should re-evaluate based on any updated test pit information or design revisions, and include a mounding analysis if separation is less than four feet. The Engineer should also update the Stormwater Checklist if warranted after revisions.
6. Stormwater Checklist, Standard 4: The Engineer should revise to include a checkmark that discharge “involves runoff from land uses with higher potential pollutant loads.” See Comment #7 below.
7. Stormwater Checklist, Standard 5: The Engineer indicates the project is not a Land Use with Higher Potential Pollutant Loading (LUHPPL). The plans identify Covered Storage, Fueling Station (Fuel Pump Equipment, Fuel Tanks), Warehouse space, and Utility Truck Bay. It appears the project may qualify as a Land Use with Higher Potential Pollutant Loads. The Engineer should revise the checklist to identify all applicable items. Portions of the project appear to be a use with higher potential pollutant loading.
8. Stormwater Checklist, Standard 7: The Engineer does not address any portions of the project as being Redevelopment and should revise this section accordingly.
9. Per MassDEP Stormwater Handbook Standard 5, If there is a potential for runoff with high concentrations of oil and grease, an oil grit separator, sand filter, filtering bioretention area or equivalent must be used to provide pretreatment. These land uses include, without limitation, industrial machinery and equipment and railroad equipment maintenance, log storage and sorting yards, aircraft maintenance areas, railroad yards, **fueling stations, vehicle maintenance and repair**, construction businesses, paving, **heavy equipment storage and/or maintenance**, the storage of petroleum products, high-intensity-use parking lots, **and fleet storage areas**. The Engineer shall evaluate and identify the potential areas of that project that may generate oil and grease, and revise the plans and stormwater report if necessary to comply with the requirements of Standard 5.
10. The Applicant must demonstrate that the sediment forebays are sized in accordance with the Stormwater Handbook requirements. The Engineer should include sediment forebay sizing calculations in the report.

### **Soils Review**

11. Test Pit locations are not shown on the plans. Test Pit locations are shown on an Exhibit within the Geotech Report, but the design does not match the current design in the plans. The Engineer should provide a Test Pit Location Plan that correlates the soil logs to the proposed BMP footprints and existing site topography in accordance with MassDEP Stormwater Handbook requirements.
12. Test Pit 3 (T-3) appears to have been completed at the location of proposed Stormwater Infiltration Basin 2. It does not appear that there was a test pit conducted within the limits of Stormwater Infiltration Basin 1. T-2 is approximately 50' away from proposed Infiltration Basin 1. Per the Stormwater Handbook, soil evaluations should be performed at the site of the proposed BMP.
13. Section 2.1 of the Stormwater Report indicates that the Engineer is currently working with the Board of Health to schedule a time to review the completion of additional test pits, since the test pits previously conducted were not witnessed. The Board/Commission may wish to condition any approval on the completion of these additional test pits.
14. The method used to determine the elevation of Estimated Seasonal High Groundwater (ESHGW) is not consistent with requirements. The Stormwater Report appears to use the ‘depth of groundwater seepage’, as identified in the test pit logs, to represent Estimated Seasonal High Groundwater (ESHGW). This is not consistent with the methodologies of

determining ESHGW, which rely on the presence of redoximorphic features (soil mottling) as the indicator of ESHGW. Soil mottling was identified in the test pit logs at higher elevations than the groundwater seepage, which would be a more accurate representation of ESHGW. See summary in Table 1, below, for information. This data was taken from the soil test pit logs provided in the Appendix of the Stormwater Report.

Table 1. Summarized Test Pit Log Data (from O'Reilly, Talbot & Okun report)

Test Pit	Depth GW Observed (Feet)	Depth to Soil Mottling (>5%) (Feet)
T-1	8.0	2.0
T-2	8.0	2.0
T-3	11.0	8.0(15%)
T-4	7.5	2.5
T-5	8.5	5.0
T-6	9.0	not identified

The Test Pits do not definitively state the evaluator's determination of ESHGW. The Applicant should re-evaluate the results of the soil evaluation, determine depth to ESHGW at each location, and revise the design and Stormwater Report as necessary. The design of stormwater BMPs will require revision if minimum separations from ESHGW are not met.

15. Proposed Infiltration Basin 1 has a proposed Bottom Elevation of 237.5 feet. Test Pit 2 (T-2), which is approx. 50' from Basin 1, indicates ESHGW at approximately elevation 238 feet, based on our estimation of existing grade at the test pit. MassDEP Stormwater Standards requires 2 feet of separation between the bottom of infiltration basins and ESHGW. South Hadley Chapter 200 requires 3 feet of separation between the bottom of infiltration basins and ESHGW. The design does not comply with either requirement. The Applicant should make design revisions accordingly and provide documentation of compliance with the separation requirements for BMPs.
16. Best Management Practice Sizing Calculations are provided for Infiltration Basins. The calculations appear to be correctly computed, however some of the notations are incorrectly stated:
  - The Engineer should revise the calculation notes to accurately describe the soil group and textural analysis results. Although the calculations are correct, the descriptions indicate HSG C and Sandy Loam, where HSG A and Sand are evident.
  - The Engineer should provide a Stage-Storage table from HydroCAD to verify the elevation at which the 'Actual Storage' is provided in the basin.
17. Pipe capacity calculations are not provided to confirm the closed drainage system's ability to convey peak flows. Many pipes are designed with slopes less than 1%, further limiting capacity. The Engineer should provide closed drainage system calculations to confirm adequate capacities for the calculated peak flows.

**Plan Review**

18. Existing Conditions Plan should be dated and stamped by a registered Land Surveyor.
19. No activity is permitted within 50 feet of the edge of any freshwater wetland, bank, or the water column in and land under any creek, river, stream, brook, pond or lake, or vernal pool 10,000 square feet or greater in size. The Engineer proposes drainage outfalls extending to the wetland, requiring trenching and pipe installation within the 50' No Disturbance Conservation zone.
20. Per §200-20(E): The banks of detention, retention, and infiltration basins shall be sloped at a gentle grade into the water as a safeguard against personal injury, to encourage the growth and stabilization of vegetation and to allow the alternate flooding and exposure of areas along the shore. Basins shall have a minimum 4:1 slope to a depth two feet below the control elevation. Side slopes must be stabilized and planted with vegetation to prevent erosion and provide

pollutant removal. The Engineer should revise the grading of the infiltration basins to comply. It appears they are proposed at 3:1.

21. Proposed FFE is not clearly identified on the Grading Plan for the building(s). Spot grades appear to indicate FFE at 244.0. We recommend a note on the Plan identifying the proposed FFE for clarity.
22. The Grading Plan identifies structures as CB (Catch Basin) or DMH (Drain Manhole). Some of the structures appear to be intended as Catch Basins, but are labeled as DMH on the plans. The DMH in the Construction Details does not include a sump. All inlets/catch basins should be constructed with a 4' min. sump. The Engineer should revise the labels for proposed catch basins accordingly to point to the correct detail, or otherwise clarify the intent of the labeling.
23. Portions of the parking lot, for instance between the Utility Truck Bay and Covered Storage area, are graded with slopes less than 1% and may result in surface ponding. Engineer should verify parking lot slopes are adequate for surface drainage and revise where necessary. Recommend a minimum note or slope labels to convey intent and avoid construction issues.
24. There are catch basins on the Grading Plan which indicate depths from Rim to Pipe Invert of less than two feet which is not constructable based on the standard Catch Basin detail included in the plans. The Engineer should revise the detail to clarify the construction requirements for these structures.
25. Erosion and Sediment Control Plan does not identify locations for stockpiling or protections for stockpiles. Recommend identifying locations for stockpiles and at the minimum adding a note requiring stockpiles to be located outside of Buffer Zones.
26. A note should be added to the Erosion and Sediment Control Plan that permanent infiltration systems shall not be used as sediment control basins during construction, and that bottoms of all infiltration basins shall be protected from heavy equipment during construction. The Engineer should require snow fence or other temporary barrier to protect basins from heavy equipment during construction.
27. Construction Details include a Rip Rap Apron detail which indicates calculations based on the ConnDOT drainage manual. The Engineer should revise the calculations to identify flows at each outlet and applicable apron and riprap sizing calculations. Plans should be revised to match dimensions, if required.
28. Drainage structures associated with the Infiltration Basin outlets are identified as "OTS", which is not provided in the Abbreviations list. Construction Details include a detail for an Outlet Control Structure (OCS) which is assumed to be the intended structure represented on the plans. The Engineer should revise and clarify the proposed structure in the plans and construction details for consistency.
29. Construction Detail for Emergency Spillway shall indicate the elevations of each spillway.
30. The Construction Detail for 'Stormwater Infiltration Basin and Sediment Forebay' on Sheet CD-505 does not provide the level of detail required to document compliance. The Applicant should revise the detail to identify bottom elevation, separation from ESHGW, material specifications, freeboard, sediment forebay, riprap and overflow details and elevations, peak elevations for each storm event, outlet control structure(s), etc.

Please contact us if we can be of any further assistance regarding this matter.

Sincerely,  
McClure Engineering Company



Lindsey DiTonno, PE  
Team Leader