SAN FRANCISCO BAY AREA WATER EMERGENCY TRANSPORTATION AUTHORITY

Piping System Work to Support
New 5,000 Gallon Diesel Exhaust Fluid (DEF) Tank
RFQ 21-004

ADDENDUM NO. 1

March 19, 2021

SCOPE

This Addendum No. 1 consists of 1 page and 1 Exhibit, it includes the following:

1. Corrections.

1. CORRECTIONS

Exhibit A of the RFQ is replaced in whole by the *Exhibit A – Addendum 1* which is attached hereto; revision marks have been used to denote changes in the Scope of Work.

ACKNOWLEDGMENT BY BIDDER

Each bidder is required to acknowledge receipt of all Addenda, including this Addendum No. 1 as specified in the RFQ by signing below.

ISSUED BY:

Tim Hanners

Tim Hanners
cn=Tim Hanners, o=WETA, ou, email=Hanners@watertransit.org, c=US

Tim Hanners Date
WETA

ACKNOWLEDGMENT:

Bidder must sign below and return this acknowledgement with the RFQ response:

Authorized Signature of Bidder Date

Scope of
Piping System Work
to Support New 5,000 Gallon DEF Tank

Design and build a complete DEF tank filling and distribution piping system as described below and as illustrated by Attachment 1. The new DEF tank is currently under construction by others and is expected to be complete and ready for this work by March 31, 2021. All work must be completed within 28 days from WETA's issuance of a Notice to Proceed. Without limiting the generality of the scope of work described above, the work at a minimum includes the following elements:

1. All work must be performed in accordance with WETA's safety plan, industry standard best practices, and instructions provided by WETA Representatives. Contractor must comply with all local and state health orders issued in response to the Covid-19 pandemic as may be in place and applicable at any time during the course of performance under this Agreement.
2. Provide shop drawings for WETA review and approval indicating the routing of piping, materials specifications for all components used in construction, and a simplified one-line piping diagram of all work.
3. Coordinate all work as necessary with the electrical contractor installing the electrical system modifications to allow for efficient construction, testing, and commissioning of the DEF systems.
4. All piping shall be Schedule 80 CPCV (ASTM F441). Use solvent welded fittings avoiding threaded connections wherever possible.
5. For flexible connections between floats use barbed CPCV pipe nipples, looped reinforced UV-resistant flexible hose (rated for DEF), and doubled SS316 T-bolt hose clamps to account for the relative motions between floats. Pipe nipples shall orientated 90° downward at each float interface to facilitate the U-shaped loop of flexible hose.
6. Utilize two of the four unused multi-cable transit (MCT) penetrations located in the shore-end of the Service Float to bring the 1½" DEF tank fill line into the Service Float and route the 1" DEF distribution line from the Service Float out to Floats 4 and 5.
7. Install a 1½" DEF tank fill line from the top of the main gangway, down along the length of the gangway under its grating, across Float 2 under its deck grating, and into the Shore-end Void of the Service Float using one of the MCT penetrations described in Paragraph 6. Once inside the Service Float route the fill line from the Shore-end Void into the Tank Void via ~~the new~~

~~MCT being furnished by the electrical contractor~~ the open penetration between the two voids. Note, the electrical contractor will fill the open penetration with fire stop putty once all piping and conduit is fitted through this penetration. Finish the fill line installation by running pipe to the designated 1½" tank fill fitting located on the new DEF tank top.

8. At the shore end of the DEF tank fill line provide a 2" male (♂) cam-lok style fitting with cap and lanyard at the head of the gangway (location subject to WETA approval) to accept bulk deliveries from a tanker truck hose at that location. Then immediately reduce the DEF fill pipe size down to 1½" along the gangway and to the new DEF tank in the Service Float Tank Void.
9. Install a 2" DEF tank vent line coming off the corresponding tank vent fitting and ~~terminating with a 180° fitting just below the overhead in the Tank Void~~ teeing it into the existing 2" tank vent line that serves the old 300 gallon DEF tank.
10. Provide 1" DEF distribution piping from the submersible pump discharge to serve the five (5) DEF filling stations via a new DEF distribution manifold located in the Tank Void. The manifold shall include one (1) incoming line from the submersible pump discharge, and four outgoing lines as follows:
    a. For Berth #1 run 1" DEF supply piping from the new manifold and tee it into the existing DEF suction piping in the Tank Void. When the system is ready for testing and commissioning, the existing DEF pump in the Pump Room shall be removed and a jumper line shall be installed between the existing pump suction and discharge lines. The existing DEF suction line between the new tee and the old DEF storage tank shall be cut and capped. The work to commission Berth #1 shall occur after all other berths are commissioned and fully operational.
    b. 1" line to the containment area at the head of Berth #2, provide a new watertight deck penetration with location subject to WETA approval.
    c. 1" line to the containment area at the head of Berth #3, provide a new watertight deck penetration with location subject to WETA approval.
    d. 1" line penetrating through to the Shore-end Void of the Service Float via the open bulkhead penetration noted in Paragraph 7, then through a blank space in the existing MCT to Float 2, then onward along Float 4, and finally on to Float 5 branching off to serve both Berth 4/6 FWD and Berth 4/6 AFT. Pipe routing shall be underneath deck gratings on Floats 2, 4, and 5.
11. Provide five (5) 1" full port PVC ball valves at the new manifold to allow for isolation of all lines.
12. Piping runs along Floats 2, 4, and 5 shall be suspended below the walking grates using existing uni-strut mounting locations. Where necessary install a second lower tier of uni-strut,

suspended from existing uni-strut, to accommodate piping runs. Provide adequate supports/bracing for all horizontal and vertical runs of 1" DEF fill piping.

13. At each DEF filling station (except Berth #1) terminate the distribution piping approximately 36" above the deck grating by installing a turbine style flowmeter rated for DEF flow rates up to 25 GPM reading out in gallons, and a 1" full port PVC isolation ball valve. WETA will complete the installation from that point using appropriate pipe fittings and hoses. Exact details of the location and arrangement of DEF filling station piping shall be developed in coordination with the WETA Representative.
14. Procure and provide loose to WETA three (3) BENECOR fast fill DEF dry break quick connect hose fittings. The fittings are to be 316SS, 1½" DEF female (♀).
15. Install uni-strut and hardware in the Service Float voids, along the gangway, and the floats as necessary to route and properly secure all new piping installations.
16. Hydrostatically test the tank fill line and DEF distribution lines to prove tightness and commission the piping systems. As noted in Paragraph 10.a, work to complete, test, and commission Berth #1 shall occur after all other berths are fully operational.
17. Test and commission the system in cooperation with the electrical contractor installing the new DEF pump electrical controls to confirm proper operation of all DEF filling stations.
18. Provide loose one spare DEF flowmeter. Provide loose one complete flexible connection hose assembly as a ready service spare, as detailed in Paragraph 5.