03 March 2023

Mr. Glenn R. Clancy, P.E.
Director
Office of Community Development
Town of Belmont
19 Moore Street, 2nd Floor
Belmont, MA 02478

Re: Supplemental Peer Review: Response to Comments
Belmont Hill School
Belmont, MA
Langan Project No. :151021201

Dear Mr. Clancy,

On behalf of Belmont Hill School, Langan is providing responses to the Supplemental Stormwater Peer Review comments received on 12 January 2023 from BSC Group, Inc. (BSC) in reference to the Stormwater Management Report and Permit Plan Set for Belmont Hill School located at 350 Prospect Street in Belmont, MA. Please note that in addition to addressing the review comments, the following East Campus design changes were made to the plans and report:

- The maintenance building was aligned to be parallel to property line and increase distance to 269 Prospect Street property line.
- The fuel storage and several parking spaces were removed in the paved maintenance building yard.
- The parking lot was rotated and shifted to increase the distance between the Rutledge Road properties and the edge of paving from 25 feet to 31 feet.
- The wall at the back of 301 Prospect Street will be demolished and the area regraded to maintain similar drainage boundaries proposed before.

Langan's responses to the comments are in ***bold***.

REVIEW COMMENTS

1. BSC Comment: BSC agrees that the snow storage areas identified on sheets L-310 and L-330 of the Grading Plans and the snow management as addressed in the Long Term Pollution Prevention, Operations and Maintenance Plan are adequate. One of the snow storage areas identified on Sheet L-340 of the Grading Plans appears to be covering some of the rip rap and the outlet from MH-101, which is the portion of the stormwater system that treats runoff from the driveway to the maintenance building and the swale through the center of the parking lot to the northwest. BSC recommends the limits of this area be pulled back so that snow pushed into this area does not block the outlet and prevent the drainage system from functioning properly.

Langan Response: Revised grading plans are attached. The snow storage area has been adjusted on Sheet L-340 so that snow pushed into this area does not block the outlet.

2. BSC Comment: Based on the information provided and the discussion with the Applicant referenced above, we concur with the Applicants response and use of a sump manhole. However, with the addition of the sump manhole, the 12-inch HDPE outlet pipe from MH-402 to MH-401 appears to conflict with TD-401. The elevation of the top of the pipe is approximately 267.3, while the elevation of the bottom of the trench drain is approximately 266.5. There appears to be a similar conflict at the new trench drain to collect overflow from the porous asphalt in the Jordan lot. The bottom of TD-201 is at approximately elevation 252.25, while the top of the 12-inch pipe from MH-203 to MH-202 is approximately elevation 252.76 where it crosses the trench drain. We recommend the vertical locations of these pipes be adjusted to eliminate the conflicts.

   Langan Response: The 12-inch outlet pipe from MH-402 to MH-401 has been adjusted to provide 12 inches of separation between the bottom of the trench drain concrete and the crown of the pipe. Similarly, the pipe connecting MH-203 and MH-204 in the Jordan Lot has been adjusted to avoid a conflict. The resulting invert elevation changes provide 12 inches of separation between the bottom of trench drain and crown of pipe. Please see attached revised CU series plans.

3. BSC Comment: Recharge and drawdown calculations have been updated to include the replacement of the previously proposed underground infiltration chambers with permeable pavement at the Jordan parking lot. Some of the infiltration rates for the drawdown calculations indicated in Table 5.3.3 appear to be different from those used in the HydroCAD model and the groundwater mounding analysis. Based on the field testing provided, BSC agrees with the infiltration rates used in the model and recommends that the drawdown calculations be revised to match.

   Langan Response: The drawdown calculations indicated in Table 5.3.3 have been revised to match the infiltration rates used in the HydroCAD model and groundwater mounding analysis. Please see attached revised Stormwater Management Report.

4. BSC Comment: The revised HydroCAD model shows that Subcatchment PR A2 has been updated to use a curve number of 80 for the portion that is permeable pavement, instead of routing the subcatchment to a pond with storage. The permeable pavement in Subcatchment PR B4 has been modeled with a curve number of 70 but is also routed to a pond with storage. BSC recommends that either the curve number for the permeable

pavement in Subcatchment PR B4 be revised to 98, or that Pond B4 (representing the infiltration of the permeable pavement) be removed from the model.

Langan Response: The permeable pavement in Subcatchment PR B4 has been updated to be modeled with a curve number of 98, and is routed to a pond with storage. Please see the attached revised Stormwater Management Report.

5. BSC Comment: Groundwater mounding calculations have been revised to include the permeable pavement at the Jordan Athletics Lot. The bottom surface area used for this calculation is not the same surface area used in the HydroCAD model and the drawdown calculations. BSC recommends the applicant revise this bottom area to match the proposed design.

Langan Response: The bottom surface areas used for the groundwater mounding calculation has been updated to be consistent with the values used in the HydroCAD model and drawdown calculations. Please see the attached revised Stormwater Management Report.

Should you have any questions or require any additional information, please contact me at (617) 824-9126 or hholmes@langan.com.

Sincerely,
Langan Engineering and Environmental Services, Inc.

Hilary Holmes, PE
Senior Project Engineer

Frank Holmes, PE
Senior Associate

Cc: G. Schneider, Belmont Hill School
K. Durfee Cardoza, Avalon Consulting Group
A. Yogurtian, Town of Belmont
D. Rinaldi, BSC Group

Enc: Revised Grading and Civil Plans
Stormwater Management Report