

Date: 9/30/2024 Job No.: 23099.01
To: Diane Williamson, AICP, CFM - Town of Bristol Director of Community Development; Edward Tanner – Town of Bristol Principal Planner
Cc:
From: Nicole Iannuzzi, PE – Vice President (BETA Group, Inc.)
Subject: Mount Hope High School Master Plan Review TRC Meeting October 2, 2024

This memo is to provide some clarification in regards to the stormwater requirements for the Mount Hope High School Project.

Stormwater Treatment:

- As this project is considered a “New Development Project” under the RIDEM Regulations, the design team is required to treat 100% of existing impervious area and 100% of proposed increase in impervious area.
- Water Quality Volume (WQV) Treatment Requirement is based on a 1.2” design storm.
- Design team will calculate required WQV based on impervious area and the 1.2” storm.

Stormwater Detention:

- RIDEM requires under Minimum Standard 5 – Overbank Flood Protection that downstream overbank flood protection must be provided by attenuating the post development peak discharge rate to the pre-development levels for the 10-year and 100-year, 24-hour Type III design storm events.
- The Town of Bristol’s Subdivision and Development Review Regulations state: “The proposed drainage system shall be designed in accordance with RI Stormwater Manual Standards to accommodate stormwater such that 24 hour detention is provided for the one (1) year storm event, and post- construction conditions do not result in peak run-off increases in rate from pre-construction conditions for the ten (10), and one-hundred (100) year storm events.”
- The Town of Bristol’s Subdivision and Development Review Regulations also state that it is required within the Silver Creek Watershed that any increase in storm runoff volume, up to and including the 10-year storm event shall be retained and recharged on site as close as feasible to its place of origin.
- The Town of Bristol’s Subdivision and Development Review Regulations also requires the design team to analyze the existing culverts within the project area to verify runoff entering and exiting will not be increased as a result of the project.

Planning Board Comments:

- Mr. Spinard stated his concerns that the existing available information is not based on current conditions/regulations. He suggested that the HEC-RAS model should be updated to include current development within the Silver Creek Watershed, updated rainfall amounts and sea level rise.
- The Silver Creek Watershed Study has been referenced. The Study was performed in 2007 and was performed to identify problem areas and identify potential drainage improvement projects to help mitigate flooding issues. The scope of the study did not include submitting a Letter of Map Revision to FEMA, nor was it meant to replace any FEMA information. The intent of the 2007 1-

Dimensional steady-state HECRAS model was to identify potential hydraulic restrictions along Silver Creek and not to redefine the floodplain limits. The cross sections of the model extend far enough to account for flooding around the school. However, the multidirectional flow that would occur around the school during a flooding event would not be accurately calculated using a 1-D HEC-RAS model. It is up to the design team to verify that removing the building above the culvert (the restriction within Silver Creek) does not result in negative downstream impacts. If necessary, this could be achieved by performing a new analysis using survey, updated LIDAR, current flow data, and the latest industry standard modeling practices.

- Rayona Clemons also commented about the Flood Insurance Rate Maps being updated and the impacts to Tanyard Brook. FEMA was contacted and stated that a FEMA FIRM update is not anticipated in the near future. This project is in the Silver Creek Watershed and not the Tanyard Brook Watershed.

Stormwater Regulations:

- The project design must meet the requirements of the regulations of RIDEM and the Town of Bristol. If the Town of Bristol (Planning Board) would like the project to meet additional more stringent stormwater requirements, then this should be discussed with the School Department.
- The design team shall supply necessary calculations and present designs which will meet the stormwater requirements of the Town of Bristol and RIDEM with the Preliminary Plan Submission.