

December 5, 2017

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

RE: Nitsch Project #9972
Wamsutta Layover Facility
New Bedford, MA

Dear Mr. Dixon:

This letter is in regard to the proposed South Coast Rail Layover Facility located off Wamsutta Street 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 comments letter prepared by VHB, dated November 28, 2017
- Stormwater Report, prepared by VHB, dated November 28, 2017
- Revised plans entitled "South Coast Rail, Wamsutta Layover Notice of Intent Plans, Track and Facility Infrastructure," prepared by VHB and HNTB, revised through November 15, 2017

On December 1, 2017, we received a letter from the Department of Public Infrastructure regarding the drainage design of the proposed box culvert crossing Wamsutta Street and discharging near the wetland on the project site.

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


1. The New Bedford Department of Public Infrastructure (DPI) issued a letter dated December 1, 2017 indicating that the 2-foot by 5-foot box culvert shown in the VHB drawings is appropriate for the municipal drainage system from Wamsutta Street. However, DPI also indicates that they (DPI) may make changes to the culvert in the next 18-24 months, including increasing the hydraulic opening by lowering the culvert invert. It is unclear why changes would be needed, i.e. to accommodate higher flows or other changes within the contributing watershed. The DPI letter does not provide the backup information for the design assumptions and does not reference any report by CDM, which was previously discussed with the Applicant. Any changes to the invert would be difficult as the culvert appears to be a 4-sided box culvert, rather than a 3-sided culvert with stone bottom. Future changes to the culvert design may result in impacts to the wetland, and would need to be reviewed by the Commission.
2. To better quantify the work within wetland resource areas, Nitsch Engineering requested that VHB provide riprap apron sizing calculations for the municipal culvert. VHB provided these calculations as requested and revised the plans accordingly; however, they utilized an anticipated flow through the municipal system (25 CFS) as a design assumption for these calculations. We cannot confirm the accuracy of this assumption given that calculations quantifying the amount of flow being discharged by the municipal system in Wamsutta Street have not been provided.

3. The revised plan set indicates that the culvert headwall has been pulled back from the wetland line to allow for the construction of the riprap apron without disturbing the wetland. However, the downstream portion of the culvert, the headwall, and the associated riprap are located within 25 feet of wetlands, with the riprap ending at the wetland line. As noted previously, additional work associated with the layover facility is proposed within 25 feet of the wetland, but is generally consistent with the limit of the existing disturbed area.
4. The Proposed Drainage Plan should be revised to reflect the current headwall and riprap apron locations for the 5-foot by 2-foot box culvert.
5. The proposed water quality inlet (WQI) tanks discharge into the ballast stone system. The outflow for the ballast stone system is a weir set at elevation 11.0 in DMH-6, which is above the inlet/outlet elevations of upstream structures including the WQI tanks. We recommend that the Applicant consider the addition of backflow valves on the outlets to the WQI tanks to prevent surcharging and resuspension within the tanks.
6. The Stormwater Report notes that the "area requires geotech" to confirm the assumed subsurface soil conditions and infiltration rate used in the HydroCAD model and recharge drawdown calculations. The calculations provided indicate an infiltration rate of 0.17 inches per hour; if the observed rate onsite is lower, then there will likely be issues with long-term water within the ballast stone that would exceed the MassDEP requirement of 72 hours. Long-term ponding would also increase the flow out of DMH-6 (the outlet control structure) resulting in higher flows to the downstream drainage system. Typically, geotechnical information is provided by the applicant to confirm infiltration rates prior to approval of projects.
7. In their response letter, the Applicant indicated that the new Whale's Tooth station platform and associated site work is a separate project and will be submitted to the Conservation Commission under a separate Notice of Intent.

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

Very truly yours,

Nitsch Engineering, Inc.



Jennifer L. Johnson, PE, CPSWQ, LEED AP CPSWQ
Project Manager



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

JLJ/mma