

June 14, 2017

Mr. Craig Dixon
Chairman
New Bedford Conservation Commission
New Bedford City Hall
133 William Street
New Bedford, MA 02744

RE: Nitsch Project #9972
100 Duchaine Boulevard
New Bedford, MA

Dear Mr. Dixon:

This letter is in regards to the proposed project located at 100 Duchaine Boulevard in New Bedford, Massachusetts. Nitsch Engineering has reviewed the following revised documents for compliance with the Massachusetts Department of Environmental Protection (MassDEP) Stormwater Management Standards:

- Response to Nitsch Engineering comments dated June 2, 2017;
- Proposed Hydrologic Drainage Calculations dated June 5, 2017; and
- Plans entitled "Site Plan, Duchaine Boulevard, Assessor's Map #134 Lot #5, New Bedford, Massachusetts" (sheets 3, 5, 5B, and 8 only) prepared by Farland Corp., revised through April 6, 2017.

This project includes the construction of a 28,000 square-foot warehouse and distribution building on a currently developed lot including 16 loading docks, an additional 40 trailer parking spaces, and 27 new employee parking spaces. The property is currently developed as a parking lot with the remains of a concrete foundation.

Below are our comments on the proposed project regarding stormwater management only:

1. Test holes were provided at the locations of the infiltration facilities. The test hole performed in the vicinity of the underground infiltration facility indicates seasonal high groundwater at approximately elevation 78.3. This elevation seems consistent with the surrounding wetlands elevations. The calculations and detail show the bottom of the system at elevation 78.5. Per the Standards, 2 feet of separation between the bottom of the infiltration facility and seasonal high groundwater is required. The Applicant has not revised this design.
2. A CDS water quality unit was added to the plans to treat the water generated by the existing parking lot. The Applicant has not provided sizing information for this unit. Also, the unit was placed outside the existing parking lot adjacent to the wetlands pocket on the south side of the site. The unit is well within 25 feet of the wetlands line. A detail of this unit has been added to the plans. Sizing information should be provided.
3. The proposed discharge from the CDS unit, including rip-rap pads, should be shown on the plans. The current plan does not show a discharge pipe or rip-rap pad.
4. Revised hydrologic calculations were submitted to include the reaches and ponds. With regards to the calculations we have the following comments:
 - a. The existing conditions hydrologic calculations show the pipe flowing from CB-9 surcharged during the 10-year storm in the existing and proposed condition;

- b. In the proposed condition plans, stormwater from drainage areas S-1 and S-2 are directed towards the proposed detention basin on the west side of the parking lot. The calculations should be revised to direct that flow through the detention basin;
 - c. The storm piping from existing CB 8 and CB 9 has been upgraded to 18-inch pipes on the plans. The calculations still show a surcharge from the pipe discharging from CB 9; and
 - d. There are errors in the hydrologic model associated with the southerly and northerly wetlands, apparently because of the surcharged piping upstream;
5. We recommend that the seasonal high groundwater elevation be added to the infiltration field detail. The Applicant indicated that the seasonal high groundwater elevation has been added to the detail but the detail was not included in the resubmission.
6. Consistent with the Standards, we recommend that a foot of freeboard be provided between the 100-year storm peak elevation and/or overflow from the basins and the top of berm elevation in the basins. The calculations still show less than 1 foot of freeboard.
7. Pipe sizing calculations were prepared using the Rational Method. However, the results of these calculations show all pipes flowing freely, which is not consistent with the hydrologic calculations submitted.

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

Very truly yours,

Nitsch Engineering, Inc.



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

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