Enprotec | Hibbs & Todd

March 5, 2025

CITY OF MIDLAND
MIDLAND, TEXAS
Water Treatment Plant Solids Handling Improvements

Addendum No. 1

Attention is called to the following modifications to the referenced Plans, Specification and Contract Documents for the above referenced project. The City of Midland (City) will receive sealed Proposals for WWP Solids Handling Improvements at the City Secretary's office, located at 300 North Loraine, Suite 330, Midland, TX 79701, by 2:00 p.m., local time on **Wednesday, March 26, 2025**, at which time the sealed Proposals received will be publicly opened and read. We hereby modify the documents as follows:

CONTRACT:

1. The City will **EXTEND** the advertisement date from the original date of March 19, 2025 to **Wednesday, March 26, 2025**, at 2:00 pm.

2. The Request for Proposal Form has been revised to provide a value of **$100,000** in the Owner's Allowance Line Item 9. Please **REPLACE** the Request for Proposal Form in it's entirety with the attached Request for Proposal Form.

SPECIFICATIONS:

1. Section 11410 "**Polymer System**", 2.1.A. **ADD** the following approved manufacturers to the list:
    a. VeloDyne Polymer System.

2. Section 11145 "Sludge Dewatering Volute Press", **DELETE** the existing specification and **REPLACE** with the **PROPOSED** specification included in this addendum.

CLARIFICATIONS:

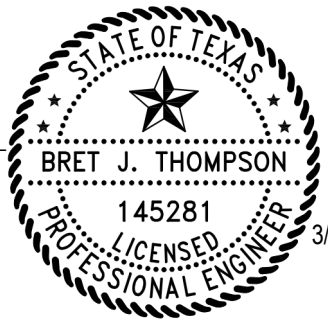
1. Conveyor Estimated Lengths are shown below. Contractor is responsible for field verifying all lengths during construction.
    a. 05-SC-3101: **13'-1" +/-**
    b. 05-SC-3101: **20'-4" +/-**
    c. 05-SC-3103: **12'-7" +/-**
    d. 05-SC-3104: **34'-6" +/-**

2. Sheet No. 25, the 6" sludge line center line elevation is **2821.50.**

This addendum consists of twenty seven (27) pages and becomes a part of the referenced plans, specifications and contract documents and shall be acknowledged by the proposer and attached to the sealed proposal submitted.

Bret Thompson

By Bret Thompson P.E. #145281
Project Manager



3/5/2025

ADDENDUM NO. 1

REQUEST FOR PROPOSALS (RFP)

CITY OF MIDLAND
Water Treatment Plant Solids Handling Improvements

The City of Midland (Owner) is now accepting proposals in order to evaluate pricing and qualifications of a contractor to construct the work identified as Water Treatment Plant Solids Handling Improvements Project. Sealed proposals will be received until **2:00 p.m. on March 19, 2025**. Proposers shall deliver sealed proposals to the Owner at the following address:

City of Midland **Attn: City Secretary's Office** **300 N. Loraine, Suite 330** **Midland, Texas 79701**	**OR**	**City of Midland** **Attn: City Secretary's Office** **P O Box 1152** **Midland, Texas 79702**

Proposal Documents may be obtained from Civcast at www.civcastusa.com. Neither Owner nor Engineer will be responsible for full or partial sets of Proposal Documents, including addenda, if any, obtained from sources other than the Issuing Office.

GENERAL INFORMATION AND OVERVIEW

The purpose of this RFP is to contract with a firm to construct the Midland Solids Handling Improvements at the Midland Water Purification Plant. The work consists of the following primary elements:

- Modifications of existing solids holding tank with surface mixer and decanter.
- Removal and replacement of recycle pump station pumps.
- Modification of existing solids dewatering building.
- Installation of new progressive cavity pumps for solids transfer.
- Installation of new volute dewatering press.
- All necessary appurtenances and electrical improvements.

The City of Midland reserves the right to reject any or all proposals or to waive any informalities in the proposals.

PROPOSAL PROCESS:

1. Requests for Information/Clarification (RFI/C's) shall be submitted to the Engineer no later than 72 hours prior to the RFP submittal deadline. RFI/C's to be requested in writing to:

   Mr. Bret Thompson, PE
   Enprotec/Hibbs & Todd
   1310 Weatherford Highway
   Granbury, Texas 76048
   Phone: 682-498-6000
   Email: bret.thompson@e-ht.com

2. Written responses to RFI/C's requiring Addendum will be made available to all Proposal holders on record no later than 24 hours prior to the RFP Submittal Deadline.

3. One (1) bound copy and one (1) digital PDF version of the Proposal shall be due by the date and time indicated. Proposals received after the closing hour of the due date shall not be considered.

4. Proposal packages must be hand delivered, mailed or shipped by means of a delivery tracking system to confirm delivery time, date, and person signing for delivery.

5. Proposals will be publicly opened and read aloud after the closing hour of the due date.

6. The Owner shall exercise sole discretion as to the schedule and process of evaluating the proposals according to the requirements contained herein.

7. Criteria for award of the Project will include a weighted matrix developed by the Owner, for a maximum number of 100 points, based on the following criteria:

a.	Proposal Pricing	50%
b.	Proposer Qualifications	30%
c.	Proposal Time	10%
d.	Proposer Safety Record	10%

PROPOSAL FORMAT & REQUIREMENTS:

1. The RFP shall be the basis for each proposal.

2. Proposals shall be addressed to the Owner, as indicated, in a sealed package that shall be independent of the mailing/shipping packages. The proposal package shall be clearly marked as "City of Midland, WPP Solids Handling Improvements, Proposal Package" on the package label. The package label shall include the name and address of the Respondent's company.

3. Proposals shall be submitted in bound documents.

4. Proposals sent by facsimile (fax) machine or by email shall be rejected as being non-responsive to the RFP.

5. Proposal Pricing shall be for the entirety of the work shown or specified and shall be listed on the Price Proposal Sheet of this RFP.

6. All exclusions shall be listed in specific terms, quantities, and values.

7. No Respondent may withdraw its Proposal within 60 days after the actual date of the opening thereof.

8. A Proposal may be withdrawn by an appropriate document duly executed in the same manner that a Proposal must be executed and delivered to the place where Proposals are to be submitted prior to the date and time of the RFP submittal deadline. Upon receipt of such notice, the unopened Proposal will be returned to the Respondent.

    a. If a Respondent wishes to modify its Proposal prior to the RFP submittal deadline, Respondent must withdraw its initial Proposal in the manner specified and submit a new Proposal prior to the date and time of the RFP submittal deadline.

b. If within 24 hours after Proposals are opened any Respondent files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Proposal, that Respondent may withdraw its Proposal, and the Bid Security will be returned. Thereafter, if the Work is rebid, that Proposer will be disqualified from further bidding on the Work.

9. Respondents shall satisfy themselves of the accuracy of the requirements in the RFP by examination of the sites in addition to the review of the Proposal Documents. After proposals have been submitted, the Respondent shall not assert that there was a misunderstanding concerning the quantities of work or the nature of the work to be done. The RFP contains the provisions required for the construction of the Project. Information obtained from an officer, agent, or employee of the Owner or any other person shall not affect the risks or obligations assumed by the Respondent or relieve them from fulfilling any of the conditions of any Contract awarded under this RFP.

10. A certificate of insurance as provided for in the Proposal Documents, naming Owner and Engineer as co-insured, shall be required for any Contract awarded under this RFP. Respondent's insurance company shall be required to give a minimum of 30 days prior notice of policy or coverage cancellation.

11. A PERFORMANCE and PAYMENT BOND, each in the amount of 100 percent (100%) of the Contract Price, issued by a corporate surety authorized to conduct business in the State of Texas under Article 7.19-1, Texas Insurance Code, will be required for the faithful performance of any Contract awarded under this RFP. Attorneys-in-fact who sign PAYMENT BONDS and PERFORMANCE BONDS must file with each bond a certified and effective dated copy of the power of attorney. The party to whom the contract is awarded will be required to execute the Agreement and obtain the PERFORMANCE AND PAYMENT BONDS within ten (10) calendar days from the date when the NOTICE OF AWARD is delivered to the Proposer. The NOTICE OF AWARD shall be accompanied by the necessary Agreement, Bond Forms, and insurance requirements. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period.

12. Respondent must provide documentation with Proposal proving that they possess a Water Operator D license, or better, in the state of Texas, and the successful Respondent will be required to maintain said license throughout duration of the project.

13. Proposals shall include, at a minimum, the following sections and documentation in response to the RFP:

a. Request for Proposal Document – A complete copy of this RFP, <u>including addenda</u>, if any, shall be submitted as a Proposal Section, in its entirety, to include the Price Proposal Sheet to be completed by the Respondent.

b. Pricing, as follows:

i. Pricing shall be submitted by item on the attached Price Proposal Sheet. Failure to price all listed items may be considered non-responsive to the RFP.

ii. Pricing shall include all proposal development costs, mobilization, labor, material, transportation, equipment, incidentals, appurtenances, demolition, removal, demobilization, overhead, and profit to cover the finished work specified in this RFP document, achieving a

fully functional system.

iii. Pricing shall reflect the Owner's sales tax exempt status.

iv. Pricing shall include all freight and handling costs, F.O.B., Owner's destination.

v. Pricing shall include insurance and bonding costs.

c. Statement of Qualifications Section shall include the following minimum information:

i. Company Profile with listing of principals by percent ownership and their role in the company.

ii. Type of company – corporation, sole proprietorship, etc.

iii. Primary field of business interest (water/wastewater, industry, oil & gas, etc.), listed by percent of revenue.

iv. Date of Incorporation and/or start-up.

v. Number of years under the current ownership structure and business name.

vi. Number and location of offices and technical support centers.

vii. Percentage of this project, based on cost, that shall be:

- Self-performed – completed by company personnel = what percent.
- Sub-contracted – completed by personnel of other companies = what percent.

viii. Listing of all sub-contractors proposed to be used, <u>including a complete Statement of Qualifications as required under this section to be completed by any sub-contractor anticipated to perform over 10% of the work by cost.</u>

ix. Number of employees (not subcontractor employees) dedicated to construction, integration, and technical support.

x. Resume and experience of each person to be assigned to this project, to include:

- The individual's technical background as it relates to this project and related field of interest.

- The individual's duration with the Proposer's company.

- The individual's proximity to the Owner's facilities as a reasonable response expectation for technical and service support.

- The individual's company of employment if different from the Respondent.

- Detailed project-specific and Owner's references for the proposed Project Manager and Field Superintendent.

xi. Areas of specialization including required licenses and certifications.

xii. Area of geographical coverage of related project and service activities.

d. Reference Section shall include:

i. A listing of previous project referenced and experience shall be provided by the Proposer, information to include:

- Name of entity.
- Project name.
- Contact person.
- Phone number.
- City of office.
- Year work completed.

ii. A list of a minimum of three (3) similar projects that include the complexity and magnitude of work to be completed in this project, and that have been completed by the Proposer. The list must include contact names, titles, addresses, email addresses, and telephone numbers for references.

e. Safety Record:

i. Include Business's safety organization and safety performance required in Qualifications Statement.

f. Project Schedule:

i. Include with proposal a detailed project schedule from the Notice to Proceed for the timetable for completing the construction of the Work within the time proposed on the Price Proposal Sheet

ii. Final Completion shall be sixty (60) calendar days from the date established for Substantial Completion.

TERMS AND CONDITIONS:

1. The Owner hereby notifies all Respondents that:

a. The purchase contemplated by this RFP shall be procured in strict compliance with the local, state and federal laws.

b. There is no pre-disposition of award to any particular company at the time of advertisement of this RFP.

c. An invitation to any Respondent, verbal or otherwise, does not waive any requirement set forth in this RFP.

d. In regard to any agreement entered into pursuant to this document, minority business enterprises will be afforded equal opportunities to submit proposals in response to this invitation and will not be discriminated against on the grounds of race, color, sex, age, religion, or national origin in consideration for an award.

2. The Owner reserves the right to reject any and/or all proposals, to waive any and all technicalities and to accept any proposal, or part thereof, which in the opinion of the Owner, is most advantageous to the Owner. In case of ambiguity or lack of clarity in stating the prices in the proposal, the Owner reserves the right to consider the most advantageous proposal thereof or to reject the proposal.

3. Respondents may modify their proposal by written addendum at any time prior to the scheduled receipt of proposals, provided such communication is received by the Owner prior to the closing hour of the proposal due date. The addendum should not reveal the proposal pricing, but should provide the addition or subtraction or other modification so that the Owner will not know the final pricing or terms until the sealed proposal, and its addendum, is opened.

4. Owner will not provide interpretation of the meaning of Proposal Documents to any Respondent orally. Such communication must be in writing in the form of an RFI/C and directed to the Engineer as stated herein. Where this RFP is ambiguous or in conflict with on-site conditions, the Respondent shall bring forth questions for clarification, and shall assume all responsibility for a fully functional system prior to submitting a proposal. The Owner and Engineer shall determine the meaning and requirements of any questionable items.

5. Requests for Information/Clarification (RFI/C's) shall be submitted to the Engineer, as previously indicated.

6. Respondents shall assume all responsibility for verifying Engineer's receipt of Requests for Information/Clarification (RFI/C). Where applicable, an addendum or written clarification shall be provided to all Respondents to clarify the meaning of questionable items.

7. Evaluation of proposals will be based on the criteria stated herein. The best-value proposal submitted by a responsible, responsive, qualified Respondent will be selected for negotiations with the Owner. If proposal amounts exceed the available funds to finance the contract, the Owner may reject all proposals or may award the contract on a negotiated proposal to produce a net amount which is within available funds. The Owner reserves the right to waive any informalities or technical errors that in its judgment will best serve its interests.

8. At the time of the opening of proposals, each Respondent will be presumed to be thoroughly familiar with the technical requirements, including any addenda, as set forth herein. The failure or omission of any Respondent to examine any site condition, form, instrument, or document shall in no way relieve any Respondent from any obligation with respect to the proposal. It is the Respondent's responsibility to make inquiry as to any addenda issued. All such addenda shall become part of the Proposal Documents and all Respondents shall be bound by such addenda, whether or not received by the Respondents.

9. The Owner may make such investigations as deemed necessary to determine the ability of the Respondent to perform the work, and the Respondent shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any proposal if the evidence submitted by, or the investigation of, such Respondent fails to satisfy the

Owner that such Respondent is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional proposals will not be accepted.

10. Respondents must inform themselves fully of the conditions relating to the construction of the project and the employment of labor therein. Failure to do so will not relieve a successful Respondent of their obligation to furnish all labor and material necessary to carry out the provisions of any Contract awarded under this RFP. The conduct of required work shall not cause any interruptions of, or interfere with, the work of any other contractors.

11. The Respondent's attention is directed to the fact that all applicable state laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract as though therein written out in full.

12. The Respondent is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this contract must be identified and shall be acceptable to the Owner.

13. With respect to all work performed under this Contract, the Respondent shall meet the following requirements, where scope of work is applicable:

    a. Comply with the safety standards and provisions of applicable laws, building and construction codes and the "Manual of Accident Prevention in Construction" published by the Associated General Contractors of America, and the requirements of the Occupational Safety and Health Act of 1970 (Public Law 91-596).

    b. Exercise every precaution at all times for the prevention of accidents and the protection of persons, including employees, and property. Proposer shall conduct weekly safety meetings to insure a safe working environment. The Owner shall reserve the right to request documentation of such meetings and safety training practices.

14. **Provision of Texas Ethics Commission Form 1295 ("TEC Form 1295") by Respondents: Effective January 1, 2016, pursuant to Texas Government Code § 2252.908 (the "Interested Party Disclosure Act" or the "Act"), the Owner may not award the contract to a Respondent unless the Respondent has provided to the Owner a completed, signed and notarized TEC Form 1295 which has been assigned a certificate number by the Texas Ethics Commission (the "TEC"). Pursuant to the rules prescribed by the TEC, the TEC Form 1295 must be completed online through the TEC's website, assigned a certificate number, printed, signed and notarized, and provided to the Owner. The TEC Form 1295 may accompany the Proposal or may be submitted separately but must be provided to the Owner prior to the award of the contract. For purposes of completing the TEC Form 1295, the entity's name is City of Midland; the contract ID number is 8207 and the description of goods and services is Water Treatment Plant Solids Handling Improvements. Neither the Owner nor its consultants have the ability to verify the information included in a TEC Form 1295, and neither have an obligation nor undertake responsibility for advising any Respondent with respect to the proper completion of the TEC Form 1295.**

SELECTION OF PROPOSER:

Following the review and evaluation of the RFPs, the Owner will notify the most qualified Proposer providing the best-value proposal for the project in writing. Negotiations will be conducted with the selected Proposer to achieve a contract for the Project. If negotiations are unsuccessful, negotiations will be terminated with the Proposer and the Owner will enter into negotiations with the second most qualified, best-value Proposer.

A "Notice of Award" will be issued upon approval of the selected Proposer's contract. A "Notice-to-Proceed" may be issued by the Owner to initiate each work element of the project. The selected Proposer shall be prepared to arrive on site to initiate construction of the proposed improvements upon immediate readiness demanded by the proposed completion date. The selected Proposer shall coordinate its proposed construction schedule with the Owner and Engineer prior to mobilization.

PAYMENT:

Upon notice to proceed, the selected Proposer shall submit a schedule of values to the Engineer for approval as a basis of partial payment requests throughout the project. The selected Proposer may submit monthly invoices for work completed and materials purchased during the previous 30-day period based on the schedule of values. Piping material is not eligible for materials-on-hand. All invoices shall reflect a five percent (5%) retention from the amount of the draw request.

Owner shall remit the net amount of the invoice within 30 days of receipt of the invoice. All retained amounts shall be remitted upon final completion of the project as approved by the Owner and release of a Certificate of Completion.

CONDITIONS OF AWARD:

The Proposals will be considered and evaluated for award based upon the criteria set forth in this RFP.

The Price Proposal Sheet shall be completed with pricing of all items as required by the Proposal Documents of this RFP, and meet the terms thereof. All blank spaces for priced items must be filled in, in ink or typewritten, and the pricing form must be fully completed and executed when submitted. The Owner may waive any informalities or minor defects or reject any or all proposals. The Owner reserves the right to reject any and all proposals, in whole or in part; to waive any informality in any proposal, and to accept the proposal which, in its discretion, is in the best interest of the Owner. In case of ambiguity or lack of completeness in stating the prices in any proposal, the Owner reserves the right to consider the most advantageous thereof.

CITY OF MIDLAND
Water Treatment Plant Solids Handling Improvements
BID PACKAGE PRICE PROPOSAL SHEET

Proposer must completely fill out and provide pricing for all items and sections of the Price Proposal Sheet below.

BID PROPOSAL

ITEM No.	EST QTY	DESCRIPTION AND UNIT PRICE (Price to be written in words)	UNIT PRICE	TOTAL AMOUNT
1	1 LS	**Mobilization, Bonds and Insurance** (not to exceed 5 percent of proposal) for _____ _____ _____ Dollars and _____Cents per lump sum.	-	$_____
2	1 LS	Remove and replace existing **Submersible Pumps** in the Recycle Pump Station of the WPP as specified, for _____ _____ Dollars and _____Cents per lump sum.	-	$_____
3	1 LS	Modifications to existing **Solids Holding Basin** with the surface mixer and floating decanter as specified, for _____ _____ Dollars and _____Cents per lump sum.	-	$_____
4	1 LS	Modifications to existing **Gravity Thickener Basin** removal of piping and equipment as specified, for _ _____ _____ Dollars and _____Cents per lump sum.	-	$_____
5	1 LS	Remove and replace existing **Progressive Cavity Pumps** in the Sludge Dewatering Building of the WPP as specified, for _____ _____ _____ Dollars and _____Cents per lump sum.	-	$_____
6	1 LS	Installation of new **Volute Dewatering Press with two (2) barrels and polymer system** in the Sludge Dewatering Building of the WPP as specified, for __ _____ _____ Dollars and _____Cents per lump sum.	-	$_____
7	1 LS	Modifications to **Sludge Dewatering Building** in at the WPP as specified, for _____ _____ _____ Dollars and _____Cents per lump sum.	-	$_____

ITEM No.	EST QTY	DESCRIPTION AND UNIT PRICE (Price to be written in words)	UNIT PRICE	TOTAL AMOUNT
8	1 LS	Furnish and install listed equipment above and remaining improvements shown in the contract documents, all related appurtenances, as shown and as specified, complete and in place, for _____ _____ _____ Dollars and _____ Cents per lump sum.		$_____
9	1 LS	Allowance for work directed in writing by the City for legitimate project related issues at the direct cost for such work (NOTE: Contractor's cost for bonds, insurance, profits, etc. associated with this allowance shall be included in the lump sum for Bid Item No. 8 above) at a lump sum amount of _____ One Hundred Thousand Dollars and Zero Cents per lump sum.		$ 100,000.00
BID PROPOSAL TOTAL (Items 1 thru 9)			$_____	

ALTERNATIVE BID PROPOSAL – CIRCLE ADDITIVE OR DEDUCTIVE

ITEM No.	EST QTY	DESCRIPTION AND UNIT PRICE (Price to be written in words)	Additive or Deductive	TOTAL AMOUNT
A1	1 LS	Furnish and install one additional dewatering barrel per Specification 11145, and all related appurtenances, as shown and as specified, complete and in place, for _____ _____ Dollars and _____ Cents per lump sum.	**Additive Or Deductive**	$_____
A2	1 LS	Furnish and install two additional dewatering barrels per Specification 11145, and all related appurtenances, as shown and as specified, complete and in place, for _____ _____ Dollars and _____ Cents per lump sum.	**Additive Or Deductive**	$_____
A3	1 LS	Furnish an **additional 12 months warranty** (for a total of 36 months) herein for a lump sum of _____ _____ _____ Dollars and _____ Cents per lump sum.	**Additive Or Deductive**	$_____
A4	1 LS	Furnish an **additional 24 months warranty** (for a total of 48 months) herein for a lump sum of _____ _____ _____ Dollars and _____ Cents per lump sum.	**Additive Or Deductive**	$_____

ITEM No.	EST QTY	DESCRIPTION AND UNIT PRICE (Price to be written in words)	Additive or Deductive	TOTAL AMOUNT
A5	1 LS	Replacement of line item 5 with **two (2) double disc pumps** per specification 11169 in the Sludge Dewatering Building of the WPP as specified, for herein for a lump sum of _____ _____ _____ Dollars and _____ Cents per lump sum.	**Additive Or Deductive**	$_____

***Maximum allowable Proposal Time for substantial completion is _____ calendar days.**

Proposer agrees that the Work will be substantially complete, as provided in the General Conditions, within the number of calendar days shown above and completed and ready for final payment in accordance with the General Conditions within 60 calendar days after the date that substantial completion is reached.

Respectfully Submitted (Respondent):_____

SUBMITTED on _____, 20___.

State Contractor License No. _____. (If applicable

1. The undersigned Proposer proposes and agrees, if this Proposal is accepted, to enter into an Agreement with Owner in the form included in the Proposal Documents to perform and furnish all Work as specified or indicated in the Proposal Documents in accordance with the other terms and conditions of this RFP.

2. Proposer accepts all of the terms and conditions of the RFP, including without limitation those dealing with the disposition of pricing security. The Proposal will remain subject to acceptance for 45 days after the Proposal opening, or for such longer period of time that Proposer may agree to in writing upon request of Owner.

3. In submitting this Proposal, Proposer represents, as set forth in the Agreement, that:

   A. Proposer has examined and carefully studied the Proposal Documents, the other related data identified in the Proposal Documents, and the following Addenda, receipt of all which is hereby acknowledged.

Addendum No.	**Addendum Date**
_____	_____
_____	_____
_____	_____

   B. Proposer certifies Proposer is qualified to do business in the state where the Project is located as required by laws, rules, and regulations or, if allowed by stature, covenants to obtain such qualification prior to contract award.

   C. Proposer understands and agrees that this Proposal shall form the basis for an agreement with the Owner. Therefore, the undersigned agrees to enter into an agreement to perform and furnish all Work as specified or indicated in the Proposal Documents for the amounts indicated in this Proposal and in accordance with the other terms and conditions of the Proposal Documents.

D. Proposer accepts all of the terms and conditions of these Proposal Documents including, without limitation, those dealing with the disposition of Bid security, required bonds, and the liquidated damages that may be imposed. This Proposal shall remain subject to acceptance for a period of 45 days after the day of Proposal opening. The Proposer shall sign and submit the Agreement with the bonds and other required documents within 10 days after the receipt of Notice of Award from the Owner.

E. Proposer has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Proposer has discovered in the Proposal Documents, and the written resolution thereof by Engineer is acceptable to Proposer.

F. The Proposal Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Proposal is submitted.

5. Proposer further represents that this Proposal is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; Proposer has not directly or indirectly induced or solicited any other Proposer to submit a false or sham Proposal; Proposer has not solicited or induced any individual or entity to refrain from proposing; and Proposer has not sought by collusion to obtain for itself any advantage over any other Proposer or over Owner.

6. Proposer will complete the Work in accordance with the Proposal Documents for the prices proposed in the Price Proposal Sheet or as modified during negotiations with the Owner.

7. Proposer accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the Work within the Contract Times specified.

8. The following documents are attached to and made a condition of this Proposal:

A. Advertisement
B. Notice to Bidders
C. General Conditions of Bidding
D. Qualifications Statement
E. Standard Purchase Terms and Conditions
F. Non-Collusion Affidavit of Prime Proposer
G. Debarment / Suspension Certification
H. Bid Bond Not Required
I. Contract
J. Exhibit C – Bonding Requirements
K. Exhibit D – Heavy & Highway Wage Rates rev. 01/03/2025
L. Exhibit D – Building Water Rates rev. 01/03/2025
M. Performance Bond
N. Payment Bond
O. Standard General Conditions of the Construction Contract
P. Conflict of Interest Reporting Requirements
Q. Conflict of Interest Questionnaire
R. Consideration of Location of Bidder's Principal Place of Business

9. The Proposer is required to include their proposed construction schedule.

SECTION 11145

SLUDGE DEWATERING VOLUTE PRESS

PART 1 GENERAL

1.1 SCOPE:

A. Section Includes:

1. A complete sludge dewatering volute press for dewatering sewage sludge.

2. Drive motors, gear reducers, support legs, anchor bolts, internal piping and wiring, controls, sludge feed pump, polymer feed system, and all other accessories and appurtenances required for a complete and properly operating system.

3. Manufacturer representation and assistance during installation, startup, and testing.

B. Contractor shall coordinate all details of the equipment with other related parts of the work. He shall verify that all structures, piping, wiring, and equipment components are compatible. Contractor shall furnish a two-stage flocculation tanks with mixing tank with gear motor and mixing impellers as shown. Contractor shall complete all structural and other alterations required to accommodate equipment differing in dimensions or other characteristics from these specifications and drawings, at his own expense.

1.2 RELATED SECTIONS

A. Section 11005 “Equipment Basic Requirements” (including motor specifications).

B. Section 11169 “Double Disc Pump”.

C. Section 11350 “Progressive Cavity Pumps”.

D. Section 11410 “Polymer System”.

E. Section 14551 “Screw Conveyors”.

F. Section 16950 “Vendor Supplied Control Panels”.

1.3 REFERENCES:

A. American Society for Testing and Materials (ASTM) Publications:

1. Section A322: Carbon and Alloy Steel Bar Specifications.

2. Section A507-10: Standard Specification for Drawing Alloy Steel, Sheet and Strip, Hot-Rolled and Cold Rolled.

B. Anti-Friction Bearing Manufacturers Association (AFBMA) Publications:

1. Standard 9-90 Load Ratings and Fatigue Life for Ball Bearings.
2. Standard 11-90 Load Ratings and Fatigue Life for Roller Bearings.

C. American Institute of Steel Construction (AISC) Publications.

D. American Welding Society (AWS) Publications.

E. American Structures Painting Council (ASPC) Publications.

1.4 SUBMITTALS:

The following information shall be submitted to the Engineer in accordance with Section 01300. Submittals shall include the following:

A. Product Data: Include the following:

1. Descriptive literature, brochures, catalogs, cut-sheets and other detailed descriptive material of the equipment.

2. Motor characteristics and performance information.

3. Gear reducer data including service factor, efficiency, torque rating, and materials.

4. Parts list including a list of recommended spare parts.

B. Shop Drawings: Include the following:

1. Manufacturer's installation drawings.
2. Wiring and schematic diagrams.

C. Operations and maintenance manual: See Section 01300.

D. Detailed installation instructions, with clear step-by-step points on the correct mechanical and electrical installation procedures.

E. Equipment weights and lifting points.

F. Recommendations for short and long-term storage.

G. Failure to include all drawings applicable to the equipment specified in this section will result in rejection of the entire submittal with no further review.

1.5 QUALITY ASSURANCE:

A. To ensure quality, conformance, and reliability with regard to the manufacturing and production of the machinery described in this section,

the equipment manufacturer shall meet the requirements listed in this section.

B. All stainless steel components and structures shall be pickled and passivated. After pickling, the equipment shall be washed with a high-pressure wash of cold water to remove any remaining surface debris and promote the formation of an oxidized passive layer.

C. Volute Press shall be manufacturer's standard product and shall only be modified as necessary to comply with the drawings, specifications, and specified service conditions.

D. All welding shall be performed in accordance with American Welding Society (AWS) D1.1 Structural Welding Code, or equivalent.

E. All equipment shall be designed, fabricated, and assembled in accordance with recognized and acceptable engineering and shop practice. Individual parts shall be manufactured to standard sized and thicknesses so that repair parts can be installed in the field. Like parts of duplicate units shall be interchangeable. Equipment shall not have been in service prior to delivery, except as required by testing.

F. Each major component of equipment shall have the manufacturer's name, address and product identification on a nameplate securely affixed to the equipment.

1.6 DELIVERY, STORAGE, AND HANDLING OF EQUIPMENT:

A. Equipment shall be shipped and delivered fully assembled, except where partial disassembly is required in order to conform to transportation regulations or for the protection of components.

1.7 WARRANTY:

A. The manufacturer shall provide a warranty on equipment against manufacturer's defects for twenty-four (24) months, commencing on the date of Owner-accepted substantial completion of the project. If the equipment should fail during the warranty period due to a defective part, it shall be replaced and the unit restored at no cost to the owner, including both service and parts.

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS:

A. Subject to compliance with the Contract Documents, the following manufacturers are acceptable:

1. PWTech, Inc.
2. Or Engineer-approved equivalent.

2.2 PERFORMANCE AND DESIGN REQUIREMENTS:

A. Number of volute press(es): One (1).

B. Number of barrels per volute press: Two (2) with the provisions for a total of 4 barrels. Base bid shall include two barrels in the initial supply, with additive alternates to provide additional barrels.

C. Sludge to be dewatered shall be well-mixed and well blended having the following characteristics:

1. Sludge type: backwash from dual media filters treating settled from solids storage tank.

2. Solids concentration: Approximately 1.0%-3.0%.

3. Volatile solids ratio: N/A

D. System Design Capacity: The volute press shall be capable of dewatering from 70 to 140 gallons per minute (GPM) of the specified sludge (355 to 710 pounds dry solids per hour) to a minimum final solids content of 15%.

E. Barrel Design Capacity: A single volute press barrel must be capable of dewatering up to 50 GPM of the specified sludge at 1% solids or less (or up to 355 pounds dry solids per hour at 1.5% solids or more) to a minimum final solids content of 15%.

1. The solids capture rate shall be a minimum of 95%.

F. Location: Volute press and all appurtenances shall be suitable for installation outdoors under a roof canopy, as shown.

1. Ambient temperature range: 0°F to 120°F

G. Volute press shall be suitable for the available wash water supply:

1. Effluent water from non-potable water system.

2. Available pressure: 70 psi.

3. Maximum usage: 30 gallons per minute; up to 5,000 gallons per day for all spray bars.

4. Connection: 2-inch female threaded connection. Contractor shall adapt the water supply to the connection provided on the screen.

5. Manufacturer shall supply a strainer of appropriate mesh size if required.

H. Power Supply: 480 V, 60 Hz, 3 phase.

I. All parts of the volute press shall be designed and appropriate for the service specified and for continuous operation.

J. All parts shall be designed and manufactured to handle the forces that may be exerted on the volute press during fabrication, shipping, erection, and proper operation according to the O&M manual.

K. All components shall be so arranged that they can be serviced from the operating floor.

L. All components shall be balanced so that jamming at any point will not result in structural failure, but will cause the drive motor to stall. All components, including the gear reducer, shall be designed to withstand, without damage or permanent distortion, the full stalling torque of the drive motor.

2.3 MATERIALS:

A. Volute press shall be manufactured from AISI 304SS stainless steel. In particular, drum rings, screw, shaft, covers; and support legs shall be made of this material. Fasteners and anchor bolts shall be 316SS.

B. Bearings shall be anti-friction, and without the need for grease lubrication.

2.4 VOLUTE PRESS DESIGN:

A. The volute press shall be installed inclined (at 15°). Dewatering of the sludge shall take place in a dewater drum, which consists of fixed and moving rings. The fixed rings shall be concentric and parallel. The fixed rings shall be equally spaced apart for each section of the dewatering drum. The moving rings must be placed between the fixed rings and will move freely between the fixed rings. The volute press barrel length shall be a minimum of 7 ft (2134mm). The drum diameter shall be a minimum of 12 in (305 mm).

B. The volute press shall be completely enclosed to prevent odor emission. The whole dewatering section and basket area shall be easily accessible through an inspection lid.

C. A screw shall be installed inside of the drum casing. The screw transports the sludge from the inlet to the discharge area at the end of the pressure zone. Its shaft diameter shall be conical towards the discharge section of the machine.

D. The screw shall be shafted and shall be made of stainless steel. A shaft-less screw is not acceptable. A bearing shall support the discharge end of the screw shaft. Wear strips are not acceptable.

E. A screw drive shall be provided at the sludge feed side of the press. The nominal motor power shall be the manufacturer's standard size for the model provided. The motor speed shall be controlled with a VFD. The drive unit shall be coupled to the screw shaft through a gearbox.

F. The cleaning of the drum rings from the outside shall be performed with a spray bar washing system made of stainless steel piping and PVDF or stainless steel spray nozzles.

G. Sludge cake shall be automatically discharged through a rectangular sludge discharge opening. The discharge height shall be a minimum of 2 feet above floor level. Contractor shall coordinate discharge with conveyor.

H. Manufacturer shall provide a discharge chute to direct the dewatered solids to the conveyor system as shown. Slope of chute shall be at least 40° above horizontal so that solids exit chute by gravity.

I. Contractor shall provide 8-inch diameter drain lines for the filtrate and connect it to the bottom drain connection of the volute press, as shown. The drain line shall also be provided with a 2-inch flush connection with manual ball valve.

2.5 DEWATERING DRUMS:

A. The dewatering drums will be constructed of ATSM type 304 SS. All circular components will be laser cut to ensure maximum evenness of wear and therefore operating life.

B. Assembly will be undertaken in such a way that all fixed rings are concentric and parallel. All fixed rings will be equally spaced apart for each section of the dewatering drum. When mounted on the retaining rods and installed, all moving rings will move freely between the fixed rings.

C. Each Dewatering Drum shall be equipped with individual spray bars. Each spray bar shall consist of a spray pipe fitted with spray nozzles, located above the dewatering drum. The spray pipe and spray nozzle assembly shall be readily removable. Nozzle spacing and spray pattern shall be such that the sprays from adjacent nozzles overlap one another on the dewatering drum surface. The sprays will operate periodically and will remove solids built up externally on the drum such that over time no significant buildup of solids occurs on the drum.

D. Each Dewatering Drum will have a drive motor:

1. The volute press shall be driven by a shaft mounted gearbox and motor assembly. The gear reducer shall be bolted to a machined flange welded to the lower end of the press.

2. The Dewatering Drum drive motor will be a one piece gearmotor. Gearmotors will be hollow shaft design designed to drive the dewatering drum screws with no additional couplings or joints. Motors will be filled with grease on assembly and sealed for life. Screw rotational speed shall be obtained through a hypoid reduction gear. Input power to the dewatering drum drive shall be supplied through an A.C. variable frequency drive unit.

3. Drive Motor Data:

a.	Minimum Horsepower:	2
b.	Maximum Horsepower:	5
c.	Power Requirements:	208/240/480 VAC, 3 phase, 60 hertz
d.	No load motor speed:	1760 RPM
e.	Gear Reduction:	504:1
f.	Output shaft speed:	3.5 RPM @ 60Hz
g.	Insulation Class:	IP56
h.	Enclosure:	TEFC
i.	Enclosure material:	Die Cast Aluminum
j.	Service Factor:	1.15

2.6 INTERNAL PIPING:

A. Contractor shall provide connecting piping including the sludge feed pipe as shown including the flocculation pipe. The magnetic-inductive sludge flow meter, polymer-dosing ring, and polymer mixing valve shall be provided by the volute press manufacturer and installed by the Contractor.

2.7 Mixing and Flocculation Tanks

A. Each Volute Dewatering Press shall have an integrated two-stage mixing system comprising of a flash/rapid mix tank and flocculation tank, each with mixers and drive motors. Tank sizing and design will ensure adequate residence times and mixing conditions to ensure complete flocculation and satisfactory dewatering performance. Tank design will minimize the possibility of any short circuiting of flow.

B. Design and manufacture of tanks and spill trays must ensure no leakage or spillage of fluids under normal working conditions.

C. Mixing and flocculation tanks will be manufactured in type 304 stainless steel and will be a minimum of 11 gauge (0.12″). Tanks and spill containment trays will be fully welded internally and externally.

D. Each Mixer will have a drive motor:

1. The mixer and flocculation tank drive motors will be a one piece gearmotor. Gearmotors will be hollow shaft design designed to drive the mixing impeller shafts with no additional couplings or joints. Motors will be filled with grease on assembly and sealed for life. Mixer rotational speed shall be obtained through a hypoid reduction gear. Input power to the dewatering drum drive shall be supplied through an A.C. variable frequency drive unit allowing variable mixing energy to be input to the system.

2. Flash Mixing tank drive motor data:

a.	Maximum Horsepower:	1
b.	Power Requirements:	480 VAC, 3 phase, 60 hertz

c.	No load motor speed:	1760 RPM
d.	Gear Reduction:	15:1
e.	Output shaft speed:	180 RPM @ 60Hz
f.	Insulation Class:	IP65
g.	Enclosure:	TEFC
h.	Enclosure material:	Die Cast Aluminum
i.	Service Factor:	1.15

3. Flocculation tank drive motor data:

a.	Maximum Horsepower:	3
b.	Power Requirements:	480 VAC, 3 phase, 60 hertz
c.	No load motor speed:	1760 RPM
d.	Gear Reduction:	60:1
e.	Output shaft speed:	30 RPM @ 60Hz
f.	Insulation Class:	IP65
g.	Enclosure:	TEFC
h.	Enclosure material:	Die Cast Aluminum
i.	Service Factor:	1.15

2.8 SLUDGE FEED PUMP:

A. The supply of sludge to the volute press will be a duplex progressive cavity sludge feed pump system.

B. Refer to Section 11350, "Progressive Cavity Pumps," or Section 11169 "Double Disc Pumps" for requirements.

2.9 POLYMER SYSTEM:

A. System shall be designed for the preparation, aging and dosing a polymer solution between 0.1% and 1% having an active polymer concentration between 30.0% and 75.0%.

B. The polymer station shall be self-contained with pumps, piping, fittings, and accessories, and shall be factory assembled and tested to eliminate field assembly work. The frame shall be 304 stainless steel and the piping shall be Sch. 80 PVC.

C. A polymer mixing chamber shall be provided. A high energy, multi-zoned, hydro-mechanical mixing device shall be provided. The mixing chamber shall have a translucent front cover.

D. The hydro-mechanical impeller shall be designed to produce variable intensity, back flow mixing action to optimize polymer performance without damaging polymer molecular structure.

E. The mixer motor shall be 0.5 hp, 1750rpm, 480 V, 60 Hz, wash down duty.

F. Materials: Impeller - PVC; body of mixing device – PVC; cover – clear lexan; fastener – 316 SS; seals – viton; pressure rating – 150 PSI.

G. The polymer system shall be suitable for the dilution water supply:

1. Water from potable water system.

2. Available pressure: 70 psi.

3. Maximum usage: 10 gallons per minute.

4. Connection: 2-inch female threaded connection. Contractor shall adapt the water supply to the connection provided on the screen.

5. Manufacturer shall supply a strainer of appropriate mesh size if required.

H. Provide accessories for the dilution water supply including a UL listed solenoid valve (rated IP65), and a flow meter with a rate adjusting valve, and low pressure alarm switch.

I. A neat polymer metering pump with hose connector shall be provided and connected through a barbed hose to the polymer mixing device. The neat polymer pump shall be a progressive cavity type pump suitable for a 120 VAC, 1 PH, 60 Hz power supply.

J. Control Panel: NEMA 4X enclosure, 120 VAC, 1 PH, 60 Hz power supply.

1. Operator interface – discrete selector switch (ON/OFF/REMOTE); mechanical mixer speed adjustment potentiometer; stroke length / stroke speed adjustment at metering pump.

2. Status / Alarm indicators: system running indication; LCD display of metering pump rate (on metering pump); low pressure switch alarm.

3. Inputs: remote start / stop (discrete dry contact); pacing signal from main control panel (4-20mA).

4. Outputs: system running (discrete dry contact); remote mode (discrete dry contact); low pressure alarm (discrete dry contact); status of feed pump.

K. The pressure side of the polymer system shall be connected through a 2-inch diameter PVC pipeline and a magnetic inductive flow meter to the polymer injection ring.

L. Accessories:

1. Hydro-Mechanical Mixer: A horizontally mounted hydro-mechanical mixer shall be supplied for mixing neat polymer contents. Mixer shall include a ½ hp, 1725 rpm TEFC motor with 28 inch long mixer shaft, (2) 4 inch long collapsible mixing blades, 8 foot power cord and on/off switch. Mounting plate shall include 2 inch bung mount and shall be constructed of mild steel with powder epoxy coating.

Electrical requirements shall be 120 VAC/ 1 phase/ 60 Hz. Mixer shall be Neptune Model H-3.0 or Engineer-approved equivalent.

2. Drum pipe connection (drumstick) including fabricated piece to reach to near bottom of polymer drum and completely evacuate its contents. Material of construction shall be PVC. Drumstick shall be supplied with 2 inch NPT and ¾ inch NPT connections for connection to either drum port.

3. Polymer drum suction assembly: The assembly shall include quick disconnect cam-lock fittings, a full port ball valve, and 10 feet of braided PVC hose.

2.10 CONTROL PANEL:

A. The Volute Dewatering Press shall have an integrated electrical and control system that will allow for safe, simple and automated operation of the unit. All electrical work, motors and drives will comply with any relevant NEMA standards.

B. The electrical control system will be able to accept remote start and stop signals, and will have outputs for unit in operation, and unit alarms to an external PC.

C. Control Panel Features:

1. Control Panel will be UL listed.

2. Enclosures: Control panel enclosures shall be wall mounted or free-standing, fabricated of type 304 stainless steel and shall be suitable for NEMA 4X service.

3. The control panel shall accept a 480 volt, 60 hertz, 3 phase ac power input. A main disconnect circuit breaker and operator mechanism shall be included. When the disconnect is in the open position, all power shall be removed from the control system.

4. IEC rated motor starters shall be provided for all non-VFD and DC motors.

5. Variable frequency drives (VFD) shall be provided for the dewatering drum drive and mixing and flocculation tank agitators.

6. Short circuit protection for system components shall be accomplished utilizing fuses. Individual thermal overload protection shall be provided.

7. A transformer shall be included that will provide 120 volts, ac for the polymer dilution and dosing system and control system.

8. A Programmable Logic Controller (PLC) will control all timing and switching functions.

D. External Enclosure Features

1. The external door of the panel will have the following switches and indicators:

   a. Main Isolating Switch (Circuit Breaker)
   b. An emergency stop button which shall be a mushroom head style pushbutton that when depressed shall immediately de-energize all moving equipment in the system.

2. Within a widowed enclosure mounted on the panel door:

   a. HMI Touch Screen
   b. An H-O-A system switch to switch the system from Auto to off to manual modes
   c. Power on Light (white)
   d. An Operating Light -for when the unit is actually in operation - (green)

3. In addition to items located on the main enclosure door:

   a. An Alarm Light - a flashing light located on the top of the panel (red)

2.11 PROGRAMMABLE LOGIC CONTROLLER (PLC):

A. Each Volute Dewatering Press will be provided with a Allen Bradley CompactLogix PLC (or approved equal), installed, wired and programmed to perform the following functions:

1. Operational Control

   a. Control of all components of the Volute Press - system including the ability to set times and operating speeds for the duplex feed pump system, screw conveyor, dewatering drums, mixers, polymer dosing system and wash-down sprays.

2. System Tuning

   a. PLC will allow suitably qualified operators to adjust operating parameters such as delay timers for fault alarms and system calibration constants.

3. Monitoring Operation

   a. PLC will allow the operator to inspect the operation of all the components including indicators such as output frequency, current draw, thermal condition, elapsed operating times, and any faults present. Operator will be able to view approximated readouts of all operational speeds and flowrates relevant to the operation of the system.

4. Manual operation of components

a. Operator will be able to manually operate each item of equipment from the PLC interface for inspection and maintenance reasons.

2.12 SPARE PARTS

A. Provide spare parts recommended by manufacturer, including at a minimum:

1. One (1) dewatering drive motor.
2. One (1) mixer drive motor.
3. One (1) flocculator drive motor.
4. One (1) bearing assembly for shaft.
5. One (1) solenoid valve 1-inch, 110V, Class 1 / Div. 2 for spray bar washing system.
6. Ten (10) nozzles for spray bar washing system.
7. Two (2) hydro-mechanical mixer impellers.
8. Two (2) motorized agitators for flocculation tank.

B. Spare parts shall be packaged with labels indicating the contents of each package, and shall be delivered to Owner as directed.

PART 3 EXECUTION

3.1 INSTALLATION:

A. The grit pumping equipment shall be installed in accordance with the system manufacturer’s recommendations as approved by the ENGINEER.

3.2 FIELD QUALITY CONTROL:

A. Retain a qualified representative of the manufacturer to perform the following services:

1. Oversee installation of the equipment specified herein.

2. Inspect the completed installation and note deficiencies.

3. Be present and assist the CONTRACTOR during start-up, adjusting, and site testing of completed installation.

4. Furnish test forms and procedures for field testing.

5. Instruct OWNER's personnel in the operations and maintenance of the equipment with minimum services as follows.

a. Installation assistance: As required.

b. Owner personnel instruction, classroom and jobsite: 4 hrs.

c. Plant startup: 8 hrs.

d. Coordinate training and start-up with Owner's personnel.

e. Owner may videotape training.

f. Manufacturer shall make four additional trips to the job site, at 3 months, 6 months, 12 months and 24 months to inspect and provide troubleshooting support of the equipment.

6. Prepare manufacturer's installation report and submit within 30 days after completion of field testing. Include the following information:

a. Field testing results.

b. Descriptions of installation deficiencies not resolved to the manufacturer's satisfaction.

c. Description of problems or potential problems.

d. Names of OWNER personnel who attended operations and maintenance training sessions.

e. Record copy of materials used for training session including outlined summary of course.

B. Field representatives shall have a minimum of five (5) years of experience with the operation of and training on this type of equipment.

1. Factory personnel will be required to perform this service. Sales representatives will only be considered acceptable service technicians if they have three (3) years of experience with the operation of and training on this type of equipment from the manufacturer being supplied and have started up 10 units of a similar size and type from the manufacturer.

C. Field Testing:

1. Testing and startup schedule shall be submitted to ENGINEER for approval.

2. Test Procedure: Verify proper operation.

END OF SECTION