ADDENDUM NO. 1
05/01/2024

PROJECT: CITY OF IDALOU
ELEVATED STORAGE TANK IMPROVEMENTS

BID DATE: MAY 8TH, 2024 AT 2:00 PM

The following changes and/or additions shall be made to the Plans, Specifications, and Contract Documents for the above referenced project. The bidder shall acknowledge receipt of this Addendum by signing below and returning this Addendum with the Bid.

1) GENERAL

a) The inlet and outlet riser included in the base bid shall be 316L.

b) The existing house and debris have been demolished and cleared by the city.

c) The contractor shall be responsible for all coordination with the engineer designated tank inspector regarding all coating, painting, and welding inspections.

2) Contract Documents

a) Bid Schedule – The bid schedule has been revised to show the following items. Please use the updated bid schedule.

i) An alternative raw steel inlet and outlet riser option has been included in the bid schedule. This line item shall correspond to all tank configurations. A deductive line item to remove the stainless-steel material has also been included.

ii) An alternative for exterior tank lighting has been added.

iii) An alternative for a 100,000 gallon multi leg tank has been added. A deductive alternate to remove the single pedestal tank has also been included.

3) PLAN SHEETS

a) Sheet C-1 – Proposed Site Plan – This sheet has been revised to show a new elevated tank location and additional proposed fencing to be installed by contractor. The sheet has also been modified to show the existing house and debris has been removed by the City.

b) Sheets E9 through E14 Have been revised to include direction on alternate exterior lighting as well as miscellaneous electrical modifications.

4) SPECIFICATIONS

a) 09 01 01 – Coating & Painting for New Steel Water Storage Tanks – Has been modified to correct interior and exterior paint coating systems.

Prepared by:

JACOB | MARTIN
TBPE Firm No. 2448

_____
Bidder's Acknowledgment

_____
Date

CITY OF IDALOU
WATER SYSTEM IMPROVEMENTS – CONTRACT 2 – ELEVATED STORAGE TANK IMPROVEMENTS
BASE BID - ADDENDUM #1

Show prices in numerals. Round off unit prices to two decimal places only.
These Bid Prices must include all labor, materials, equipment, insurance, overhead, superintendence, transportation, profits & incidentals to cover the finished Work called for in the Contract Documents.

For all Labor, Materials, Equipment and Incidentals to Furnish and Install the Following:

Bid Item	Description	Est. Qty.	Unit	Unit Price	Extended Amount
1	**Mobilization, Bonds, and Insurance**	**1**	**LS**	**$**	**$**
2	**100,000 Gallon Single Pedestal Elevated Tank**	**1**	**LS**	**$**	**$**
3	**Elevated Storage Tank Electrical & Control**	**1**	**LS**	**$**	**$**
4	**Existing Elevated Storage Tank Demolition**	**1**	**LS**	**$**	**$**
5	**8" DR18 PVC Waterline**	**217**	**LF**	**$**	**$**
6	**8" Tapping Sleeve and Valve**	**1**	**EA**	**$**	**$**
7	**8" Check Valve**	**1**	**EA**	**$**	**$**
8	**36" Metal Vault**	**1**	**EA**	**$**	**$**
9	**Fencing Installation**	**340**	**LF**	**$**	**$**
10	**Fencing Demolition**	**137**	**LF**	**$**	**$**
11	**Project Signage-EST**	**1**	**LS**	**$**	**$**
	TOTAL BASE BID (Items 1-11)				**$**

ADDITIVE ALTERNATE BID SCHEDULE

For all Labor, Materials, Equipment and Incidentals to Furnish and Install the Following:

Bid Item	Description	Est. Qty.	Unit	Unit Price	Extended Amount
A1	**100,000 Gallon Multi-Legged Elevated Storage Tank**	1	LS	$	$
A2	**Exterior Tank Lighting**	1	LS	$	$
A3	**Raw Steel Inlet & Outlet Riser**	1	LS	$	$
	TOTAL ADDITIVE ALTERNATE BID (Items A1-A3)				$

DEDUCTIBLE ALTERNATE BID SCHEDULE

For all Labor, Materials, Equipment and Incidentals to Furnish and Install the Following:

Bid Item	Description	Est. Qty.	Unit	Unit Price	Extended Amount
D1	**100,000 Gallon Single Pedestal Elevated Tank**	1	LS	$	$
D2	**Stainless Steel Inlet & Outlet Riser**	1	LS	$	$

TOTAL PROPOSED NUMBER OF DAYS FOR COMPLETION:	

Notes:

1) If alternative item A1 is selected, Base Bid Item #2 shall be deducted from the contract.

2) Bidder shall enter proposed number of days for completion on the Bid Proposal and the Bid Schedule.

3) If deductible alternate D2 is selected, A3 shall be accepted.

Note: All products used for this project must meet Build America, Buy America (BABAA) domestic preference requirements.

SECTION 09 01 01 - COATING & PAINTING FOR NEW STEEL WATER STORAGE TANKS

PART 1 GENERAL

1.1 REFERENCE STANDARDS

ASTM D2200 - Standard Practice for Use of Pictorial Surface Preparation Standards and Guides for Painting Steel Surfaces; Latest Edition.
ASTM D4417 - Standard Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel; Latest Edition.
ASTM D520 - Standard Specification for Zinc Dust Pigment; Latest Edition.
AWWA D102 - Coating Steel Water Storage Tanks; 2011.
NACE No. 1 - Joint Surface Preparation Standard White Metal Blast Cleaning; Latest Edition.
NACE No. 2 - Joint Surface Preparation Standard Near-White Metal Blast Cleaning; 1994 (Reaffirmed 2006).
NACE No. 3 - Joint Surface Preparation Standard Commercial Blast Cleaning; 1999 (Reaffirmed 2006).
NACE No. 4 - Brush-Off Blast Cleaning; Latest Edition.
NACE SP0178 - Design, Fabrication, and Surface Finish Practices for Tanks and Vessels to Be Lined for Immersion Service; Latest Edition.
NACE SP0188 - Discontinuity (Holiday) Testing of New Protective Coatings on Conductive Substrates; Latest Edition.
NACE SP0287 - Field Measurement of Surface Profile of Abrasive Blast-Cleaned Steel Surfaces Using a Replica Tape; Latest Edition.
NSF 61 - Drinking Water System Components - Health Effects; 2014 (Errata 2015).
SSPC GUIDE 15 - Field Methods for Extraction and Analysis of Soluble Salts on Steel and Other Nonporous Substrates; Latest Edition.
SSPC VIS 1 - Guide and Reference Photographs for Steel Surfaces Prepared by Dry Abrasive Blast Cleaning; Latest Edition.
SSPC-PA 1 - Shop, Field, and Maintenance Painting of Steel; 2004.
SSPC-PA 2 - Procedure For Determining Conformance To Dry Coating Thickness Requirements; 2015.
SSPC-Paint 36 - Two-Component Weatherable Aliphatic Polyurethane Topcoat, Performance-Based.; 2013.
SSPC-SP 1 - Solvent Cleaning; 2015.
SSPC-SP 10 - Near-White Blast Cleaning; 2007.
SSPC-SP 11 - Power Tool Cleaning to Bare Metal; 2012 (Ed. 2013).
SSPC-SP 2 - Hand Tool Cleaning; 1982 (Ed. 2004).
SSPC-SP 3 - Power Tool Cleaning; 1982 (Ed. 2004).
SSPC-SP 5 - White Metal Blast Cleaning; 2007.
SSPC-SP 6 - Commercial Blast Cleaning; 2007.
SSPC-SP 7 - Brush-Off Blast Cleaning; 2007.

1.2 WORK INCLUDED

A. The work of this section includes the coating of all interior surfaces, and the painting of all exterior surfaces.

1.3 RELATED WORK

ENTER REFERENCED SPECS SECTIONS

1.4 CONTRACTOR QUALIFICATIONS

A. The CONTRACTOR shall have three years practical experience and successful history in the application of specified product to surfaces of steel water tanks. Upon request, he shall substantiate this requirement by furnishing a list of references and job completions.

B. The CONTRACTOR shall submit with his bid a written statement by the coatings manufacturer stating that the CONTRACTOR is familiar with the materials specified and has workers capable of performing the work specified herein.

C. The personnel performing the work shall be knowledgeable and have the required experience and skill to adequately perform the work for this project, in accordance with SSPC-PA 1.

1.5 QUALITY ASSURANCE

A. General: Quality assurance procedures and practices shall be utilized to monitor all phases of surface preparation, application and inspection throughout the duration of the project. Procedures or practices not specifically defined herein may be utilized provided they meet recognized and accepted professional standards and are approved by the ENGINEER.

B. Surface Preparation: Surface preparation will be based upon comparison with: SSPC VIS 1, ASTM D2200, "Pictorial Surface Preparation Standards for Painting Steel Surfaces", ASTM D4417 or NACE SP0287. In all cases the written standard shall take precedence over the visual standard. In addition, NACE SP0178, "Fabrication Details, Surface Finish Requirements, and Proper Design Considerations for Tanks and Vessels to be Lined for Immersion Service", along with the Visual Comparator, shall be used to verify the surface preparation of welds. Specifier Note: The above paragraph contains weld treatment requirements which should also be called out in any tank fabrication and/or structural specifications. See also 3.02, B of this specification.

C. Application: No coating or paint shall be applied when: 1) the surrounding air temperature or the temperature of the surface to be coated or painted is below the minimum surface temperature for the products specified herein, 2) rain, snow, fog or mist is present, 3) the surface temperature is less than 5F above the dew point, 4) the air temperature is expected to drop below the minimum temperature for the products specified within six hours after application of coating. Dewpoint shall be measured by use of an instrument such as a Sling Psychrometer in conjunction with U.S. Department of Commerce Weather Bureau Psychometric Tables. If any of the above conditions are prevalent, coating or painting shall be delayed or postponed until conditions are favorable. The day's coating or painting shall be completed in time to permit the film sufficient drying time prior to damage by atmospheric conditions.

D. Coating Thickness: Thickness of coatings and paint shall be measured checked according to the procedures outlined in SSPC-PA 2 with particular attention to section(s) 4.0, 7.8, 7.9, 7.11, 7.13, 7.14, with a non-destructive, magnetic-type thickness gauge that has been calibrated according to the procedures outlined in SSPC-PA 2 with particular attention to section(s) 3.0, 7.4, 7.5, 7.15. Pass/fail criteria shall require that ninety (90) percent of the spot measurements (average of 3 gauge readings within a 1.5 inch diameter area) be at or above the minimum specified dry film thickness. Of the remaining ten (10) percent of the spot measurements (average of 3 gauge readings within a 1.5 inch diameter area) that are below the minimum specified dry film thickness, they shall be no less than ninety (90) percent of the minimum specified dry film thickness. Areas that fail to meet these criteria shall be corrected at no expense to the OWNER. Use of an instrument such as a Tooke Gauge, precision groove grinder, etc. is permitted if a destructive test is deemed necessary by the ENGINEER and the total DFT is less than 50 mils.

E. Holiday (Pinhole) Testing: The integrity of interior coated surfaces shall be tested for holidays in accordance with NACE SP0188. For dry films less than 20 mils, a non-destructive holiday detector shall not exceed 67.5 volts, nor shall destructive holiday detector exceed the voltage recommended by the manufacturer of the coating system. A solution of 1 ounce non-sudsing type wetting agent, such as Kodak Photo-Flo, and 1 gallon of tap water shall be used to perform the holiday testing. For coating thickness at 20 mils and greater, a high voltage Tinker & Rasor AP/W holiday tester shall be used. Contact coating manufacturer for voltage recommendations and curing parameters.
All pinholes and/or holidays shall be marked and repaired in accordance with the manufacturer's printed recommendations and retested. No pinholes or other irregularities will be permitted in the final coating.

F. Inspection Devices: The CONTRACTOR shall furnish, until final acceptance of coating and painting is accepted, inspection devices in good working condition for detection of holidays and measurement of dry film thickness of coating and paint. The CONTRACTOR shall also furnish U.S. Department of Commerce, National Bureau of Standards certified thickness calibration plates and/or plastic shims, depending upon the thickness gauge used, to test the accuracy of dry film thickness gauges and certified instrumentation to test the accuracy of holiday detectors. Dry film gauges and holiday detectors shall be made available for the ENGINEER's use at all times until final acceptance of application. Holiday detection devices shall be operated in the presence of the ENGINEER.

G. Inspection: Inspection for this project shall consist of 'hold point' inspections. The ENGINEER or his representative shall inspect the surface prior to abrasive blasting, after abrasive blasting but prior to application of coating materials, and between subsequent coats of material. Final inspection shall take place after all coatings are applied, but prior to placing the tank in service. CONTRACTOR will insure that sufficient rigging is in place so that the ENGINEER or his representative shall be able to conduct the required inspections.

H. Warranty Inspection: Warranty inspection shall be conducted during the eleventh month following acceptance of all coating and painting work. All defective work shall be repaired in accordance with this specification and to the satisfaction of the ENGINEER and/or OWNER.
Specifier Note: The warranty inspection must be scheduled and coordinated by the ENGINEER or the OWNER.

1.6 SAFETY AND HEALTH REQUIREMENTS

A. General: In accordance with requirements set forth by regulatory agencies applicable to the construction industry and manufacturer's printed instructions and appropriate technical bulletins and manuals, the CONTRACTOR shall provide and require use of personal protective lifesaving equipment for persons working on or about the project site.

B. Head and Face Protection and Respiratory Devices: Equipment shall include protective helmets which shall be worn by all persons while in the vicinity of the work. In addition, workers engaged in or near the work during sandblasting shall wear eye and face protection devices and air purifying halfmask or mouthpiece respirators with appropriate filters. Barrier creams shall be used on any exposed areas of skin.

C. Ventilation: Where ventilation is used to control hazardous exposure, all equipment shall be explosion-proof. Ventilation shall reduce the concentration of air contaminants to a degree a hazard does not exist. Air circulation and exhausting of solvent vapors shall be continued until coatings have fully cured.

D. Sound Levels: Whenever the occupational noise exposure exceeds maximum allowable sound levels, the CONTRACTOR shall provide and require the use of approved ear protection

devices.

E. Illumination: Adequate illumination shall be provided while work is in progress, including explosion-proof lights and electrical equipment. Whenever required by the ENGINEER, the CONTRACTOR shall provide additional illumination and necessary supports to cover all areas to be inspected. The level of illumination for inspection purposes shall be determined by the inspector.

F. Temporary Ladders and Scaffolding: All temporary ladders and scaffolding shall conform to applicable safety requirements. They shall be erected where requested by the ENGINEER to facilitate inspection and be moved by the CONTRACTOR to locations requested by the ENGINEER.

1.7 DELIVERY, STORAGE AND HANDLING

A. All materials shall be brought to the jobsite in original sealed containers. They shall not be used until the ENGINEER has inspected the contents and obtained data from information on containers or label. Materials exceeding storage life recommended by the manufacturer shall be rejected.

B. All coatings and paints shall be stored in enclosed structures to protect them from weather and excessive heat or cold. Flammable coatings and paints must be stored to conform with City, County, State and Federal safety codes for flammable coating or paint materials. At all times coatings and paints shall be protected from freezing.

PART 2 PRODUCTS

2.1 GENERAL

A. All materials shall be lead-free as defined by the Consumer Product Safety Act, Part 1303.

B. All zinc dust pigment contained in any zinc-rich material shall meet the requirements of ASTM D520 as regards zinc content and purity.

C. All materials for the interior wetted portion of the tank shall meet the requirements of NSF 61 for potable water contact.

D. All catalyzed polyurethane products shall meet the minimum requirements of SSPC-Paint 36, Level 3 Performance Level.

E. No products containing MOCHA shall be allowed.

2.2 ACCEPTABLE MANUFACTURERS

A. Materials specified are those that have been evaluated for the specific service. Products of the Tnemec Company, Inc. are listed to establish a standard of quality. Equivalent materials of other manufacturer's may be submitted on written approval of the ENGINEER. As part of the proof of equality, the ENGINEER will require at the cost of the CONTRACTOR, certified test reports from a nationally known, reputable and independent testing laboratory conducting comparative tests as directed by the ENGINEER between the product specified and the requested substitution.

B. Requests for substitution shall include manufacturer's literature for each product giving name, product number, generic type, descriptive information, solids by volume, recommended dry film thickness and certified lab test reports showing results to equal the performance criteria of the products specified herein. In addition, a list of five projects shall be submitted in which each product has been used and rendered satisfactory service.

C. All requests for product substitution shall be made at least 10 days prior to the bid date.

D. Any material savings shall be passed to the OWNER in the form of a contract dollar reduction.

E. Manufacturer's color charts shall be submitted to the ENGINEER at least 30 days prior to coating and/or paint application. General CONTRACTOR and Painting CONTRACTOR shall

coordinate work so as to allow sufficient time (normally seven to ten days) for paint to be delivered to the job site.

2.3 MATERIAL PREPARATION

A. Mix and thin materials according to manufacturer's latest printed instructions.
B. Do not use materials beyond manufacturer's recommended shelf life.
C. Do not use mixed materials beyond manufacturer's recommended pot life.
D. Do not split kits of multi-component products.

2.4 SHOP PRIMER

A. Surface Preparation: Prepare all welds as per NACE SP0178, Designation D. Abrasive blast all surfaces as per SSPC-SP 10/NACE No. 2. A minimum angular profile of 2.0 to 2.5 mils as per ASTM D4417, Method C or NACE SP0287 is required.
B. Primer: Tnemec Series 94-H2O Hydro-Zinc applied at 2.5 to 3.5 dry mils. Thin only with approved thinner, Tnemec 41-2 or 41-3 Thinner.

2.5 TANK INTERIOR COATING SYSTEM

A. Zinc/Epoxy System:
   1. Surface Preparation Prior to Abrasive Blast Cleaning: Weld flux and spatter shall be removed by power tool cleaning. Sharp projections shall be ground to a smooth contour. All welds shall be ground to a smooth contour as per NACE SP0178, Designation D.
   2. Surface Preparation: SSPC-SP 10/NACE No. 2. A minimum angular profile of 2.0 to 2.5 mils as per ASTM D4417, Method C or NACE SP0287 is required.
   3. Coating System:
      1st Coat: Tnemec Series 94-H2O Hydro-Zinc applied at 2.5 to 3.5 dry mils. Thin only with compatible thinners as listed on the manufacturer's product data sheet.
      Stripe Coat: Tnemec Series N140-15BL Pota-Pox Plus applied by brush to all weld seams, edges, corners, bolts, nuts and other difficult to coat areas. Thin only with approved thinner, Tnemec 41-4 Thinner.
      2nd Coat: Tnemec Series 22 Epoxoline applied at 25 to 35 dry mils. Total dry film thickness shall be a minimum of 27.5 mils.

2.6 TANK EXTERIOR COATING SYSTEM

A. Three-Coat Fluoropolymer System for Extended Color and Gloss Retention:
   1. Surface Preparation Prior to Abrasive Blast Cleaning: Weld flux and spatter shall be removed by power tool cleaning. Sharp projections shall be ground to a smooth contour. All welds shall be ground to a smooth contour as per NACE SP0178, Designation D.
   2. Surface Preparation: Sweep blast all shop-primed surfaces as per SSPC-SP 7 /NACE No. 4. All bare metal surfaces including welded areas and damaged shop primer shall recieve Commercial Blast Cleaning as per SSPC-SP 6/NACE No. 3. A minimum angular profile of 2.0 to 2.5 mils as per ASTM D4417, Method C or NACE SP0287 is required.
   3. Coating System:
      1st Coat: Tnemec Series 94-H20 Hydro-Zinc applied at 2.5 to 3.5 dry mils applied to all bare metal. Thin only with approved thinner, Tnemec 41-2 or 41-3 Thinner.
      2nd Coat: Tnemec Series 73-Color Endura-Shield applied at 3.0 to 5.0 dry mils. Thin only with compatible thinners as listed on the manufacturer's product data sheet.
      3rd Coat: Tnemec Series 700-Color HydroFlon applied at 2.0 to 3.0 dry mils. Thin only with approved thinner, Tnemec 41-39 Thinner for spray, brush or roller.
      Total dry film thickness shall be 7.5 - 11.5 mils dry mils.
      For cold weather applications, Series 44-710 Urethane Accelerator may be added to Series 91-H20 and Series 73 at the rate specified on the Series 44-710 product data sheet.
   4. Logos and Lettering:

1st Coat: Tnemec Series 700-Color Hydroflon at 2.0 to 3.0 dry mils. Thin only with approved thinner, Tnemec 41-39 Thinner for spray,brush or roller.
2nd Coat: Tnemec Series 700-Color Hydroflon at 2.0 to 3.0 dry mils. Thin only with approved thinner, Tnemec 41-39 Thinner for spray, brush or roller.
NOTE: The second coat is required only if the first coat does not provide complete hiding and coverage.

PART 3 EXECUTION

3.1 GENERAL

A. All surface preparation, coating and painting shall conform to applicable standards of the Society for Protective Coatings, NACE International and the manufacturer's printed instructions. Materials applied to the surface prior to the approval of the ENGINEER shall be removed and re-applied to the satisfaction of the ENGINEER at the expense of the CONTRACTOR.

B. All work shall be performed by skilled craftsmen qualified to perform the required work in a manner comparable with the best standards of practice. Continuity of personnel shall be coordinated with the ENGINEER.

C. The CONTRACTOR shall provide a supervisor at the work site during cleaning and application operations. The supervisor shall have the authority to sign and change orders, coordinate work and make decisions pertaining to the fulfillment of the contract.

D. Dust, dirt, oil, grease or any foreign matter that will affect the adhesion or durability of the coating or paint must be removed by washing with clean rags dipped in an approved cleaning solvent and wiped dry with clean rags.

E. Coating and painting systems include surface preparation, prime coating and finish coatings. Unless otherwise approved in writing by the ENGINEER, prime coating shall be field applied. Where prime coatings are shop applied, the CONTRACTOR shall instruct suppliers to provide the prime coat compatible with the specified finish coat. Any off-site work which does not conform to this specification, is subjected to damage during transportation, construction or installation shall be thoroughly cleaned and touched-up in the field as directed by the ENGINEER. The CONTRACTOR shall use repair procedures which insure the complete protection of all adjacent primer. The specified repair method and equipment may include wirebrushing, hand or power tool cleaning, or dry air blast cleaning. In order to prevent injury to surrounding painted surfaces, blast cleaning may require use of lower air pressure, smaller nozzle and/or abrasive blast particles, or shorter blast nozzle distances from surface shielding and masking. If damage is too extensive or uneconomical to touch-up, the entire item shall be blasted and then coated or painted as directed by the ENGINEER.

F. The CONTRACTOR's coating and painting equipment shall be designed for application of materials specified and shall be maintained in first class working condition. Compressors shall have suitable traps and filters to remove water and oils from the air. CONTRACTOR's equipment shall be subject to approval of the ENGINEER.

G. Application of the first coat shall follow immediately after surface preparation and cleaning and stripe coat, if applicable, before rust bloom occurs or the same day, whichever is less. Any cleaned areas not receiving first coat within this period shall be recleaned prior to application of first coat. Use of dehumidification equipment shall be first reviewed by the ENGINEER and coatings manufacturer prior to deviating from this provision.

H. Prior to assembly, all surfaces made inaccessible after assembly shall be prepared as specified herein and shall receive the coating or paint system specified.

3.2 SURFACE PREPARATION

A. The latest revision of the following surface preparation specifications of the Society for Protective Coatings (SSPC) shall form a part of this specification. The summaries listed below are for informational purposes; consult the actual SSPC specification for full detail.
   1. Solvent Cleaning (SSPC-SP 1): Removal of oil, grease, soil and other contaminants by use of solvents, emulsions, cleaning compounds, steam cleaning or similar materials and methods which involve a solvent or cleaning action.
   2. Hand Tool Cleaning (SSPC-SP 2): Removal of loose rust, loose mil scale and other detrimental foreign matter to a degree specified by hand chipping, scraping, sanding and wirebrushing
   3. Power Tool Cleaning (SSPC-SP 3): Removal of loose rust, loose mil scale and other detrimental foreign matter by power wirebrushing, power impact tools or power sanders.
   4. White Metal Blast Cleaning (SSPC-SP 5/NACE No. 1): Air blast cleaning to a gray-white uniform metallic color until each element of surface area is free of all visible residues.
   5. Commercial Blast Cleaning (SSPC-SP 6/NACE No. 3): Air blast cleaning until at least two-thirds of each element of surface area is free of all visible residues.
   6. Brush-Off Blast Cleaning (SSPC-SP 7/NACE No. 4): Air blast cleaning to remove loose rust, loose mil scale and other detrimental foreign matter to a degree specified.
   7. Near-White Metal Blast Cleaning (SSPC-SP 10/NACE No. 2): Air blast cleaning until at least 95% of each element of surface area is free of all visible residues.
   8. Power Tool Cleaning to Bare Metal (SSPC-SP 11): Differs from SSPC-SP 3 in that it requires more thorough cleaning and a surface profile not less than 1 mil.

B. Slag, weld metal accumulation and spatters not removed by the Fabricator, Erector or Installer shall be removed by chipping and/or grinding. All sharp edges shall be peened, ground or otherwise blunted as required by the ENGINEER. All grinding and finishing of welds, edges, etc. shall be performed prior to solvent cleaning and abrasive blasting. Welds shall be prepared as per NACE SP0178 for all interior and exterior surfaces:
   1. Butt Welds: Shall be ground smooth and free of all defects, designation "D".
   2. Lap Welds: Shall be ground smooth and blended., designation "D".
   3. Fillet Welded Tee Joint: Shall be ground smooth and blended, designation "D"
      Specifier Note: The above paragraph contains weld treatment requirements which should also be called out in any tank fabrication and/or structural specifications. See also 1.05, B of this specification.

C. Field blast cleaning for all surfaces shall be by dry method unless otherwise directed. Blast nozzles shall be venturi-type nozzles with a minimum pressure at the nozzle of 90 psi.

D. Particle size of abrasives used in blast cleaning shall be that which will produce a 1.5 - 2.5 mil (37.5 microns - 65.0 microns) surface profile or in accordance with recommendations of the manufacturer of the specified coating or paint system to be applied.
   If the profile of the blasted steel exceeds the profile specified above, the CONTRACTOR shall be required to do one or both of the following:
   1. Reblast the surface using a finer aggregate in order to produce the required profile.
   2. Apply a thicker prime coat, if possible given the limitations of the products being applied, in order to adequately cover the blast profile.

E. Abrasive used in blast cleaning operations shall be new, washed, graded and free of contaminants that would interfere with adhesion of coating or paint and shall not be reused unless specifically approved in writing by the ENGINEER.

F. During blast cleaning operations, caution shall be exercised to insure that existing coatings or paint are not exposed to abrasion from blast cleaning.

G. The CONTRACTOR shall keep the area of his work and the surrounding environment in a clean condition. He shall not permit blasting materials to accumulate as to constitute a nuisance or hazard to the accomplishment of the work, the operation of the existing facilities or

to the surrounding environment.

H. Blast cleaned surfaces shall be cleaned prior to application of specified coatings or paint. All surfaces shall be free of dust, dirt, and other residue resulting from the abrasive blasting operation. No coatings or paint shall be applied over damp or moist surfaces.

I. All welds shall be neutralized with a suitable chemical compatible with the specified coating or paint.

J. Specific Surface Preparation: Surface preparation for the specific system shall be as noted in Sections 2.04, 2.05, 2.06.

3.3 NON VISIBLE CONTAMINANTS

A. Surfaces shall be checked in three locations for the presence of chlorides, free iron and sulfates. New tanks shall be tested prior to abrasive blasting, tanks being rehabilitated shall be tested prior to blasting. If blisters are present in existing tank, testing shall also be performed after abrasive blasting. These tests are an Iron Test (Fe2+), Chloride Test and Sulfate Test. Testing shall be carried out as per SSPC GUIDE 15. The maximum limits for these contaminants shall be:

1. The maximum level of chlorides is 30 milligrams per square meter or 3 micrograms per square centimeter.
2. The maximum level of sulfates is 100 milligrams per square meter or 10 micrograms per square centimeter.
3. The maximum level of ferrous ions (Fe2+) is 50 milligrams per square meter or 5 micrograms per square centimeter.
4. Contamination levels above these limits will require washing and retesting in accordance with Item B (below) until the surface is under the allowable limits.

B. If testing shows amounts present in the test solution to be greater than the limits listed herein, the CONTRACTOR shall clean the surface of the entire tank interior with a 5,000 psi water blast with fine entrained abrasive until the levels in the test solutions are below the maximum acceptable level. Alternate cleaning methods may be allowed with prior approval of the ENGINEER. Surface shall be re-blasted as specified in 2.05 at no additional cost to the OWNER.

C. CONTRACTOR shall provide a written statement from paint manufacturer stating that the maximum acceptable levels are not less than those listed herein. Results of the testing shall be provided to the OWNER before any coatings are applied.

D. The following test kits are approved for use on this project:

1. Chlor*Rid Chor*Test Kit
2. KTA SCAT Test Kit
3. Test kits from other vendors shall be submitted to the ENGINEER for prior approval before use.

Specifier Note: The below paragraph should be included when painting is near the coast when salt contamination is possible, or when the tank is next to an industrial facility where the possibility of atmospheric fallout is possible.

E. When exterior coats are to be applied on subsequent days, or when the shroud is dropped between coats, the previously-applied coat of paint shall be thoroughly pressure-washed to remove any fallout and/or salt that may have settled on the surface.

3.4 APPLICATION - GENERAL

A. Coating and paint application shall conform to the requirements of SSPC-PA 1, latest revision, for "Shop, Field and Maintenance Painting".

B. Thinning shall be permitted only as recommended by the manufacturer and approved by the ENGINEER, and utilizing the thinners stated in Sections 2.04, 2.05, 2.06.

C. Each application of coating or paint shall be applied evenly, free of brush marks, sags, runs, with no evidence of poor workmanship. Care shall be exercised to avoid lapping on glass or hardware. Coatings and paints shall be sharply cut to lines. Finished surfaces shall be free from defects or blemishes.
D. Protective coverings or drop cloths shall be used to protect floors, fixtures and equipment. Care shall be exercised to prevent coatings or paints from being spattered onto surfaces which are not to be coated or painted. Report to the ENGINEER surfaces from which materials cannot be satisfactorily removed.
E. When two coats of coating or paint are specified, where possible, the first coat shall contain sufficient approved color additive to act as an indicator of coverage or the two coats must be of contrasting color.
F. Film thickness per coat as specified in Sections 2.04, 2.05, 2.06 are the minimum required. If roller application is deemed necessary, the CONTRACTOR shall apply additional coats as to achieve the specified thickness.
G. All material shall be as specified.

3.5 COATING SYSTEMS APPLICATION

A. After completion of surface preparation as specified for the specific system, materials shall be applied as noted in Sections 2.04, 2.05, 2.06.
B. Care shall be taken so as to eliminate overspray and dry spray on the tank interior. Where such conditions are encountered, the surface shall be cleaned of all over spray and dry spray prior to the application of the succeeding coat.
C. Areas rendered inaccessible after tank erection such as the spaces between roof plates and rafters shall receive the full coating system prior to erection and/or assembly.

3.6 DISINFECTION

A. Disinfection of interior surfaces shall be performed in the presence of the ENGINEER in accordance with all the requirements of applicable AWWA Standards and regulatory agencies.
B. Disinfection shall be performed after protective coatings have been applied to the interior surfaces and allowed to thoroughly cure.
C. Prior to disinfecting, the complete interior shall be washed down with clean water and thoroughly flushed out.
D. All interior surfaces shall be thoroughly washed with a solution having a minimum chlorine content of 50 PPM. Chlorine solution accumulated on the bottom shall be drained to waste. Rinsing with clean water is not required.

3.7 SOLVENT VAPOR REMOVAL

A. All solvent vapors shall be completely removed by suction-type exhaust fans and blowers before placing tank in operating service.
B. All solvent vapors will be exhausted both during and after coating application as per AWWA D102 to allow the proper curing of the coating material.
C. Ventilation shall be continued until such time as the coating has reached "full cure" as specified by the coating manufacturer.

3.8 CLEAN UP

A. Upon completion of the work, all staging, scaffolding and containers shall be removed from the site or destroyed in a manner approved by the ENGINEER. Coating or paint spots or oil stains upon adjacent surfaces shall be removed and the jobsite cleaned. All damage to surfaces resulting from the work of this section shall be cleaned, repaired or refinished to the satisfaction of the ENGINEER at no cost to the OWNER.

-- END OF SECTION --

NOTE:
1)TEMPORARY SECURITY FENCING SHALL BE CONSTRUCTED AROUND EXISTING ELEVATED TANK DURING CONSTRUCTION IF SOUTH SIDE FENCING IS TO BE REMOVED FOR CONSTRUCTION PURPOSES. THIS TEMPORARY FENCING SHALL BE SUBSIDIARY TO THE PROPOSED SINGLE PEDESTAL ELEVATED STORAGE TANK LINE ITEM AS SHOWN IN THE BID PROPOSAL
2) PROPOSED FENCING AND GATES SHALL INCLUDE 2-8' GATES AS SHOWN ON PAGE C-15, GATE LOCATION TO BE DETERMINED BY THE CITY.

NORTH

EXISTING SEWER LINE

EXISTING 8" WATER LINE

W 2ND STREET

PROPOSED FENCING APPROXIMATELY 55 LF. SEE SHEET C-15 FOR DETAILS

8" TS + VALVE

8" EL

EXISTING BUILDING TO BE REMOVED BY OTHERS

EXISTING OVERHEAD ELECTRICAL

PROPOSED 8" DR 18 PVC WL

LOCUS STREET

EXISTING BUILDING TO BE REMOVED BY OTHERS

EXISTING 50,000 GALLON ELEVATED STORAGE TANK TO BE DEMOLISHED TO CONCRETE FOUNDATION

EXISTING PORTABLE BUILDING TO BE RELOCATED BY CITY

EXISTING BUILDING TO BE REMOVED BY OTHERS

EXISTING SECURITY FENCE

CONTRACTOR TO REMOVE APPROXIMATELY 137 LF OF FENCING AS SHOWN

PROPOSED FENCING APPROXIMATELY 285 LF. SEE SHEET C-15 FOR DETAILS

PROPOSED 8" DR 18 PVC INLET WL

8" TEE

PROPOSED 100,000 GALLON SINGLE PEDESTAL ELEVATED TANK

PROPOSED 8" DR 18 PVC OUTLET WL

EXISTING DEBRIS HAS BEEN REMOVED BY THE CITY

8" EL

EXISTING HOUSE HAS BEEN DEMOLISHED BY THE CITY

8" EL

PROPOSED 8" CHECK VALVE CLA-VAL MODEL 81-02KC OR EQUAL

PROPOSED 36" CM VALVE VAULT WITH LID SEE SHEET 10 FOR DETAILS.

STATE OF TEXAS
JAMES A. PHILLIPS
105116
LICENSED PROFESSIONAL ENGINEER
04/12/24

ISSUED FOR BID

JACOB MARTIN
TBAE FIRM # BR 2261 | TBPELS FIRM # 10194493
TBPE FIRM # 2448

IDALOU, TEXAS
WATER TREATMENT IMPROVEMENTS

PROPOSED SITE PLAN

NO.	REVISION	DATE
1	ADDENDUM #1	04/26/2024

PROJECT #21132 | SCALE 1"=30' | BAR IS ONE INCH IN LENGTH ON ORIGINAL DRAWING. CHECK SCALE AND ADJUST ACCORDINGLY.

SEQ. 5 | SHEET 47 | C-1

Plot Date: 5/1/2024 5:54 PM
Plotted by: joshua baker
Save Time: 5/1/2024 5:53 PM
Saved By: jbaker
X:\CL_Idalou\21132-City of Idalou 2021 Water Treatment Improvements\Drafting_Plans_C_Civil\C-1 PROPOSED SITE PLAN-ELEVATED TANK.dwg

W 2ND STREET

LOCUS STREET

EXISTING XCEL OVERHEAD ELECTRICAL PRIMARY TO REMAIN.

EXISTING XCEL OVERHEAD ELECTRICAL SECONDARY TO BE REMOVED BY XCEL.

EXISTING XCEL PRIMARY INLINE POLE WITH (1) POLE MOUNTED TRANSFORMER. TRANSFORMER TO BE REMOVED BY XCEL. PRIMARY INLINE POLE TO REMAIN.

EXISTING XCEL ELECTRICAL METER TO BE REMOVED BY XCEL.. CONTRACTOR TO REMOVE EXISTING METER CAN, ELECTRICAL DISCONNECT, AND ALL OTHER ELECTRICAL ITEMS LOCATED ON THIS POLE.

EXISTING 240/120V, 1Ø PANEL"B" TO BE REMOVED.

EXISTING WIRING AND CONDUIT TO PANEL "B" TO BE REMOVED.

EXISTING XCEL SECONDARY POLE TO BE REMOVED.

EXISTING SCADA PANEL TO BE MOVED TO THE NEW ELEVATED TANK .

EXISTING ELECTRICAL STAND TO BE REMOVED

A-13,15

NEW ELEVATED TANK LIGHTS TO BE BID AS AN ALTERNATE. CONTRACTOR TO PROVIDE 20' POLES FOR THE LIGHTS AND A PHOTOCELL FOR LIGHTING CONTROLS AS PART OF THE ALTERNATE BID. REFERENCE SHEET E-14 FOR MORE DETAILS ON THE LIGHTS.

1

EXISTING XCEL OVERHEAD ELECTRICAL PRIMARY TO REMAIN.

NEW XCEL OVERHEAD 240/120V, 1Ø ELECTRICAL SECONDARY PROVIDED AND INSTALLED BY XCEL. CABLE HEIGHT NOT TO BE LESS THAN 20' ABOVE GRADE.

NEW XCEL PRIMARY INLINE POLE WITH (1) POLE-MOUNTED TRANSFORMER FOR NEW 240/120V, 1Ø ELECTRICAL SERVICE INSTALLED BY XCEL.

EXISTING XCEL OVERHEAD ELECTRICAL PRIMARY TO REMAIN.

(2) - #1 AWG PHASE CONDUCTORS, (1) - #1 AWG NEUTRAL CONDUCTOR IN 1-1/4" CONDUIT FROM METER TO FUSED DISCONNECT.

NEW STAND MOUNTED 240V, 1Ø, 100A FUSED SERVICE RATED DISCONNECT PER XCEL REQUIREMENTS. DISCONNECT TO HAVE >18 KA AIC RATING.

NEW TOWER MOUNTED LED OBSTRUCTION LIGHT TYPE "C" LIGHT FIXTURE PER LIGHTING SCHEDULE.

NEW XCEL STAND MOUNTED ELECTRICAL METER. CONTRACTOR TO PROVIDE AND INSTALL MAST, WEATHERHEAD, METER CAN, AND CABLE PER XCEL REQUIREMENTS.

NEW ELECTRICAL STAND PROVIDED AND INSTALLED BY THE CONTRACTOR. REFERENCE SHEET E-12 FOR MORE DETAILS ON THE ELECTRICAL STAND.

A-3

NEW CIRCUITS FOR ELEVATED TANK. REFERENCE ELECTRICAL TANK SECTION AND GROUNDING PLAN SHEET E-11 FOR CIRCUIT LOCATION AND DETAILS.

A-1
A-2
A-4
A-5
A-7
A-8

EXISTING SCADA PANEL TO BE MOVED TO THIS ELECTRICAL STAND.

NEW ELEVATED TANK STAND. CONTRACTOR TO VERIFY LOCATION OF ELECTRICAL STAND. REFERENCE ELECTRICAL RISER DIAGRAM SHEET E-10 FOR MORE DETAILS ON THE ELECTRICAL STAND IF THE PRIMARY BID IS TAKEN AND SHEET E-13 FOR DETAILS ON THE ELECTRICAL STAND IF THE ALTERNATE BID IS TAKEN. CONTRACTOR IS TO VERIFY STAND LOCATION IF THE ALTERNATE BID IS CHOSEN.

(1) - #12 AWG PHASE CONDUCTORS, (1) - #12 AWG NEUTRAL CONDUCTOR, (1) - #12 AWG GROUND IN 3/4" CONDUIT TO SCADA PANEL.

NEW 240/120V, 1Ø, PANEL "A" WITH 100A MAIN CIRCUIT BREAKER IN A 200A FRAME.

(2) - #1 AWG PHASE CONDUCTORS, (1) - #1 AWG NEUTRAL CONDUCTOR, (1) - #8 AWG GROUND IN 1-1/4" CONDUIT FROM DISCONNECT TO PANEL "A".

EXISTING HOUSE TO BE DEMOLISHED BY OTHERS

1

NORTH

ELEVATED TANK SITE PLAN NOTES:

1. *EXISTING EQUIPMENT AND LIGHTS ARE FOR REFERENCE ONLY. ELECTRICAL CONTRACTOR TO VERIFY EXACT LOCATION.*
2. *ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR CONTACTING AND COORDINATING WITH XCEL AND ANY ELECTRICAL COSTS BY THE UTILITY CONTACT PERSON FOR XCEL IS NOSA OSAGHAE, EMAIL: NOSAMUDIANA.A.OSAGHAE@XCELENERGY.COM, PHONE NUMBER: (806)-796-3212*
3. *CONTRACTOR TO MAINTAIN 3' WORKING SPACE IN FRONT OF ELECTRICAL EQUIPMENT PER NEC CODE.*

STATE OF TEXAS
EDWARD R. WELLS
66579
LICENSED PROFESSIONAL ENGINEER
04/26/24

ISSUED FOR BID

JACOB MARTIN
TBPELS FIRM # 10194493
TBAE FIRM # BR 2261
TBPE FIRM # 2448

IDALOU, TEXAS
WATER TREATMENT IMPROVEMENTS
ELECTRICAL SITE PLAN – ELEVATED TANK

NO.	REVISION	DATE
1	ADDENDUM 1	04/26/2024

BAR IS ONE INCH IN LENGTH ON ORIGINAL DRAWING. CHECK SCALE AND ADJUST ACCORDINGLY.

PROJECT # 21132 | SCALE 1"=30'

SEQ. 44 | SHEET 49 | E-9

City of Idalou Elevated Tank
Panel "A" Schedule

		1 Phase 3 Wire	
Main Breaker Rating:	100	AMPS	120/240 VAC
M.L.O. Bus Rating:	200	AMPS	
Sym. Inter. Cap.:	> 18K	AMPS	

Surface Mount.: X NEMA 1: X
Flush Mount.: NEMA 3R:

Conductor Color Code

Line 1 ----------	BLACK
Line 2 ----------	RED
Neutral ----------	WHITE or GRAY
Ground ----------	GREEN

	Load
Phase 1 Load:	28
Phase 2 Load:	24

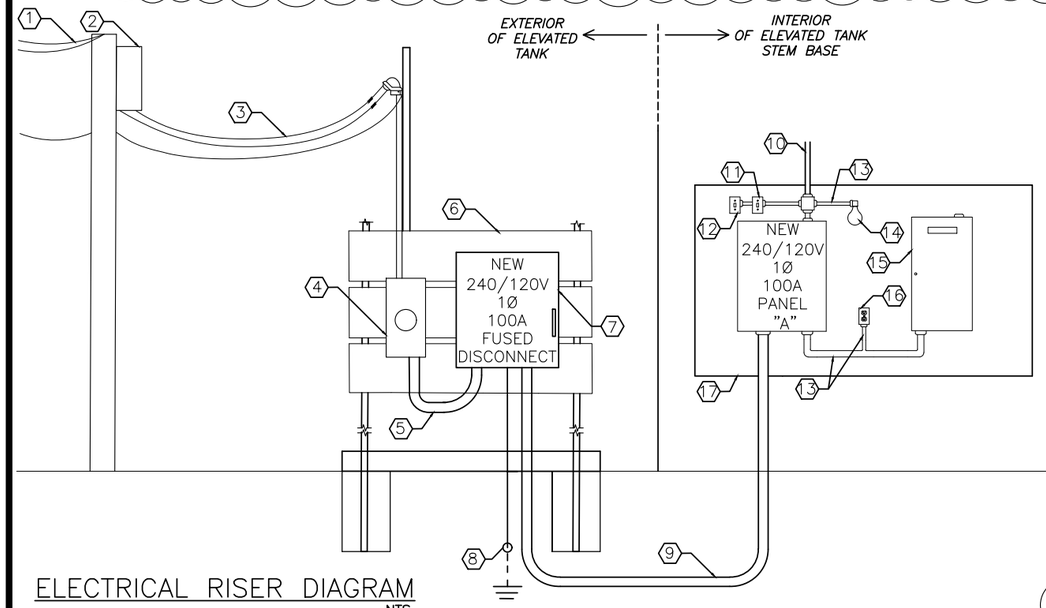
NOTE: PROVIDE SURGE PROTECTION DEVICE (SPD)

POLE	SERVICE	W	LOAD LINE 1	LOAD LINE 2	BREAKER POLES	POLE	1	2	POLE	SERVICE	W	LOAD LINE 1	LOAD LINE 2	BREAKER POLES	POLE
1	Tower Stem 4 EACH Indoor LED Fixtures (Note 2)	117	1		20 / 1	1	X		2	Tank Top Two Receptacles	360	3		20 / 1	2
3	Tank Top Obstruction Light	200		2	20 / 1	3		X	4	Stand Convenience Receptacle	180		2	20 / 1	4
5	Base Room LED Light (Note 2)	60	1		20 / 1	5	X		6	Tower Surface Lighting	1200	10		20 / 1	6
7	SCADA Panel	600		5	20 / 1	7		X	8	Base Room Convenience Receptacles (Note 2)	360		3	20 / 1	8
9	Heat Tape (Note 1)	180	2		20 / 1	9	X		10	Heat Tape (Note 1)	180	2		20 / 1	10
11	Heat Tape (Note 1)	180		2	20 / 1	11		X	12	Heat Tape (Note 1)	180		2	20 / 1	12
13	Elevated tank lighting (Note 3)	2250	9		20 / 2	13	X		14						14
15	"			9		15		X	16						16
17						17	X		18						18
19						19		X	20						20
21						21	X		22	SPD		X		20 / 1	22
23						23		X	24	SPD			X	20 / 1	24

Notes:

1. Contractor is to install breaker only for these loads. No wiring or conduit is to be installed for these loads as part of this project.
2. Contractor is to install breakers only as spare breakers for these loads if the alternate tank bid is accepted. No wiring or conduit will need to be installed for these loads if the alternate tank bid is accepted.
3. Contractor is to install this breaker, conduit, and wiring only if the alternate tank lighting bid is accepted. No conduit, wiring, or breaker will be installed if the alternate bid is not accepted.

1



ELECTRICAL RISER DIAGRAM
NTS

ELECTRICAL NOTES BY REFERENCE (#)

1. EXISTING 1Ø OVERHEAD XCEL ELECTRICAL PRIMARY TO REMAIN.
2. NEW XCEL PRIMARY INLINE POLE WITH (1) POLE–MOUNTED TRANSFORMER FOR NEW 240/120V, 1Ø ELECTRICAL SERVICE INSTALLED BY XCEL.
3. NEW XCEL 240/120V, 1Ø OVERHEAD ELECTRICAL SECONDARY PROVIDED AND INSTALLED BY XCEL. CABLE HEIGHT TO BE NO LESS THAN 20' ABOVE GRADE.
4. NEW XCEL STAND MOUNTED ELECTRICAL METER. CONTRACTOR TO PROVIDE AND INSTALL MAST, WEATHERHEAD, METER CAN, AND CABLE PER XCEL'S REQUIREMENTS.
5. (2) – #1 AWG PHASE CONDUCTORS, (1) – #1 AWG NEUTRAL CONDUCTOR IN 1–1/4" CONDUIT FROM METER TO THE FUSED DISCONNECT.
6. NEW ELECTRICAL STAND PROVIDED AND INSTALLED BY THE CONTRACTOR. REFERENCE SHEET E–12 FOR MORE DETAILS ON THE STAND.
7. NEW POLE MOUNTED 240V, 1Ø, 100A FUSED SERVICE RATED DISCONNECT PER ONCOR REQUIREMENTS. DISCONNECT TO HAVE >18 KA AIC RATING. BOND NEUTRAL TO GROUND IN THIS PANEL.
8. (1) – #8 AWG GROUND IN 1/2" PVC CONDUIT. CADWELD TO ⅝" x 10'–0" COPPER CLAD STEEL GROUND ROD.
9. (2) – #1 AWG PHASE CONDUCTORS, (1) – #1 AWG NEUTRAL CONDUCTOR, (1) – #8 AWG GROUND IN 1–1/4" CONDUIT FROM FUSED DISCONNECT TO PANEL "A".
10. 3 SETS OF (1 SET FOR EACH CIRCUIT): (1) – #10 AWG PHASE CONDUCTOR, (1) – #10 AWG NEUTRAL CONDUCTOR, (1) – #10 AWG GROUND IN 1" CONDUIT FOR ELEVATED TANK CIRCUITS "A–1", "A–2", AND "A–3".
11. SINGLE POLE LIGHT SWITCH FOR STEM LIGHTS. LABEL "STEM LIGHTS"
12. SINGLE POLE LIGHT SWITCH FOR BASE ROOM LIGHT. LABEL "BASE ROOM LIGHT"
13. (1) – #12 AWG PHASE CONDUCTOR, (1) – #12 AWG NEUTRAL CONDUCTOR, (1) – #12 AWG GROUND IN 3/4" CONDUIT.
14. NEW LED BULB STAND MOUNTED LIGHT PROVIDED AND INSTALLED BY THE CONTRACTOR.
15. NEW STAND MOUNTED SCADA PANEL.
16. NEW STAND MOUNTED CONVENIENCE RECEPTACLE.
17. NEW ELEVATED TANK STAND PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR TO VERIFY LOCATION AND MOUNTING OF THE STAND. THIS STAND WILL CHANGE IF THE ALTERNATE BID CHOSEN. REFERENCE SHEET E–13 FOR DETAILS ON THE ELECTRICAL STAND IF THE ALTERNATE BID IS CHOSEN.

1

STATE OF TEXAS
EDWARD R. WELLS
66579
LICENSED PROFESSIONAL ENGINEER
04/12/24

ISSUED FOR BID

JACOB MARTIN
TBPELS FIRM # 10194493
TBAE FIRM # BR 2261
TBPE FIRM # 2448

IDALOU, TEXAS
WATER TREATMENT IMPROVEMENTS

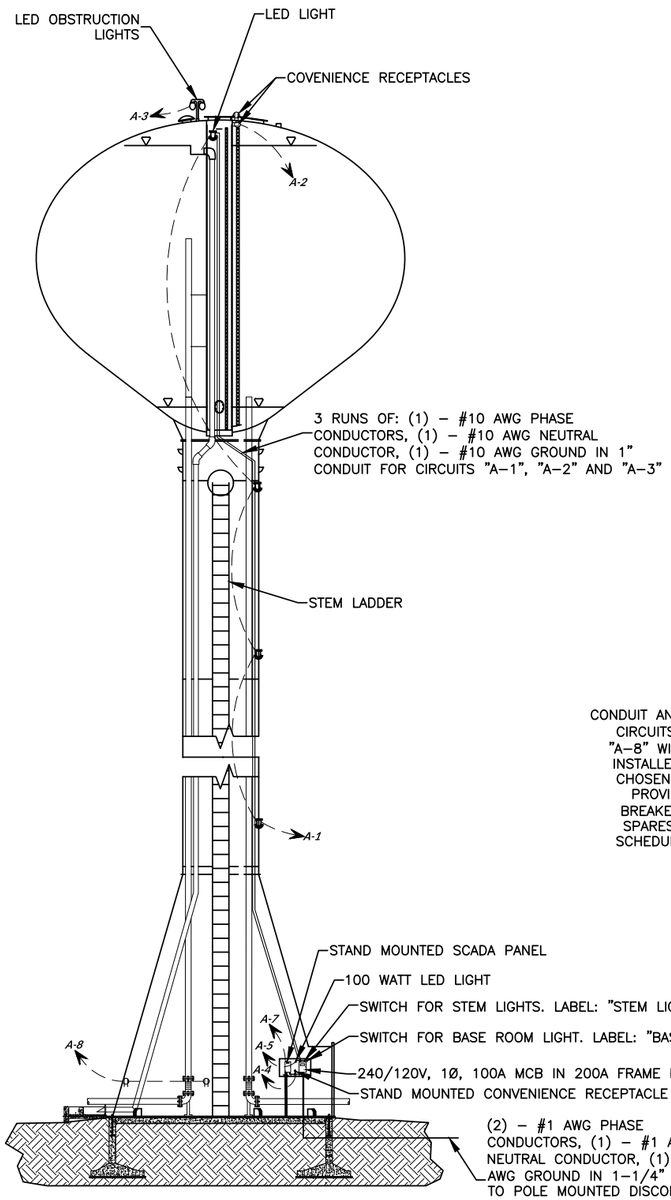
ELEVATED TANK ELECTRICAL RISER DIAGRAM AND PANEL SCHEDULE

NO.	REVISION	DATE
1	ADDENDUM 1	04/26/2024

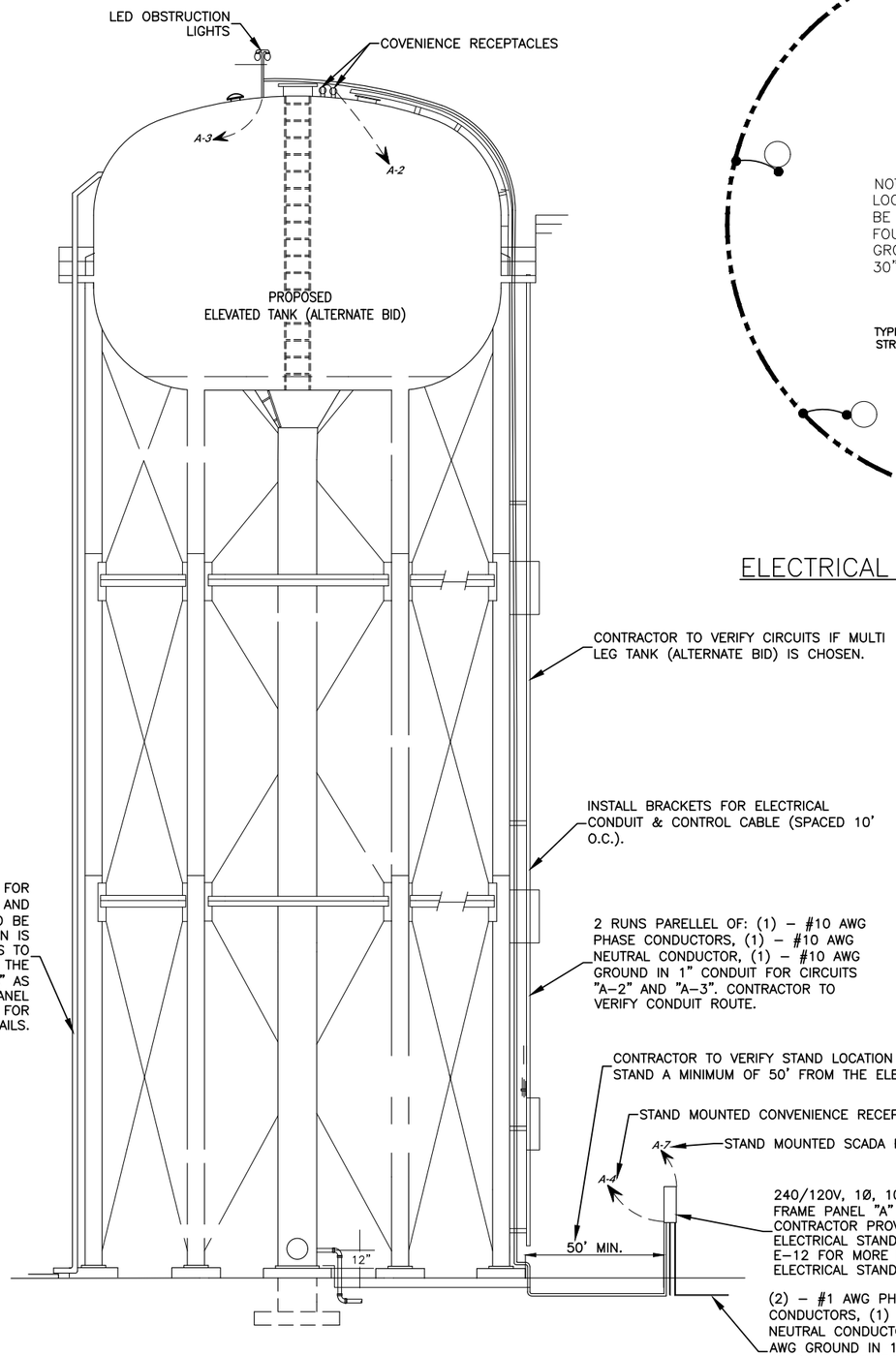
BAR IS ONE INCH IN LENGTH ON ORIGINAL DRAWING. CHECK SCALE AND ADJUST ACCORDINGLY.

PROJECT # 21132 SCALE NTS

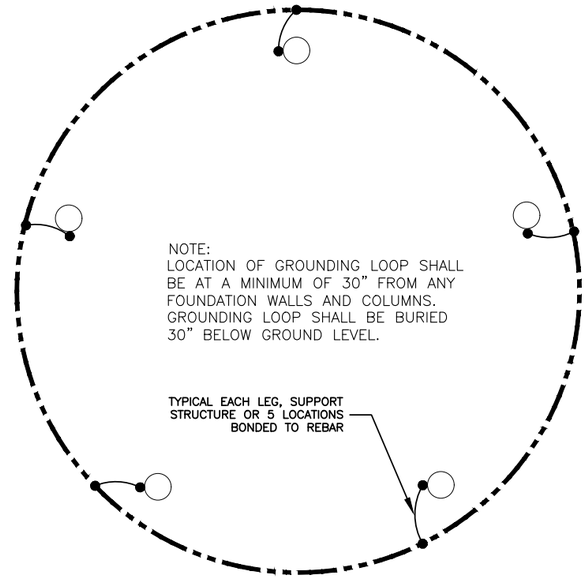
SEQ. 45 SHEET 49 E-10



ELECTRICAL TANK SECTION
NTS



ELECTRICAL TANK SECTION (ALTERNATE BID)
NTS



ELECTRICAL TANK GROUNDING PLAN
NTS

LEGEND

- GROUND WELL
- GROUND CONNECTION
- 4/0 MCM BARE COPPER GROUNDING CONDUCTOR
- 2/0 MCM BARE COPPER GROUNDING CONDUCTOR
- LIGHT SWITCH
- 120V DUPLEX RECEPTACLE RATED FOR 20 AMPS MOUNT AT 36" A.F.F.
- PANEL–X HOMERUN

1

EDWARD R. WELLS
66579
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
04/12/24

ISSUED FOR BID

JACOB MARTIN
TBPELS FIRM # 10194493
TBAE FIRM # BR 2261
TBPE FIRM # 2448

IDALOU, TEXAS
WATER TREATMENT IMPROVEMENTS

ELEVATED TANK ELECTRICAL SECTION AND DETAILS

NO.	REVISION	DATE
1	ADDENDUM 1	04/26/2024

BAR IS ONE INCH IN LENGTH ON ORIGINAL DRAWING. CHECK SCALE AND ADJUST ACCORDINGLY.

PROJECT # 21132 | SCALE NTS

SEQ. 46 | SHEET 49 | E-11

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Plotted by: cole carpenter
Save Time: 5/1/2024 4:57 PM
Saved By: ccarpenter
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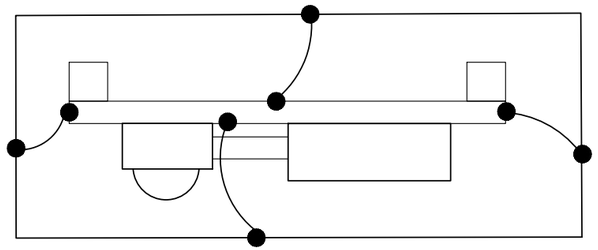
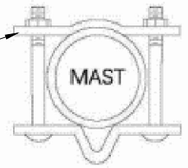


ELECTRICAL STAND GROUNDING PLAN
NTS

L E G E N D

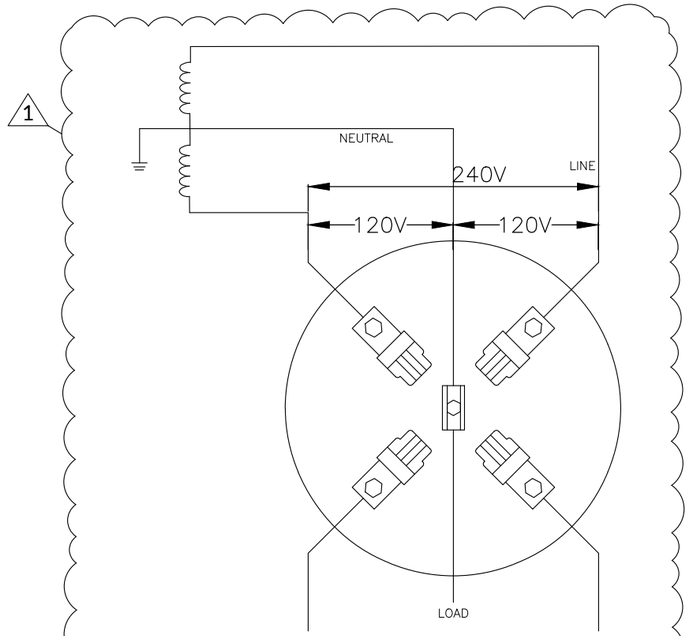
- GROUND WELL
- GROUND CONNECTION
- 4/0 MCM BARE COPPER GROUNDING CONDUCTOR
- 2/0 MCM BARE COPPER GROUNDING CONDUCTOR

MAST ATTACHMENT
NOTE 1



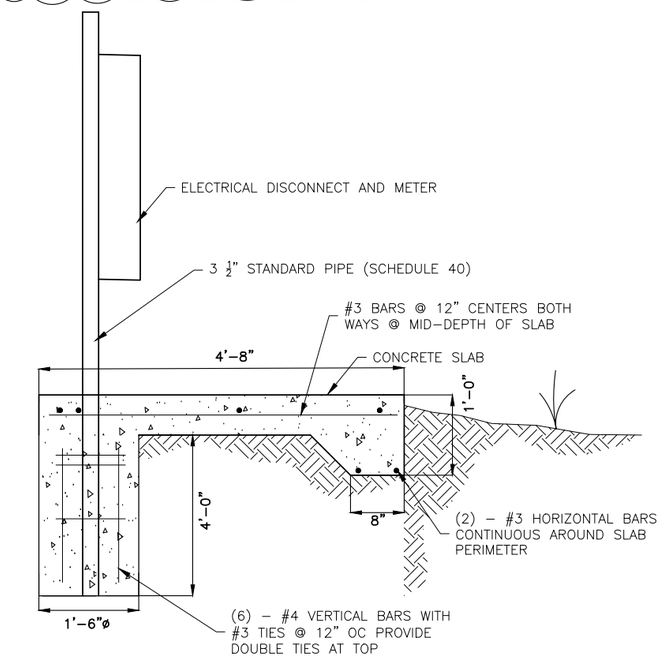
USE 316 SS BOLTS AND FITTINGS. CONTRACTOR TO ENSURE RISER POLE WILL STRUCTURALLY SUPPORT OVERHEAD CABLE.

ELECTRICAL STAND DETAIL
NTS



3 WIRE 120/240 VOLT SINGLE PHASE SELF CONTAINED

PROPOSED ONCOR ELECTRICAL SERVICE DETAIL
NTS



ELECTRICAL STAND DETAIL – SIDE VIEW
NTS

EDWARD R. WELLS
STATE OF TEXAS
66579
LICENSED PROFESSIONAL ENGINEER
04/12/24

ISSUED FOR BID

JACOB MARTIN
TBPELS FIRM # 10194493
TBAE FIRM # BR 2261
TBPE FIRM # 2448

IDALOU, TEXAS
WATER TREATMENT IMPROVEMENTS
ELECTRICAL STAND DETAILS

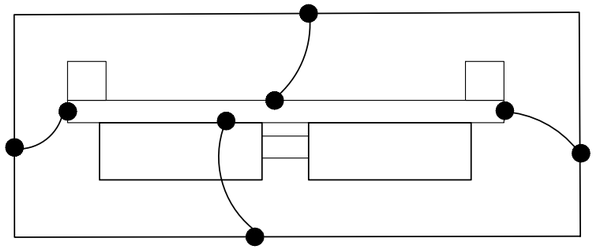
NO.	REVISION	DATE
1	ADDENDUM 1	04/26/2024

BAR IS ONE INCH IN LENGTH ON ORIGINAL DRAWING. CHECK SCALE AND ADJUST ACCORDINGLY.

PROJECT # 21132 | SCALE NTS

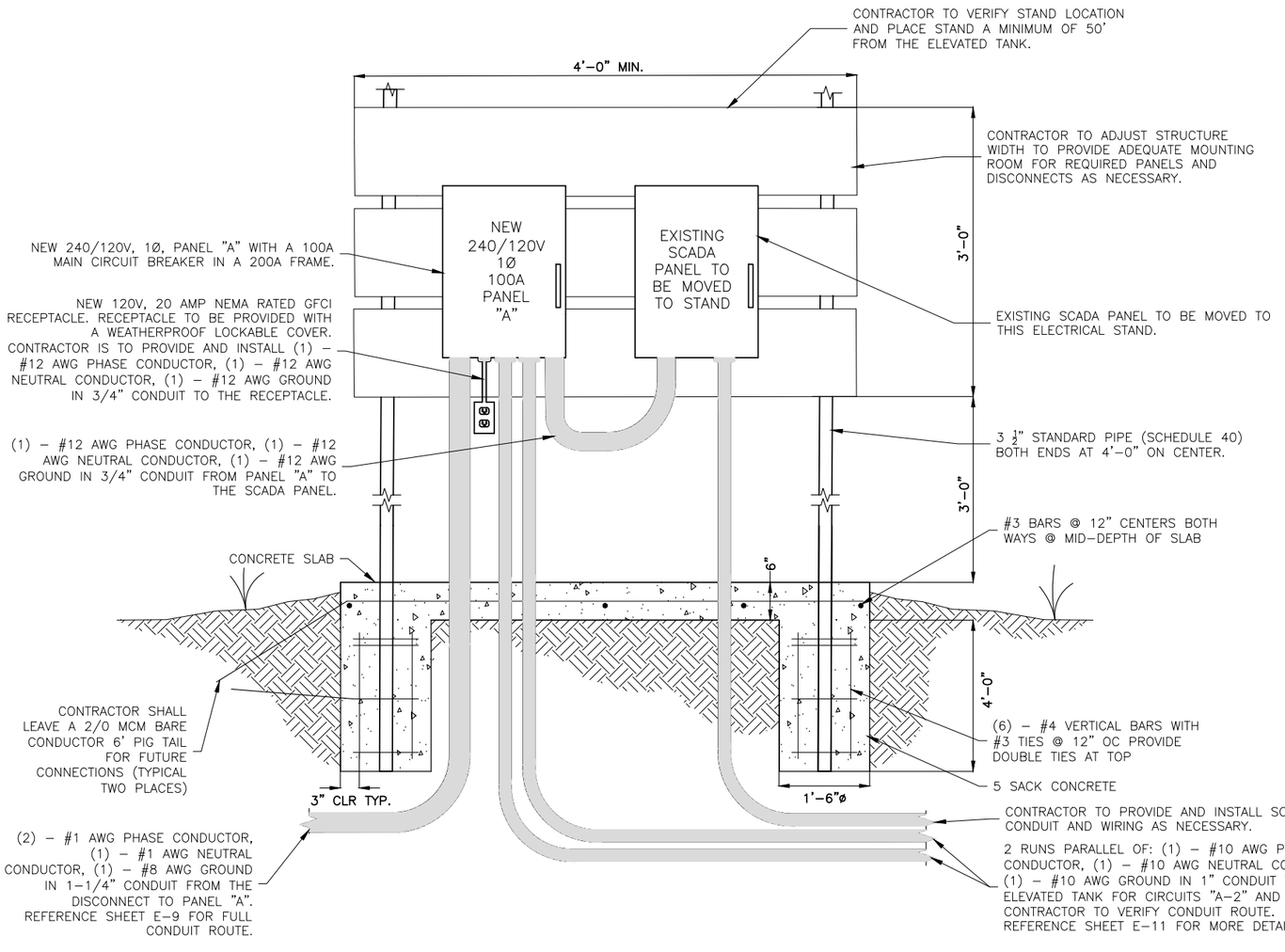
SEQ. 47 / 49 | SHEET E-12

1

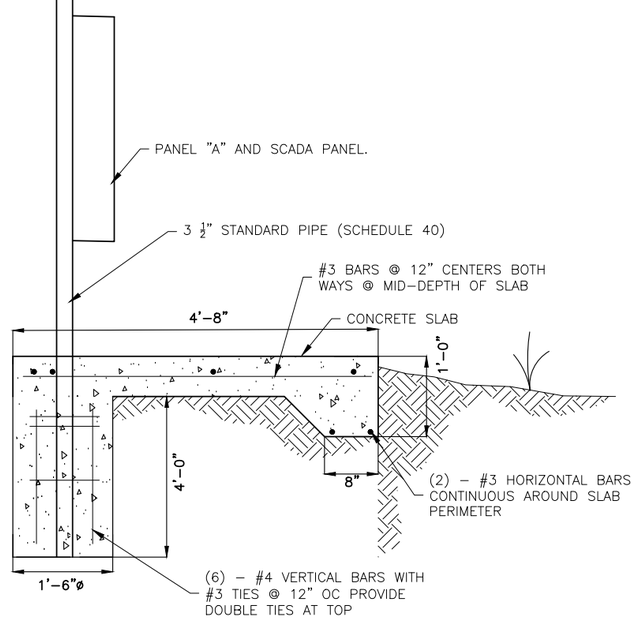


L E G E N D	
⊙	GROUND WELL
●	GROUND CONNECTION
----	4/0 MCM BARE COPPER GROUNDING CONDUCTOR
——	2/0 MCM BARE COPPER GROUNDING CONDUCTOR

ELEVATED TANK STAND GROUNDING PLAN (ALTERNATE BID)
NTS



ELEVATED TANK STAND DETAIL (ALTERNATE BID)
NTS



ELEVATED TANK STAND DETAIL (ALTERNATE BID) – SIDE VIEW
NTS

1

Edward R. Wells
STATE OF TEXAS
EDWARD R. WELLS
66579
LICENSED PROFESSIONAL ENGINEER
04/12/24

ISSUED FOR BID

JACOB MARTIN
TBPELS FIRM # 10194493
TBAE FIRM # BR 2261
TBPE FIRM # 2448

IDALOU, TEXAS
WATER TREATMENT IMPROVEMENTS
ELEVATED TANK STAND DETAILS (ALTERNATE BID)

NO.	REVISION	DATE
1	ADDENDUM 1	04/26/2024

PROJECT # 21132
SCALE NTS
BAR IS ONE INCH IN LENGTH ON ORIGINAL DRAWING. CHECK SCALE AND ADJUST ACCORDINGLY.

SEQ. 48 / 49
SHEET E-13

Plot Date: 5/1/2024 5:08 PM
Plotted by: cole carpenter
Save Time: 5/1/2024 4:52 PM
Saved By: ccarpenter
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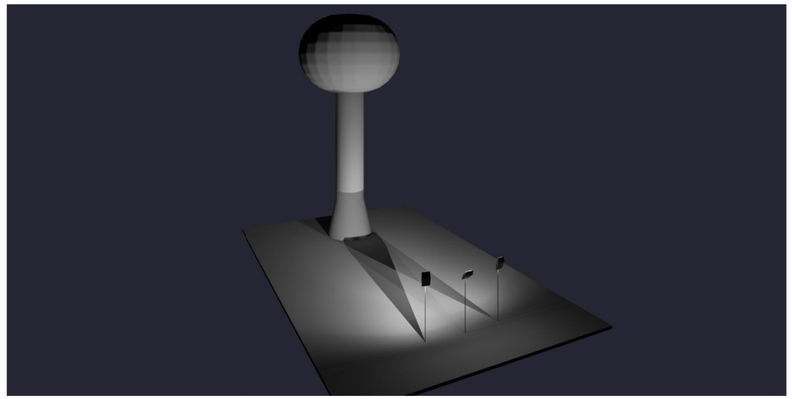
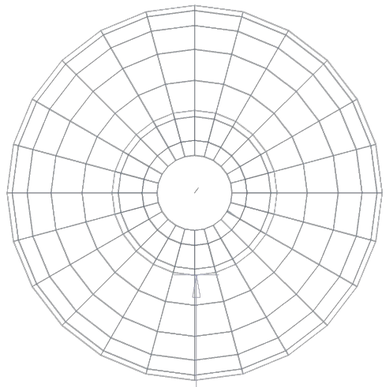
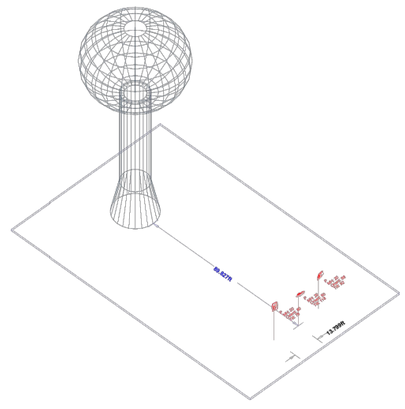


RENDERING

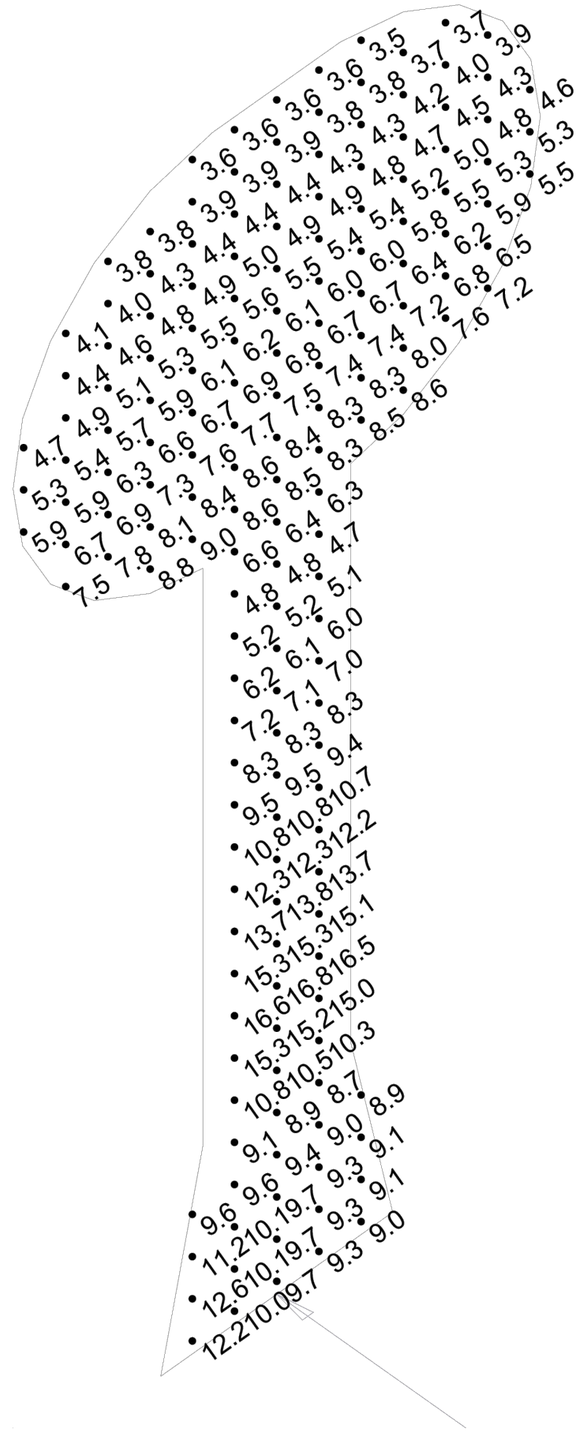


LIGHTING PLAN
NTS



ISOMETRIC VIEW
NTS

Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Cal Ht.
WATER TOWER_WATER TOWER	Illuminance	Fc	7.40	16.8	3.5	2.11	4.80	0 to 114.439



PHOTOMETRIC PLAN
SCALE: 1/4" = 1'-0"

1

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Plotted by: cole carpenter Plot Date: 5/1/2024 5:08 PM
Saved By: ccarpenter Save Time: 4/30/2024 11:34 AM

EDWARD R. WELLS
66579
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
04/12/24

ISSUED FOR BID

JACOB MARTIN
TBAE FIRM # BR 2261
TBPE FIRM # 2448
TBPELS FIRM # 10194493

IDALOU, TEXAS
WATER TREATMENT IMPROVEMENTS
ELEVATED TANK LIGHTING (ALTERNATE BID)

NO.	REVISION	DATE
1	ADDENDUM 1	04/26/2024
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PROJECT # 21132
SCALE NTS
BAR IS ONE INCH IN LENGTH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET ADJUST SCALE ACCORDINGLY.

SEQ. 49
SHEET 49
E-14