Nitsch Engineering

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October 6, 2015

Mr. John G. Radcliffe
Chairman
New Bedford Conservation Commission
New Bedford City Hall
133 William Street
New Bedford, MA 02744

RE: Nitsch Project #9972
Proposed Salt Shed
1484 Airport Road
New Bedford, MA

Dear Mr. Radcliffe:

This letter is in regard to the proposed Salt Shed project located at 1484 Airport Road in New Bedford, Massachusetts. Nitsch Engineering has reviewed the following revised items submitted as part of the proposed project:

- Revised plan entitled, "New Bedford Salt Shed Project, 1484 Airport Road, New Bedford, Massachusetts," prepared by the City of New Bedford Massachusetts Department of Public Infrastructure, revised through September 21, 2015;
- Response to comments letter prepared by the City of New Bedford Department of Public Infrastructure, dated October, 1, 2015;
- Stormwater Management Checklist; and
- Structural Plans of the proposed building prepared by Calhoun Super Structures, dated February 9, 2015.

We have the following comments with regard to the above-referenced information, pertaining to drainage design only:

1. The revised site plan has been significantly changed. There is additional grading information, the building has been shifted toward Airport Road, and all proposed drainage infrastructure has been removed from the project. The prior plans showed a trench drain, catch basins, underground piping, and an underground infiltration facility. These elements have been removed from the plans. There is effectively no proposed stormwater management system for the project.
2. Construction details were not submitted as part of the project submittal package. Typically, construction details are provided for all constructible elements including but not limited to drain manholes, catch basins, pipe trenching, trench drain, flared end structures, riprap pads, subsurface infiltration system, pavement and hardscape materials, and erosion and sedimentation control elements.
3. The proposed project includes work within the 25-foot no disturb buffer although the extent of the intrusion into the 25-foot no disturb buffer has been decreased due to the relocation of the building closer to Airport Road.
4. Stormwater calculations have not been provided for review. Typically, pre-development and post-development hydrologic calculations are submitted to prove compliance with Standard 2 of the Stormwater Management Guidelines including sizing calculations of any retention, detention, or infiltration practices.
5. Additional calculations, including pipe sizing calculations and best management practices (BMP) sizing calculations should be provided for review. BMP sizing calculations should demonstrate compliance with Standard 3 (groundwater recharge) and Standard 4 (Total Suspended Solids removal) including the amount of groundwater recharge required by the Guidelines and the amount provided. The

applicant contends that stormwater generated by the project will simply infiltrate into the ground. Typically, dedicated infiltration facilities are designed and installed that comply with the Stormwater Management Guidelines. No dedicated infiltration facilities are proposed.

6. The previous plans included a trench drain laid across the entrance driveway of the project. The trench drain has been removed from the project. It appears that any salt that drops on the ground from the project will flow away from the site untreated onto Airport Road.
7. The applicant indicates that soil testing has been performed on the project but the location of the soil testing is not shown on the plans and the results of the soil testing have not been provided.
8. The project is a Light Industrial use and is therefore subject to Land Uses with Higher Potential Pollutant Load water quality requirements described under Standard 5 of the Stormwater Management Guidelines.
9. The applicant describes the site as a redevelopment project. Nitsch Engineering characterizes this project as a mix of new development and redevelopment. There will be an increase of impervious surface on the project and portions of the project are located in a currently wooded section of the buffer zone which is clearly undeveloped. Therefore, the project should meet the Stormwater Management Guidelines to their fullest extent. The applicant describes the amount of impervious surface on the site being increased from 6,981 square feet to 11,605 square feet. Per the Guidelines, the new impervious area needs to meet the Stormwater Management Guidelines.
10. An Erosion and Sedimentation Control plan is required for review under Standard 8 of the Stormwater Management Guidelines. An Erosion and Sedimentation Control Plan was not submitted for review. The plans show the location of straw wattles but details have not been provided. Typically a narrative description of the erosion and sedimentation measures on the project are provided as a stand-alone document.
11. A Long Term Operations and Maintenance Plan is required under Standard 9 of the Stormwater Management Guidelines. A Long Term Operations and Maintenance Plan was not submitted for review. The letter submitted by the Department of Public Infrastructure describes items related to operating the building but does not describe any operations and maintenance related to stormwater management systems.
12. An illicit discharge statement is required to be provided and endorsed under Standard 10 of the Stormwater Management Guidelines. An illicit discharge statement has not been provided.
13. A Stormwater Management Checklist, stamped and signed by a Registered Professional Engineer, is required under the Stormwater Management Guidelines. A checklist has been provided but it is not stamped or signed. Many of the items checked are checked erroneously. For instance, the project is described as redevelopment when it is a mix of new development and redevelopment. For an LID Measure, DPI describes, "Impervious surface provided beneath salt shed to prevent infiltration." No evaluation of pre-development and post-development run-off rates has been provided. No soil analysis has been provided. Nothing is checked for Standards 3, 4, 5, or 6. The checklist implies that an erosion and sedimentation control plan has been submitted but no such item was submitted. Standards 9 and 10 were not addressed.
14. Existing and proposed watershed plans are typically provided to accompany the hydrologic drainage calculations. Watershed plans were not provided for review.

In general, the project submittal is lacking many of the elements required by the Stormwater Management Guidelines. This revised submittal includes less stormwater Best Management Practices than the previous submittal. A more comprehensive review will occur following the submittal of these items.

If you have any questions, please call 617-338-0063.

Very truly yours,

Nitsch Engineering, Inc.

Scott D. Turner, PE, AICP, LEED AP ND
Director of Planning

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