



SAN ANTONIO WATER SYSTEM
 I.H. 10 Ground Storage Tank
 Rehabilitation and Painting Project
 SAWS Job No. 13-0118
 Solicitation No. B-16-014-GC

ADDENDUM NO. 2

August 31, 2016

TO BIDDER OF RECORD:

The following changes, additions, and/or deletions are hereby made as part of the Contract Documents for the I.H. 10 Ground Storage Tank Rehabilitation and Painting Project, for the San Antonio Water System, San Antonio, Texas, dated August 2016, as fully and completely as if the same were set forth therein.

PART 1 – BIDDING AND CONTRACT DOCUMENTS

1. BID PROPOSAL

REPLACE the Bid Proposal in its entirety with the attached Bid Proposal.

PART 2 – TECHNICAL SPECIFICATIONS

1. SECTION 1025, MEASUREMENT AND PAYMENT:

REPLACE this specification in its entirety with the attached specification.

2. SECTION 01030, SPECIAL PROCEDURES:

REPLACE the table in paragraph 1.01.B with the following:

Description	Time
Tank and Pumps out of service	Tank and Pumps may only be out of service between November 1, 2016 and March 1, 2017.

3. SECTION 05701, STEEL WATER TANK REPAIR

a. ADD Paragraph 2.01.M. as follows:

“M. Ladder Safety Post

1. Complete system to provide a hand-hold enabling the user to enter or exit an opening in an upright position. Post shall be telescoping and permanently mounted to the top rungs of any fixed ladder.
2. Post shall be constructed of aluminum with a mill finish and mounted with 316 stainless steel hardware.
3. Post shall be mounted so it does not obstruct access to the fall prevention system, if provided on ladder.
4. Install safety post per the manufacturer’s written recommendations.
5. Approved Manufacturers:
Bilco Model LU-4”

b. ADD Paragraph 3.09.C.7 as follows:

“7. Provide “CAUTION – Safety Equipment Required when Climbing Ladder” or similar signage near ladders requiring cable safety climb systems. Self-adhesive vinyl with minimum dimensions 14”W x 10”H.”

4. SECTION 09805, COATINGS FOR WATER STORAGE TANKS:

a. MODIFY 1.01.B.3 as follows:

“3. Exterior electrical **as indicated in the plans and** as determined by the Engineer during construction.”

b. ADD the following to 1.04.D.:

“**6. Submit written inventory and documentation of locations of signs/nameplates/labels/pipe insulation, etc. by photograph.**”

c. ADD the following to 2.02.C.2.:

“e. Electrical Panels – ANSI 61 – Light Gray”

d. REPLACE 2.02.C.3.c. as follows:

“c. **Existing** pipe, pumps, valves, motors and electrical:

- 1) **Prior to surface preparation, Contractor must take an inventory and document the locations of signs/nameplates/labels/pipe insulation, etc. by photograph and replace items after coating operations are completed. Each photograph must be clearly labeled to define the location of each item. No surface preparation will be allowed prior to approval of inventory documentation.**
- 2) **SSPC SP1 “Solvent Cleaning” – Solvent Clean and High-Pressure Water Wash prior to abrasive blasting or coating removal. All oil, grease and other contaminants must be completely removed prior to existing coating removal. Protect electrical, vents, equipment, motors, etc. from water, solvent and spray. Damage to equipment will be the Contractor’s responsibility.**
- 3) **SSPC-SP3 “Power Tool Cleaning” & SSPC-SP6 “Commercial Blast Cleaning” – Contractor to remove existing coatings by a combination of the methods indicated with vacuum attachments. Care around glands, electrical equipment, fittings, and other critical or fragile areas that may be damaged by abrasives must be cleaned by Method SP3. Alternative surface preparation methods must be approved by the Engineer prior to use. Protect electrical, vents, equipment, motors, etc. from abrasives, debris, etc. Damage to equipment will be the Contractor’s responsibility.”**

e. ADD paragraph 2.02.E:

“**E. SS - 03 Fire Hydrant Coating System**

1. Maximum and minimum DFT shall be per the supplied Coating Manufacturer’s printed requirements and as required by this specification.

2. Surface Preparation:

- a. **SSPC SP1 “Solvent Cleaning” – Solvent Clean and High-Pressure Water Wash prior to abrasive blasting or coating removal. All oil, grease and other contaminants must be completely removed prior to existing coating removal. Protect glands from water, solvent and spray. Damage to equipment will be the Contractor’s responsibility.**
- b. **SSPC-SP3 “Power Tool Cleaning” & SSPC-SP6 “Commercial Blast Cleaning” – Contractor to remove existing coatings by a combination of the methods indicated with vacuum attachments. Care around glands, fittings, and other critical or fragile areas that may be damaged by abrasives must be cleaned by Method SP3. Alternative surface preparation methods must be approved by the Engineer prior to use. Damage to equipment will be the Contractor’s responsibility.**
- c. **Surface profile shall be in accordance with coating manufacturer’s printed requirements.**
- 1. **Application Method(s): Spray or brush. Brush must be used for touch up and stripe coating.**
- 2. **Three-coat system to be one of the following and of the same Manufacturer of all other coating products used on this project:**

- a. **Carboline**

Coat	Product	DFT (mils)	Color
Prime Coat:	Carbocoat 150UP	2 – 3 mils	Red
Intermediate Coat:	Carbothane 134HG-Aluminum	2 – 3 mils	Aluminum/Silver
Finish Coat:	Carbothane 134HG-Aluminum	2 – 3 mils	Aluminum/Silver
Minimum and Maximum DFT for System		6 – 9 mils	

- b. **Sherwin-Williams – Or Equal Coating System Specified for Carboline Products**
- c. **PPG – Or Equal Coating System Specified for Carboline Products**
- d. **Tnemec – Or Equal Coating System Specified for Carboline Products”**

f. **MODIFY 2.07.C.1. as follows:**

“1. SAWS Job No. 13-0118.”

5. **SECTION 16640, CATHODIC PROTECTION:**

REPLACE Paragraph 1.05.B with the following:

“B. **Approved Subcontractor(s)**

- 1. **Corrpro Companies, Inc.**
- 2. **Or approved equal.”**

PART 3 – DRAWINGS

1. SHEET C-2:

ADD Note 27. to the Tank Rehabilitation Notes:

“27. EXTERIOR TANK LADDERS MUST BE PROTECTED BY LADDER GATES AT ALL TIMES THROUGHOUT CONSTRUCTION.”

2. SHEET C-3:

REMOVE and REPLACE sheet C-3 with the attached sheet.

3. SHEET C-5:

REMOVE and REPLACE sheet C-5 with the attached sheet.

4. SHEET C-8

a. ADD the following callout to the detail shown in Detail 1/C-8:

“CONTRACTOR TO PROTECT EXISTING TANK AND EQUIPMENT NAME PLATES.”

b. ADD the following callout at the meter box shown in Detail 2/C-8:

“CONTRACTOR TO BACKFILL, COMPACT AND SEED AFTER VALVE REMOVAL.”

c. ADD the following callout to the fire hydrant shown in Detail 5/C-8:

“PREPARE AND RECOAT FIRE HYDRANT PER SPECIFICATION 09805, “COATINGS FOR WATER STORAGE TANKS”, SCHEDULE SS-03.”

d. ADD the following callout to the air release valve shown in Detail 5/C-8:

“CONTRACTOR TO BACKFILL, COMPACT AND SEED AFTER VALVE REMOVAL.”

5. SHEET C-10:

a. REMOVE the callout “HANDTOOL CLEAN ALL VAULT PIPING...” on Detail 2/C-10 AND REPLACE with the following:

“PREPARE AND RECOAT ALL VAULT PIPING AND ELECTRICAL PANELS PER SPECIFICATION 09805, “COATINGS FOR WATER STORAGE TANKS”, SCHEDULE SS-01.”

b. ADD the following callout to Detail 4/C-10:

“PREPARE AND RECOAT ALL VAULT PIPING AND ELECTRICAL PANELS PER SPECIFICATION 09805, “COATINGS FOR WATER STORAGE TANKS”, SCHEDULE SS-01.”

6. SHEET C-17.1:

ADD the attached sheet.

7. SHEET C-18:

MODIFY the Ladder-Up Safety Post System callout on Detail 2/C-18 as follows:

“PROVIDE ~~STAINLESS STEEL BILCO LADDER UP~~ LADDER SAFETY POST SYSTEM”

8. SHEET C-22:

ADD the following general note:

“THE FENCE’S THREE STRANDS OF BARBED WIRE MUST EXTEND OUTWARD FROM THE TOP OF THE FENCE AT A 45-DEGREE ANGLE. THE SMOOTH SIDE OF THE FENCE MUST FACE AWAY FROM THE PROPERTY.”

9. SHEET S-1:

MODIFY Foundation Note 1.C. as follows:

“SCARIFY THE EXPOSED SUBGRADE TO A DEPTH OF 6 INCHES, ADJUST THE MOISTURE CONTENT AS NECESSARY AND MAINTAIN IT TO WITHIN 2 PERCENT OF OPTIMUM AND RECOMPACT THE SOIL TO A MINIMUM OF **98** PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D698 (STANDARD PROCTOR).”

10. SHEET S-5:

MODIFY the Ladder-Up Safety Post callout on Detail 3/S-5 as follows:

“LADDER-UP SAFETY POST BY ~~BILCO, MODEL NO. 1 (OR EQUAL)~~”

11. SHEET E-6:

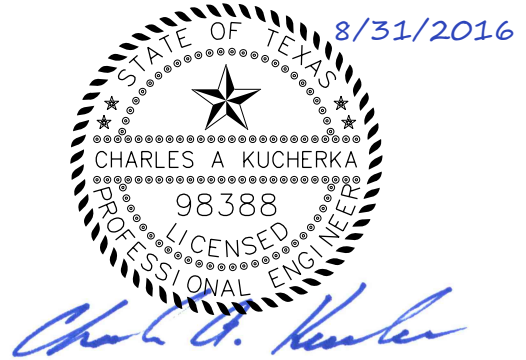
- a. REMOVE both Antenna Mast with Grounding Lug callouts on Detail C/E-6.
- b. MOVE photo callout to point to I/O card to the left of the existing callout on Detail A/E-6.

ALL BIDDERS SHALL ACKNOWLEDGE RECEIPT OF ADDENDUM NO. 2 IN THE BID FORM AND BY HIS/HER SIGNATURE AFFIXED HERETO AND TO FILE SAME AS AN ATTCHMENT TO HIS/HER BID. BID FORMS SUBMITTED WITHOUT THIS ACKNOWLEDGEMENT WILL BE CONSIDERED INFORMAL.



Charles A. Kucherka, P.E.

Freese and Nichols, Inc.



FREESE AND NICHOLS, INC.
TEXAS REGISTERED
ENGINEERING FIRM
F-2144

ACKNOWLEDGEMENT BY BIDDER

THE UNDERSIGNED ACKNOWLEDGES RECEIPT OF THIS ADDENDUM NO. 2 AND THE BID SUBMITTED HERewith IS IN ACCORDANCE WITH THE INFORMATION AND STIPULATION SET FORTH.

Date _____ Signature of bidder _____

Appended hereto and part of Addendum No. 2 is:

1. BID PROPOSAL
2. SECTION 01025, MEASUREMENT AND PAYMENT
3. SHEET C-3
4. SHEET C-5
5. SHEET C-17.1
6. CONTRACTOR QUESTIONS AND ANSWERS DOCUMENT

I.H. 10 Ground Storage Tank Rehabilitation and Painting Project
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BID PROPOSAL

PROPOSAL OF _____, a corporation

a partnership consisting of _____

an individual doing business as _____

THE SAN ANTONIO WATER SYSTEM:

Pursuant to Instructions and Invitations to Bidders, the undersigned proposes to furnish all labor and materials as specified and perform the work required for the rehabilitation of the **I.H. 10 Ground Storage Tank Rehabilitation and Painting Project, San Antonio Water System Job Number 13-0118** in accordance with the Plans and Specifications for the following prices to wit:

BASE UNIT PRICES FOR:

Item No.	Description (Price to be written in words)	Unit	Estimated Quantity	Unit Price	Extended Amount
1	<p>I.H. 10 Ground Storage Tank Rehabilitation – Furnish all materials, labor, equipment and superintendence for the rehabilitation of a 3.0 million-gallon ground storage tank, electrical upgrades, hydropneumatic tank rehabilitation, pump station and yard piping upgrades and painting, insulation, trench safety, site improvements, hazardous material disposal and spoil removal, brush clearing, erosion control measures, SWPPP, mobilization and demobilization, site restoration, and all appurtenant work not specifically identified by other bid items, in accordance with the contract plans and specifications complete in place.</p> <p>_____ Dollars and _____ Cents</p>	LS	1	\$ _____	\$ _____

BASE UNIT PRICES FOR:

Item No.	Description (Price to be written in words)	Unit	Estimated Quantity	Unit Price	Extended Amount
2	Street Excavation – Furnish all materials, labor, equipment, and superintendence for excavation and removal of 14.5” of existing site access drive, in accordance with the contract plans and specifications complete in place. _____ Dollars and _____ Cents	CY	645	\$ _____	\$ _____
3	One-Course Surface Treatment – Furnish all materials, labor, equipment, and superintendence for application of one-course surface treatment on existing site pavement, in accordance with the contract plans and specifications complete in place. _____ Dollars and _____ Cents	LS	1	\$ _____	\$ _____
4	Hot Mix Asphaltic Concrete Pavement, Type “D” – Furnish all materials, labor, equipment, and superintendence for application of hot mix asphaltic concrete pavement on site access drive, including prime coat and tack coat, in accordance with the contract plans and specifications complete in place. _____ Dollars and _____ Cents	SY	1,600	\$ _____	\$ _____
SUB-TOTAL BASE ITEMS					\$ _____

SUPPLEMENTARY UNIT PRICES FOR:

Item No.	Description (Price to be written in words)	Unit	Estimated Quantity	Unit Price	Extended Amount
S-1	Furnish all materials, labor, equipment and appurtenances for "interior grinding", complete in place. _____ Dollars and _____ Cents	MH	100	\$ _____	\$ _____
S-2	Furnish all material, labor, equipment and appurtenances for "seam welding", complete in place. _____ Dollars and _____ Cents	LF	100	\$ _____	\$ _____
S-3	Furnish all material labor, equipment and appurtenances for "pit welding", complete in place. _____ Dollars and _____ Cents	IN ²	100	\$ _____	\$ _____
S-4	Furnish all material, labor, equipment and appurtenances for "pit filling", complete in space. _____ Dollars and _____ Cents	GAL	20	\$ _____	\$ _____
S-5	Furnish all material, labor, equipment and appurtenances for "additional work". _____ Dollars and _____ Cents	MH.	100	\$ _____	\$ _____
S-6	Furnish all material, labor, equipment and appurtenances for supplemental "tank ventilation/dehumidification", complete in place. _____ Dollars and _____ Cents	Week	2	\$ _____	\$ _____

SUPPLEMENTARY UNIT PRICES FOR:

Item No.	Description (Price to be written in words)	Unit	Estimated Quantity	Unit Price	Extended Amount
S-7	Furnish all material, labor, equipment and appurtenances for supplemental "tank floor plate replacement", complete as specified and shown on the drawings. _____ Dollars and _____ Cents	SF	200	\$ _____	\$ _____
S-8	Furnish all material, labor, equipment and appurtenances for supplemental "interior caulking and sealing", complete as specified and shown on the drawings. _____ Dollars and _____ Cents	LF	500	\$ _____	\$ _____
S-9	Flexible Base – Furnish all materials, labor, equipment, and superintendence for installation of compacted flexible base for site access drive, in accordance with the contract plans and specifications complete in place. _____ Dollars and _____ Cents	CY	360	\$ _____	\$ _____

SUPPLEMENTARY UNIT PRICES FOR:

Item No.	Description (Price to be written in words)	Unit	Estimated Quantity	Unit Price	Extended Amount
S-10	Vault Piping – Furnish all materials, labor, equipment, and superintendence for removal and replacement of 20” ball valve, restrained flange coupling adapter, and steel piping in valve vault as indicated in the plans. Ball valve replacement includes replacement of concrete valve support, electric actuator and installation of NEMA 4X 316 S.S. control panel for valve and all appurtenant work, all in accordance with the contract plans and specifications, complete in place. _____ Dollars and _____ Cents	LS	1	\$ _____	\$ _____
S-11	Remove and replace interior tank 14” x 5” x 3/8” H-Beam rafters including all appurtenant work, in accordance with the contract plans and specifications, complete in place. _____ Dollars and _____ Cents	EA	3	\$ _____	\$ _____
S-12	Remove and replace interior tank 8” x 4” x 1/4” H-Beam rafters including all appurtenant work, in accordance with the contract plans and specifications, complete in place. _____ Dollars and _____ Cents	EA	3	\$ _____	\$ _____

SUB-TOTAL SUPPLEMENTARY ITEMS S-1 THROUGH S-12	\$ _____
TOTAL PRICE (SUB-TOTAL BASE ITEMS + SUB-TOTAL SUPPLEMENTARY ITEMS)	\$ _____

 BIDDER'S SIGNATURE & TITLE

 FIRM'S NAME (TYPE OR PRINT)

 FIRM'S ADDRESS

 FIRM'S PHONE NO./FAX NO.

The Contractor herein acknowledges receipt of the following:

Addendum Nos. _____

OWNER RESERVES THE RIGHT TO ACCEPT THE OVERALL MOST RESPONSIBLE BID.

The Bidder offers to construct the Project in accordance with the Contract Documents for the contract price, substantially complete the work in **110** calendar days, and complete all work for the Project within **170** calendar days after the start date, as set forth in the Authorization to Proceed. The Bidder understands and accepts the provisions of the Contract Documents relating to liquidated damages of the project if not completed on time.

1. Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Proposals. Final payment for all Unit Price Bid items will be based on actual quantities provided, determined as provided in the contract documents.
2. Bidder must return pages BP-1 through BP-6 in the "Bid Proposal" section as well as page PC-1. Any and all Addenda which are issued by the San Antonio Water System with appropriate signatures which acknowledge receipt shall be attached to and made part of this Bid Proposal.

01025 MEASUREMENT AND PAYMENT

1.00 GENERAL

1.01 WORK INCLUDED

- A. Payments for Work shall conform to the provisions of the General Conditions, the Supplementary Conditions, the Agreement, and this Section. Apply provisions for payments in the Section to all Subcontractors and Suppliers.
- B. Submit Applications for Payment at the amounts indicated in the Agreement:
 - 1. Amounts for each item in the Agreement shall include but not be limited to cost for:
 - a. Mobilization, demobilization, cleanup, bonds, and insurance.
 - b. Professional services including but not limited to engineering and legal fees.
 - c. The products to be permanently incorporated into the Project.
 - d. The products consumed during the construction of the Project.
 - e. The labor and supervision to complete the Project.
 - f. The equipment, including tools, machinery, and appliances required to complete the Project.
 - g. The field and home office administration and overhead costs related directly or indirectly to the Project.
 - h. Any and all kinds, amount or class of excavation, backfilling, pumping or drainage, sheeting, shoring and bracing, disposal of any and all surplus materials, permanent protection of all overhead, surface or underground structures; removal and replacement of any poles, conduits, pipelines, fences, appurtenances and connections, cleaning up, overhead expense, bond, public liability and compensation and property damage insurance, patent fees, and royalties, risk due to the elements, and profits, unless otherwise specified.
 - 2. Provide Work not specifically set forth as an individual payment item but required to provide a complete and functional system. These items are a subsidiary obligation of the Contractor and are to be included in the Cost of Work.
 - 3. Payment will be made for materials on hand.
 - a. Store materials properly on-site per Section 01041 "Project Management and Coordination."
 - 1). Payment will be made for the invoice amount less the specified retainage.
 - 2). Provide invoices at the time materials are included on the materials-on-hand tabulation.
 - b. Provide documentation of payment for materials-on-hand with the next payment request. Adjust payment to the amount actually paid if this differs from the invoice amount. Remove items from the materials on hand tabulation if this documentation is not provided so payment will not be made.
 - c. Payment for materials-on-hand is provided for the convenience of the Contractor and does not constitute acceptance of the product.

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4. The Work covered by progress payments becomes the property of the Owner at the time of payment.

1.02 SCHEDULE OF VALUES AND PAYMENTS

- A. Submit a detailed Schedule of Values for the Work to be performed on the Project.
 1. Submit schedule at the Pre-Construction Conference for the OWNER's review and comment.
 2. An unbalanced or front-end loaded schedule will not be acceptable. Summation of the complete schedule of values representing all Work shall equal the Contract Price.
 3. Line items in the Agreement are to be used as line items in the schedule.
 4. Payment will be made on the quantity of Work completed per Contract Documents during the payment period and as measured per this Section.
 - a. Payment amount is the Work quantity measured multiplied by the unit prices for that line item in the Agreement.
 - b. Payment on a unit price basis will not be made for Work outside finished dimensions shown in the Contract Documents.
 - c. Partial payments will be made for lump sum line items in the Agreement.
 - 1). Lump sum line items in the Agreement are to be divided into smaller unit prices to allow more accurate determination of the percentage of the item that has been completed.
 - a). Provide adequate detail to allow more accurate determination of the percentage of Work completed for each item.
 - b). Provide amounts for items that do not exceed \$20,000.00. An exception may be made for equipment packages that cannot be subdivided into units or subassemblies.
 - c). Separate product costs and installation costs.
 - (1). Product costs include cost for product, delivery and unloading costs, royalties and patent fees, taxes, and other cost paid directly to the Subcontractor or Supplier.
 - (2). Installation costs include cost for the supervision, labor and equipment for field fabrication, erection, installation, start up, initial operation and overhead and profit.
 - d). Lump sum items may be divided into an estimated number of units.
 - (1). The estimated number of units times the cost per unit must equal the lump sum amount for that line item.
 - (2). Payment will be made for all of the lump sum line item amount.
 - e). Include a directly proportional amount of overhead and profit for each line item.
 - f). Divide principal subcontract amounts into an adequate number of line items to allow determination of the percentage of Work completed for each item.

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- 2). These line items may be used to establish the value of Work to be added or deleted from the Project.
- 3). Correlate line items with other administrative schedules and forms:
 - a). Progress schedule.
 - b). List of Subcontractors.
 - c). Schedule of allowances.
 - d). Schedule of alternatives.
 - e). List of products and principal Suppliers.
 - f). Schedule of Submittals.
- 4). Costs for mobilization shall be listed as a separate line item and shall be actual cost for:
 - a). Bonds and insurance.
 - b). Transportation and setup for equipment.
 - c). Transportation and/or erection of all field offices, sheds and storage facilities.
 - d). Salaries for preparation of submittals required before the first Application for Payment.
 - e). Salaries for field personnel assigned to the Project related to the mobilization of the Project.
 - (1). Measurement of mobilization will be by the lump sum as the work progresses. Mobilization lump sum bid shall be limited to a maximum 10% of the total contract amount bid.
 - (2). Partial payments of the lump sum bid for mobilization will be as follows:
 - (a). When 1% of the adjusted contract amount for construction items (which is defined as the total contract amount less the lump sum bid for mobilization) is earned, 50% of the mobilization lump sum bid will be paid. Insurance and bonds will be paid on the initial request for payment under a sub-heading to mobilization entitled "Insurance and Bonds". The amount paid for insurance and bonds will not exceed 3% of the total contract amount for construction items.
 - (b). When 25% of the adjusted contract amount for construction items is earned, 75% of the mobilization lump sum bid will be paid.
 - (c). When 50% of the adjusted contact amount for construction items is earned, 90% of the mobilization lump sum bid will be paid.
 - (d). Upon completion of all work under this contract, payment for the remainder of the lump sum bid for mobilization will be made.
 - (e). Payment for this line item will be reduced by half of the earned amount, until the following documents are submitted and approved by the Owner:
 - i. All material submittals for work being billed

- ii. SAWS Standard Specification, Item No. 902 “Construction Safety and Health Plan”
- iii. Specification 01310 “Construction Progress Schedules”
- iv. Specification 01381 “Video and Photographic Documentation”
- v. Specification 01400 “Quality Requirements”
- vi. SAWS Standard Specification, Item No. 903 “Construction QC/QA Plan”

5). The sum of all values listed in the schedule must equal the total Contract Price.

- 5. Submit a schedule indicating the anticipated schedule of payments to be made by the Owner. Schedule shall indicate:
 - a. The Application for Payment number.
 - b. Date the request is to be submitted.
 - c. Anticipated amount of payment to be requested.
- 6. Update the Schedule of Values quarterly or more often if necessary to provide a reasonably accurate indication of the funds that the Owner will need to have available to make payment to the Contractor for the Work performed.
- B. Provide written approval of the Schedule of Values, Application for Payment form, and method of payment by the Surety Company providing performance, and bonds prior to submitting the first Application for Payment. Payment will not be made without this approval.

1.03 PAYMENT PROCEDURES

- A. Submit Applications for Payment per the procedures indicated in Section 01300 “Submittal Procedures.” Submit a Schedule of Values in the Application for Payment format to be used.
- B. Attach one Summary Form with each detailed Application for Payment for each schedule and include Request for Payment of Materials and Equipment on Hand as applicable. Execute certification by authorized officer of CONTRACTOR. Provide separate form for each schedule as applicable.
 - 1. Do not alter the Schedule of Values and the form for the submission of requests without the written approval of the Engineer once these have been approved by the Engineer.
 - 2. Final payment requires additional procedures and documentation per Section 01700 “Execution and Closeout Requirements.” Final payment will be made only for products incorporated in the Work. Remaining products, for which partial payments have been made, shall revert to Contractor unless otherwise agreed, and partial payments made for those items will be deducted from the final payment.
 - 3. Preparation:
 - a. Round values to the nearest dollar.
 - b. List each Change Order executed prior to date of submission as separate line item. Totals shall equal those shown on the Transmittal Summary Form for each schedule as applicable.
 - c. Submit Application for Payment, including a Transmittal Summary Form and detailed Application for Payment Form(s) for each schedule as applicable, a listing of

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materials on hand for each schedule as applicable and such supporting data as may be requested by OWNER.

- C. Progress payments shall be made as the Work progresses on a monthly basis.
 - 1. End the payment period on the day indicated in the Agreement and submit an Application for Payment for Work completed and materials received since the end of the last payment period.
 - 2. At the end of the payment period, submit a draft copy of the Application for Payment for that month to the Engineer. Agreement is to be reached on:
 - a. The percentage of Work completed for each lump sum item.
 - b. The quantity of Work completed for each unit price item.
 - c. The percentage of Work completed for each approved Change Order item.
 - d. The amount of materials-on-hand.
 - 3. On the basis of these agreements the Contractor is to prepare a final copy of the Application for Payment and submit it to the Engineer for approval.
 - 4. The Engineer will review the Application for Payment and if appropriate will recommend payment of the application to the Owner.
- D. Provide a revised and up-to-date Progress Schedule per Section 01310 "Construction Progress Schedules" with each Application for Payment.
- E. Provide project photographs and video per Section 01381 "Video and Photographic Documentation" with each Application for Payment.
- F. Provide project photographs and video per Section 01381 "Video and Photographic Documentation" with final Application for Payment.

1.04 NON-PAYMENT FOR REJECTED OR UNUSED PRODUCTS

Payment will not be made for rejected or unused products including, but not limited to, the following:

- A. Loading, hauling, and disposing of rejected material.
- B. Quantities of material wasted or disposed of in a manner not called under Contract Documents.
- C. Rejected loads of material, including material rejected after it has been placed by reason of failure of CONTRACTOR to conform to provision of Contract Documents.
- D. Material not unloaded for from transporting vehicle.
- E. Defective Work not accepted by OWNER.
- F. Materials remaining on hand after completion of Work.

1.05 ALTERNATES AND ALLOWANCES (NOT USED)

1.06 MEASUREMENT PROCEDURES

- A. Measure the Work described in the Agreement for payment. Payment will be made only for the actual measured and/or computed length, area, solid contents, number and weight, unless

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otherwise specifically provided. No extra or customary measurements of any kind will be allowed.

- B. Weighing, measuring, and metering devices used to measure quantity of materials for Work shall be suitable for purpose intended and conform to tolerances and specifications as specified in National Institute of Standards and Technology, Handbook 44.
- C. Measure the methods used in trench excavation safety protection by the linear foot of trench deeper than five (5) feet and pay at the unit price in the Proposal, which is the total compensation for furnishing design, materials, tools, labor, equipment, and incidentals necessary, including removal of the system.
- D. Measure the work described in the Proposal for payment.

1. Base Unit Items

- a. Item No. 1: "I.H. 10 Ground Storage Tank Rehabilitation"

Complete coating and rehabilitation of the existing tank, including removing and replacing tank appurtenances and all other appurtenant work. All work indicated, but not specifically identified within other bid items shall be included within this bid item. All of this Work shall be included in the lump sum price and shall be in accordance with the Technical Specifications and Drawings.

- b. Item No. 2: "Street Excavation"

All accepted street excavation will be measured in its original position and the volume computed in cubic yards by the method of average end areas. Cross-sectional areas shall be computed to the established line of the subgrade, to a vertical line behind the curb, as indicated on the plans from the subgrade to the top of the proposed curb and then to the lines for parkway slopes as shown on the cross-sections of the plans.

Excavation and replacement of unsuitable materials below finish subgrade elevations will be measured by the cubic yard with the amount agreed upon by the Contractor and SAWS Inspector prior to acceptance.

This item will be paid for at the contract unit price bid for "Street Excavation," which shall be full compensation for all work herein specified, including the furnishing of all materials, equipment, tools, labor, and incidentals necessary to complete the work. Authorized removal and replacement of unsuitable material in excess of the bid quantity shall be paid for at the unit bid item price for street excavation.

- c. Item No. 3: "One-Course Surface Treatment"

This item will be paid for by the lump sum bid price for "One-Course Surface Treatment", which shall be full compensation for furnishing materials, equipment, labor, tools, and incidentals necessary to complete the single application of asphalt material, covered with aggregate, constructed on the existing site pavement.

- d. Item No. 4: "Hot Mix Asphaltic Concrete Pavement, Type 'D'"

Hot Mix Asphaltic Concrete Pavement shall be measured by square yard, complete in place, for the thickness specified on the plans. Limits of payment will be from face of curb to face of curb. Pavement area shall not exceed the limits shown on the plans without written authorization.

ADDENDUM NO. 2

Measurement and Payment

I.H. 10 Ground Storage Tank Rehabilitation and Painting Project

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The work performed and materials furnished, as described by this item and measured as provided herein, shall be paid for at the contract unit bid price per square yard specified on the plans of "Hot Mix Asphaltic Concrete Pavement," which shall be full compensation for furnishing and placing all materials, and for all labor, tools, equipment, and incidentals necessary to complete the work. The prime coat and tack coat, when required, are included and shall be paid for under this item.

Trial batches will not be paid for unless they are incorporated into pavement work approved by the Engineer.

2. Supplemental Items

Work approved using supplemental items is inclusive to the project schedule and agreement. No additional time will be allowed to complete work approved using supplemental items.

a. Item S-1:

Interior Grinding: Any irregular surfaces identified by the Contractor and authorized by the Field Inspector and Project Representative shall be removed from all interior surfaces of the tank by grinding these irregular surfaces in accordance with the Detailed Technical Specifications. Exterior grinding shall be paid for and included in Base Unit Items No. 1 and 2, as applicable. The number of grinding man-hours on the tank interior shall be paid for by the unit price per man-hour listed on the BID PROPOSAL.

b. Item S-2:

Seam Welding: All areas of apparent seam deterioration shall be initially abrasive blast cleaned, and any seam corrosion or undercut identified by the Contractor and authorized by the Field Inspector and Project Representative shall be repaired by arc-gouging and welding. The number of linear feet of seam welding shall be paid for by the unit price per linear foot listed in the BID PROPOSAL.

c. Item S-3:

Pit Welding: All areas of apparent pitting shall be initially abrasive blast cleaned, and any pits identified for pit welding by the Contractor and authorized by the Field Inspector and Project Representative shall be repaired by welding. Any pit less than 1 square inch in area shall be counted as 1 square inch. The number of square inches of pit area filled by the welding shall be paid for by the unit price per square inch listed on the BID PROPOSAL.

d. Item S-4:

Pit Filling: All areas of apparent pitting shall be initially abrasive blast cleaned, and any pits, rough areas, or seams identified for pit filling by the Contractor and authorized by the Field Inspector and Project Representative shall be filled with solvent less polyamide epoxy seam sealer of the type of recommended by the manufacturer of the interior paint system. The number of gallons of pit filling shall be paid for by the unit price per gallon listed in the BID PROPOSAL.

e. Item S-5:

Additional Work: The Detailed Technical Specifications adequately describe the work to be performed; however, in the event that during the course of the work it is found that additional work is required and is authorized in writing by the Owner and the Engineer, this work shall be paid for at the following price single man-hour,

ADDENDUM NO. 2

Measurement and Payment

I.H. 10 Ground Storage Tank Rehabilitation and Painting Project

01025-7

including all welding, equipment, normal rigging, labor, supplies, overhead, insurance, and profit. The number of unanticipated additional man-hours shall be paid for by the unit price per man-hour listed on the BID PROPOSAL.

f. Item S-6:

Additional Tank Ventilation/Dehumidification: Provide additional tank ventilation in conformance with 09805 "Coating Water Storage Tanks"-1.07-"Environmental Controls" beyond the 48 hours called for in the final coat. This may be called for by the Owner to help meet VOC testing requirements for the water. The number of weeks of additional tank ventilation is based on a seven (7) day week and shall be paid for by the unit price per week listed on the BID PROPOSAL.

g. Item S-7:

Tank Floor Plate Replacement: Tank floor plates shall be initially abrasive blast cleaned, and any areas identified by the Contractor and authorized by the Field Inspector and Project Representative shall be removed and replaced. Any replacement less than 1 square foot in area shall be counted as 1 square foot. The number of square feet of replacement shall be paid for by the unit price per square foot listed on the BID PROPOSAL.

h. Item S-8:

Interior Caulking and Sealing: Following the application of the final interior coating, Owner may desire to have caulking applied to seal all unwelded portions of the interior roof plates and other unwelded seams at the roof truss beams at the roof plate. This bid item shall be paid for by the unit price per linear foot listed in the BID PROPOSAL.

i. Item S-9:

Flexible Base: If the Contractor verifies that existing access drive base is less than 12", the existing base shall be supplemented with Type 'A' Flexible Base and compact as specified. This bid item shall be paid for by the unit price per cubic yard listed in the BID PROPOSAL.

j. Item S-10:

Vault Piping: If the tank's 20" isolation ball valve is found to be faulty, the Contractor shall remove and replace the valve, restrained flange coupling adapter, and steel piping in the valve vault, as indicated in the plans. The ball valve replacement includes the replacement of the concrete valve support, electric motor and actuator, and installation of NEMA 4X 316 S.S. control panel for valve and all appurtenant work. This bid item shall be paid for by the unit price per each listed in the BID PROPOSAL.

k. Item S-11:

Remove and Replace 14" x 5" x 3/8" H-Beam Interior Tank Rafters: Rafters shall be initially abrasive blast cleaned, and any beams identified by the Contractor as damaged beyond repair and authorized by the Field Inspector and Project Representative shall be removed and replaced. Replacement shall be paid for by the unit price per each listed on the BID PROPOSAL.

1. Item S-12:

Remove and Replace 8" x 4" x 1/4" H-Beam Interior Tank Rafters: Rafters shall be initially abrasive blast cleaned, and any beams identified by the Contractor as damaged beyond repair and authorized by the Field Inspector and Project Representative shall be removed and replaced. Replacement shall be paid for by the unit price per each listed on the BID PROPOSAL.

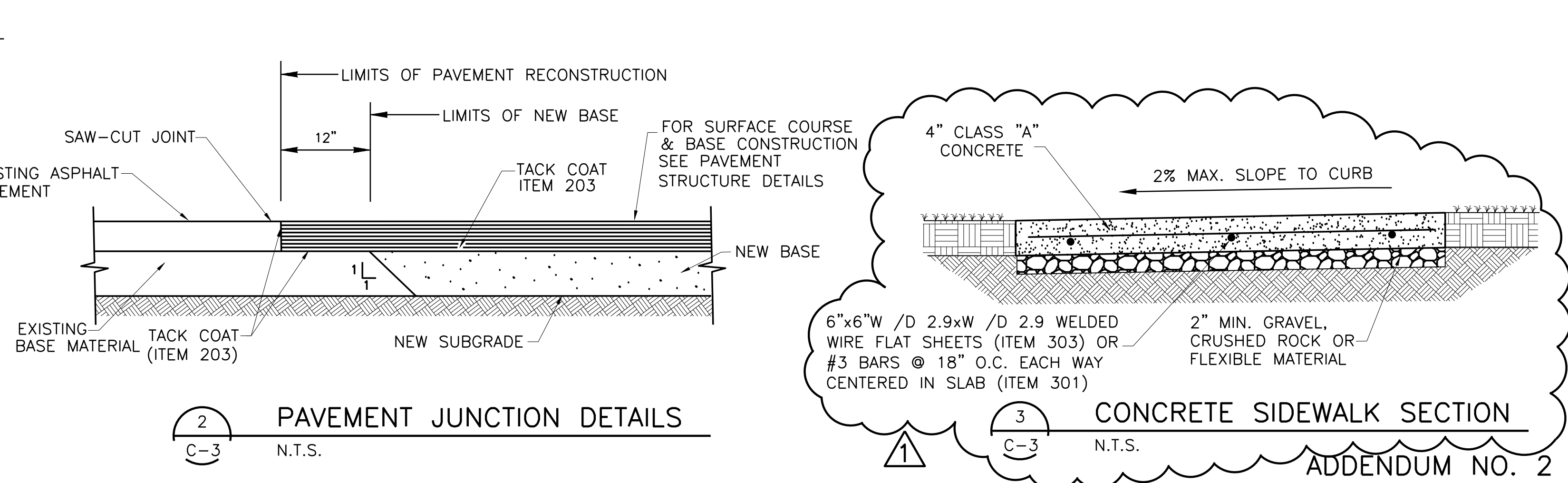
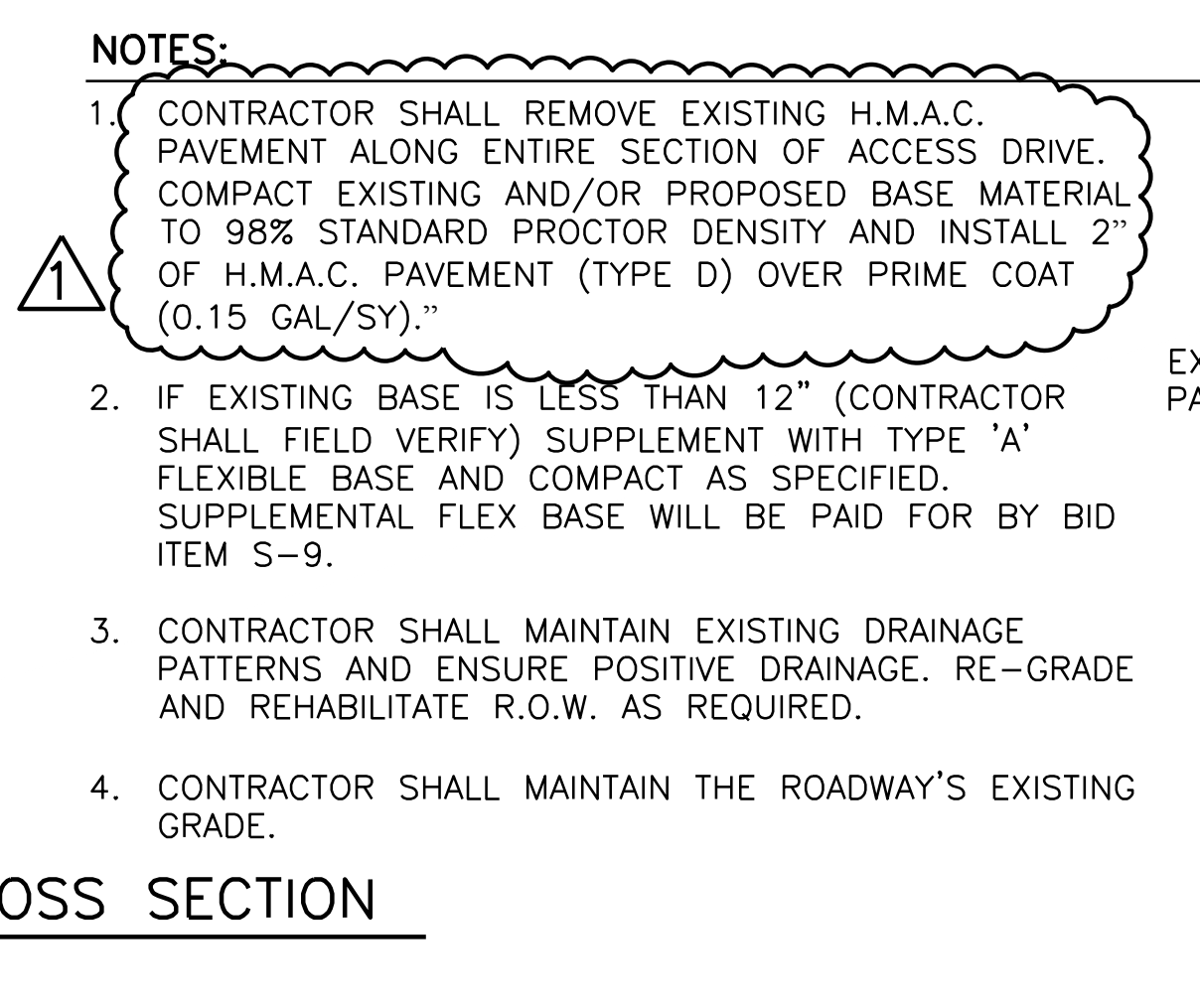
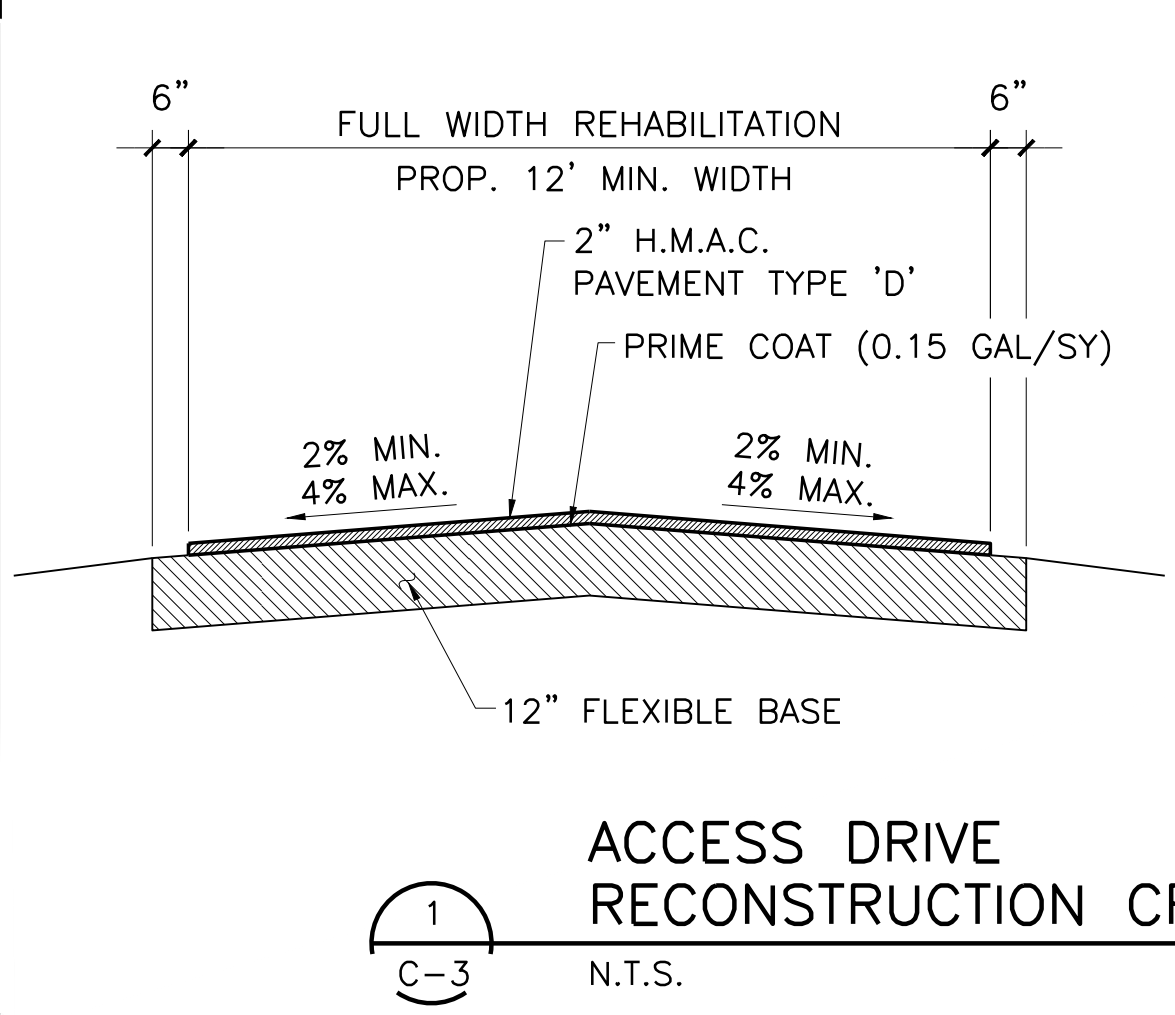
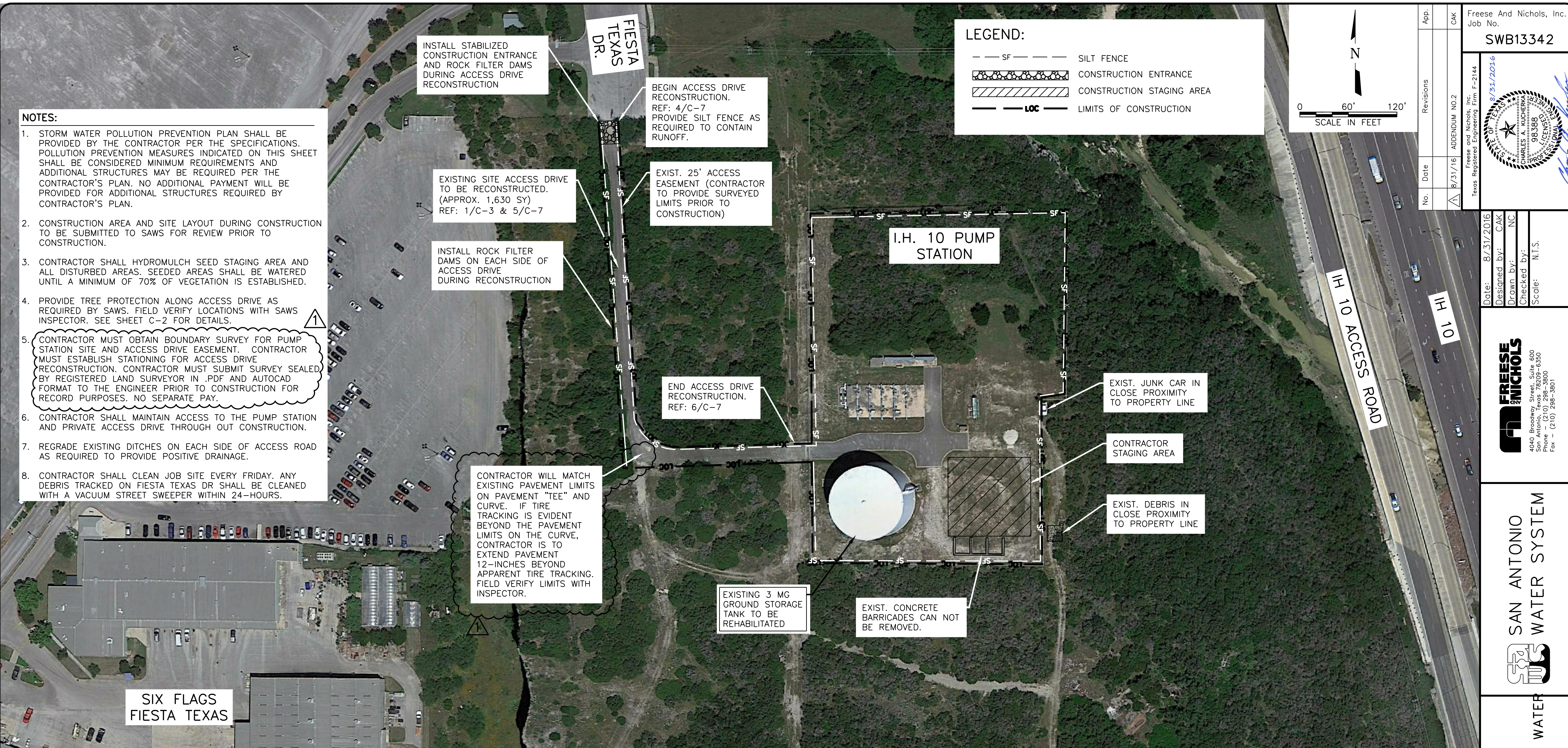
1.07 BASIS OF PAYMENT

The Basis of Payment will be established in the Contract Documents.

2.00 PRODUCTS (NOT APPLICABLE)

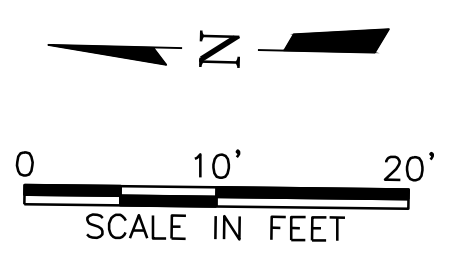
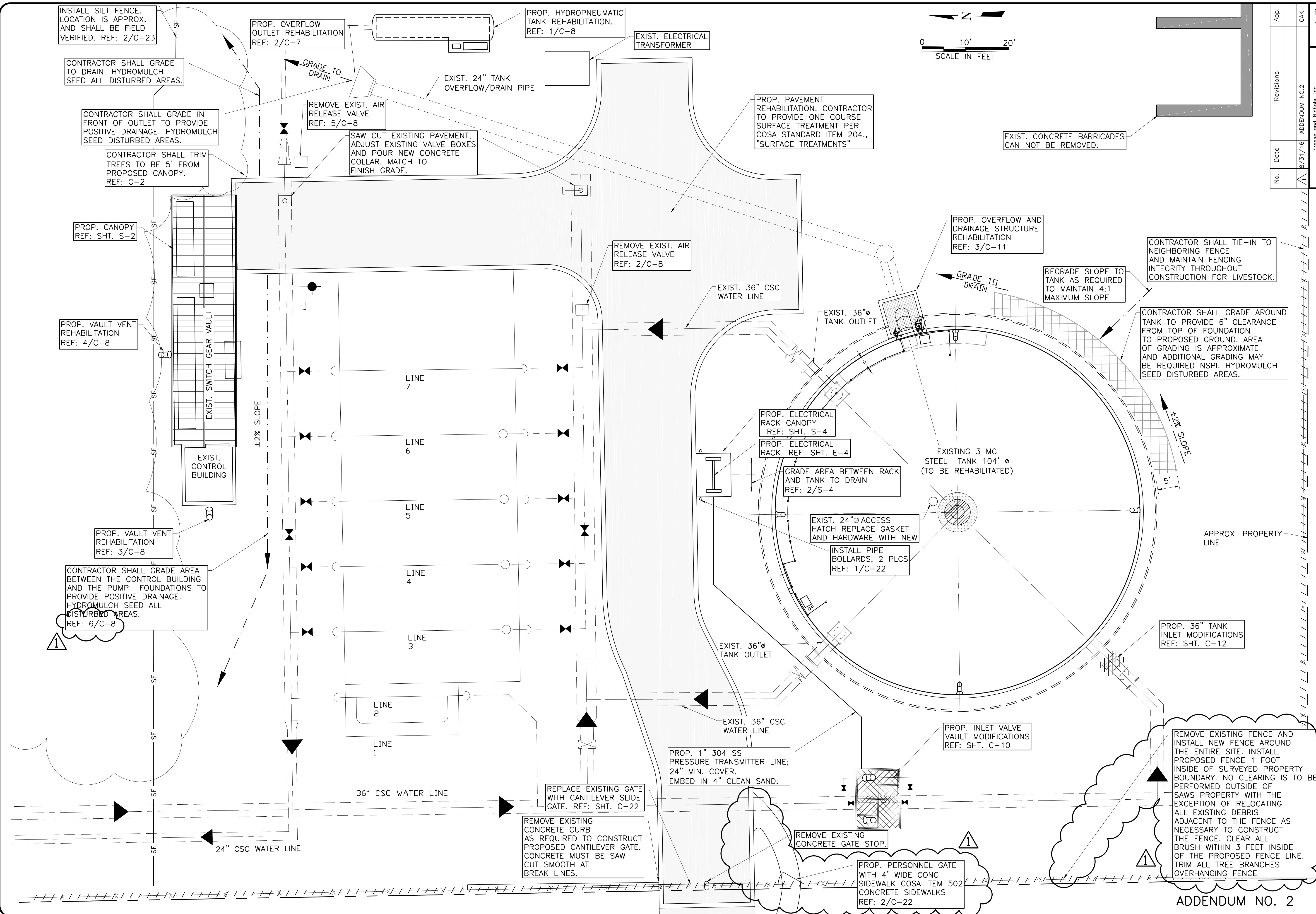
3.00 EXECUTION (NOT APPLICABLE)

END OF SECTION



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App.	CAK
Revisions	APPENDUM NO. 2
Date	8/31/16
No.	1

Freese And Nichols, Inc.
 Job No. SWB13342

8/31/2016
 Freese and Nichols, Inc.
 Texas Registered Engineering Firm F-2144
 CHARLES A. KUCHERK
 98368
 PROFESSIONAL ENGINEER
 STATE OF TEXAS

Date: 8/31/2016
 Designed by: CAK
 Drawn by: NC
 Checked by:
 Scale: N.T.S.

FREES AND NICHOLS
 4040 Broadway Street, Suite 600
 San Antonio, Texas 78209-6350
 Phone - (210) 298-3800
 Fax - (210) 298-3801

SAN ANTONIO WATER SYSTEM

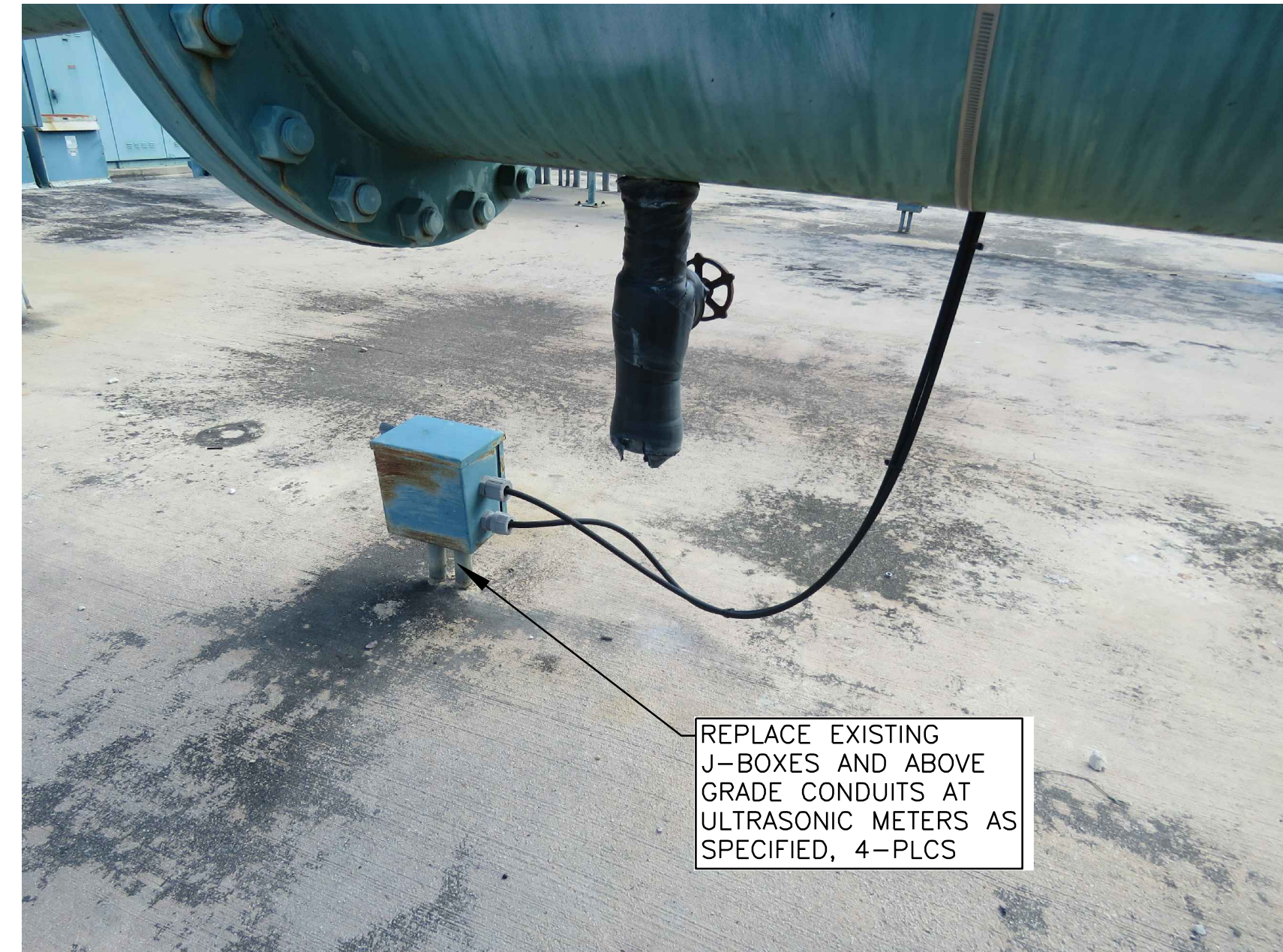
SAWS JOB NO. 13-0118
 I.H. 10 GROUND STORAGE TANK
 REHABILITATION AND PAINTING PROJECT

PROPOSED SITE PLAN

ADDENDUM NO. 2



REPLACE EXISTING J-BOXES, PRESSURE SWITCHES AND ABOVE GRADE CONDUITS AT PUMP SUCTION, AS SPECIFIED, 4-PLCS. SEE DETAIL 3



REPLACE EXISTING J-BOXES AND ABOVE GRADE CONDUITS AT ULTRASONIC METERS AS SPECIFIED, 4-PLCS

NOTES:

- CONTRACTOR MUST PREPARE AND COAT ALL STEEL EXTERIOR ELECTRICAL PANELS, SWITCH GEAR, MCC'S, MOTORS, INSTRUMENTATION PANELS, ETC. AT THE PUMP STATION AND AT THE ELECTRICAL/SWITCHGEAR. ALL PANELS MAY NOT BE INDICATED ABOVE. CONTRACTOR MUST FIELD VERIFY WITH INSPECTOR. STAINLESS STEEL PANELS DO NOT NEED TO BE REHABBED.
- CONTRACTOR WILL BE RESPONSIBLE FOR PROTECTING ELECTRICAL EQUIPMENT AND AVOID ABRASIVES OR COATINGS FROM ENTERING PANELS, MOTORS, ETC. ALL DAMAGE WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR MUST PROTECT ALL EQUIPMENT MANUFACTURER'S NAMEPLATES.
- REPLACE EXISTING WARNING LABELS AND EQUIPMENT IDENTIFICATION LABELS AS SPECIFIED.
- REPLACE ALL CORRODED ELECTRICAL FITTINGS AT BOXES. FITTINGS IN GOOD CONDITION DO NOT NEED TO BE REPLACED. FIELD VERIFY WITH INSPECTOR.
- REPLACE INSULATED WIRES AND CONNECTION IF EXISTING INSULATION AND CONNECTIONS ARE FRAYED OR DAMAGED.
- PREPARE AND PROVIDE COLD GALVANIZING TO CORRODED GALVANIZED STEEL ELECTRICAL RACKS AND SUPPORTS.
- REPLACE ALL "DANGER, HIGH VOLTAGE" SIGNS READING "DANGER, HIGH VOLTAGE, KEEP OUT". COLOR SCHEME SHALL MATCH EXISTING.
- PUMPS SHALL BE TAKEN OUT OF SERVICE AND LOCKED OUT BY SAWS ELECTRICIAN WHEN ELECTRICAL EQUIPMENT INCLUDING MOTORS ARE PAINTED.
- CONTRACTOR MUST PROTECT ALL INDICATOR LIGHTS AND SWITCHES ON CONTROL PANELS.
- CONTRACTOR SHALL NOT PAINT FLOW METER ON ELECTRICAL RACK.
- PANEL IDENTIFICATION LABELS SHALL BE REPLACED WITH LABELS CONSTRUCTED OF THE SAME MATERIAL.

NOTES:

- J-BOXES SHALL BE NEMA 4X 316 STAINLESS STEEL.
- NEW PRESSURE SWITCHES AND CONDUIT SHALL MATCH EXISTING. CONTRACTOR TO COORDINATE WITH SAWS FOR PRESSURE SWITCH SETTINGS.

2
C-17.1

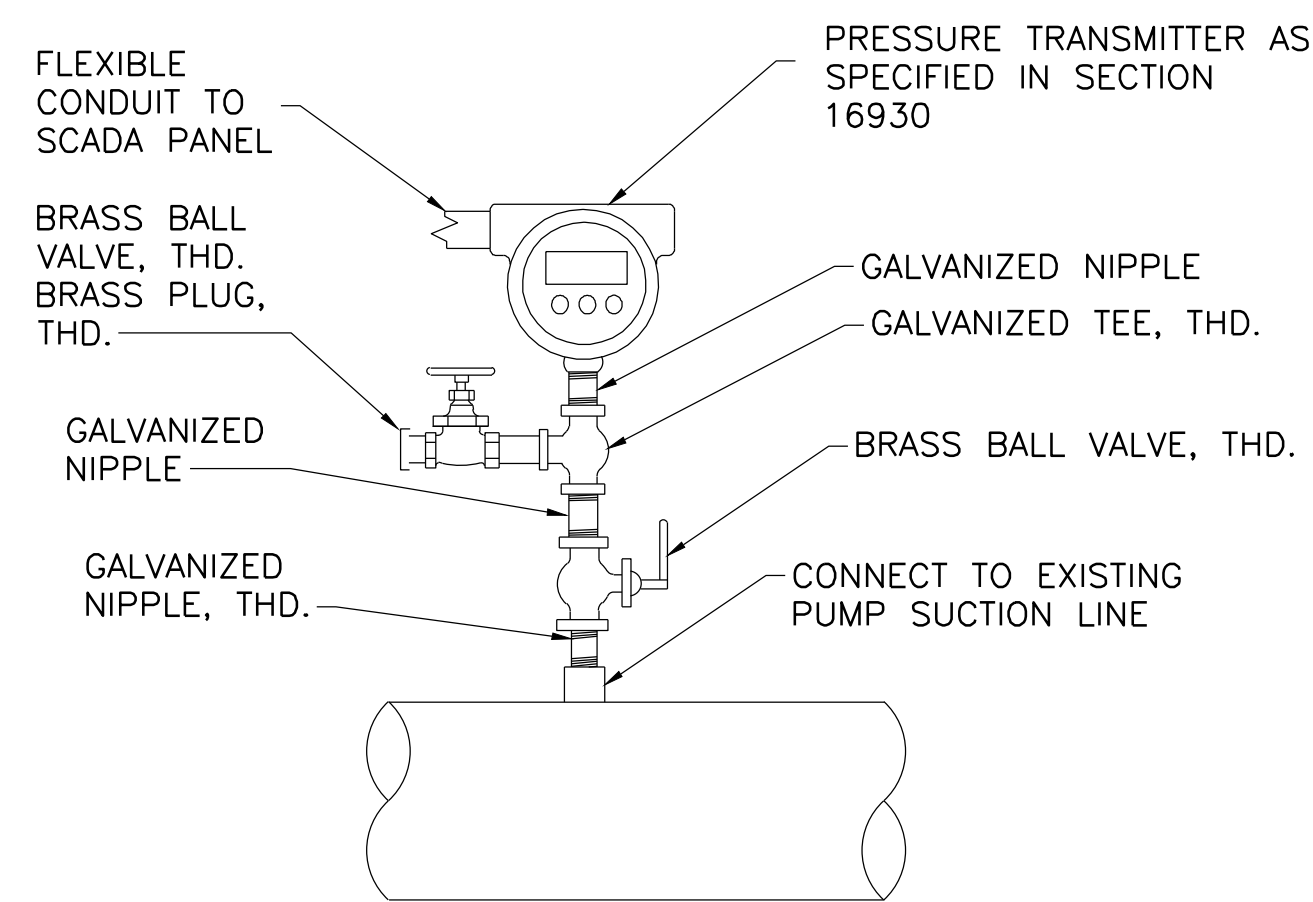
REPLACE J-BOXES AND PRESSURE TRANSDUCERS

NOT TO SCALE

1
C-17.1

ELECTRICAL COATING IDENTIFICATION

NOT TO SCALE



NOTE:

ALL PROPOSED PIPING IS TO MATCH EXISTING DIAMETER.

3
C-17.1

PRESSURE TRANSMITTER REPLACEMENT DETAIL

NOT TO SCALE



NOTE:

PHOTOS ARE FOR REFERENCE, REFER TO DETAIL 1 NOTES FOR ITEMS OF WORK.

4
C-17.1

MISCELLANEOUS ELECTRICAL PAINTING

NOT TO SCALE

App.	CAK	Freese And Nichols, Inc. Job No.
Revisions	ADDENDUM NO.2 - NEW SHEET	SWB13342
Date	8/31/16	8/31/2016
No.	1	Freese and Nichols, Inc. Texas Registered Engineering Firm F-2144 CHARLES A. KUCHERKA Professional Engineer No. 98388 State of Texas License No. 98388 <i>Charles A. Kucherka</i>

Date:	8/31/2016
Designed by:	CAK
Drawn by:	NC
Checked by:	
Scale:	N.T.S.

FREES & NICHOLS
4040 Broadway Street, Suite 600
San Antonio, Texas 78209-6350
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SAN ANTONIO WATER SYSTEM

SAWS JOB NO. 13-0118
I.H. TO GROUND STORAGE TANK
REHABILITATION AND PAINTING PROJECT
MISCELLANEOUS PAINTING AND ELECTRICAL

QUESTIONS AND ANSWERS

1. **Question:** We provide aerial photography/videography/mapping as a FAA approved commercial drone operator.

For a bid like this, we obviously can't bid for the work being done to re-coat/refurbish these water tanks but we DO believe that having aerial photography before, during and after the work is done would be beneficial to SAWS.

How would we offer that service?

1. **Answer:** Refer to Specification 01381 “Video and Photographic Documentation” for requirements concerning pre/post-construction and progress video and photograph requirements. To view a list of potential prime contractors, see the sign-in sheet for the project’s mandatory pre-bid meeting. Sub-contractors are encouraged to reach out to prime contractors directly. The sign-in sheet can be found on SAWS website.
2. **Question:** What size tanks are you looking for?
 2. **Answer:** Per the scope of this project, no new tanks will be installed.
3. **Question:** Project specifications section 16640 – 1.05 part B
List Corrpro Companies as sole source contractor.

Please provide “or equal” statement to allow other qualified contractors to provide competitive bid.

3. **Answer:** Refer to Addendum No. 2, Part 2, Item No. 5.

END OF ADDENDUM NO. 2