

September 3, 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 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
- "Notice of Intent Application," prepared by the City of New Bedford Department of Public Infrastructure, dated August 14, 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 site plan submitted contains limited information. There are some proposed spot grades but no proposed contours. The proposed drainage structures do not include rim or invert elevations. The proposed piping, including the subsurface infiltration system, does not include any pipe sizes or pipe materials. There is no proposed landscaping.
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. There will be grading associated with the construction of the access drive so the extent of encroachment will be greater than is shown on the submitted plans. The applicant should submit a grading plan.
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. Although the project narrative describes the implementation of Low Impact Development (LID) techniques, the proposed drainage system is more traditional in that it includes a closed drainage system that discharges to an underground infiltration facility. The plans call out a subsurface bioretention system but it appears this facility is essentially an underground infiltration facility.
6. 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.
7. The plans show a trench drain laid across the entrance driveway of the project. Presumably, trucks will drive up the front of the driveway and into the building to be loaded with salt. The driveway is graded

from the front of the building to the trench drain. Therefore, any salt – or other sediments – will be washed into the trench drain. Although details have not been provided for the trench drain, they are typically not constructed with any kind of sump or water quality treatment. Therefore, any salt or other sediments that are collected by the trench drain will be discharged without treatment directly to the subsurface infiltration system.

8. Typically, catch basin to catch basin connections are not allowed. The proposed project includes catch basin to catch basin connections.
9. It does not appear that soil testing has been performed in the vicinity of the project. Soil testing is needed to confirm soil types as well as seasonal high groundwater. Typically soil testing is performed by a licensed soil evaluator. The results are needed to perform drainage calculations and also design the projects infiltration facilities. A project recently reviewed by this office was in close proximity to the current project and results of the soil testing indicated high groundwater. The subsurface infiltration facility should provide 2 feet of separation between the bottom of the system and seasonal high groundwater elevation.
10. 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.
11. 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.
12. 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.
13. 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.
14. 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.
15. A Stormwater Management Checklist, stamped and signed by a Registered Professional Engineer, is required under the Stormwater Management Guidelines. A checklist has not been provided.
16. 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. 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

SDT/vas