Department of Public Infrastructure

Jamie Ponte
Commissioner

Water
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Park Maintenance
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CITY OF NEW BEDFORD
Jonathan F. Mitchell, Mayor

May 4, 2022

Chairman Dennis Audette
City of New Bedford Conservation Commission
133 William Street
New Bedford, MA 02740

Attention: Mr. Chancery Perks, Conservation Agent

Subject: Shoreline Marine Terminal
Department of Public Infrastructure Review Comments
March 23, 2022 – Updated Submittal

Dear Chairman Audette:

At the request of Mr. Chancery Perks, Conservation Agent for the City of New Bedford (City), the Department of Public Infrastructure (DPI) has reviewed the March 23, 2022 submittal from Shoreline Resources for the relocation of the City owned 24-in stormwater overflow pipeline discharging to Outfall DP-201. The March 23, 2022 submittal is an updated set of plans from a November 4, 2021 submittal which DPI submitted comments on December 8, 2021. In addition to the updated design drawings, technical specifications were also submitted and reviewed by the DPI.

All work on the stormwater system and pipeline must be inspected by the DPI. Please contact the DPI Engineering Division for inspections. Appropriate permits must also be filed prior to starting any work.

There was no Operations and Maintenance Manual provided with the submittal for the portion of the project to be operated by the applicant. This is required in accordance with the City's Stormwater Management Rules and Regulations.

Project Comments

The comments submitted by the DPI to Shoreline Resources in December 2021 were, for the most part, not reflected in the updated set of design drawings. In some instances, the project was modified which negated previous comments. The following summarizes the DPI comments on the March 23, 2022 submittal.:

1. Easement – the report titled *24 inch Stormwater Overflow Design*, dated March 2022 by Pare Corporation (Stormwater Report) notes that Shoreline Resources will "extinguish" an existing easement and create a new easement for access along the new overflow pipeline. The plans do not show the location of the new or existing easement. The City requests a recordable plan with a minimum of 10-ft each side of the pipeline centerline showing the

location and extent of the easement including all required bearings, distances, and applicable dimensions. The plan shall be prepared by a Registered Professional Land Surveyor in the Commonwealth of Massachusetts. In addition, we request a copy of the legal description of the easement area for our review. The "extinguishing" of the existing easement and acceptance of the new easement will need to be approved by the New Bedford City Council.

2. The stormwater design should be completed in accordance with the City's Stormwater Management Rules and Regulations (SMRR) and Massachusetts Department of Environmental Protection (MassDEP) Stormwater Standards. This project is classified as a redevelopment project. As a result, the project needs to comply with the requirements set fort in Section 3, Paragraph 2.14.A. Please confirm that the design meets these requirements. No calculations were providing documenting that the proposed stormwater design meets these standards.

3. Please note the outfall being relocated as DP-201 which is the City's asset identification for this outfall.

4. Hydraulic calculations were provided in Appendix D of the Stormwater Report tabularizing peak rates of runoff and pipe capacity based on flowing full capacity and Manning's Equation. It was noted that a tailwater elevation of +1.79-ft was used in the design. Please confirm if that tailwater impacts the proposed cultec units proposed; will the pipeline surcharge back into the cultec units under peak flow and tailwater conditions. If the calculations indicate that the cultec units will be surcharged, please provide documentation that the proposed units will function as intended.

5. The Stormwater Report states that bolted covers will be used to mitigate flotation of the structures within the FEMA floodzone. Bolted covers alone will not mitigate flotation; structures should be designed with the required weight block to mitigate buoyancy issues. Update the plans and specifications accordingly.

6. The Stormwater Report notes that the railroad crossings were designed in accordance with AREMA standards. Please confirm that the pipeline and depth of bury also comply with AREMA standards and that any pipelines within 50-ft of the railroad that parallel the tracks are also designed in accordance with AREMA standards.

7. The Stormwater Report indicates that poor organic soils were identified during the geotechnical investigation program. It is noted that these soils will be excavated and removed. Please ensure that the limits of excavation are shown on the Drawings. The plans nor the profiles indicate what the limits of excavation are.

8. The pipeline and structures are shown to be bedded on 6-in of crushed stone. Structures should be bedded on 12-in and pipelines should be bedded on 8-in of crushed stone. The 12-in of crushed stone indicated in areas of rock excavation is adequate.

9. The Stormwater Report notes that parking lot runoff will be conveyed to several deep sump catch basins. One of the basins will convey flow to the underground storage and infiltration system. Any catch basins that discharge flow to the new drain line or the underground infiltration system should have adequate pretreatment prior to discharge (i.e., installation of a

hydrodynamic separator or other type of Best Management Practice). Without adequate pretreatment, the underground storage units could become sediment bound or potentially have oils and grease discharged to the groundwater. The cultec units are not intended to "treat" stormwater; they will infiltrate and store runoff only. Please provide calculations and manufacture's recommendations documenting that adequate pretreatment is obtained by the deep sump catch basins and that the design is in compliance with the City's SMRR for TSS removal.

10. The erosion and sedimentation (E&S) controls for this project are intended to use haybales and silt fence. Please confirm how these will be staked in place on paved areas. Fiber rolls shall be used in lieu of the haybales and silt fence.

11. Because the area of disturbance is larger than 1-acre, Shoreline Resources will be required to have routine inspections completed by the DPI to ensure that the E&S controls are maintained in accordance with the approved Stormwater Pollution Prevention Plans (SWPPPs). Based on DPI's initial inspection(s) on March 24, 2022 and April 1, 2022, the site is not being maintained in accordance with the City's requirements or approved plans. Al Hanscom of Pare Corporation was notified of the deficiencies on April 6, 2022. Subsequent inspection son April 8, April 15 and April 22 determined that none of the deficiencies noted in the April 6 notification were addressed. It is recommended that if these deficiencies are not address immediately that Shoreline Resources be issued a "STOP WORK" order as authorized by the City's SMRR Section 6 Paragraph 1.5.B.

12. Any City owned castings, curbing, or other elements shall be returned to the DPI at 1105 Shawmut Avenue. Coordinate with the DPI for return of the materials.

13. Sheet C2.0
    a. Comments from December 8, 2021 were not addressed. Please provide response to these comments.

14. Sheet C1.1
    a. Comments from December 8, 2021 were partially addressed. Please provide the following:
        i. Add a note 20 under Erosion and Sedimentation Control – "20. Crushed stone construction entrance as detailed shall be installed and maintained at all site entrances for the duration of the project.".
    b. Please note that DPI may direct the Contractor to conduct street sweeping at various intervals based on inspections of the site.

15. Sheet C3.0
    a. Comments from December 8, 2021 were partially addressed. Please provide the following:
        i. The manhole at Sta. 0+00 is proposed to be reused in lieu of the previously proposed in line catch basin. The existing survey notes that the cover is paved over. This cover shall be brought to finish grade and a new City standard cover installed.
        ii. The Engineer is proposing to abandon the existing sewer line that bisects the site. This sewer line shall be plugged at the manhole. Step 5 in the Proposed

Construction Sequence in the Stormwater Report indicates the manhole will be filled. The top 3-ft of the structure shall be removed. The plans should be updated to show the sewer being plugged at the manhole.

iii. The limits of demolition and abandonment are not clear. Please refer to the December 8, 2021 submittal for clarification needs.
iv. Resource areas should be shown on the plans.
v. There appears to be a drain that cuts across onto the adjacent lot owned by New Bedford Holdings, LLC that is proposed to be removed. Work can not take place on private property without the proper easements or rights of entry. This drain pipe should be cut and capped (CC) at the property line. This comment was also noted on the December 8, 2021 comment set.
vi. Please add the following requested note to the Demolition Notes per the requested change on the December 8, 2021 comment set:

"Drain lines to be abandoned in place shall be filled with flowable fill and bulkheaded. Manholes to be abandoned in place shall have the frame and cover removed and a minimum of the top 3-ft removed and the remainder of the structure filled with structural fill or flowable fill. Deliver all City owned castings to 1105 Shawmut Avenue, DPI Yard."

16. Sheet C4.0
    a. The City does not allow in line catch basins. All catch basins shall discharge to a manhole prior to discharging to the proposed 24-in drain. Additional protection such as a hydrodynamic separator or other BMP should be provided given the future uses of this site and potential for transport of pollutants to the harbor. In addition, adequate treatment of flow shall be provided to achieve compliance with the SMRR. Provide documentation in the form of calculations documenting that adequate pretreatment is being met to address compliance with the SMRR.
    b. Class IV RC pipe shall be used in lieu of the as shown Class III RC pipe.
    c. Class 52 DI pipe single lining concrete thickness shall be used in lieu of the SDR 35 PVC pipe in the casing under the railroad tracks. All other PVC drain pipe is acceptable.
    d. A Tideflex in-line check valve is being proposed to mitigate tidal inflow and sediment deposition in the proposed drain line. The City agrees with this approach. In the December 8, 2021 comment package, the City requested a manhole be installed just upstream of the outfall. The check valve be installed at the manhole inlet. This manhole shall have a sump installed for sediment and debris capture. This will allow DPI crews the ability to inspect and maintain the check valve and outfall pipe. The inline catch basin proposed is not acceptable equal to the above approach.
    e. DMH P-2 is located approximately 2-ft from the property line. The 24-in drain line that discharges from this manhole is also located approximately 2 to 3-ft from the property line. The trench for construction of this drain infrastructure will be approximately 5-ft to 6-ft wide to accommodate the excavation support system. In areas where organic soils exist, this trench width could exceed upwards of 10-ft to achieve a depth of 12-ft as indicated in the Stormwater Report. It's unclear how this infrastructure can be installed so close to the property line without the need to remove and relocate the existing fence and obtain a temporary construction easement from New Bedford Holdings, LLC. The proximity of the drain infrastructure to the

property line will also inhibit future access by the City to maintain the assets. This drainpipe should be located further from the property line as possible to mitigate construction impacts to adjacent property and allow for future access.

f. Manhole diameters are not labeled. Its unclear what diameter is required. If 4-ft diameters are proposed, it's unclear that this diameter will accommodate a 24-in RC pipe with a 90-degree deflection as proposed at DMH P-2. Please verify the adequacy of each manhole to accept the pipe of noted diameter and material and identify the manhole diameter on the plans. The specifications provided to indicate that all manholes shall be 4-ft in diameter unless otherwise noted.
g. Is a temporary riprap outlet protection pad to be provided between the interim when the final sheeted wall is to be constructed? It is recommended that this occurs to mitigate erosion of the shoreline and harbor bottom. A detail and specification should be provided.

17. Sheet 6.0
    a. Its unclear how the haybales will be staked on paved areas. Fiber rolls should be used in lieu of the hay bales.
    b. Coordinate all stormwater inspections with DPI.
    c. Due to the proximity of work to the harbor, a silt boom and curtain should be installed in the area of work to mitigate the transport of sediment to the harbor.

18. Sheet C7.1
    a. Asphalt & Contaminated Soil Stockpile Area
        i. There is a note that says "Provide Temporary Seed" which then refers to a Note. 1 which references a Sheet C6. There is no Sheet C6 in the plan set. Also, please clarify the "seed". Should this be polyethylene at a certain mil thickness and not "seed"? Coordinate this detail with the specifications.
    b. In November 2021 submittal a dewatering basin detail was provided. The Stormwater Report references the use of a dewatering basin. This detail shall be used, or the Stormwater Report updated to eliminate the use of the basin.

19. Sheet C7.2
    a. Only a few comments from December 8, 2021 were addressed. Please provide response to the comments that were not addressed.
    b. The drawing references LeBaron Foundry model numbers. LeBaron is no longer in business. Please coordinate with DPI Engineering for the appropriate City Standard for castings.
    c. Extensive comments were provided on the Steel Casing Pipe Detail. Please confirm and address these comments.
    d. City Standard manhole cover is 30-in.
    e. Class IV Wall B or C concrete pipe should be used.
    f. No drain pipe connection detail is provided. Please provide a detail for this. It's unclear if this is intended to be specified in Section 02630 2.03.A.1.
    g. The Typical Drain Manhole Detail indicates the use of a brick channel and shelf. The City's standard is concrete channel and shelves on drain manholes. Also, the shelf should be constructed to the crown of the highest pipe.
    h. The Precast Catch Basin detail does not show a hood. One should be provided in accordance with City Standards. A note does indicate one should be provided.

i. Structures should provide with a minimum of 12-in gravel. In some instances, filter fabric should be provided as noted in the Stormwater Report. Please indicate where this is required.
j. The pipe trench details indicates 6-in of peastone or gravel. This should be 8-in.

20. Sheet C8.0
    a. Update Note No. 1 to reflect the Class IV concrete pipe.
    b. The profile does not show any crossing utilities to determine if there are direct invert conflicts that could require either relocation of existing utilities or further abandonment other than what is shown on the drawings.
    c. It appears that the pipe lengths now match the plans. The slopes and inverts were not verified by DPI and should be checked.

21. Section 01500 – Temporary Facilities
    a. No dust control is provided. Please provide a specification on how the Contractor intends to mitigate dust.

22. Section 02001 – Mobilization
    a. There is no mention of noise control. All work shall comply with City ordinances. Please indicate how the Contractor will comply with these requirements.
    b. There is no mention of work hours. Please indicate the work hours that the Contractor intends to work.
    c. Contact DPI for any hydrant use. DPI shall operate all hydrants. A meter is required for rental and all water usage will be recorded and billed to the Contractor. Contractor is responsible for providing his/her own backflow preventor.
    d. Section 3.02.C – Deliver two copies of final record plans to the City of New Bedford, Department of Public Infrastructure.

23. Section 02062 – Management of Contaminated Soils
    a. Please indicate if hydrocarbons or other petroleum products were identified during the soils testing. If they were, this will impact the design of the utilities. Please coordinate with DPI regarding this.
    b. Section 3.04 – the plans do not match the specification for temporary stockpiling of contaminated materials.
    c. The Contractor should have Pollution Liability Insurance in the amount of $5,000,000 for each occurrence and annual aggregate.
    d. There is no indication of the type of facility or thresholds required for what facility the material needs to be transferred to.

24. Section 02200 – Earthwork
    a. Section 1.01.A – include dewatering and drainage.
    b. Section 1.02.B.1 – should ASTM D698, ASTM D6913 and ASTM D1557 also be included?
    c. Section 1.04.A.3 – no where is it shown or specified how the pipes should be abandoned or bulkheaded. Refer to above comments on the plans.
    d. Part 2 – Products – no where is a specification for common fill for pipe backfill provided.

e. If flowable fill is to be used, it shall be Type 2E with no fly ash conforming to the Massachusetts Department of Transportation, Highway Division (MassDOT Standards) latest standards.
f. Section 2.01.B – it appears that M2.01.04 of the MassDOT Standards is being specified. The table under Section 2.01.B.4 indicated 1 ½" stone. Please confirm.
g. The plans call for 1 ½" stone under manholes. Please provide specification for this. Confirm if it is intended to be M2.01.1.
h. Section 3.01.A – All excavation shall be done in the dry. Groundwater shall be lowered to at least 2-ft below the lowest level of the excavation. There shall be no standing water in the trench.
i. Section 3.01.A.2 – This paragraph indicates that the Contractor only has 1.5-ft from the outside edge of the pipe to excavate a trench. This will be very difficult with the excavation support system and depth of excavation required especially in the area of over excavation. Please update as required and refer to above comments.
j. Section 3.01.D – All dewatering shall follow the approved NPDES permit. Dewatering shall be completed in such a manner that it does not disturb existing soils or subgrade. The dewatering system shall be in place prior to the start of work.
k. Section 3.02.B.2 – The 6-in depth in line two shall be 8-in. Update the detail on the drawings. Confirm that this is the common fill specification and if it meets the requirements of M1.01.0.
l. There is no specification provided for the following which shall be provided:
    i. Excavation support
    ii. Excavation below grade and refill

25. Section 02270 – Stormwater Management and Erosion Control
    a. All stormwater management procedures shall comply with the approved Stormwater Pollution Prevention Plans (SWPPPs) and the City of New Bedford Stormwater Management Rules and Regulations.
    b. The haybales and silt fence shall be replaced with fiber rolls. Please update accordingly.
    c. A construction entrance shall be provided. Provide a specification for this.
    d. No spill control measures are specified. Please provide this.
    e. Section 3.01.A – The City of New Bedford shall complete inspections as required. Coordinate with the Department of Public Infrastructure.
    f. Section 3.03 – File for a Final Notice of Determination with the NPDES permit.

26. Section 02630 – Storm Drainage
    a. Provide a ductile iron pipe spec.
    b. No specification is provided for the spacers used in the casing.
    c. No specification is provided for the end seals in the casing.
    d. There is no concrete spec provided for any miscellaneous concrete.
    e. There is no specification for manhole rungs, bricks or concrete grade rings.
    f. There is no specification for structure testing; leakage or vacuum is acceptable.
    g. All castings shall be made in the United States. Refer to the comments above regarding the make and model numbers of the castings.
    h. All structures, pipe and casting shall conform to the City of New Bedford Construction Standards and Specifications, latest edition. Please contact DPI for a copy if required.

i. Section 1.01.A – add Tide Flex check valve to this list
j. Section 1.02 – Structure design shall be stamped by a Registered Professional Engineer in the Commonwealth of Massachusetts.
k. Part 2 – Products – A – Polyvinyl Chloride Drainage Pipe: Pipe shall comply with ASTM F679 for pipe 18" to 27". Any defective pipe shall be immediately removed from the project site and replaced.
l. Part 2 – Products – B – Reinforced Concrete Sewer Pipe and Fittings: This should meet the requirements of ASTM C76. All pipe shall be Class IV, Wall B or C. Pipe shall be provided with gaskets. Refer to ASTM C361 or C443. There is no indication how the pipe will be repaired if defects are found, nor is there any indication as to what constitutes a defect in need of replacement/repair.
m. Section 2.01.A – please indicate the design flood elevation. Structures shall be designed for flotation. Are knockout panels to be provided or will the openings be field cored? Flat top sections are allowed for shallow manholes.
n. Section 2.01.A.1 – Update reference to ASTM C478. The concrete strength shall be 3,000 psi not 2,500 psi. All structures shall be designed for H-20 loading and any additional loading required as a result of flood waters.
o. Section 2.01.B.1 – Change the 24" to 30" to match City standards. Castings shall be manufactured in the United States.
p. Section 2.02.A.1 – Update reference to ASTM C478. The concrete strength shall be 3,000 psi not 2,500 psi. All structures shall be designed for H-20 loading and any additional loading required as a result of flood waters.
q. Section 2.02.B – all castings shall be made in the United States.
r. Section 3.01.A – add dewatering and drainage to this list.
s. Section 3.02 – this section is referred to a "Piping Installation"; however, it appears to be a mix of manhole and pipe installation. Please confirm.
t. Section 3.02 – blocking under pipe will not be permitted.
u. Section 3.02.B – Add statement to refer to Section 02200.
v. Section 3.02.C – Lubricate pipe gaskets prior to installation. Lubricant shall be provided by pipe manufacturer and not damage the gaskets.
w. Section 3.02.D – this is not an installation spec. Move to the materials section.
x. Section 3.02.E – Second line, change the 6-in to 12-in.
y. Section 3.04 – manhole joints shall be sealed with an o-ring or preformed flexible joint sealer.
z. Section 3.05 – refers to LeBaron Foundry which is no longer in business. Refer to other comments and update specifications as required. In no other location do you specify the casting make and model number; refer to the plans.
aa. Section 3.07 – Provide DPI with internal CCTV pipe inspection data once complete and prior to acceptance of the project.

27. Section 02741 – Asphalt Paving
    a. Any paving in the City right of way shall conform to City of New Bedford standards.
    b. Section 2.01.A – its unclear what MassDOT material this is referencing. Please confirm.
    c. Section 2.02.A – verify the reference provide for Hot Mix Asphalt.

Should you have any questions regarding the DPI comments, please contact Shawn Syde at (508) 979-1550 or shawn.syde@newbedford-ma.gov.

Sincerely,

Jamie Ponte
Commissioner

Cc: Shawn T. Syde, City Engineer
Justin Chicca, Deputy Commissioner
Stephanie Crampton, Assistant City Engineer.
Jennifer Carloni, Director of City Planning
Michele Paul, Director of Resiliency and Environmental Stewardship