

May 14, 2014

Mr. Kenneth Motta  
Chairman  
New Bedford Conservation Commission  
New Bedford City Hall  
133 William Street  
New Bedford, MA 02744

RE: Nitsch Project #9972  
Downey Street  
Review Letter  
New Bedford, MA

Dear Mr. Motta:

This letter is in regard to the proposed Claremont Hangar project located on Downey Street at the New Bedford Regional Airport in New Bedford, Massachusetts. Nitsch Engineering has reviewed the following revised items submitted as part of the proposed project:

- Plan set entitled, "Site Plan, Claremont Hanger, Downey Street, Assessors Map 123-Lot 3, New Bedford, MA," prepared by Thompson Farland, revised April 22, 2014;
- "Notice of Intent for Site Plan, Assessors Map 123-Lot 3, Downey Street, New Bedford, MA", prepared by Thompson Farland; and
- "Stormwater Management Report, Assessors Map 123 Lot 3, Downey Street, New Bedford, MA", prepared by Thompson Farland, dated March 6, 2014.

Nitsch Engineering has the following comments with regard to the above-referenced information, pertaining to drainage design only:

1. Nitsch Engineering reviewed the submitted Stormwater Management Report for compliance with the Massachusetts Department of Environmental Protection (MassDEP) Stormwater Management Standards, however the following supporting documentation was not provided and is necessary to complete the review:
  - Existing and proposed drainage area maps;
  - Water quality calculations that demonstrate 80% Total Suspended Solids (TSS) Removal, including the TSS Removal Spreadsheets and Proprietary Water Quality Structure sizing calculations that are consistent with the current Massachusetts Department of Environmental Protection (MassDEP) approved methodology; and
  - Groundwater recharge calculations.
2. The Stormwater Report indicates that all existing drainage eventually flows to the wetland located south of Downey Street, while the proposed drainage ties into the existing city drainage system. Based on the Existing Conditions Plan (Sheet 2 of 6) and the Utilities and Grading Plan (Sheet 4 of 6), it appears that there are two (2) design points for both the existing and proposed drainage systems: (1) the existing stormwater outfall that discharges into the wetland in the southwest corner of the site and (2) the existing closed drainage system in the eastern portion of the site that appears to continue off of the project site to the east.
  - a. As noted in Comment 1, existing and proposed drainage maps should be provided to delineate the existing and proposed watersheds that discharge to each of these design points.
  - b. The Applicant should also clarify where the eastern closed drainage system eventually discharges (i.e. the New Bedford municipal drainage system or a nearby wetland/water body).

- c. The HydroCAD model should also be revised to reflect the two (2) design points for the project site for both existing and proposed conditions. As required by the MassDEP Stormwater Standards, the proposed peak runoff rate should not exceed the existing peak runoff rate.
3. Based on the cover types listed in the existing and proposed HydroCAD model, it appears that the proposed project will increase impervious area by approximately 6,000 square feet. Because of this increase in impervious area, the project is considered a new development under the MassDEP Stormwater Management Standards. Therefore, the project must fully comply with all ten Stormwater Standards, including the peak flow mitigation, water quality treatment, and groundwater recharge requirements.
4. The Notice of Intent Narrative references the 1989 NRCS Soils Survey of Bristol County. There is a more current version of the NRCS Soils Survey issued in 2013 that contains more detailed soils information for the project site (accessible at <http://websoilsurvey.nrcs.usda.gov/>). Specifically, the soils identified as "Udorthents, smoothed" within the site are classified as Hydrologic Soil Group "B". The hydrologic model should be revised to reflect this information.
5. The existing dry well that is described in the Stormwater Report should be labeled on the site plans. Based on the plans and hydrologic calculations submitted, it does not appear that any groundwater recharge is provided as part of the proposed design. Groundwater recharge should be provided as required in the calculations. The design of groundwater recharge facilities will require the determination of seasonal high groundwater in the vicinity of the project.
6. The Utilities and Grading Plan (Sheet 4 of 6) appear to show a portion of the proposed drainage system connecting to an existing catch basin. Catch basin to catch basin connections are not a preferred engineering practice. Nitsch Engineering recommends that the system be reconfigured to provide catch basin to manhole connections.
7. The proposed project area is currently used for fueling of planes. Nitsch Engineering observed planes being fueled in this area during the site visit. Inspections of existing catch basins in the project area indicated a significant amount of gas and oil floating on the surface of the water that has collected in the catch basins. The existing catch basins do not have hoods on them so under current conditions, oil and gas are being discharged to the wetlands. Due to the nature of the use, as well as the fact that fueling is occurring in the project area, we recommend the project be considered a Land Use with Higher Potential Pollutant Loads (LUHPPL) and comply with the requirements of Section 5 of the DEP Stormwater Management Guidelines. This should be addressed in Stormwater Management Checklist. The Checklist submitted does not include any checked boxes for Section 5.
8. The Commission may want to include the installation of a gate valve in the proposed drainage system that can be closed in the event of a fuel spill to prevent the flow of fuel to the wetlands.
9. The project narrative stated that Low Impact Development (LID) Stormwater measures are included in the proposed design. The "LID Measures" section of the checklist states that a Water Quality Inlet is a LID Measure. We disagree with the Applicant's assessment of LID measures on the site. The proposed design includes conventional stormwater management practices only.
10. The proposed plans do not include any sediment and erosion controls. The erosion and sedimentation details provided are limited to silt sacks only. We recommend straw bales and silt fence or equivalent be provided where applicable.
11. The project includes a sizable area of grass that will be converted to grass. We assume this is area 'S4' in the hydrologic calculations but this is unclear. This area will flow to an existing catch basin located in a grassed area. It does not appear that there is any water quality treatment for this area proposed. We recommend the applicant determine where this catch basin flows and that adequate water quality treatment

Mr. Kenneth Motta: Nitsch Project #9972  
May 9, 2014  
Page 3 of 3

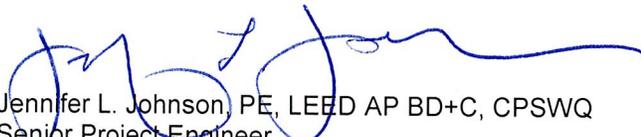
be provided for this additional impervious area. The additional flow generated by this area should be included in a summary reach for total stormwater flows from the project.

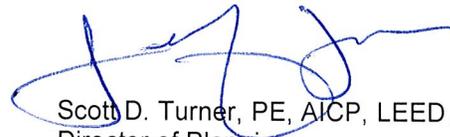
12. There appear to be errors in the reach modelling in the calculations provided.

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

Very truly yours,

**Nitsch Engineering, Inc.**

  
Jennifer L. Johnson, PE, LEED AP BD+C, CPSWQ  
Senior Project Engineer

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

JLJ/SDT

P:\9972 New Bedford NOIPR\Correspondence\Outgoing\2014-05-09 Downey Street review letter.docx