Nitsch Engineering

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October 20, 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:

- 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, dated August 13, 2015, and revised through September 21, 2015;
- Rainfall Runoff Calculations;
- Operations and Maintenance Plan, 1484 Airport Road Salt Shed Project, no date; and
- Soil Test pit log dated September 18, 2015.

Additionally, Nitsch Engineering performed a site visit on September 2, 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 revised to include a large drainage swale that wraps around the rear of the proposed building and pad. This swale is intended to collect stormwater generated from the proposed building roof and surrounding pad. The swale should be sized consistent with the Stormwater Management Guidelines that require .6 inches of run-off for all of the proposed impervious area, including the entrance road. The calculations provided are somewhat different in that they calculate the total volume of stormwater generated by the building and surrounding pad for the 10-year storm. This should be greater than the amount specified in the Guidelines, but calculations should be provided to prove this design complies.
2. Construction details were provided for a sedimentation barrier. 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. Pre-development and post-development stormwater calculations were not 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 best management practices (BMP) sizing calculations, should be provided for review consistent with comment 1 above regarding groundwater recharge. Typically, water quality BMP calculations demonstrating compliance with Standard 4 (Total Suspended Solids

removal) are included. However, discussions with DPI indicate they will be seeking a waiver from providing BMPs to address Total Suspended Solids removal.

6. 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 test pit logs indicate soils conditions on site are suitable for groundwater recharge.
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. The project will only be active during winter months and will not be active the entire year.
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 and a detail has been added to the plans. 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 and was submitted under Standard 9 of the Stormwater Management Guidelines. We recommend that the infiltration swale be mowed a minimum of twice per year and checked quarterly for debris, trash, etc.
12. An illicit discharge statement is required to be provided and endorsed under Standard 10 of the Stormwater Management Guidelines. An illicit discharge statement was not provided to Nitsch Engineering.
13. A Stormwater Management Checklist is required under the Stormwater Management Guidelines. A checklist was provided as part of the original submittal. 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 a Low Impact Development (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. 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.

Additional items have been submitted but there are still items missing to document full compliance with the Guidelines.

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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