

Webb County Utilities  
Request for Proposals  
“Sewer Plant Electrical Improvements”

Section I. Wastewater Treatment Plant Lift Station

- A.) This proposal is intended to provide the City of Rio Bravo a completely functional local control system at the WWTP Main Lift Station, any repairs not specifically called out that are needed will be provided.
- B.) Provide and install Level transmitter (Siemens Hydro Ranger 200), set up for pump control based on levels to be provided by Water Plant Operator.
- C.) Provide and install (6) new floats as back-up Pump Controls.
- D.) Repair existing Pump Control Panel. Replace all damaged components and wiring as needed to complete a fully functioning Panel.
- E.) Provide and install new piping and junction boxes as shown on attached drawing, junction boxes to be stainless steel NEMA 4X sized appropriately for this installation, new piping to match existing.
- F.) Provide and install Seal-offs as required in new piping to protect control panel from excess gasses.
- G.) Provide and install new control and power wire as required to complete a working system.

Section II. Aeration Basins Electrical Repair

- A.) Provide (2) Siemens ITE VFD Drive MCC Buckets to replace missing units for Aeration Basins 1 and 3.
- B.) Installation, Control Termination and testing.

### Section III. Installation of Positioning Valves

- A.) Provide four (4) EMO (Electric Motor Operated) Positioning Valves for Aeration Basins 1-4 Air Valve Model: AUMA SG 12.1
- B.) Provide four (4) EMO Positioning Valves for Aeration Basins 1-4 Sludge Valve Model: AUMA SG 05.1
- C.) Installation, control termination and testing.

### Section IV. Area Safety Lighting

- A.) Provide twelve (12) SYL 75W FLU LAMP Cat# F96T12/CWXSSCVP
- B.) Provide twenty-three (23) SYL100W MED LAMP Cat# MP100UMED
- C.) Provide four (4) ATLAS 150MH WALL PACK Cat# WLM150MHPQPK
- D.) Installation to be included of all lighting.



Total Cost of item(s) being purchased: \$ \$159,700

Do you have 3 quotes for all items listed above? Yes \_\_\_\_\_ No XX

What is the purpose of each item(s) requested? \_\_\_\_\_  
Projects consist of three categories including the repair and replacement of electrical wiring, components, and lighting for the Sequence Batch Reactors used in treatment of wastewater, lift station used on transporting raw sewage, and lighting used in safe operation of night shift.

If the purchase is to replace item(s) is the item(s) being replaced currently in use?

Yes XX No \_\_\_\_\_

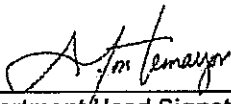
What is the impact or risk potential if we don't purchase item(s)? \_\_\_\_\_  
Without these improvements we risk the event of complete loss of power access eliminating the ability to treat wastewater at our facility. These are critical improvements needed to prevent and comply with State requirements and the prevention of fines, and more importantly the health and safety of the communities of Rio Bravo and El Cenizo.

Please Circle Priority: Critical Upgrade Desirable

PRIORITY 1: CRITICAL – Required to prevent a **critical** reduction in service, operating efficiency, economy, and/or safety; to protect valuable property; and/or comply with insurance or code requirements.  
PRIORITY 2: UPGRADE – Required for significant **upgrade** in service, operating efficiency, economy and/or safety of current operations.  
PRIORITY 3: DESIRABLE – Required to introduce **desirable**, but optional new service, program, faculty or staff, or to make small improvements in operating efficiency, economy and/or safety.

Required with this form:

- Price quotes
- Pictures of item(s) to be replace

  
\_\_\_\_\_  
Department/Head Signature  
Date: 4/30/15

\*\*\*\* Please note this form must be filled out in its entirety for purchase to be considered for approval \*\*\*\*



Webb County Purchasing Department  
 RFP 2015-47 Wastewater Treatment Plant Electrical Improvements  
 Bid Opening: November 04, 2014



Square E Engineering  
 c/o Juan Pablo Cantu  
 32212 Whipple Rd.  
 Los Fresnos, TX 78566  
 956-466-3492  
 956-233-4826  
 jpcantu@squareeeng.com

**Primary**

Description	Dollars Per Hour
Proposed Price	\$163,670.00
Expected Time to Complete	32 to 40 Weeks
Date available to start	\$41,953.00

Webb County Utilities  
Request for Proposals  
“Influent Screw Screen Rehabilitation”

- A.) Disconnect electrical power, dismantle and dispose of the currently installed WasteTech screw screen.
- B.) Clean the existing screen channel of debris and rags and prep for installation of a new WasteTech screen.
- C.) Install and mount the WasteTech screen. See detailed screen description/proposal from WasteTech, div. of Kuster’s Water below.
- D.) Reconnect all electrical power and control lines from the existing control panel to the new screen.
- E.) Startup and commission the new screen.
- F.) Provide O&M manuals.
- G.) Provide operator training and maintenance instructions.
- H.) Delivery to be no more than 16 weeks from receipt of signed Purchase Order.
- I.) Substantial completion is to be no more than 3 weeks after delivery of screen to jobsite.

ITEM SPECIFICATIONS:

**Screw Screen:**

For the design and supply FOB Spartanburg, SC, One (1) Waste Tech/KZC Model ICSS6/10 in 316Stainless Steel

**Screen Design Parameters:**

Peak flow: 4.5 mgd  
Channel width: 2.5 ft.  
Channel depth: 10.0 ft.  
Screenings discharge height: 6.6 ft. (above floor level)

Size of clear opening: 10 mm nominal perforation  
Angle of screen: 35° from horizontal  
Wash Water: 15 – 20 gpm @ 50 psig

**To include the following:**

- Semi-cylindrical stationary perforated screen basket – 316 stainless steel
- 3/8" (10 mm) nominal perforated openings with upper support ring– 316 stainless steel
- Rubber/Neoprene seals for screen at 350 incline
- 12" nominal diameter dewatering screw to transport and dewater the screen material – 316 stainless steel
- Brush attached to spiral with stainless steel fasteners
- Pivoting support stand – 316 stainless steel
- Support plate flange – 316 stainless steel
- Upper and lower spiral screw replaceable wear bars – high tensile steel
- Compaction zone – integral part of the screenings screw conveyor and transport tube design – 316 stainless steel
- 2.0 hp 1800 rpm TEFC motor with gear reducer suitable for use in a Class 1, Div 1, Group D environment
- Automatic spray wash system provided for the screen constructed of 3/4" dia 316 stainless steel piping and flexible reinforced PVC hose with stainless steel spray nozzles
- The dewatering section shall be provided with a ring type flush water header system to ensure flushing of the compaction zone – header design to be oriented to completely wash the full surface of the transport tube drainage area
- Solenoid valves shall be 3/4" bronze body, shall be normally closed and rated for up to 100 psig and 120 vac operation
- Isolation ball valve shall be 3/4" bronze, with stainless steel ball and stem and Teflon seats.
- 3/4" bronze strainer, 80-mesh.
- Fasteners – 316 stainless steel
- Anchor bolts – 316 stainless steel

**Controls:**

- One (1) Float switch





## Webb County Purchase Justification Form

**Funding Sources Requested:**

\_\_\_\_\_ Capital Outlay Fund #603-0101-8801:

XX Building Improvement Fund #604-0101-8103

\_\_\_\_\_ Capital Outlay Series 2013 750-8000-8801

\_\_\_\_\_ Vehicle Lease Program

Department Utilities

Department Head Luis Perez-Garcia, P.E.; County Engineer

Number of Dept. Employees 31

Item	Qty	Qty on Hand	Condition of item being replaced: Poor/Fair/Good	Unit Price	Extended Price
Sewer Treatment Plant Raw Water	1	0	Poor	\$174,000	\$174,000
Spiral Screen					
Screen is used for removal of all non-organic materials received at the wastewater plant as per requirements of State Rules and Regulations.					
This equipment has been removed from its required location and no primary treatment provided for at least 5 years.					
This cost includes electrical modifications and installation with training and warranty.					
<b>Total</b>					<b>\$174,000</b>

Total Cost of item(s) being purchased: \$ \$174,000

Do you have 3 quotes for all items listed above? Yes \_\_\_\_\_ No XX

What is the purpose of each item(s) requested? Screen is used for removal of all non-organic materials received at the wastewater plant as per requirements of State Rules and Regulations.

If the purchase is to replace item(s) is the item(s) being replaced currently in use?

Yes \_\_\_\_\_ No XX

What is the impact or risk potential if we don't purchase item(s)? Risk of reduced treatment of raw sewage from the Rio Bravo and El Cenizo communities leading to State violations and fines.

Please Circle Priority: Critical Upgrade Desirable

PRIORITY 1: CRITICAL – Required to prevent a **critical** reduction in service, operating efficiency, economy, and/or safety; to protect valuable property; and/or comply with insurance or code requirements.  
PRIORITY 2: UPGRADE – Required for significant **upgrade** in service, operating efficiency, economy and/or safety of current operations.  
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- Pictures of item(s) to be replace

[Signature]  
Department/Head Signature  
Date: 4/30/15

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 32212 Whipple Rd.  
 Los Fresnos, TX 78566  
 956-466-3492  
 956-233-4826  
 jpcantu@squareeeng.com

Treatment Equipment Company  
 c/o Bruce Smith  
 6220 Campbell Rd. #101  
 Dallas, TX 75248  
 972-931-1116  
 jfuqua@tectx.com

**Primary**

Description	Dollars Per Hour	
<b>Part A.</b>		
<b>Screw Screen</b>	<b>\$28,655.00</b>	<b>Not Stated</b>
<b>Part B.</b>		
<b>Screen Design Parameters</b>	<b>\$52,650.00</b>	<b>Not Stated</b>
<b>Part C.</b>		
<b>Item Specifications</b>	<b>\$78,000.00</b>	<b>Not Stated</b>
<b>Part D.</b>		
<b>Controls</b>	<b>\$395.00</b>	<b>Not Stated</b>
<b>Labor Rates</b>	<b>\$110.00 per/hour</b>	<b>Not Stated</b>
<b>Estimated time to Complete</b>	<b>20 to 28 weeks</b>	<b>14-16 Weeks</b>
		<b>GRAND TOTAL For All Sections</b>
		<b>\$205,000.00</b>