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August 1, 2019

Mr. Craig Dixon Chairman New Bedford Conservation Commission New Bedford City Hall 133 William Street New Bedford, MA 02744 RE: Nitsch Project #9972 North New Bedford Station Church Street New Bedford, MA

Dear Mr. Dixon:

This letter is regarding the proposed South Coast Rail – Phase I North New Bedford Station Project. This project involves the construction of a new rail station as part of the South Coast Rail project. Specifically, we have reviewed the following items:

- Plans entitled "Massachusetts Bay Transportation Authority, South Coast Rail Phase I, North New Bedford Station, Notice of Intent Plans, Attachment A," prepared by VHB and HNTB, dated June 17, 2019;
- Report entitled "Stormwater Report, North New Bedford Station, New Bedford, Massachusetts, prepared by VHB, dated June 2019; and
- Notice of Intent New Bedford, North New Bedford Station, prepared by the VHB, HNTB Team, dated June 20, 2019.

Below are our comments regarding stormwater management only:

- 1. The proposed project is considered a redevelopment project under the Massachusetts Department of Environmental Protection (MassDEP) Stormwater Management Standards, and therefore is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions. The information provided in the submittal appears to be consistent with these requirements.
- 2. The project results in a reduction in total impervious area when compared to the existing condition, which results in a decrease in peak flows and volumes from the project.
- 3. The Stormwater Report describes that there will be some surcharging of the stormwater piping from the City system into the proposed stormwater system. We recommend that the Applicant and Commission coordinate with the Department of Public Infrastructure regarding whether the City system can accommodate flows from the project.
- 4. The pipe sizing calculations indicate a surcharge conditions during the 25-year storm for the pipe segments that connect to the City system. This may be due to the surcharge condition described above. We recommend that the Applicant consider increasing the size of these segments to provide additional capacity.

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- 5. The soil borings indicate that groundwater is approximately two (2) to three (3) feet below existing grade. The project includes an underground stormwater management system that extends down to approximately six (6) feet below finished grade. Therefore, the bottom of the system will sit in groundwater. The detail provided indicates that this system will be wrapped in geotextile fabric/membrane. We assume this system is assumed to be watertight and not allow for groundwater to rise into the system. The Applicant should confirm whether the system will allow for groundwater to rise into the system. If so, this will impact the volume of the system. If the intent is for this system to be watertight, the detail should be revised to include an impervious membrane around the system.
- 6. We recommend that the Applicant review the locations of SDCB 108 and DCB 9, as well as SDCB 11 and SDCB 12, as there may be some redundancy in the design as shown and the number of structures could be reduced.
- 7. It appears that WQS 119 is located downstream of the Underground Stormwater Management System. We recommend that this treatment be provided upstream of the system to serve as pretreatment and reduce sediment transport into the system.
- 8. Based on the header pipe configuration on Sheet GD-300, it appears that stormwater could bypass the Underground Stormwater Management System. The system configuration on Sheet GD-300 is not consistent with the system detail on Sheet SD-307. Based on the detail, we assume the intent is to route stormwater collected by the closed drainage system through the underground system with the longest flow path possible. The detail and plan should be revised to be consistent.
- 9. We recommend that all materials include references to Massachusetts Highway Specifications.
- 10. We recommend that erosion controls be established along the western portion of the site along the railroad tracks.
- 11. The Operations and Maintenance Plan describes street sweeping. The Total Suspended Solids calculations do not account for street sweeping. If street sweeping is part of the Operations and Maintenance protocol, TSS removal will be better than shown in the stormwater management report. If street sweeping is not proposed, it should be removed from the Operations and Maintenance Report.
- 12. Flows to the west towards the railroad tracks are shown to decrease in the Stormwater Report. However, there is a point discharge from the site towards abutting properties. We are concerned that this concentrated discharge may negatively impact abutting properties and recommend the project mitigate this discharge as much as possible.

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

Very truly yours,

Nitsch Engineering, Inc.

ennifer Johnson, PE, CFM, CPSWQ, LEED AP

Project Manager

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