

Milnet Architectural Services, PLLC

ADDENDUM NUMBER: #2

Project Name: Sharyland Water Supply Corp New Building Date: November 2, 2018 Milnet Project No.: 217017

Date: November 2, 2018

Bid Date: November 8, 2018

Architect:

Milnet Architectural Services 608 S. 12<sup>th</sup> St. McAllen, TX 78501



11/02/2018

### NOTICE TO ALL BIDDERS

This Addendum forms a part of the Contract Document and modifies the original Drawings issued for sealed proposals, to the extent noted herein.

Careful note of this Addendum shall be taken by all parties of interest so that proper allowance is made in all computations, estimates and contracts and so that all trades affected are fully advised in the performance of work that will be required by them. Acknowledge receipt of this addendum by inserting its number and date of issue in the place provided for same in the proposal.

Items revised on the Drawings are designated by a cloud line and triangle surrounding the corresponding revision number.

This Addendum supersedes all previous Drawings, Specifications and instructions pertaining to these items. It is imperative that this addendum be inserted INTO set of specifications.

- 2.01 <u>GC Question</u>: "On base bid building Architectural drawings A1.0, A5.0 detail 1 & 5 references mezzanine (135) per detail A5.0-1 says REF: structural for additional information. It appears the structural drawings is missing the mezzanine framing please clarify.?"
   Response: See attached 4/S301.
- 2.02 <u>GC Question</u>: "No Fencing /Gate Operator specs found" Response: Attached is spec section 32 31 11 Gate Operators to be included in the project manual.
- 2.03 GC Question: "Section 10 21 13 part 2.2 numbers 4, 5, & 6 specifies furnished and installed by contractor. On the plans section A3.0 on the toilet accessories notes number 9 states these items will be owner furnished.
  Response: Toilet accessories to be furnished and installed by contractor as per section 10 21 13.
- 2.04 GC Question: "Sheet A7.2, door elevation type "A" calls out for wood; but the door schedule calls Bronze Anodized and references to the frame details show aluminum?" Response: Type A is a solid core wood door on aluminum framing.



Project Name: Sharyland Water Supply Corp New Building

- 2.05 GC Question: "A If these are Aluminum doors, is the grid pattern in the glass created by internal muntins or are they created by true muntins?"Response: Doors are solid core wood.
- 2.06 GC Question: "B In the case of the interior doors, are they 1 piece of glass since the side lite glass is large pieces?"
   Response: Interior doors 100A and 102 are to have muntins to match entry door, but wood instead of glass panels.
- 2.07 GC Question: "Window types B, C, D again, is the grid pattern created by internal muntins or are the true muntins?"Response: True muntins.
- 2.08 GC Question: "Please verify all window frames are aluminum inclusive, the reason is that all the interior door frames are Hollow Metal."
   Response: Aluminum frames are inclusive, some that were missing were added on the previous addendum.
- 2.09 GC Question: "Are the frames for window types A, E, F, G wooden or aluminum?" **Response: Aluminum frames.**
- 2.10 **Clarification:** See 5/S203 for light pole footing.
- 2.11 Clarification: See 4/S203 for generator foundation.
- 2.12 GC Question: "As per section 10 75 00 Flagpoles there is no manufacturer specified?"Response: Approved manufacturer-Concord American Flagpole.
- 2.13 GC Question: I also had requested specifications on the lockers and was instructed to see attached 1/sk1 there is no manufacturer specified?
   Response: Lockers are to be millwork, per Add #1
- 2.14 GC Question: Also on section 10 21 13 it calls for electric hand dryers there are no item #s specified.
   Response: Bobrick Recessed Hand Dryer B-750.
- 2.15 See attached Civil addendum.
- 2.16 See Attached MEP addendum.

### END OF ADDENDUM





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- 1. FOR GENERAL NOTES SEE SHEET S101 AND S102. FOR TYPICAL DETAILS SEE SHEETS NUMBER S400
- 3. CONTRACTOR/SUBCONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS WITH ARCHITECTURAL PLANS BEFORE COMMENCING ANY WORK. THE CONTRACTOR AND OR SUBCONTRACTOR SHALL REPORT ANY DISCREPANCIES TO THE ARCHITECT AND ENGINEER BEFORE THE WORK HAS BEGUN.
- REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL DIMENSIONS. REFER TO ARCHITECTURAL PLANS FOR FLOOR DRAIN LOCATIONS.
- 6. SLOPE SLAB TO DRAINS, SEE ARCHITECTURAL PLANS FOR SLOPE.
- REFER TO ARCHITECTURAL PLANS FOR FLOOR FINISHES. ENGINEER IS NOT RESPONSIBLE FOR TYPE OF FLOOR FINISHES.
- PROVIDE SLAB CONTRACTION JOINTS PER TYPICAL DETAIL
- 9. THE TESTING LABORATORY SHALL BE THE OWNERS REPRESENTATIVE TO CONTROL THE PLACEMENT OF COMPACTED FILL. THE TESTING LABORATORY SHALL APPROVE THE SUBGRADE PREPARATION, THE FILL MATERIALS, THE METHOD OF PLACEMENT AND COMPACTION, AND COMPACTION, AND SHALL GIVE WRITTEN APPROVAL OF THE COMPLETED FILL. THE TESTING LABORATORY SHALL INDICATE ON THERE REPORT THE ELEVATION OF THE COMPACTED SUBGRADE.
- 10. ALL EARTHWORK AND GRADING SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEERING STUDY. THE MORE STRINGENT REQUIREMENTS BETWEEN THESE SUBGRADE NOTES AND GEOTECHNICAL ENGINEERING STUDY SHALL GOVERN AND EXECUTED BY THE CONTRACTOR.
- 11. IN THE EVENT FOUNDATION EXCAVATIONS ARE CARRIED TO A DEPTH GREATER THAN REQUIRED, THE ADDITIONAL DEPTH SHALL BE FILLED WITH THE SAME CONCRETE AS THAT USED FOR FOOTING AT NO ADDITIONAL EXPENSE TO THE OWNER. NO UNCONTROLLED FILL WILL BE PERMITTED.
- 12. THE FOOTING EXCAVATIONS SHALL BE KEPT FREE FROM LOOSE MATERIAL AND STANDING WATER.
- 13. THE FOUNDATION EXCAVATIONS SHOULD BE OBSERVED BY THE TESTING LABORATORY PRIOR TO STEEL OR CONCRETE PLACEMENT TO ASSESS THAT THE FOUNDATION MATERIALS ARE CAPABLE OF SUPPORTING THE DESIGN LOADS AND ARE CONSISTENT WITH THE MATERIALS DISCUSSED IN THE STUDY. THIS IS ESPECIALLY IMPORTANT TO IDENTIFY THE ACCEPTABILITY OF THE SUBGRADE OR FILL MATERIAL UNDER THE FOOTING. SOFT OR LOOSE SOIL ZONES ENCOUNTERED AT THE BOTTOM OF THE FOOTING OR BEAM EXCAVATIONS SHOULD BE EXCAVATIONS SHOULD BE REMOVED TO THE LEVEL OF COMPETENT SOIL AS DIRECTED BY THE TESTING LABORATORY. CAVITIES FORMED AS A RESULT OF EXCAVATION OF SOFT OR LOOSE SOIL ZONES SHOULD BE BACKFILLED WITH LEAN CONCRETE OR SELECT FILL AS DETERMINED BY THE TESTING LABORATORY.
- 14. CARE SHOULD BE TAKEN TO SHAPE THE BUILDING AREAS SUCH THAT WATER WILL NOT POND AROUND THE STRUCTURE DURING CONSTRUCTION AND CAUSE THE NEAR SURFACE CLAYS TO SWELL. THE PROPOSED STRUCTURE SHALL BE ISOLATED FROM ANY MOISTURE SOURCE WHICH MIGHT ALSO CAUSE SWELLING OF THE CLAYS AFTER COMPLETION OF THE CONSTRUCTION.
- 15. WHEN THE STRUCTURE IS COMPLETE, THE GROUND SURFACE SHOULD SLOPE AWAY FROM THE STRUCTURE AND DOWN SPOUTS SHOULD CARRY RUNOFF WATER SEVERAL FEET FROM THE BUILDING, PREFERABLY INTO PAVED AREAS OR SEWERS, BEFORE DISCHARGING.
- 16. DO NOT PLANT, OR LEAVE IN PLACE, DEEP ROOTED TREES WITHIN CLOSE PROXIMITY TO THE PERIMETER OF THE STRUCTURE. DEEP ROOTED TREES HAVE POTENTIAL TO REMOVE MOISTURE FROM BENEATH THE BUILDING IF PLANTED CLOSE ENOUGH TO ALLOW THE ROOT BULB EXTEND NEAR OR BENEATH THE BUILDING.
- 17. AIR CONDITIONING CONDENSER DRAIN LINES TO DISCHARGE WATER A MINIMUM OF 5 FEET FROM THE PERIMETER OF THE STRUCTURE. THE DISCHARGE AREA SHALL HAVE SUFFICIENT SLOPE AWAY FROM THE STRUCTURE TO PREVENT STANDING WATER. 18. THE FINAL ONE (1) FOOT OF FILL OUTSIDE THE BUILDING AREA SHOULD CONSIST OF A
- COHESIVE CLAYEY (CL) SOIL. FILL CAN NOT BE ALLOWED TO DRY OUT DURING OR AFTER COMPACTION. (P1 BETWEEN 15 AND 25) 19. NOTE THAT SOME LEVELS OF RISK ARE ASSOCIATED WITH ALL FOUNDATION SYSTEMS
- AND THERE IS NO SUCH THING AS A "ZERO RISK" FOUNDATION. IT ALSO SHOULD BE NOTED THAT THE FOUNDATION PROVIDED IS NOT DESIGNED TO RESIST SOIL MOVEMENT AS A RESULT OF SEWER/PLUMBING LEAKS, EXCESSIVE IRRIGATION, NON UNIFORM IRRIGATION, POOR DRAINAGE, AND WATER PONDING NEAR THE FOUNDATION SYSTEM.
- 20. CONSTRUCTION FOLLOWING WET WEATHER PERIODS WILL LIKELY ENCOUNTER DIFFICULTIES DUE TO THE WET OR SOFT SURFACE SOILS BECOMING A GENERAL HINDRANCE TO EQUIPMENT DUE TO RUTTING AND PUMPING OF THE SOIL SURFACE. IF THE SUBGRADE CANNOT BE ADEQUATELY COMPACTED TO MINIMUM DENSITIES AS DESCRIBED ABOVE, ONE OF THE FOLLOWING MEASURES WILL BE REQUIRED: a) REMOVAL AND REPLACEMENT WITH SELECT FILL;
- b) CHEMICAL TREATMENT OF THE SOIL TO DRY SOIL AND INCREASE THE STABILITY OF THE SUBGRADE, c) DRYING BY NATURAL MEANS.

SLAB ON GRADE	
THICKNESS	6.0 INCHES
REINFORCING (EACH WAY)	#4 AT 12" O.C.
REINFORCING LOCATION	2 1/4" from top of slab
VISQUEEN	15 MIL

CONCRETE CHAIRS (NO PLASTIC CHAIRS ALLOWED) 3° O.C. EACH WAY

### SUBGRADE PREPARATION

1. SITE PREPARATION

••			
A.	PREPARATION OF EXISTING GROUND ALL AREAS TO SUPPORT SELECT FILL SHALL BE STRIPPED OF ALL VEGETATION AND/OR ORGANIC TOPSOIL: ADDITIONAL DEPTH OF REMOVAL: EXTEND BEYOND BUILDING FOOT PRINT: EXPOSED SUBGRADE SHALL BE SCARIFIED TO A DEPTH OF: MOISTURE: (OPTIMUM MOISTURE CONTENT) COMPACTION (ASTM D-698) (MAXIMUM DENSITY): SELECT FILL MATERIAL	= *18 3 8 -2 T 95%	INCHES INCHES FEET INCHES TO +2%
D.	AMOUNT OF COMPACTED SELECT FILL: NO ORGANIC OR OTHER PERISHABLE MATERIAL	24*	INCHES
	NO STONES LARGER THAN *FINISHED FLOOR SHALL BE AS INDICATED ON CIVIL DRAWINGS, INCREASE INDICATED AMOUNT OF FILL AS REQUIRED TO ACHIEVE MOST STRINGENT REQUIREMENT. INCREASE EXCAVATION AS REQUIRED TO MEET MINIMUM AMOUNT OF SELECT FILL	Ζ	INCHES
	FILL MATERIAL SHALL BE AS INDICATED ON THE GEOTECHNICAL REPORT.		
C.	PLACING SELECT FILL FILL LIFTS (LOOSE MEASURE, NOT EXCEEDING):	8	INCHES
D.	COMPACTION OF SELECT FILL MOISTURE: (OPTIMUM MOISTURE CONTENT) COMPACTION (ASTM D-698) (MAXIMUM DENSITY): COMPACTION TESTING	-2 T 95%	-O +2 %
L.	ATTERBERG LIMITS (ONE AT A RATE OF): COMPACTION (ONE TEST PER):	5,00 2,50 (MII	00 CU. YDS. 00 SQ. FT./ LIFT N. OF 3 PER LIFT)

					Structu	ral Foundation	Schedule		
_		Туре	Length	Width	Thickness	Reinforcing A Bar Quantity	Reinforcing A Bar Size	Reinforcing B Bar Quantity	Reinforcing B Bar Size
тсн			0						
6"		CF3.0	3' - 0"	3' - 0"	3' - 0"	4	5	4	5
6"		CF3.0 1	3' - 0"	3' - 0"	1' - 3"	4	5	4	5
$\sim$		CF4.0	4' - 0"	4' - 0"	3' - 0"	5	6	5	6
$\sim$	2	CF4.0 1	4' - 0"	4' - 0"	1' - 3"	5	6	5	6
5	1	CF5.0	5' - 0"	5' - 0"	3' - 0"	6	6	6	6
S203	$\leq$	CF5.5	5' - 6"	5' - 6"	1' - 9"	7	6	7	6

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	SHARYLAND WATER SUPPLY CORP.
PROJEC 18 DATE No	T NUMBER 3168 vember 2, 2018
Sheet Na Foundation	me Plan, Warehouse E E T 5203







#### 32 31 11

#### SLIDE GATE OPERATORS

#### GENERAL

#### **1.1. SECTION INCLUDES**

A. Slide gate operator.

#### **1.2. RELATED REQUIREMENTS**

- A. Section 03 30 00 Cast-in-Place Concrete: Concrete pads for slide gate operators.
- B. Section 26 05 00 Common Work Results for Electrical: AC electrical power for slide gate operators.

#### **1.3. REFERENCE STANDARDS**

- A. UL (www.ul.com):
  - 1. UL 325 Standard for Door, Drapery, Gate, Louver, and Window Operators and Systems.
  - 2. UL 991 Standard for Tests for Safety-Related Controls Employing Solid-State Devices.

#### **1.4. PREINSTALLATION MEETINGS**

- A. Convene preinstallation meeting 2 weeks before start of installation of slide gate operators.
- B. Require attendance of parties directly affecting installation of slide gate operators, including Contractor, Architect, installer, and manufacturer's representative.
- C. Review the Following:
  - 1. Materials.
  - 2. Preparation.
  - 3. Installation.
  - 4. Adjusting.
  - 5. Cleaning.
  - 6. Demonstration.
  - 7. Instruction and training.
  - 8. Protection.
  - 9. Coordination with other Work.

#### 1.5. SUBMITTALS

- A. Comply with Division 01.
- B. Product Data: Submit manufacturer's product data, including installation instructions.
- C. Shop Drawings: Submit manufacturer's shop drawings, including plans, elevations, sections, and details.

- 1. Wiring Diagrams: Indicate wiring for each item of equipment and interconnections between items of equipment.
- 2. Include manufacturer's names, model numbers, ratings, power requirements, equipment layout, device arrangement, complete wiring point-to-point diagrams, and conduit layouts.
- D. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- E. Manufacturer's Project References: Submit manufacturer's list of 10 successfully completed slide gate operator projects of similar size and scope to this Project, including project name and location, name of architect, and type and quantity of slide gate operators furnished.
- F. Installer's Project References: Submit installer's list of 5 successfully completed slide gate operator projects of similar size and scope to this Project, including project name and location, name of architect, and type and quantity of slide gate operators installed.
- G. Operation and Maintenance Data:

1.

- Submit manufacturer's operation and maintenance manual, including the following:
  - a. Operation, maintenance, adjustment, and cleaning instructions.
  - b. Safety information.
  - c. Troubleshooting guide.
  - d. Parts list.
  - e. Electrical wiring diagrams.
- 2. Provide detailed information required for Owner to properly operate and maintain slide gate operators.
- H. Warranty Documentation: Submit manufacturer's standard warranty.

#### **1.6. QUALITY ASSURANCE**

- A. Manufacturer's Qualifications: Manufacturer regularly engaged in the manufacturing of slide gate operators of similar type to that specified for a minimum of 5 years.
- B. Installer's Qualifications:
  - 1. Installer regularly engaged in installation of slide gate operators of similar type to that specified for a minimum of 5 years.
  - 2. Use persons trained for installation of slide gate operators.
  - 3. Approved by manufacturer.

#### 1.7. DELIVERY, STORAGE, AND HANDLING

- A. Delivery Requirements: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage and Handling Requirements:
  - 1. Store and handle materials in accordance with manufacturer's instructions.
  - 2. Keep materials in manufacturer's original, unopened containers and packaging until installation.
  - 3. Store materials in clean, dry area indoors.
  - 4. Do not store materials directly on floor.
  - 5. Keep materials from freezing.
  - 6. Protect materials and finish during storage, handling, and installation to prevent damage.

#### **1.8. WARRANTY**

- A. Warranty Period:
  - 1. Motor and Cover: 8 years.
  - 2. Battery: 1 year.
  - 3. Other Components: 5 years.

#### PRODUCTS

#### 2.1. MANUFACTURERS

- A. Manufacturer: Maximum Controls LLC, 10530 Lawson River Avenue, Fountain Valley, California 92708. Phone 949-699-0220. www.max.us.com. maxsales.us@gmail.com.
- B. Substitutions: Comply with Division 01.
- C. Single Source: Provide materials from single manufacturer.

#### 2.2. DESIGN CRITERIA

- A. Gate Operator Safety Entrapment Protection Devices, UL 325:
  - 1. Two independent safety entrapment protection devices shall be installed on gate operators (inherent reversing system in gate operators count as 1 device).
  - 2. Devices such as a monitored photo eye or a monitored edge sensor shall be installed with gate operators or a primary/secondary pair of gate operators.
  - 3. Any 12 V DC, normally closed UL 325 approved safety device (wired or wireless photo eyes or edge sensors) shall function with gate operators.

#### 2.3. SLIDE GATE OPERATOR

- A. High-Traffic, Commercial, Brushless, 24 V DC, Slide Gate Operator: "Max 2200".
  - 1. Mechanical:
    - a. Dimensions:
      - 1) Width: 14.5 inches.
      - 2) Depth: 19.0 inches.
      - 3) Height: 29.0 inches.
      - 4) Chain Height: 7.5 inches.
    - b. Shipping Weight: 158 lbs.
    - c. Gear Box: Heavy-duty, direct-drive gear box, 30:1, Size 60.
    - d. Gate Capacity: 2,200 lbs/60-foot long gate.
    - e. Gate Speed: 12 inches per second, adjustable.
    - f. Drive: Direct gear, synthetic oil bath, 1-inch hardened output shaft.
    - g. Jog switch/emergency release.
    - h. Chain: 25-foot #40 nickel-plated chain
    - i. Lockable chain-release mechanism.
    - j. Corrosion Protection: Gold-zinc plated and powder coated.
    - k. Frame: 1/4-inch cold-rolled steel, fully welded, gold-zinc plated and powder coated.
    - 1. Cover: Pad lockable, 16 gauge, Type 304 stainless steel, powder coated, light gray.
    - m. Cover Door: Polymeric, thickness 0.187 inches, flammability rating HB, RTI:50, black with keylock.

- n. Duty: Continuous cycle at extreme temperature.
- o. Gate Motion Control: Intelligent ramp-up and ramp-down, microprocessor controlled.
- p. Sequenced Access Management: Capable of sequentially controlling operator in tandem with barrier gate.
- q. Quiet operation.
- 2. Electrical:
  - a. Motor: Brushless DC motor, equivalent to 1-1/4 HP AC motor.
  - b. Gate Speed Controls: Programmable, 16 selectable speeds.
  - c. Automatic gate position reset system.
  - d. Gate Sync: Automatic gate movement synchronization.
  - e. Modular system design.
  - f. Voltage Selection: Switchable 115/230 V AC.
  - g. Adaptive DSP control for advanced brushless DC motion control.
  - h. Real-time performance analyzer and event log (OBD PORT and Black Box).
  - i. Low-voltage wiring capabilities for remote power up to 500 feet (no battery needed).
  - j. Power Management: Energy saving intelligent power management system.
  - k. Outputs: 12 V DC and 24 V DC at 250 mA.
  - 1. Connections: Gold contact input connections and automobile-grade connectors.
  - m. Selectable Open Timer: 0.5 to 60 seconds with timer-off option.
  - n. Operational Temperature Range: Minus 4 to 165 degrees F (minus 20 to 74 degrees C), including battery performance without heater.
  - o. Lightning Protection: Up to 20 K volts and 10 K amps on inputs and outputs (44 channels), including loop detector input connections.
  - p. Safety Obstruction Sensor: Tunable, 16 position; auto adaptable to gate weight and size.
  - q. Downhill Gate Motion: Controlled by auto-dynamic cruise control.
  - r. Dual motor overcurrent safety shut off.
  - s. Battery Backup Module: "Max BC-7"; minimum of 100 cycles in case of power failure.
  - t. Battery Backup Functions: 3 modes, open once, leave open, leave closed, selectable.
  - u. State machine electronics.
  - v. On-board 3-button station.
  - w. Plug-in loop detector rack.
  - x. Primary/Secondary Sync: RS 485 3-wire communication.
- 3. Security:
  - a. Loop-Management System: High traffic, intuitive.
  - b. Alarms: Audible and remote.
  - c. Magnetic lock control relay outputs with selectable delay times.
  - d. Tamper-alert relay output triggers "on" if gate is forced open.
  - e. Audible alarm if gate is tampered with or ERD is triggered.
  - f. Gate Partial Open Recorder: Programmable, allows partial open cycles for high-traffic gates, while providing complete open cycles for emergency vehicles.
  - g. Cover: Lockable with key-lock release.
  - h. Gate Disable Feature: Disables inputs with exception of fire department input.
  - i. Transaction buffer.
  - j. Gate Status Outputs: For gate monitoring.
  - k. Direct motor control of jog OPEN/CLOSE for manually moving gate in case of emergency.
  - 1. Quick close anti-tailgate feature.
  - m. Magnetic Lock: No need for magnetic lock with direct drive and dynamic magnetic brake system.
  - n. Chain-Drop Sensor: Detects unauthorized chain drops.
  - o. Gate Push-Back Protection: 30:1 gear reducer and dynamic brake system.
- 4. Safety:

- a. Compliance:
  - 1) UL 325, Class I, II, III, and IV.
  - 2) UL 991.
- b. Approval: CSA.
- c. ETL Listed.
- d. Adaptive Obstruction Sensor: 16 selectable sensitivity settings.
- e. Dynamic Magnetic Brake System: Stops gate immediately to prevent damage to obstructions.
- f. Entrapment protection and alarm output.
- g. Selectable gate-in-motion alarm.
- h. 12 V DC, Normally Closed UL 325 protocol.
- i. Three combinations of monitored photo eyes and edge sensors.
- j. Secondary entrapment reverses and resets.
- k. UL reset button.
- 1. Gate Disable: When chain is disconnected in gate closed position, machine defaults to shutdown mode.

#### EXECUTION

### **3.1. EXAMINATION**

- A. Examine areas and slide gates to receive slide gate operators.
- B. Notify Architect of conditions that would adversely affect installation or subsequent use.
- C. Do not begin installation until unacceptable conditions are corrected.

#### **3.2. PREPARATION**

- A. Verify slide gates are installed as indicated on the Drawings.
- B. Verify slide gates are properly installed and move freely in both directions.
- C. Verify slide gates are plumb, level, square, and without sag or damage.

#### 3.3. INSTALLATION

- A. Install slide gate operators in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Install slide gate operators in accordance with UL 325.
- C. Install slide gate operators plumb, level, square, and secure on concrete pads.
- D. Concrete Pads: Install concrete pads as specified in Section 03 30 00.
- E. Electrical: Install AC electrical power to slide gates operators as specified in Section 26 05 00.
- F. Install slide gate operators to function properly.

G. Install slide gate operators to be weathertight.

#### 3.4. ADJUSTING

- A. Adjust slide gate operators for proper operation in accordance with manufacturer's instructions.
- B. Adjust slide gate operators to operate smoothly and to open and close slide gates properly.
- C. Repair minor damages to finish in accordance with manufacturer's instructions and as approved by Architect.
- D. Remove and replace with new material, damaged components that cannot be successfully repaired, as determined by Architect.

#### 3.5. CLEANING

- A. Clean slide gate operators promptly after installation in accordance with manufacturer's instructions.
- B. Do not use harsh cleaning materials or methods that could damage finish.

#### **3.6.** CLOSEOUT ACTIVITIES

- A. Demonstration:
  - 1. Demonstrate to Architect and Owner that slide gate operators function properly.
  - 2. Demonstrate to Owner proper operation of slide gate operators.
  - 3. Perform demonstration at final system inspection by factory-trained and certified representative of manufacturer.
- B. Instruction and Training:
  - 1. Provide instruction and training of Owner's personnel in operation and maintenance of slide gate operators.
  - 2. Provide instruction and training by factory-trained and certified representative of manufacturer.

#### **3.7. PROTECTION**

A. Protect installed slide gate operators to ensure that, except for normal weathering, gate operators will be without damage or deterioration at time of Substantial Completion.

### END OF SECTION



A Limited Liability Company

TBPE Licensed No F-13016

ISAEL POSADA

#### Civil • Transportation • Planning • Stormwater

5602 E. Iowa Road, Edinburg, Texas 78542 (956) 287-1818 office (956) 287-3697 fax

#### ADDENDUM NO. 2

**DATE:** October 31, 2018

**RE:** Sharyland Water Supply Administration Building

**OWNER:** Sharyland Water Supply Corporation

TO: ALL PROPOSERS, HOLDERS OF SPECIFICATIONS, AND ALL INTERESTED PARTIES TO THE TTBH

**BID OPEN:** 4:00 P.M. (Central Time), Thursday, November 8, 2018

The following clarifications, corrections and directives shall become part of the Proposal, Contract Documents and Specifications for the **Sharyland Water Supply Administration Building** 

#### **CLARIFICATIONS/MODIFICATIONS**

1. SDI Engineering, LLC shall obtain TxDOT Driveway and Road Crossing Permits.

2. Contractor shall remove organic material at basketball court area, scarify and provide select fill to obtain proposed grade.

3. Contractor may use spoil to raise the grade within low lying areas of the construction site. Any excess spoil with deleterious material (i.e. concrete, trash, stone), shall be disposed of by contractor.

4. Landscaping – Contractor is responsible for including cost of landscaping as shown on the plans as part of their base bid. The landscaping allowance shall only be utilized for any other items above and beyond what is shown on the plans as may be requested by the owner.

5. Irrigation - Contractor is responsible for including cost of irrigation as shown on the plans as part of their base bid. The irrigation allowance shall only be utilized for any other items above and beyond what is shown on the plans as may be requested by the owner.

6. Iron Fencing – Pickets shall be <sup>3</sup>/<sub>4</sub>" hollow tubular 14 gauge steel.

Please make the necessary corrections to the Plans and Proposal, as appropriate

#### PLEASE ACKNOWLEDGE RECEIPT OF THIS ADDENDUM IN THE SPA THE BID PROPOSAL FORM.

# TRINITY MEP ENGINEERING

P: 956.973.0500 | F: 956.351.5750 www.trinitymep.com | Copyright 2018 Texas Registered Engineering Firm No. - F10362

### ADDENDUM #2



Project Name: Sharyland Water Supply Corp. New Office Building Project Number: 18.2.17 Architect: Milnet Architectural Services Date: 11/2/2018

Note: The work shall be carried out in accordance with the following supplemental instructions issued in accordance with the Contract Documents without change in Contract Sum or Contract Time Proceeding with the Work in accordance with these instructions indicates your acknowledgement that there will be no change in the Contract Sum or Contract Time.

- I. Specifications:
  - A. Specification 23 09 23 DIRECT DIGITAL CONTROL SYSTEM FOR HVAC, section 1.2 APPROVED CONTROL SYSTEM MANUFACTURERES shall be the following:
    - 1. Trane
    - 2. Siemens
    - 3. Automated Logic
- II. General: N/A
- III. Mechanical:
  - A. Sheet M1.0 added exhaust louver L-4, refer to attached.
  - B. Sheet M1.1 revised/added louvers, refer to attached.
  - C. Sheet M3.1 The following were added/revised:
    - 1. added louver L-4 to LOUVER SCHEDULED, refer to attached.
    - 2. added controls operation/monitoring to fan schedule, refer to attached.
  - D. Sheet M4.1 new controls sheet, refer to attached.
- IV. Electrical:
  - A. Sheet E4.1 Revised luminaire schedule, refer to attached.
  - B. Sheet E6.0 Panel-AC Breaker for panel E shall be solid state 100% breaker type.
  - C. Sheet E6.0 Panel AC Breaker for panel-E shall be selective coordinated as required by the NFPA codes. Provide all cost in bid to include the Selective coordination study as part of the electrical submittals.
  - D. Sheet E6.0 Panel-AC, add circuit #26 for EF-5. Provide 20Amp 1-pole breaker with 2#12, 1#12G, ½"C to EF-5.



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- E. Sheet E6.0 Panel-AC, add circuit #28 for generator battery charger. Provide 20Amp 1-pole breaker with 2#10, 1#10G, <sup>3</sup>/<sub>4</sub>"C to generator battery charger.
- F. Sheet E6.0 Panel-AC, add circuit#30 for generator heater. Provide 20Amp 2-pole breaker with 3#8, 1#10G,1"C to generator heater.
- G. Sheet E6.0 Panel-E, add circuit #52 for EF-2. Provide 20Amp 1-pole breaker with 2#10, 1#10G, <sup>3</sup>/<sub>4</sub>"C to EF-2.
- H. Sheet E7.3 Add new sheet for additional details, refer to attached.
- I. Sheet E5.0 Revise electrical schematic diagram base bid, refer to attached.
- J. Sheet E5.1 Revise electrical schematic diagram alternate #5, refer to attached.
- K. Sheet E7.1 Parking lot light pole base detail, refer to Structural drawings for all concrete and structural requirements.
- L. Sheet E3.0 Keyed note#9 add the following, Cable tray shall be wire basket tray system, 4"x12" equal to Hubbell. Include all mounting hardware, radius fittings and cable drop outs.
- V. Plumbing: N/A
- VI. Fire Protection: N/A





# **FAN SCHEDULE**

TAG	EF-1	EF-2	EF-3,4	EF-5	EF-WH-1	EF-WH-2,3	EF-WH-4
SERVICE	RR	LOUNGE	PUBLIC RRs	OA FAN	RRs	RRs	WAREHOUSE
LOCATION	PLENUM	PLENUM	CEILING	PLENUM	CEILING	CEILING	ROOF
FAN PROPERTIES							
CFM	350	300	75	1600	100	150	4300
FAN RPM	1710	1626	900	1655	949	1020	1163
EXT SP (IN WG)	0.5	0.5	0.15	0.5	0.2	0.2	0.25
FAN POWER	1/10 HP - ECM	1/10 HP - ECM	18 W	1/2 HP - ECM	80 W	128 W	1 HP
Volts/Phase	120/1	120/1	120/1	120/1	120/1	120/1	120/1
Sound level	7.8 SONES	8.1 SONES	0.6 SONE	12.4 SONES	1.5 SONES	2.5 SONES	17.5 SONES
MOUNTING	SUSPENDED	SUSPENDED	CEILING	SUSPENDED	CEILING	CEILING	14" TDI CURB
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL	SQ-85-VG	SQ-85-VG	SP-B80	SQ-120-VG	SP-B110	SP-B150	GB-180
MAX WEIGHT	75 lbs	75 lbs	25 lbs	75.lbs			
NOTES	1-3,7,13	1-3,6,7,14	1-5,14	1-3,7,11-13	1-5,14	1-3,5,13	1-3,8-10,12,14
NOTES:							

NOTES:

01. PROVIDE WITH FACTORY INSTALLED DISCONNECT.

02. PROVIDE W/ FAN SPEED CONTROLLER.

03. PROVIDE W/ BACKDRAFT DAMPER.

04. INTERLOCK FAN W/ LIGHTS.

05. PROVIDE W/ TIMED DELAY SHUTOFF

06. PROVIDE W/ WALL MOUNTED ROTARY TIMED DIAL SWITCH, 0-60 MINS, LABELED "VENT FAN".

07. FAN TO BE SUSPENDED FROM STRUCTURE VIA SPRING VIBRATION ISOLATORS IN RUBBER SPRING CUPS.

08. PROVIDE W/ LIFTING LUGS.

09. PROVIDE W/ AUTOMATIC BELT TENSIONERS.

10. PROVIDE IBC 2015 COMPLIANT CURB & ATTACHMENTS FROM UNIT TO CURB & CURB TO STRUCTURE. EQUIPMENT OR CURB MANUFACTURER IS RESPONSIBLE FOR PROVIDING ENGINEERED DETAIL ANALYSIS OF:

A) ATTACHMENT OF EQUIPMENT TO CURB.

B) CURB TO STRUCTURE.

C) CURB & ATTACHMENT HARDWARE STRENGTH.

REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR ROOF SUBSTRATE DETAILS. EQUIPMENT OR CURB MANUFACTURER IS ALSO RESPONSIBLE FOR PROVIDING ENGINEERED INSTALLATION DRAWINGS FOR ITEMS 'A' & 'B' LISTED ABOVE. BOTH, THE ENGINEERED ANALYSIS & THE ENGINEERED INSTALLATION DRAWINGS SHALL BE PERFORMED SPECIFICALLY FOR THIS BUILDING & PROJECT SITE & STAMPED & SEALED BY A TEXAS LICENSED ENGINEER. SUBMITTALS WILL NOT BE APPROVED UNTIL ALL

MENTATION LISTED ABOVENS PROVIDED ASCURATELY.

11. FAN SPEED TO BE CONTROLLED BASED ON DUCT STATIC PRESSURE, MAINTAIN AN OA DUCT PRESSURE OF POSSITIVE 0.1" OF STATIC PRESSURE (ADJ). 12. MECH CONTRACTOR TO PROVIDE W/ PROGRAMMABLE TIME CLOCK, TO MATCH VOLTAGE OF FAN; FAN OPERATION TO BE ENGAGED THROUGH TIME CLOCK. SET BY OWNER.

13. FAN OPERATION TO BE CONTROLLED/SCHEDULED THROUGH BUILDING AUTOMATION SYSTEM (HVAC CONTROLS/BAS).

14. FAN OPERATION TO BE ONLY MONITORED THROUGH BUILDING AUTOMATION SYSTEM (HVAC CONTROLS/BAS)

# LOUVER SCHEDULE

TAG	L-1,2
TYPE	EXHAUST
SERVICE	EF-1,2
DETAILS AND ACCESSORIES	
MAX CFM	300
LENGTH/HEIGHT (IN)	16/12
FREE AREA (SQ FT)	0.37
MAX VELOCITY (FPM)	820
MAX PRESSURE DROP (IN. H2O)	0.1
FINISH	1.2 mils 70% PVDF
INCLUDED SCREENS	BIRD
ACTUATION TYPE	NONE
BORDER STYLE	2" FLANGE
MAUNUFACTURER	GREENHECK
MODEL	EDJ-401
NOTES	1,2

NOTES:

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01. LOUVER OPENINGS TO BE SAW CUT. 02. SEAL OPENING WEATHER TIGHT.





AA         120V         LED 3000 LM 25 W         SURFACE         LED WALL LUMINAIRE, WET LOCATION RaTED, CSA CERTIFIED         LITHONIA WST LED P2 40K VF MVOLT BBW           BB         120V         LED 4005 K 4000 K         SURFACE         15% 15° RECESSED LED FIXTURE RATED FOR WET LOCATION         MCGRAW EDISON LRC-B32-4-LED-E1-WST           CC         120V         LED 4005 K 4600 K         SURFACE         ARCHITECTURAL LED RGB, INGRADE, UL LOTINC CARLE         PHILPS DECOSCENE LED BBP621           DD         120V         LED 1445 LM 4000 K         SURFACE         LED FLOOD LIGHT, RGB,DMX, UL LISTED, WET LOCATION, INCLUDE CONTROC CARLE         PHILPS DECOSCENE LED BBP621           DD         120V         LED 1400 K 4000 K 5000 K         SURFACE         LED FLOOD LIGHT, RGB,DMX, UL LISTED, WET LOCATION, SPREAD LENS, DATA ENGOS K 5000 K         PHILPS CK_SPEC30_COLORBLASTPC_GEN4RGB_100-277VAC           FF         120V         LED 1400 K 4100 K         SURFACE         LED FLOOD LIGHT, WIDE FLOOD RECTANGULAR DISTRIBUTION, RATED FOR WET LOCATION MOUNT ON RIGID CONDUIT, INCLUDE DRIVER         DIST LED 2, A520/40K-WFR-MVOLT-THK- DMAXCD-DSXF1VG U           GG         120V         LED 4100 K 4100 K         SURFACE         LED EXTERIOR WALL SCONCE, UL LISTED, WET LOCATION         SURFACE/CONTRACTOR SHALL INCLUDE COST FOR INSTALLATION IN BID.           S1A         120V         LED 4000 K 2073 LM 4000 K 2073 LM 4000 K         SURFACE         LED AREA LUMINAIRE, POLE MOUNTI FOL
BB     120V     LED 4285 LM 46W     SURFACE     ISX15° RECESSED LED FIXTURE RATED FOR WET LOCATION     MCGRAW EDISON LRC-B32-4LED-E1-WST       CC     120V     LED 4285 LM 4000 K     SURFACE     ARCHITECTURAL LED ROB, INGRADE, UL USTED. WET LOCATION, INCLUDE CONTROL CABLE     PHILPS DECOSCENE LED BBP621       DD     120V     LED 1445 LM 4000 K     SURFACE     LED FLOOD LIGHT, RGB, DMX, UL USTED, WET LOCATION, SPREAD LENS, DATA     PHILPS CK_SPEC30_COLORBLASTPC_GENARGB_100-277VAC       FF     120V     LED 1440 K     SURFACE     LED FLOOD LIGHT, WIDE FLOOD WET LOCATION, SPREAD LENS, DATA     PHILPS CK_SPEC30_COLORBLASTPC_GENARGB_100-277VAC       GG     120V     LED 4100 K     SURFACE     LED FLOOD LIGHT, WIDE FLOOD POOL UGHT, WIDE FLOOD D RECTANGULAR DISTRIBUTION, RATED FOR WET LOCATION, MOULD DRIVER     DISTRIBUTION RATED DSNRAD-DSSREVG U     DISTRIBUTION RATED DSNRAD-DSSREVG U       GG     120V     LED 4100 K     SURFACE     LED EXTERIOR WALL SCONCE, UL LISTED, FOR WET LOCATION     SELECTED BY OWNER AND FURNISH AND INSTALL BY CONTRACTOR, CONTRACTOR, SHALL INCLUDE COST FOR INSTALLATION IN BID.       HH     120V     LED 4100 K     SURFACE     LED EXTERIOR WALL WINNARE, WET LOCATION RATED, CSA CERTIFIED     LITHONIA TWR1 P2 40K WOLT_DDBTXD       S1A     120V     LED 4000 K     28' POLE     LED AREA LUMINAIRE, POLE MOUNT LUMINARE, WET LOCATION MOLT POLE SHALL BE SIZE FOR MIN, 130 MPH, INCLUDE VIBRATION DAMPERS     FIXTURE MFR, LITHONIA       S1A     120V </td
CC       120V       LED 4285 LM 4285 LM 28W       SURFACE       ARCHITECTURAL LED RGB, INGRADE, UL USTED, WET LOCATION, INCLUDE CONTROL CABLE       PHILIPS DECOSCENE LED BBP621         DD       120V       LED 1445 LM 4000 K       SURFACE       LED FLOOD LIGHT, RSB, DMX, UL USTED, WET LOCATION, SPREAD LENS, DATA       PHILIPS CK_SPEC30_COLORBLASTPC_GEN4RGB_100-277VAC         FF       120V       LED 4100K 4100K       SURFACE       LED FLOOD LIGHT, WIDE FLOOD RECTANGULAR DISTRUTION, RATED FOR WET LOCATION, MOUNT ON RIGID CONDUIT, INCLUDE DRIVER       UITHONIA DSXF1LED-2-A530/40K-WFR-MVOLT-THK- DIAXD-DSXF1VG U         GG       120V       LED 4100K 410W       SURFACE       LED EXTERIOR WALL SCONCE, UL USTED, WET LOCATION       SELECTED BY OWNER AND FURNISH AND INSTALL BY CONTRACTOR, CONTRACTOR, SCHALL INCLUDE COST FOR INSTALLATION IN BID.         HH       120V       LED 4100K 410W       SURFACE       LED EXTERIOR WALL SCONCE, UL USTED, WET LOCATION       SELECTED BY OWNER AND FURNISH AND INSTALL BY CONTRACTOR, CONTRACTOR, SCHALL INCLUDE COST FOR INSTALLATION IN BID.         HH       120V       LED 4470 LM 4000 K       SURFACE       LED WALL LUMINAIRE, WET LOCATION RATED, CSA CERTIFIED       LITHONIA TWR1 P2 40K MVOLT _ DDBTXD         S1A       120V       1-LED 4000 K       28' POLE       LED AREA LUMINAIRE, POLE MOUNT LUMINAIRE, INCLUDE BASE COVER, RATED FOR WET LOCATION, UL USTED, POLE SHALL BE SIZE FOR WIN, 130 MPH, INCLUDE VBRATION DAMPERS       FIXTURE MFR. LITHONIA 20/00 K
DD     120V     LED 1445 LM 4000 K 500W     SURFACE     LED FLOOD LIGHT, RGB.DMX, UL LISTED, WET LOCAATION,SPREAD LENS, DATA     PHILIPS CK_SPEC30_COLORBLASTPC_GEN4RGB_100-277VAC       FF     120V     LED 4100K 4100K     SURFACE     LED FLOOD LIGHT, WIDE FLOOD PCCTANGULAR DISRIBUTION, RATED FOR WET LOCATION, MOUNT ON RIGID CONDUIT, INCLUDE DRIVER     LITHONIA DSXF1LED-2-A530/40K-WFR-MVOLT-THK- DNAXD-DSXF1VG U       GG     120V     LED 4100K 4100K     SURFACE     LED EXTERIOR WALL SCONCE, UL LISTED, WET LOCATION     SELECTED BY OWNER AND FURNISH AND INSTALL BY CONTRACTOR.CONTRACTOR SHALL INCLUDE COST FOR INSTALLATION IN BID.       HH     120V     LED 4100K 4100K     SURFACE     LED WALL LUMINAIRE, WET LOCATION RATED, CSA CERTIFIED     LITHONIA DSXF1LED PS 40K MYOLT _ DDBTXD       S1A     120V     1-LED 20733 LM 4000 K     28' POLE     LED AREA LUMINAIRE, POLE MOUNT WET LOCATION, UL LISTED, POLE SHALL BE SIZE FOR MIN, 130 MPH, INCLUDE BASE COVER, RATED FOR WET LOCATION, UL LISTED, POLE SHALL BE SIZE FOR MIN, 130 MPH, INCLUDE BASE COVER, RTSP-28-6.8-11-NA-DM10-BC-VD
FF     120V     LED 4100K 41W     SURFACE     LED FLOOD LIGHT, WIDE FLOOD RECTANGULAR DISTRIBUTION, RATED FOR WET LOCATION, MOUNT ON RIGID CONDUIT, INCLUDE DRIVER     LITHONIA DSXF1LED-2-A530/40K-WFR-MVOLT-THK- DNAXD-DSXF1VG U       GG     120V     LED 4100K 41W     SURFACE     LED EXTERIOR WALL SCONCE, UL LISTED, WET LOCATION     SELECTED BY OWNER AND FURNISH AND INSTALL BY CONTRACTOR. CONTRACTOR SHALL INCLUDE COST FOR INSTALLATION IN BID.       HH     120V     LED 4470 LM 40W     SURFACE     LED WALL LUMINAIRE, WET LOCATION RATED, CSA CERTIFIED     SELECTED BY OWNER AND FURNISH AND INSTALL BY CONTRACTOR. CONTRACTOR SHALL INCLUDE COST FOR INSTALLATION IN BID.       S1A     120V     1-LED 20733 LM 207W     SURFACE     LED AREA LUMINAIRE, POLE MOUNT LUMINAIRE, INCLUDE BASE COVER, RATED FOR WET LOCATION, UL LISTED, POLE SHALL BE SIZE FOR MIN, 130 MPH, INCLUDE WARF COVER     FIXTURE MFR. LITHONIA DSX1 LED P8 40K TFTM MVOLT POLE MFR, KW INDUSTRIES #RTSP-28-6.8-11-NA-DMI0-BC-VD       14ED     LED AREA LUMINAIRE, POLE MOUNT LUMINAIRE, POLE MOUNT LUMINAIRE, INCLUDE BASE COVER, RATED FOR WET LOCATION DAMPERS     FIXTURE MFR. LITHONIA DSX1 LED P8 40K TFTM MVOLT POLE MFR, KW INDUSTRIES #RTSP-28-6.8-11-NA-DMI0-BC-VD
GG     120V     LED 4100K 41W     SURFACE     LED EXTERIOR WALL SCONCE, UL LISTED, WET LOCAITON     SELECTED BY OWNER AND FURNISH AND INSTALL BY CONTRACTOR. CONTRACTOR SHALL INCLUDE COST FOR INSTALLATION IN BID.       HH     120V     LED 4470 LM, 4000 K 4000 K 400W     SURFACE     LED WALL LUMINAIRE, WET LOCATION RATED, CSA CERTIFIED     LITHONIA TWR1 P2 40K MVOLT _ DDBTXD       S1A     120V     1-LED 20733 LM 4000 K 4000 K 4000 K 207W     28' POLE     LED AREA LUMINAIRE, POLE MOUNT LUMINAIRE, INCLUDE BASE COVER, RATED FOR WET LOCATION DAMPERS     FXTURE MFR. LITHONIA DSX1 LED P8 40K TFTM MVOLT POLE SHALL BE SIZE FOR MIN. 130 MPH, INCLUDE VIBRATION DAMPERS     FXTURE MFR. LITHONIA HTSP-28-6.8-11-NA-DM10-BC-VD
HH     120V     LED 4470 LM 4000 K     SURFACE     LED WALL LUMINAIRE, WET LOCATION RATED, CSA CERTIFIED     LITHONIA TWR1 P2 40K MVOLT _ DDBTXD       S1A     120V     1-LED 20733 LM 4000 K     28' POLE     LED AREA LUMINAIRE, INCLUDE BASE COVER, RATED FOR WET LOCATION, UL LISTED, POLE SHALL BE SIZE FOR MIN, 130 MPH, INCLUDE VBRATION DAMPERS     FXTURE MFR. LITHONIA DSX1 LED P8 40K TFTM MVOLT POLE MFR. KW INDUSTRIES #RTSP-28-6,8-11-NA-DM10-BC-VD       120V     120V     120V     LED AREA LUMINAIRE, POLE MOUNT LUMINAIRE, INCLUDE VBRATION DAMPERS     FXTURE MFR. LITHONIA DSX1 LED P8 40K TFTM MVOLT POLE MFR. KW INDUSTRIES #RTSP-28-6,8-11-NA-DM10-BC-VD
S1A     120V     1-LED 20733 LM 4000 K 207W     28' POLE     LED AREA LUMINAIRE, POLE MOUNT LUMINAIRE, INCLUDE BASE COVER, RATED FOR WET LOCATION, UL LISTED, POLE SHALL BE SIZE FOR MIN, 130 MPH, INCLUDE VIBRATION DAMPERS     FIXTURE MFR. LITHONIA DSX1 LED P8 40K TFTM MVOLT POLE MFR. KW INDUSTRIES #RTSP-28-6.8-11-NA-DM10-BC-VD       1-LED     LED AREA LUMINAIRE, POLE MOUNT ULINIAIRE, INCLUDE VIBRATION DAMPERS     FIXTURE MFR. LITHONIA
LED AREA LUMINAIRE, POLE MOUNT
S1B     120V     20140 LM 4000 K 207W     28' POLE     POLE     RATED FOR WET LOCATION, UL USTED, POLE SHALL BE SIZE FOR MIN. 130 MPH, INCLUDE VIBRATION DAMPERS     DSX1 LED P8 40K T3M MVOLT POLE MRR. KW INDUSTRIES #RTSP28-6.8-11-NA-DM10-BC-VD
S2A     120V     2-LED 42768 LM 4000 K 414W     28' POLE     LED AREA LUMINAIRE, POLE MOUNT LUMINAIRE, INCLUDE BASE COVER, RATED FOR WET LOCATION, UL LISTED, POLE SHALL BE SIZE FOR MIN. 130 MPH, INCLUDE VIBRATION DAMPERS     FIXTURE MFR. LITHONIA DSX1 LED P8 40K T5W MVOLT POLE MFR. KW INDUSTRIES #RTSP28-6.8-11-NA-DM2180-BC-VD

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	Project Name:	SHARYLAND WATER SUPPLY CORP.
JRAL	Address:	MISSION, TEXAS
5656	Date:	11/02/18
289 II.net	Job Number:	217017

TRICAL LOAD ANALYSIS
TOTAL KVA
18
84
132
8
260 KVA
723 AMPS
800 AMPS

### GENERAL NOTES:

- A. PROVIDE GROUND /BONDING AS INDICATED ON THE NATIONAL ELECTRICAL CODE.
- B. NAME PLATES SHALL BE PROVIDED FOR ALL ELECTRICAL SWITCH GEAR, PANEL BOARDS,
- LIGHTING CONTACTORS, LIGHTING CONTROL PANELS, ETC.. BY ELECTRICAL CONTRACTOR. C. NEW ELECTRICAL METERING AND SERVICE EQUIPMENT SHALL BE PROVIDED AND INSTALLED ACCORDING TO THE LOCAL POWER UTILITY CO. AND CITY REQUIREMENTS. VERIFY AND COORDINATE WITH POWER UTILITY CO. AND AHJ BEFORE BID AND INSTALLATION.
- D. COMPLY WITH NFPA 70E SAFETY REQUIREMENTS.
- E. PANELBOARDS WITH MORE THAN 42 CIRCUITS SHALL BE IN ONE CABINET ENCLOSURE, UNLESS OTHERWISE NOTED.
- F. PROVIDE 4"CONCRETE PAD FOR ALL DRY-TYPE TRANSFORMERS.G. ALL TWO SECTION PANELBOARDS SHALL BE FEED THRU LUGS.
- H. CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY OF ELECTRICAL SERVICE TO THE NEW
- BUILDING WITHIN PROJECT SCHEDULE. COORDINATE ALL COST FOR LABOR AND MATERIALS WITH LOCAL ELECTRICAL UTILITY COMPANY PRIOR TO BID. ALL COST ASSOCIATED WITH THE DELIVERY OF ELECTRICAL SERVICE INCLUDING ALL MATERIALS SHALL BE INCLUDED IN BID. TRANSITION OF NEW ELECTRICAL SERVICE SHALL PROCEED IN WEEKENDS OR HOLIDAYS, INCLUDE ALL COST IN BID FOR OVERTIME FROM ELECTRIC UTILITY COMPANY. NO ADDITIONAL PAYMENT WILL BE MADE FOR SERVICE DELIVERY COSTS AFTER CONTRACT HAS BEEN AWARDED.
- I. THE CONTRACTOR SHALL FURNISH AN ARC FLASH HAZARD ANALYSIS STUDY PER NFPA 70E-STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE, REFERENCE ARTICLE 130.3 AND ANEEX D.
- J. CONTRACTOR SHALL INCLUDE ALL COST TO PROVIDE SHORT CIRCUIT AND PROTECTIVE DEVICE. THE SHORT-CURCUIT AND PROTECTIVE DEVICE COORDINATE STUDIES SHALL BE SUBMITTED TO THE DESIGN ENGINEER PRIOR TO RECEIVING FINAL APPROVAL OF THE DISTRIBUTION EQUIPMENT SHOP DRAWINGS AND/OR PRIOR TO RELEASE OF EQUIPMENT DRAWINGS FOR MANUFACTURING, APPROVAL FROM THE ENGINEER MAY BE OBTAINED FOR PRELIMINARILY SUBMITTAL OF SUFFICIENT STUDY DATA TO ENSURE THAT THE SELECTION OF DEVICE AND CHARACTERISTICS WILL BE SATISFACTORY.



GROUND

BASE BID ELECTRICAL RISER DIAGRAM KEYED NOTES:

1 PROVIDE 800AMPS, 208V, 3Ø, 4W, S/N, N3R, HEAVY DUTY FUSED SERVICE ENTRANCE DISCONNECT, FUSED@800AMPS.

2 NEW ELECTRICAL SERVICE METER 120/208V, 3Ø, 4W. CONTRACTOR SHALL PROVIDE METER BASE. VERIFY WITH POWER FOR METER BASE REQUIREMENTS PRIOR TO BID DATE. INCLUDE ALL COST IN BID. COORDINATE ALLOCATION OF METER SOCKET AND WIRING WITH POWER COMPANY.

3 NEW POWER COMPANY PAD MOUNT TRANSFORMER 120/208V, 3Ø, 4W, PROVIDE CONCRETE PAD AS PER POWER COMPANY REQUIREMENTS.

4 FURNISH AND INSTALL 1-4"C FOR UTILITY PRIMARY RACEWAY TO POWER SOURCE AS DIRECTED BY UTILITY COMPANY. PROVIDE WARNING RIBBONS 12" ABOVE CONDUIT.

5 1#3/0G IN 1"C, 3/4"X10' COPPER CLAD RODS. PROVIDE GROUNDING AS PER NEC REQUIREMENTS.

6 PROVIDE 2-RUNS EACH 4#600KCMIL, 1#1/0G, 4"C.

7 PROVIDE 1-2"C WITH PULLSTRING.

8 NEW POWER COMPANY POLE WITH RISER DIP POLE. COORDINATE WITH POWER COMPANY FOR ALL REQUIREMENTS 9 LIGHTING CONTROL RELAY PANEL.

2 10 LIGHTING CIRCUITS, REFER TO PANEL SCHEDULES FOR CIRCUIT WIRING.

11) EXISTING GENERATOR, MFR. CATERPILLAR#D125-6, 120/208V, 3Ø, 4W, 400AMPS AT A NEW LOCATION. (12) NEW 400AMP, 208/120V, 3Ø, 4W, S/N, N3R, 65KAIC, OTS, AUTOMATIC TRANSFER SWITCH

(13) PROVIDE 2 RUNS EACH 4#4/0, 1#3G, 3"C

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14)1-1"C TO PANEL FOR BLOCK HEATER CKT AND 1-1"C TO PANEL FOR BATTERY CHARGER. REFER TO PANEL SCHEDULES FOR BLOCK HEATER AND BATTERY CHARGER CIRCUITS.

15 PROVIDE 1-1.5"C WITH PULLSTRING FOR REMOTE ANUNNCIATOR. COORDINATE EXACT LOCATION- FOR REMOTE ANUNNCIATOR WITH OWNER PRIOR TO ANY ROUGH-INS. LOCATE REMOTE ANUNNCIATOR IN ROOM #104.

(1)-1"C to ats for start controls. Start control wiring shall be 3#14. Verify with equipment supplier for start wiring.



# 1 ELECTRICAL SCHEMATIC DIAGRAM - BASE BID SCALE: NTS



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GENERAL NOTES:

- A. PROVIDE GROUND /BONDING AS INDICATED ON THE NATIONAL ELECTRICAL CODE.
- B. NAME PLATES SHALL BE PROVIDED FOR ALL ELECTRICAL SWITCH GEAR, PANEL BOARDS, LIGHTING CONTACTORS, LIGHTING CONTROL PANELS, ETC.. BY ELECTRICAL CONTRACTOR.
- C. NEW ELECTRICAL METERING AND SERVICE EQUIPMENT SHALL BE PROVIDED AND INSTALLED ACCORDING TO THE LOCAL POWER UTILITY CO. AND CITY REQUIREMENTS. VERIFY AND COORDINATE WITH POWER UTILITY CO. AND AHJ BEFORE BID AND INSTALLATION.
- D. COMPLY WITH NFPA 70E SAFETY REQUIREMENTS.
- E. PANELBOARDS WITH MORE THAN 42 CIRCUITS SHALL BE IN ONE CABINET ENCLOSURE, UNLESS OTHERWISE NOTED.
- F. PROVIDE 4"CONCRETE PAD FOR ALL DRY-TYPE TRANSFORMERS. G. ALL TWO SECTION PANELBOARDS SHALL BE FEED THRU LUGS.
- H. CONTRACTOR SHALL BE RESPONSIBLE FOR DELIVERY OF ELECTRICAL SERVICE TO THE NEW BUILDING WITHIN PROJECT SCHEDULE. COORDINATE ALL COST FOR LABOR AND MATERIALS WITH LOCAL ELECTRICAL UTILITY COMPANY PRIOR TO BID. ALL COST ASSOCIATED WITH THE DELIVERY OF ELECTRICAL SERVICE INCLUDING ALL MATERIALS SHALL BE INCLUDED IN BID. TRANSITION OF NEW ELECTRICAL SERVICE SHALL PROCEED IN BE INCLUDED IN BID. TRANSITION OF NEW ELECTRICAL SERVICE STALL FROCELD IN WEEKENDS OR HOLIDAYS, INCLUDE ALL COST IN BID FOR OVERTIME FROM ELECTRIC UTILITY COMPANY. NO ADDITIONAL PAYMENT WILL BE MADE FOR SERVICE DELIVERY COSTS AFTER CONTRACT HAS BEEN AWARDED.

. THE CONTRACTOR SHALL FURNISH AN ARC FLASH HAZARD ANALYSIS STUDY PER NFPA 70E-STANDARD FOR ELECTRICAL SAFETY IN THE WORKPLACE, REFERENCE ARTICLE 130.3 AND ANEEX D.

J. CONTRACTOR SHALL INCLUDE ALL COST TO PROVIDE SHORT CIRCUIT AND PROTECTIVE DEVICE. THE SHORT-CURCUIT AND PROTECTIVE DEVICE COORDINATE STUDIES SHALL BE SUBMITTED TO THE DESIGN ENGINEER PRIOR TO RECEIVING FINAL APPROVAL OF THE DISTRIBUTION EQUIPMENT SHOP DRAWINGS AND/OR PRIOR TO RELEASE OF EQUIPMENT DRAWINGS FOR MANUFACTURING, APPROVAL FROM THE ENGINEER MAY BE OBTAINED FOR PRELIMINARILY SUBMITTAL OF SUFFICIENT STUDY DATA TO ENSURE THAT THE SELECTION OF DEVICE AND CHARACTERISTICS WILL BE SATISFACTORY. \_\_\_\_\_

NEW POWER CO. POWER -POLE. COORDINATE EXACT LOCATION WITH POWER CO.

 $\langle \underline{2} \rangle$ 

GROUND

### BASE BID ELECTRICAL RISER DIAGRAM KEYED NOTES:

PROVIDE 800AMPS, 208V, 3Ø, 4W, S/N, N3R, HEAVY DUTY FUSED SERVICE ENTRANCE DISCONNECT, FUSED@800AMPS.

- 2 NEW ELECTRICAL SERVICE METER 120/208V, 3Ø, 4W. CONTRACTOR SHALL PROVIDE METER BASE. VERIFY WITH POWER FOR METER BASE REQUIREMENTS PRIOR TO BID DATE. INCLUDE ALL COST IN BID. COORDINATE ALLOCATION OF METER SOCKET AND WIRING WITH POWER COMPANY.
- 3 NEW POWER COMPANY PAD MOUNT TRANSFORMER 120/208V, 3Ø, 4W, PROVIDE CONCRETE PAD AS PER POWER COMPANY REQUIREMENTS. 4 FURNISH AND INSTALL 1-4"C FOR UTILITY PRIMARY RACEWAY TO POWER SOURCE AS
- DIRECTED BY UTILITY COMPANY. PROVIDE WARNING RIBBONS 12" ABOVE CONDUIT. 5 1#3/0G IN 1"C, 3/4"X10' COPPER CLAD RODS. PROVIDE GROUNDING AS PER NEC
- 6 PROVIDE 2-RUNS EACH 4#600KCMIL, 1#1/0G, 4"C.
- 7 PROVIDE 1-2"C WITH PULLSTRING.





# ELECTRICAL SCHEMATIC DIAGRAM - ALTERNATE#5 SCALE: NTS

MILNET ARCHITECTURAL SERVICES AMERICAN INSTITUTE OF ARCHITECTS

# TRINITY MEP ENGINEERING

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