Document 00900

ADDENDUM NO. 2

Date of Addendum: 7-9-26

PROJECT NAME: City of Alamo – TWDB Project No. HB500
Lift Station No. 1 Wastewater Improvements Project

PROJECT NO: 003-2025

BID DATE: JULY 16, 2026

FROM: LeFevre Engineering, PLLC.
818 Mansfield Dr. Unit 182
Port Mansfield, Texas 78598

TO: **Prospective Bidders**

This Addendum forms a part of the Bidding Documents and will be incorporated into Contract Documents, as applicable. Insofar as the original Project Manual and Drawings are inconsistent, this Addendum governs. Acknowledge receipt of the Addendum by inserting its number in Document 00310 - Form of Proposal. **FAILURE TO DO SO MAY SUBJECT BIDDER TO DISQUALIFICATION.**

ADDENDUM NO. 2

1. Acceptable alternative pumps for this project are the following:
   a. KSB
   b. Ibarra
   c. Grundfos
   d. Barnes
   e. The City of Alamo has specifically required Flygt Pumps and all above pumps are subject to deductive items on the Form of Proposal and deductive item proposal. Alternative pumps are subject to rejection by the City of Alamo if used during the bidding process and are at the sole discretion of the City of Alamo.

CLARIFICATIONS

2. All pump controls must utilize telemetry to notify in the event of an emergency or failure.
3. Please ensure acknowledgment of Project Notes on Page C2.0 of the plans regarding quantities for the project in relation to quantities of asphalt, base materials, subgrade requirements, compactions for sewage lines, et. al.
4. Gravel is required for the bedding of the sewage pipe when water is encountered during construction.
5. Subsurface water during construction will be encountered.
6. Contractor will be required to utilize cement stabilized sand to fill existing wet wells and vaults during demolition of all existing Lift Stations to be demolished.
7. Suction Pipe for emergency diesel bypass pump is required for the project which also required a quick-connect for the intake of the emergency pump. Diesel Pump will be connected to forcemain via quick connect as per plans. Please see pages LS-15 for suction pipe design.

8. All piping, controls, electrical power, etc. are required for the use of odor control. A piping plan will be required for submittals when approving odor control.
9. Please note that flowable fill is required for the installation of the wet well and mix plan for the fill will be submitted with wet well installation submittals.
10. **All hatches will be as per pump manufacturer size, location, and all safety requirements will be required during bidding and submittals. Hatches will be determined by pump manufacture for clearance purposes. This supersedes requirements for hatches on page LS-5; Keynote 20 and other references to the hatches on plans.**
11. All valves, control panels, generators found at existing lift stations to be demolished will remain the property of the City of Alamo. All other materials will be disposed of in a proper safe manner according to local, state, and federal requirements at the expense of the contractor.
12. All manholes found in road must utilize concrete spacing rings, and must utilize 5'x5' concrete collars in diamond pattern in the direction of traffic. Collar thickness is a minimum of 5" of concrete supported by No. 4 rebar in two layers.
13. New Caliche shall be utilized for base material for Tower Road for and shall be 10" in thickness and compacted to required compactions. Subgrade shall be treated with lime and shall be 10" in thickness as per geotechnical engineering recommendations for heavy duty traffic section. This supersedes the detail on page C-8.1.
14. Sound attenuation is not a requirement for the diesel bypass pump.

PROJECT MANUAL

15. Please find Wet Well Specification 02082 for the project attached to this addendum.

END OF ADDENDUM NO. 2

DATED: 7-9-26

Richard LeFevre, P.E.

END OF DOCUMENT

SECTION 02082

FIBERGLASS WET WELL

PART 1 - GENERAL

1.01 SUMMARY

A. This Section includes the furnishing and subsequent installation of a fiberglass wet well as shown on PLANS and as specified herein.

1.02 RELATED SECTIONS AND DOCUMENTS

A. Work Specified Elsewhere

1. All piping, fittings, painting, electrical work, and instrumentation to be per applicable Specification Section.

1.03 REFERENCES (NOT USED)

1.04 DEFINITIONS (NOT USED)

1.05 SUBMITTALS (NOT USED)

1.06 QUALITY ASSURANCE

A. General

1. Fiberglass reinforced polyester wet wells shall be manufactured from commercial grade polyester resin or vinyl ester resin, with fiberglass reinforcements. The resin system shall be suitable for atmospheres containing hydrogen sulfide and dilute sulfuric acid as well as other gases associated with wastewater collection systems. The wet well shall be a one piece unit by any reputable fiberglass manufacturer that has history of fiberglass wet well manufacturing.

1.07 MEASUREMENT AND PAYMENT (NOT USED)

1.08 DELIVERY, STORAGE, AND HANDLING

A. Deliver all materials and equipment to jobsite with sufficient protection to ensure arrival in undamaged condition.

B. All mechanical equipment to be stored on sleepers above grade and to be completely protected from damage and exposure to the elements until installation.

PART 2 - PRODUCTS

2.01 MANUFACTURER(S) (NOT USED)

2.02 MATERIALS AND/OR EQUIPMENT

A. The resins used shall be a commercial grade unsaturated polyester resin.

B. The reinforcing materials shall be commercial grade “E” type glass in the form of mat, continuous roving, chopped roving, roving fabric, or a combination of the above, having a coupling agent that will provide a suitable bond between the glass reinforcement and the resin.

C. If reinforcing materials is used on the surface exposed to the contained substance, it shall be a commercial grade chemical-resistant glass that will provide a suitable bond with the resin and leave a resin rich surface.

D. Fillers, when used, shall be inert to the environment and wet well construction. Additives, such as thixotripic agents, catalysts, promoters, etc., may be added as required by the specific manufacturing process to be used. The resulting reinforced plastic material must meet the requirement of this specification.

2.03 FABRICATION

A. The exterior surface shall be relatively smooth with no sharp projections. Handwork finish is acceptable if enough resin is present to eliminate fiber show. The exterior surface shall be free of blisters larger than ½ inch in diameter, delamination and fiber show.

B. The interior surface shall be resin rich with no exposed fibers. The surface shall be free of grazing, delamination, blisters larger than ½ inch diameter, and wrinkles of 1/8 inch or greater in depth. Surface pits shall be permitted up to 6 square feet if they are less than ½ inch in diameter and less than 1/16 inch deep.

C. The top and bottom to be fabricated using fiberglass material as stated above. Material and installation to meet all physical requirements as stated above. Bottom to be attached to wet well pipe with fiberglass lay up to comply with A.S.T.M.-D3299 specifications. When reinforcement shall be completely enclosed with a fiberglass lay up per A.S.T.M.-D3299.

D. Effluent, service, or discharge lines may be factory installed. Approved methods are PVC sewer pipe, Inserta-tee fittings, or Kor-N-Seal boots. Installation of stubouts to be fiberglass lay up to comply with A.S.T.M.-D3299.

2.04 SOURCE QUALITY CONTROL

A. DEFECTS NOT PERMITTED:

1. Exposed fibers: glass fibers not wet out with resin.
2. Resin runs: runs of resin and sand on the surface.
3. Dry areas: areas with glass not wet out with resin.
4. Delamination: separation in the laminate.
5. Blisters: Light colored areas larger than ½ inch in diameter.
6. Crazing: cracks caused by sharp objects.
7. Pits or Voids: air pockets.
8. Wrinkles: smooth irregularities in the surface.
9. Sharp projection: fiber or resin projections necessitating glovers for handling.

B. Physical Requirements: Load Rating.

1. The complete wet well shall have a minimum dynamic-load rating of 16,000 ft-lbs when tested in accordance with section 1.02 V. To establish this rating, the complete wet well shall not leak, crack, or suffer other damage when load tested to 40,000 ft-lbs and shall not deflect vertically downward more than ¼ inch at the point of load application when loaded to 24,000 lbs.

C. The wet well cylinder shall have a minimum pipe-stiffness values shown in Table 1 when tested in accordance with above information.

D. Test Methods: Tests shall be performed as specified in A.S.T.M.-D3757 latest edition, Section 1.02 VI.

TABLE 1

STIFFNESS REQUIREMENTS

LENGTH – FT	F/AY – PSI
10 to 20	2.01
21 to 30	3.02
31 to 40	5.24

PHYSICAL PROPERTIES		HOOP DIRECTION	AXIAL DIRECTION
a.	Tensile Strength (psi)	18,000	5,000
b.	Tensile Modules (psi)	0.8 x 10(6)	0.7 x 10(6)
c.	Flexural Strength(psi)	20,000	4,500
d.	Flexural Modules(psi)		
	(no ribs – 48”, 60”, 72”)	1.4 x 10(6)	0.7 x 10(6)
	(with ribs – 96”, 144”)	0.7 x 10(6)	0.7 x 10(6)

PART 3 - EXECUTION

3.01 GENERAL (NOT USED)

3.02 ERECTION/INSTALLATION/APPLICATION AND/OR CONSTRUCTION

A. Installation:

1. Excavation: The limit of excavation shall be such to allow for placing and removing forms, installing sheeting, shoring, bracing, etc. The Contractor shall pile excavated material in a manner that will not endanger the work and will avoid obstructing sidewalks, driveways, power poles, etc. Drainage shall be kept clear.

2. When necessary to protect existing or proposed structures or other improvements, the Contractor shall maintain vertical sides of the excavation. The limit shall not exceed three feet outside the footing on a vertical plane parallel to the footing except where specifically approved otherwise by the Engineer. The Contractor shall provide and install any sheeting, shoring, and bracing as necessary to provide a safe work area as required to protect workmen, structures, equipment, power poles, etc. The Contractor shall be responsible for the design and adequacy of all sheeting, shoring, and bracing. The sheeting, shoring, and bracing shall be removed as the excavation is backfilled in such a manner as to prevent injurious caving.

3. Where sufficient space is available, the Contractor shall be allowed to back slope the sides of the excavation. The back slope shall be such that the excavation shall be safe from caving. The type of material being excavated shall govern the back slope used, but in any case the back slope shall be no steeper than 1 foot horizontal to 1 foot vertical.

4. The Contractor shall keep the excavation free from water by use of cofferdams, bailing, pumping, well pointing, or any combination as the particular situation may warrant. All dewatering devices shall be installed in such a manner as to provide clearance for construction, removal of forms, and inspection of exterior of form work. It is the intent of these specifications that the foundation be placed on a firm dry bed. The foundation bed shall be kept in a dewatered condition a sufficient period of time to insure the safety of the structure. All dewatering methods and procedure are subject to the approval of the Engineer. The excavation shall be protected from excessive rainfall, drainage and drying. The excavation shall be inspected and approved by the Engineer before work on the structure is started. It is the intent of these specifications that the Contractor provide a relatively smooth, firm foundation bed for footings and slab that bear directly on the undisturbed earth without additional cost to the owner, regardless of the soil conditions encountered. The Engineer will be the sole judge as to whether these conditions have been met. The Contractor shall pile excavated material in manner that will not endanger the work.

5. Excavation for slabs, footings, etc., that bear on earth shall not be carried below the elevation shown on the drawings. In the event the excavation is carried on below the indicated elevation, the Contractor shall bring the slab, footing, etc., to the required grade by filling with concrete having a minimum compressive strength of at least 3,000 psi at 28 days.

6. Do not drop or impact the wet well. Wet wells shall be chocked if stored horizontally. If wet wells must be moved by rolling, the ground transversed shall be smooth and free of rocks, debris, etc. Fiberglass Reinforced Polyester wet wells may be lifted by the installation of two lifting lugs as specified by the manufacturer on the outside surface near the top or by a sling or “choker” connection around the center. Use of chains or cables in contact with the wet well surface is prohibited. Wet wells may be lifted horizontally using one support point.

7. Bottom of excavation should be compacted to 95% Standard Proctor Density. Pour reinforced concrete base one foot deep and at least two feet larger than the fiberglass wet well outside diameter. As soon as the concrete has set-up enough to support the fiberglass wet well, lower the wet well into place. Pour a minimum of one foot of reinforced concrete on the inside, also a minimum of one and one-half foot deep and two feet from the fiberglass wet well wall on the outside of the wet well. Inset ram neck type sealant on the outside of fiberglass wet well around the bottom where the fiberglass and concrete come together.
8. Cutouts in wet well wall should be made with proper cutting tools, such as jig saw or hole saw. Do not use axe or other impact-type tools.

B. INSTALLATION OF SEWER PIPE:

1. Type 1: Make the cutout in the wet well wall, the outside diameter of pipe, plus ½ inch maximum. Slip pipe into position. Apply industrial grade silicone around the pipe next to the wet well wall cutout on the inside and on the outside. Cover the outside silicone area with epoxy grout and backfill.
2. Type 2: Make the cutout in the wet well wall, the outside diameter of pipe, plus ½ inch maximum. Grind the outside surface of the pipe and both the inside and the outside surfaces of the cutout in the wet well wall (Apply a priming agent to any PVC pipe that might be used before fiberglass lay-up.) Insert the pipe through the cutout in the wall of the wet wall. Apply fiberglass putty to the inside and the outside of the wet well wall cutout, filling openings between pipe and cutout. Make a good radius for the fiberglass lay-up. After putty has set-up, fiberglass the pipe into place. Use one layer of woven roving sandwiched between two layers of fiberglass mat. Allow fiberglass to completely set-up before backfilling. Fiberglass layup method to comply with A.S.T.M.-D3299 specifications.
3. Type 3: Install Insert-A-Tee type fitting per manufacturers instruction. (Fowler Mfg. Co.,) or approved equal.
4. The fiberglass top may have stubouts installed or may have a raised fiberglass collar around the hatch opening. The fiberglass top has been designed to withstand the weigh of a concrete slab to withstand the weigh of a concrete reinforced slab to be installed over it.

3.03 REPAIR/RESTORATION (NOT USED)

3.04 FIELD QUALITY CONTROL (NOT USED)

3.05 MEASUREMENT AND PAYMENT

A. No separate measurement or payment for work performed under this Section. Include cost of same in Contract price bid for work of which this is a component part.

END OF SECTION