FIELD ENGINEERING CO., INC.
CONSULTING ENGINEERS

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April 24, 2018
Project No. 2190

Ms. Sarah Porter, Agent
City of New Bedford Conservation Commission
New Bedford City Hall
133 William Street
New Bedford, MA 02744

RE: Response to Consultant Comments
DEP File No. SE049-0693
200 Theodore Rice Boulevard

Dear Ms. Porter:

Field Engineering Co., Inc. has received the review comment letter dated April 13, 2018 prepared by Nitsch Engineering and has prepared the following response narrative and supporting documentation for consideration by the Commission. Numbering corresponds to the numbering in the Nitsch letter.

1. The project shows the construction of a 156,480-square-foot office and warehouse building. It appears that the stormwater system was designed to accommodate this building and parking only. However, the site layout plan also shows an approximately 156,000-square-foot addition with expanded parking and access driveways. The site of the warehouse expansion is also depicted as a possible stockpile area. The calculations do not account for either the expansion or the stockpile area. In order for the stockpile area to be developed we assume the area will need to be cleared, changing the ground cover.

RESPONSE: Subcatchment Area 2 in the revised Post Development Hydrologic Calculations has been further revised to account for grassed surfaces within the limits of work and wooded areas outside the limits of work to account for clearing shown on the plans associated with the potential future addition. Should the applicant move forward with the proposed addition and expanded parking and access driveways, additional stormwater management measures to handle the additional flows from this work would be necessary. This construction of the proposed addition and additional stormwater management features would require the filing of a new Notice of Intent and Site Plan Review prior to construction.

2. Four test holes were performed on the property indicating that seasonal high groundwater is between two and three feet from the surface. It does not appear that the test holes correspond to either the infiltration trench location or the detention basin. Due to the length of the infiltration trench, we recommend additional testing along the trench. Existing grade on the east side of the trench is approximately elevation 88, which indicates seasonal high groundwater at approximately elevation 85. The bottom of the trench is at elevation 83. The Stormwater Management Guidelines require two feet of separation between the bottom of infiltration facilities and seasonal high groundwater.

RESPONSE: We have performed additional test pits in the area of the detention basin and infiltration trench as shown on the attached revised plans. Given the groundwater elevations encountered in the area of the infiltration trench, we have removed that trench from the Post Development Hydrologic Calculations for attenuation and are no longer relying on that feature to meet our Post Development Rates of Runoff requirements. We are still proposing the construct this trench to serve as a recharge facility in times of the year when the water table is down and it shall also serve as an additional subdrain system to minimize the potential for groundwater influence on the loading dock area.

3. We also recommend that additional soil testing be performed in the extended detention/infiltration basin. Existing ground is between elevation 81 and 78 in the vicinity of the basin. The bottom of the basin is at elevation 78. Therefore, we believe there will not be two feet of separation between the bottom of the basin and seasonal high groundwater.

RESPONSE: We have performed three additional test pits in the bottom area of the proposed extended detention/infiltration basin. Based on the groundwater elevations observed between 24 and 26" below grade, we have revised the grading of the basin to provide a minimum of two feet of separation. Basically, the bottom of the basin will follow existing grade. We have also raised the berm along the back side of the basin to provide the additional storage volume needed. Revised Post Development Hydrologic Calculations are included as an attachment to this letter in Stormwater Management System Report Addendum 1.

4. There is a five-foot earth cut proposed in the island north of the building. There may be some issues with groundwater associated with that cut.

RESPONSE: We have further reviewed the cut sections on the project site and are providing crushed stone edge drains at the base of the cut-slopes to divert and groundwater around the developed footprint. In addition, we are proposing to use perforated HDPE pipe wrapped in stone and fabric for some portions of the stormwater management facility piping system to further dewater these areas and minimize the impacts of groundwater on the proposed project. The applicant is currently tracking for construction to take place this summer during times of low groundwater such that impacts of groundwater during construction can be minimized.

5. The plans indicate that the wetlands line was approved in 2003. Any significant changes to the wetlands line could impact the site development and ultimately the stormwater management system.

RESPONSE: We have had the proposed wetland line refreshed and reset in the field by survey and it is our understanding that you are currently reviewing the flagging in the field.

6. We recommend that double washed stone be used in the infiltration trench.

RESPONSE: The detail has been revised to provide double washed stone in the infiltration trench as requested.

7. We recommend that Note 7 in the Operation and Maintenance Plan specify that the site be swept following the snow melt in the spring.

RESPONSE: Note 7 on the Operation and Maintenance Plan has been revised as requested. This is reflected on the revised plans and the in Stormwater Management System Report Addendum 1.

8. Slightly different infiltration rates were used for the detention basin (1.020 in/hr) and infiltration trench (1.030 in/hr).

RESPONSE: As discussed under Comment 2, we have removed the infiltration trench from the Post Development Hydrologic Calculations for attenuation. We continue to use the Rawls Rate of 1.020 in/hr for a conservative exfiltration component from the bottom area of the extended detention/infiltration system.

We feel that we have adequately addressed the Consultant's comments with this letter and the attached plans and documentation and look forward to further discussing this exciting project with the Commission at the next Hearing on May 1. Please do not hesitate to contact me should you have any questions or require any additional information.

Sincerely,

Field Engineering Co., Inc.

Richard R. Riccio III, P.E.
Project Manager

cc: Judith Nitsch Engineering (Scott Turner)
Plumbers Supply Company

Attachments

1. Revised Site Plans (Dated 4/24/18)
2. Stormwater Management System Addendum 1 (Dated 4/24/18)