



SAN ANTONIO WATER SYSTEM
DSP Clayton Tank Replacement Project
SAWS Job No. 14-6101
Solicitation No. CO-00028

ADDENDUM NO. 2
October 22, 2015

TO BIDDER OF RECORD:

The following changes, additions, and/or deletions are hereby made a part of the Contract Documents for the SAWS DSP Clayton Tank Replacement Project, for the San Antonio Water System, San Antonio, Texas, Dated October 2015, as fully and completely as if the same were set forth therein.

BIDDING AND CONTRACT DOCUMENTS

1. ADDENDUM #1

REMOVE AND REPLACE Paragraph 1 of Addendum #1 to read:

“TO BIDDER OF RECORD:

The following changes, additions, and/or deletions are hereby made a part of the Contract Documents for the SAWS DSP Clayton Tank Replacement Project, for the San Antonio Water System, San Antonio, Texas, Dated October 2015, as fully and completely as if the same were set forth therein.”

2. QUOTES PAGE

REMOVE AND REPLACE the Quotes page in its entirety with the revised version attached to this Addendum.

2. SECTION 01200

REMOVE AND REPLACE Section 01200 in its entirety with the revised version attached to this Addendum.

3. SPECIAL CONDITIONS

REMOVE AND REPLACE SC-1.4 in its entirety with the revised section below:

SC-1.4 SOIL TESTING AT CLAYTON FACILITY

Prior to construction activities at the Clayton Facility, the CONTRACTOR shall perform an independent subsurface assessment by a certified independent third party to test the soils for Total Cadmium, Chromium VI and Lead. The soil testing is to be conducted within the fenced-in area around the existing tanks. The CONTRACTOR shall provide the OWNER and ENGINEER with a summary report that includes the analytical results and laboratory reports that includes TCEQ action levels. This will become the baseline for the project.

The CONTRACTOR is also required to perform an additional independent subsurface assessment to test the soils for Total Cadmium, Chromium VI and Lead after construction. The testing holes for the post-construction assessment are to be taken at the same locations as the pre-construction test-hole locations. The CONTRACTOR shall provide the OWNER and ENGINEER with a post-construction summary report that includes the analytical results and laboratory reports that includes the TCEQ action levels. If the post-construction report shows higher concentration of Lead, Cadmium or Chromium then the CONTRACTOR is required to provide mitigation at no cost to the OWNER to reduce the contaminants level to equal or below the pre-construction levels.

4. WATERLINE “F”

INCLUDE plans and details for the construction of Waterline “F” as shown in Exhibit A of Addendum No. 2. Waterline “F” shall consist of the construction of a 24” steel pipe from Control Station No. 3 to ten feet beyond the Somerset Facility property line as shown in Exhibit A. Waterline “F” shall be subsidiary to Price Item No. 1 – Somerset Facility Improvements and Price Item No. 5 – WRIP Line Tie-In.

5. CHLORINE SYSTEM RUBBER HOSE

REVISE material specification for 2-inch Red Horizon Rubber Hose. Where 2-inch Red Horizon Rubber Hose manufactured by Continental is specified, this shall be revised to state “2-inch Red Valuflex/GS hose manufactured by HBD/Thermoid”.

6. CHLORINE SOLUTION TUBE

REVISE material specification for stainless steel solution tube at the above grade application points. Where Stainless Steel Solution Tube is specified, this shall be revised to state “Schedule 80 PVC Solution Tube”.

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:

- QUOTES PAGE
- SECTION 01200
- EXHIBIT A – WATERLINE “F”

END OF ADDENDUM NO. 2



Quotes

| Line No. | Item No. | Quote Category | SOV Item | Item Description | Unit | Quantity | Unit Bid Price | Total Price |
|----------|----------|-------------------------|----------|---|------|----------|----------------|--------------|
| 1 | 1 | General Water Bid Items | | Somerset Facility Improvements | LS | 1 | | |
| 2 | 2 | General Water Bid Items | | Clayton Facility Improvements | LS | 1 | | |
| 3 | 3 | General Water Bid Items | | Residential Electric Overhead Power, Existing Water Service & Existing Wastewater Service Relocation and Reconnection | LS | 1 | | |
| 4 | 4 | General Water Bid Items | | Trench Excavation Safety Protection | LS | 1 | | |
| 5 | 5 | General Water Bid Items | | WRIP Line Tie-In | LS | 1 | | |
| 6 | 6 | General Water Bid Items | | Mobilization and Demobilization (max 8% for line items 1 through 5) | LS | 1 | | |
| 7 | 7 | General Water Bid Items | | Start-Up/Commissioning Allowance, \$40,000 | LS | 1 | \$ 40,000.00 | \$ 40,000.00 |
| 8 | 8 | General Water Bid Items | | Permitting Fees - Allowance for permitting fees associated with the Somerset and Clayton Facility Improvements, \$2,000 | LS | 1 | \$ 2,000.00 | \$ 2,000.00 |

**SECTION 01200
MEASUREMENT AND PAYMENT**

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. This section defines the method that will be used to determine the quantities of Work performed or materials supplied and establish the basis upon which payment will be made.

1.2 PRICE PROPOSAL

- A. Required items of Work and incidentals necessary for the satisfactory completion of the Project shall be considered incidental to the specified Work required under this contract and shall be considered as included in the unit prices for the various price items. The CONTRACTOR shall prepare his price accordingly to allow for such items:
 - 1. Not specifically listed in the price proposal form.
 - 2. Not specified in this section to be measured or to be included in one of the items listed in the price proposal form.
 - 3. To include CONTRACTOR's overhead and profit.
- B. Work includes the furnishing of all labor, materials, equipment, tools, and related items for performing all operations required to complete the Project satisfactorily in place, as specified by the contract documents.

1.3 RELATED WORK

- A. Section 01290 – Schedule of Values
- B. Section 01300 - Submittals

1.4 PRICE ITEMS DESCRIPTION

- A. Price Proposal Item No. 1 – Somerset Facility Improvements
 - 1. Description –
 - a. Demolition of Existing Site Components:
 - 1) 0.3 MG Steel GST
 - a) Including Tank, Concrete Pads, and other appurtenances,
 - 2) Pump Station Building,
 - 3) Chlorine Building,
 - 4) Underground Piping and Electrical Utilities,
 - 5) Water Dispensing Station,
 - 6) Gate Entrance

- 7) Perimeter Fencing
 - a) Removal of Existing Fence along South Property Line
- b. Construction of 1.5 MG GST Tank and Sitework
 - 1) New 1.5 MG Pre-stressed Concrete, Type III GST. (Existing GST is to remain operational throughout construction with exception of temporary shut-down for system switchover to new GST.),
 - 2) Perimeter fence replacement as notes in the plans,
 - 3) Design of concrete road paving,
 - 4) Site grading for:
 - a) New tank,
 - b) Control Station No. 3,
 - c) Existing Tank (existing GST to be demolished),
 - d) Chemical Building,
 - e) Drainage Structures, and
 - f) Paving
- c. Construction of Control Station No. 3
 - 1) New water supply control station including:
 - a) Valves
 - b) Piping
 - c) Flow Meter
 - d) Concrete Slab, and
 - e) Instrumentation for the Control Station to operate as specified.
- d. Construction of New Water Dispenser
 - 1) New Public Water Dispenser including:
 - a) Concrete Structure
- e. Mechanical
 - 1) New Control Station No. 3 including valves and piping.
 - 2) New Water Dispenser Station mechanical components.
 - 3) Yard piping modification for the new 3.5 MG GST and the new Control Station No. 3 (Prior to work in the yard, CONTRACTOR shall perform subsurface utility investigation (SUE) in yard for all tie-in locations).
 - 4) Above grade chemical injection improvements.
 - 5) Tank overflow drainage system
 - a) Overflow structure at the GST with an air-gap,
 - b) Tank overflow drain line to the TxDOT right-of-way along Somerset Road.
- f. Chemical
 - 1) Design of a chlorine feed system with 150 lb cylinders. The proposed chlorine system will be located in the new chlorine building. The pump station is to remain in service during all chemical system improvements. Testing and disinfection shall be completed prior to acceptance.

- 2) Replacement of Chlorine yard piping required to reconnect the existing injection point to the new system.
- g. Architectural and Structural
- 1) New Chlorine Building
 - a) CMU Masonry
 - 2) Water Dispenser Station
 - a) CMU Masonry
 - b) Stone Façade as required in contract documents
 - 3) Drainage Structures
 - 4) Slab/Pad for Control Station No. 3
 - 5) Canopy for the new electrical racks
- h. HVAC and Plumbing
- 1) Chemical Building
 - a) Design the exhaust fans,
 - b) Louvers,
 - c) Actuators,
 - d) Ducts,
 - e) Dampers and
 - f) HVAC system controls
 - 2) Eyewash for the new Chlorine Building
- i. Electrical and Instrumentation
- 1) Electrical feed to the new Chlorine Building
 - 2) Electrical feed to the new Water Dispenser Station
 - 3) Electrical feed to the new Control Station No. 3
 - 4) Electrical feed to the new site security and lighting systems.
 - 5) Connections to the existing SCADA system.
 - 6) Automatic Vehicular Entry Gate and Card Reader
 - a) Card reader for one automatic vehicular entry gate
 - 7) New GST, Chlorine System and Control Station No. 3 instrumentation upgrades.
 - a) Control narrative for the proposed system.
- j. Yard Maintenance (During Construction)
- k. Construction Site and Facility Security (During Construction)
- 1) On-Site Security Guard: This item includes all costs to provide an on-site security guard during performance of the work, as specified in Section 01500 – Temporary Facilities and Controls
- l. “Asbestos Abatement Work Plan” and “Removal, Transportation, and Disposal” as defined in Section 02504 – Asbestos Containing Material(s) Removal.
- m. Lead remediation as specified in Section 02503 – Lead Paint Removal

- n. All miscellaneous improvements for a complete in-place facility including all yard maintenance and site security requirements.
 - o. This Price Item includes all work for the Somerset Facility other than work indicated in Price Items 3 thru 8.
2. Measurement – Measurement of the Price Item No. 1 will be by the lump sum as the work progresses.
3. Payment – This item will be paid for at the contract lump sum price for work performed in accordance with the Schedule of Values. The lump sum will be pro-rated based on the percentage of work successfully completed. Payment for delivered or stored items will be allowed for major equipment and materials as approved by the OWNER. No partial payments will be made for materials and equipment delivered or stored unless Shop Drawings and preliminary operation and maintenance manuals are acceptable to the OWNER. Only approved materials stored on the job site will be eligible for partial payments. All partial payments shall be approved by the OWNER. Materials that will not be paid for prior to installation include, but are not limited to, bulk quantities such as nails, fasteners, conduits, conductors, concrete, steel reinforcement, formwork, sand and gravel.

The CONTRACTOR's request for payments for materials stored on the job site shall include copies of paid invoices provided by approved supply sources in accordance with the General Conditions of the Contract. Payment for materials stored on the job site shall be based upon the costs listed in the supplier's paid invoices and shall be in accordance with the General Conditions of the Contract.

Maximum payment of 85% will be allowed for stored items, the remaining 15% will be paid upon delivery of the approved final O&M manuals. Equipment and materials shall not be installed or put into place before final O&M manuals have been received.

Payment for installed equipment shall not be more than 85% of the installed cost until the training materials have been submitted and training has been completed to the satisfaction of OWNER.

The CONTRACTOR is required to provide a cash flow projection or forecast from which cash flow graphs and charts can easily be generated and updated. The projection may be developed in Microsoft Excel or any other acceptable software. The cash flow projection must be structured in a table format and must clearly indicate the following:

- a. Period of cash flow projection
- b. Monthly budget
- c. Cumulative budget

- d. Monthly actual
- e. Cumulative actual

With each pay estimate, the CONTRACTOR shall also furnish baselined progress schedules that can be cross-referenced with the Schedule of Values (SOV) and Cash Flow Projection. The cash flow projections shall reflect the progress claimed on the progress schedule. Schedules shall be in accordance with Section 01300 – Submittals.

The CONTRACTOR shall provide all labor, supervision, tools, equipment, and materials necessary to furnish, install and complete tasks associated with Price Item No. 1.

- 1) 0.3 MG Steel GST,
- 2) Pump Station Building,
- 3) Chlorine Building,
- 4) Underground Piping and Electrical Utilities,
- 5) Water Dispensing Station,
- 6) Gate Entrance

B. Price Proposal Item No. 2 – Clayton Facility Improvements

1. Description –

a. Demolition of Existing Site Components:

- 1) 100,000 Gallon Steel Elevated Storage Tank,
- 2) 50,000 Gallon Steel Ground Storage Tank,
- 3) Existing Building/Pump House,
- 4) Plug and Cap Four (4) Existing Wells,
- 5) Miscellaneous Concrete and Drain Piping,
- 6) Yard Piping and below grade Electrical Utilities
- 7) Soil Testing prior to Construction and Post-Construction for Total Cadmium, Chromium VI, and Lead.

b. Sitework

- a) Site grading to restore the site to near natural conditions.

c. Yard Maintenance (During Construction)

d. Construction Site and Facility Security (During Construction)

- 1) On-Site Security Guard: This item includes all costs to provide an on-site security guard during performance of the work, as specified in Section 01500 – Temporary Facilities and Controls

e. “Asbestos Abatement Work Plan” and “Removal, Transportation, and Disposal” as defined in Section 02504 – Asbestos Containing Material(s) Removal.

f. Lead remediation as specified in Section 02503 – Lead Paint Removal

- g. All miscellaneous improvements for a complete in-place facility including all yard maintenance and site security requirements.
 - h. This Price Item includes all work for the Clayton Facility other than work indicated in Price Items 3 thru 8.
2. Measurement – Measurement of the Price Item No. 2 will be by the lump sum as the work progresses.
 3. Payment – This item will be paid for at the contract lump sum price for work performed in accordance with the Schedule of Values. The lump sum will be pro-rated based on the percentage of work successfully completed. Payment for delivered or stored items will be allowed for major equipment and materials as approved by the OWNER.

The CONTRACTOR is required to provide a cash flow projection or forecast from which cash flow graphs and charts can easily be generated and updated. The projection may be developed in Microsoft Excel or any other acceptable software. The cash flow projection must be structured in a table format and must clearly indicate the following:

- a. Period of cash flow projection
- b. Monthly budget
- c. Cumulative budget
- d. Monthly actual
- e. Cumulative actual

With each pay estimate, the CONTRACTOR shall also furnish baselined progress schedules that can be cross-referenced with the Schedule of Values (SOV) and Cash Flow Projection. The cash flow projections shall reflect the progress claimed on the progress schedule. Schedules shall be in accordance with Section 01300 – Submittals.

The CONTRACTOR shall provide all labor, supervision, tools, equipment, and materials necessary to furnish, install and complete tasks associated with Price Item No. 2.

C. Price Proposal Item No. 3 – Residential Electric Overhead Power, Existing Water Service & Existing Wastewater Service Relocation and Reconnection

1. Description – This item shall be for the relocation of existing residential utility services associated with the DSP Clayton Tank Replacement Project scope. CONTRACTOR shall conduct Subsurface Utility Engineering (SUE) as necessary and part of this Item to determine the Schedule of Values for this work. CONTRACTOR shall also coordinate relocations with the appropriate service provide for electric, water, wastewater and other utilities encountered. This item shall include furnishing all labor, materials, tools, equipment and incidentals required to relocate existing

residential utilities for the DPS Clayton Tank Replacement Project, in accordance with the contract documents, complete in place.

2. Measurement – Measurement of the Price Item No. 3 will be by the lump sum as the work progresses.
3. Payment – This item will be paid for at the contract lump sum price for work performed in accordance with the Schedule of Values. The lump sum will be pro-rated based on the percentage of work successfully completed. Payment for delivered or stored items will be allowed for major equipment and materials as approved by the OWNER.

The CONTRACTOR is required to provide a cash flow projection or forecast from which cash flow graphs and charts can easily be generated and updated. The projection may be developed in Microsoft Excel or any other acceptable software. The cash flow projection must be structured in a table format and must clearly indicate the following:

- a. Period of cash flow projection
- b. Monthly budget
- c. Cumulative budget
- d. Monthly actual
- e. Cumulative actual

With each pay estimate, the CONTRACTOR shall also furnish baselined progress schedules that can be cross-referenced with the Schedule of Values (SOV) and Cash Flow Projection. The cash flow projections shall reflect the progress claimed on the progress schedule. Schedules shall be in accordance with Section 01300 – Submittals.

The CONTRACTOR shall provide all labor, supervision, tools, equipment, and materials necessary to furnish, install and complete tasks associated with Price Item No. 3.

D. Price Proposal Item No. 4 – Trench Excavation Safety Protection

1. Description – This item shall be for the relocation of existing residential utility services associated with the DSP Clayton Tank Replacement Project scope. CONTRACTOR shall conduct Subsurface Utility Engineering (SUE) as necessary and part of this Item to determine the Schedule of Values for this work. CONTRACTOR shall also coordinate relocations with the appropriate service provide for electric, water, wastewater and other utilities encountered. This item shall include furnishing all labor, materials, tools, equipment and incidentals required to relocate existing residential utilities for the DPS Clayton Tank Replacement Project, in accordance with the contract documents, complete in place.

2. Measurement – Measurement of the Price Item No. 4 will be by the lump sum as the work progresses.
3. Payment – This item will be paid for at the contract lump sum price for work performed in accordance with the Schedule of Values. The lump sum will be pro-rated based on the percentage of work successfully completed.

E. Price Proposal Item No. 5 – WRIP Line Tie-In

1. Description – This item shall be for the tie-in connection from the Somerset Facility to the WRIP Line as shown in Addendum No. 2, Exhibit A. This Item is required if the new WRIP line stub-out is constructed prior to the completion of the Somerset Facility Improvements. This Item shall include the removal of the cap and blow-off assemblies, closure of the pipe segments and disinfection of the lines as required by SAWS.
2. Measurement – Measurement of the Price Item No. 5 will be by the lump sum as the work progresses.
3. Payment – This item will be paid for at the contract lump sum price for work performed in accordance with the Schedule of Values. The lump sum will be pro-rated based on the percentage of work successfully completed.

The CONTRACTOR shall provide all labor, supervision, tools, equipment, and materials necessary to furnish, install and complete tasks associated with Price Item No. 5.

F. Price Proposal Item No. 6 – Mobilization and Demobilization

1. Description – This item shall be for the mobilization and demobilization costs associated with the Clayton Tank Replacement Project scope. This shall include furnishing all labor, materials, tools, equipment and incidentals required to mobilize, demobilize, bond and insure the Work for the Clayton Tank Replacement Project, in accordance with the contract documents, complete in place.
2. Measurement – Measurement of the item “Mobilization” will be by the lump sum as the work progresses. Mobilization price amount for the project shall be limited to a maximum of 8 percent of the subtotal of price amount.
3. Payment – Partial payments of the lump sum price 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 price for mobilization) is earned, 50% of the mobilization lump sum price or 5% of the total contract amount, whichever is less, 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. Receipts or other proof of payment for the full amount of compensation requested under the sub-heading of “Insurance and Bonds” shall be provided to the OWNER with the request for payment.

- b. When 5% of the adjusted contract amount for construction items is earned, 75% of the mobilization lump sum price or 10% of the total contract amount, whichever is less will be paid.
- c. When 10% of the adjusted contract amount for construction items is earned, 90% of the mobilization lump sum price or 15% of the total contract amount, whichever is less will be paid.
- d. No payments on mobilization will be made until the following documents are submitted and approved by the OWNER:
 - 1) Health and Safety Plan,
 - 2) Quality Assurance/Quality Control Plan,
 - 3) Pre-Construction Video,
 - 4) Schedule of Values and
 - 5) Construction Schedule (to include Submittal Schedule and Sequence of Construction).
- e. Upon completion of all work under this contract, payment for the remainder of the lump sum price for mobilization will be made.

G. Price Proposal Item No. 7 – Start-up/Commissioning Allowance

1. Description – This item shall be an allowance for unforeseen construction-related items (not included in the project scope) associated with the pre-startup, startup, and commissioning services that are necessary to provide for an operational and functional system. This item shall include furnishing all labor, materials, tools, equipment and incidentals required to construct these project-related items at SAWS request and to be negotiated under the contract terms and conditions for complete in place.
2. Measurement – Measurement of the Price Proposal Item No. 6 will be by allowance and shall not exceed \$40,000.00
3. Payment – This item will be paid for at the negotiated lump sum price which will be negotiated and agreed to through a Request for Proposal process by the OWNER, should additional work be necessary to be performed in accordance with the Schedule of Values.

H. Price Proposal Item No. 8 – Permitting Fees

1. Description – This item shall be for the permitting fees associated with the DSP Clayton Tank Replacement Project scope. This shall include furnishing all labor, materials, tools, equipment and incidentals required to obtain all necessary permits for the DPS Clayton Tank Replacement Project, in accordance with the contract documents, complete in place.

2. Measurement – Measurement of the item “Permitting Fees” will be by allowance and shall not exceed \$2,000.00.
3. Payment – Payment of this item shall be a reimbursement to the CONTRACTOR for the permitting fees. Reimbursement amount shall be the actual fees incurred for obtaining the permits associated with the project scope. CONTRACTOR shall provide permit receipts to OWNER for reimbursement.

1.5 SUBMITTALS

- A. Schedule of Values: Submit on CONTRACTOR’S standard form.
- B. Monthly Application for Payment: Submit on form provided by ENGINEER.
- C. Final Application for Payment: Submit on form provided by ENGINEER.

1.6 SCHEDULE OF VALUES

- A. Prepare a separate Schedule of Values for each phase of Work under the Agreement. Submit the Schedule of Values in accordance with Section 01290 – Schedule of Values.
- B. Use line items in the proposal as line items in the Schedule. Provide adequate detail to allow easy determination of the percentage of work completed for each item.
- C. Lump Sum Work.
 1. Reflect Schedule of Values format included in conformed Price Proposal Form, specified allowances, alternates, and equipment selected by Owner, as applicable.
 2. List bonds and insurance premiums, mobilization, demobilization, facility startup, and contract closeout separately.
 3. Separate product costs and installation costs. Break down by Division 2 thru Division 17 for each of the Project Facilities.
 - a. Product costs include cost for product, delivery and unloading, royalties and patent fees, taxes, and other cost paid directly to the supplier or vendor.
 - b. Installation costs include cost for the supervision, labor and supervision, labor and equipment for field fabrication, erection, installation, start-up, initial operation and CONTRACTOR’S overhead and profit.
 4. Divide principal subcontract amounts into an adequate number of line items to allow determination of the percentage of work completed for each item. These line items may be used to establish the value of work to be added or deleted from the project.
- D. An unbalanced or front-end loaded schedule will not be acceptable.
- E. Summation of the complete Schedule of Values representing all Work shall equal the Contract Price.

1.7 APPLICATION FOR PAYMENT

- A. Transmittal Summary Form: 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.
- B. Use detailed Application for Payment Form provided by ENGINEER.
- C. Provide separate form for each schedule as applicable.
- D. Include accepted schedule of values for each schedule or portion of Work, the unit price breakdown for the Work to be paid on unit price basis, a listing of OWNER-selected equipment, if applicable, and allowances, as appropriate.
- E. Preparation:
 - 1. Round values to nearest dollar.
 - 2. List each Change Order and Written Amendment executed prior to date of submission as separate line item. Totals to equal those shown on the Transmittal Summary Form for each schedule as applicable.
 - 3. Submit Application for Payment, including a Transmittal Summary Form and detailed Application for Payment Form(s) for each schedule as applicable, a listing of materials on hand for each schedule as applicable, and such supporting data as may be requested by ENGINEER.

1.8 MEASUREMENT—GENERAL

- A. 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.
- B. Whenever pay quantities of material are determined by weight, material shall be weighed on scales furnished by CONTRACTOR and certified accurate by state agency responsible. Weight or load slip shall be obtained from weigher and delivered to OWNER's representative at point of delivery of material.
- C. If material is shipped by rail, car weights will be accepted provided that actual weight of material only will be paid for and not minimum car weight used for assessing freight tariff, and provided further that car weights will not be acceptable for material to be passed through mixing plants.
- D. Vehicles used to haul material being paid for by weight shall be weighed empty daily and at such additional times as required by ENGINEER. Each vehicle shall bear a plainly legible identification mark.
- E. Materials that are specified for measurement by the cubic yard measured in the vehicle shall be hauled in vehicles of such type and size that actual contents may be readily and accurately determined. Unless all vehicles are of uniform capacity, each vehicle must bear a plainly legible identification mark indicating its water level capacity. Vehicles shall be loaded to at least their water level capacity. Loads hauled in vehicles not meeting above requirements or loads of a quantity less than the capacity of the vehicle, measured after being leveled off as above provided, will be subject to rejection, and no compensation will be allowed for such material.
- F. Where measurement of quantities depends on elevation of existing ground, elevations obtained during construction will be compared with those shown on Drawings. Variations of 1 foot or less will be ignored, and profiles shown on Drawings will be used for determining quantities.

G. Units of measure shown on Bid Form shall be as follows, unless specified otherwise.

| Item | Method of Measurement |
|-------------|---|
| AC | Acre—Field Measure by ENGINEER |
| CY | Cubic Yard—Field Measure by ENGINEER within limits specified or shown |
| CY-VM | Cubic Yard—Measured in Vehicle by Volume |
| EA | Each—Field Count by ENGINEER |
| GAL | Gallon—Field Measure by ENGINEER |
| HR | Hour |
| LB | Pound(s)—Weight Measure by Scale |
| LF | Linear Foot—Field Measure by ENGINEER |
| LS | Lump Sum—Unit is one; no measurement will be made |
| SF | Square Foot |
| SY | Square Yard |
| TON | Ton—Weight Measure by Scale (2,000 pounds) |
| VF | Vertical Foot-Field Measure by Engineer |

H. Measurement of Linear Items: Where payment will be made based on linear quantities and on parameters other than length, those parameters shall be as follows:

| ITEM | MEASUREMENT PARAMETERS |
|------------------|--|
| Linear Foot (LF) | Pipe will be measured by the linear foot for the various types, sizes and classes. Where a line ties into an existing system, the length of the new line will be measured from the visible end of the existing system at the completed joint. Unless otherwise indicated, the length of lines will be measured along pipe horizontal centerline stationing through fittings, valves, and other appurtenances. Restrained joint length for payment purposes will be measured from the center of the fitting to last restrained joint. Restrained joint length beyond the end of steel casing not installed inside of the casing will be measured from the end of the steel casing to the last restrained joint. |

1.9 PAYMENT

- A. Reference contract documents General Conditions.
- B. General:

1. The date for CONTRACTOR's submission of monthly Application for Payment shall be in accordance with General Condition.
- C. Payment for all Work shown or specified in the Contract Documents is included in the Contract Price. No measurement or payment will be made for individual items.

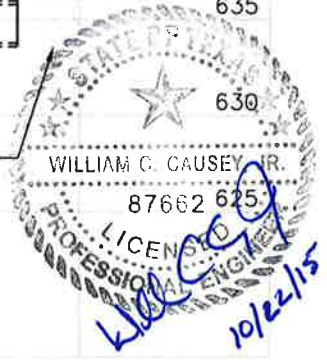
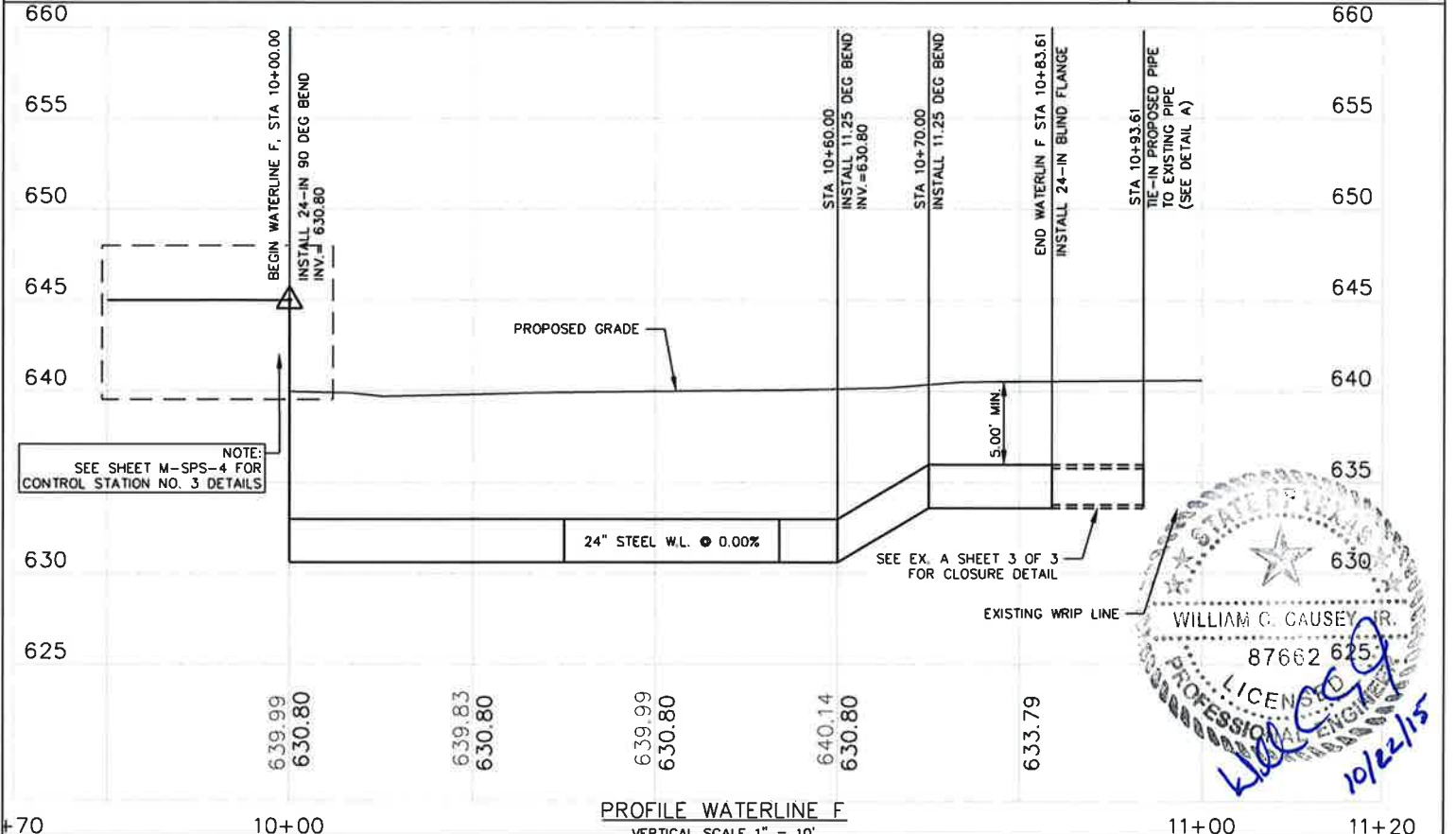
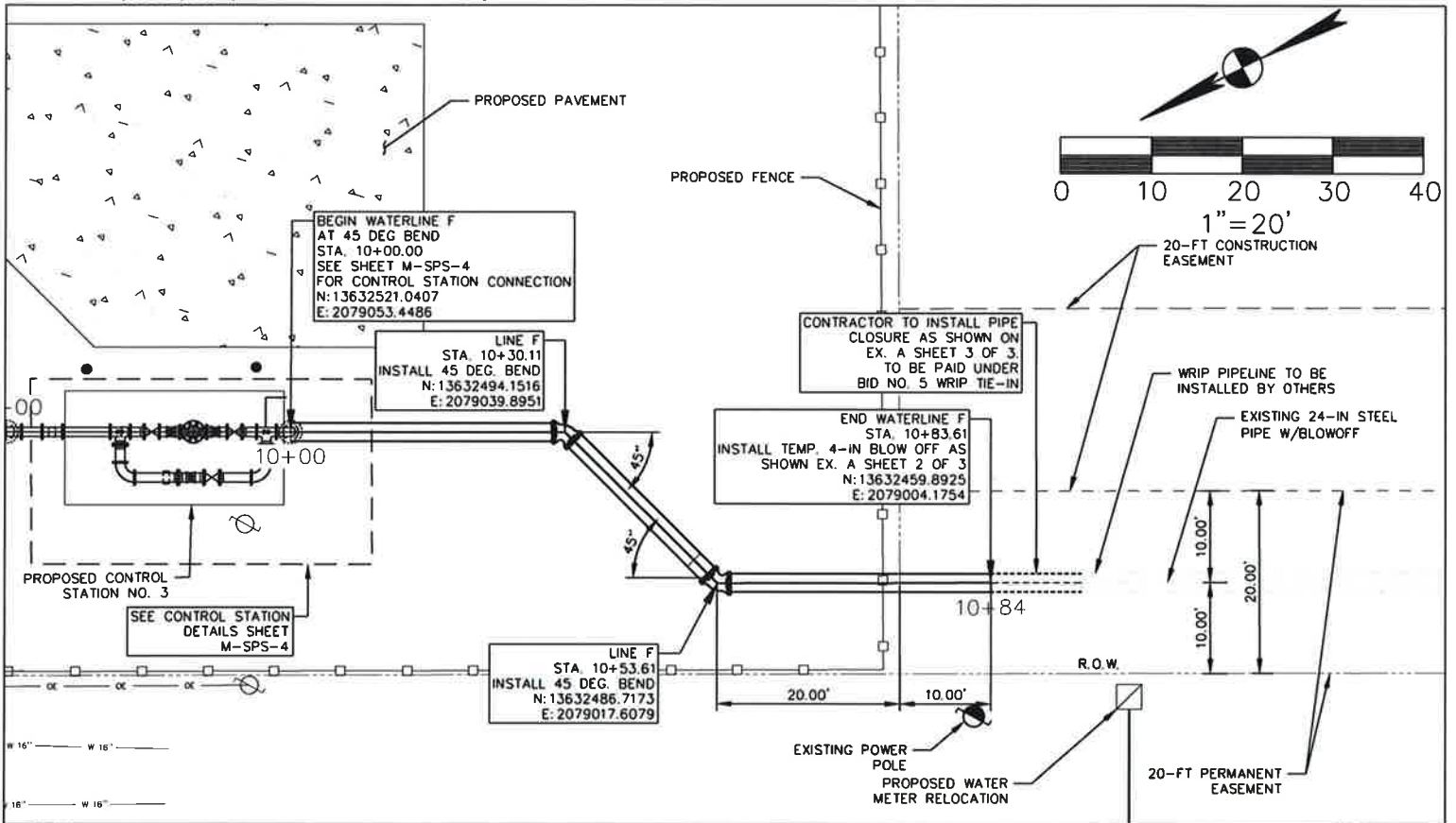
1.10 NONPAYMENT FOR REJECTED OR UNUSED PRODUCTS

- A. Payment will not be made for following:
1. Loading, hauling, and disposing of rejected material.
 2. Quantities of material wasted or disposed of in manner not called for under Contract Documents.
 3. Rejected loads of material, including material rejected after it has been placed by reason of failure of CONTRACTOR to conform to provisions of Contract Documents.
 4. Material not unloaded from transporting vehicle.
 5. Defective Work not accepted by OWNER.
 6. Material remaining on hand after completion of Work.

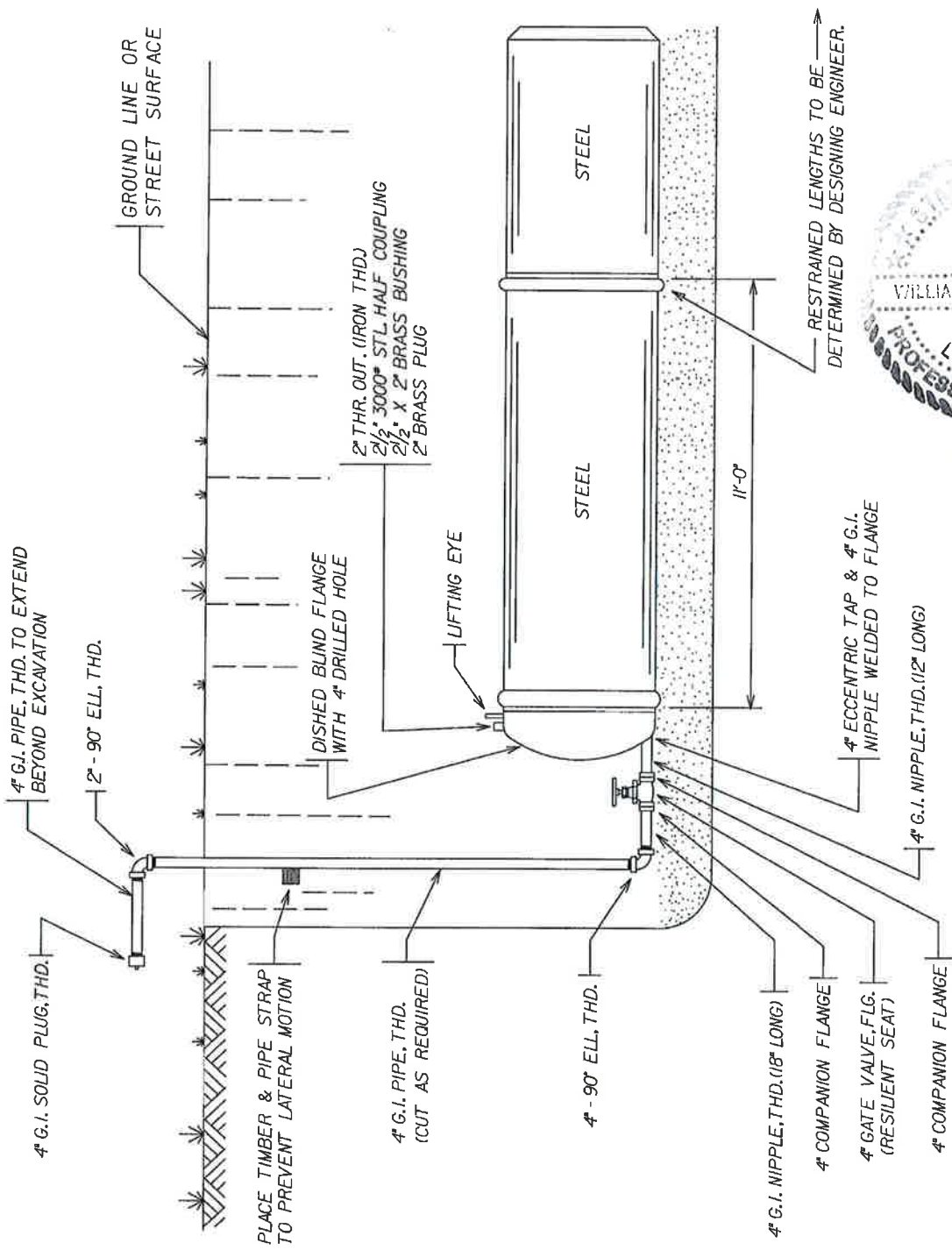
PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION



| | | | | |
|--|------------------------|--|-----------------------------------|---|
| | GB PRJ #: 103187-00001 | SAN ANTONIO WATER SYSTEM DSP CLAYTON TANK REPLACEMENT PROJECT WATERLINE F PROPOSED YARD PIPING PLAN & PROFILE | EXHIBIT A 1 OF 3 | 922 Isom Road, Suite 100 San Antonio, TX 78216 Tel. (210) 526-0286 Fax (210) 526-0325 TBPE Registration Number F-14629 Garza Bury, LLC © Copyright 2015 |
| | Designed By: FJC | | | |
| | Drawn By: FJC | | | |
| | Reviewed By: WCC | | | |
| | Date: OCTOBER 2015 | | | |



NOTE:
 FITTINGS FOR 20" AND LARGER PIPE

PROPERTY OF
 SAN ANTONIO WATER SYSTEM
 SAN ANTONIO, TEXAS

4" BLOW-OFF (TEMPORARY)
 (RESTRAINT METHOD)

| | |
|------------------|---------|
| APPROVED | REVISED |
| DD-000-00 | |
| SHEET 5 OF 6 | |



GB PRJ #: 103187-00001
 Designed By: FJC
 Drawn By: FJC
 Reviewed By: WCC
 Date: OCTOBER 2015

**SAN ANTONIO WATER SYSTEM
 DSP CLAYTON TANK REPLACEMENT PROJECT**

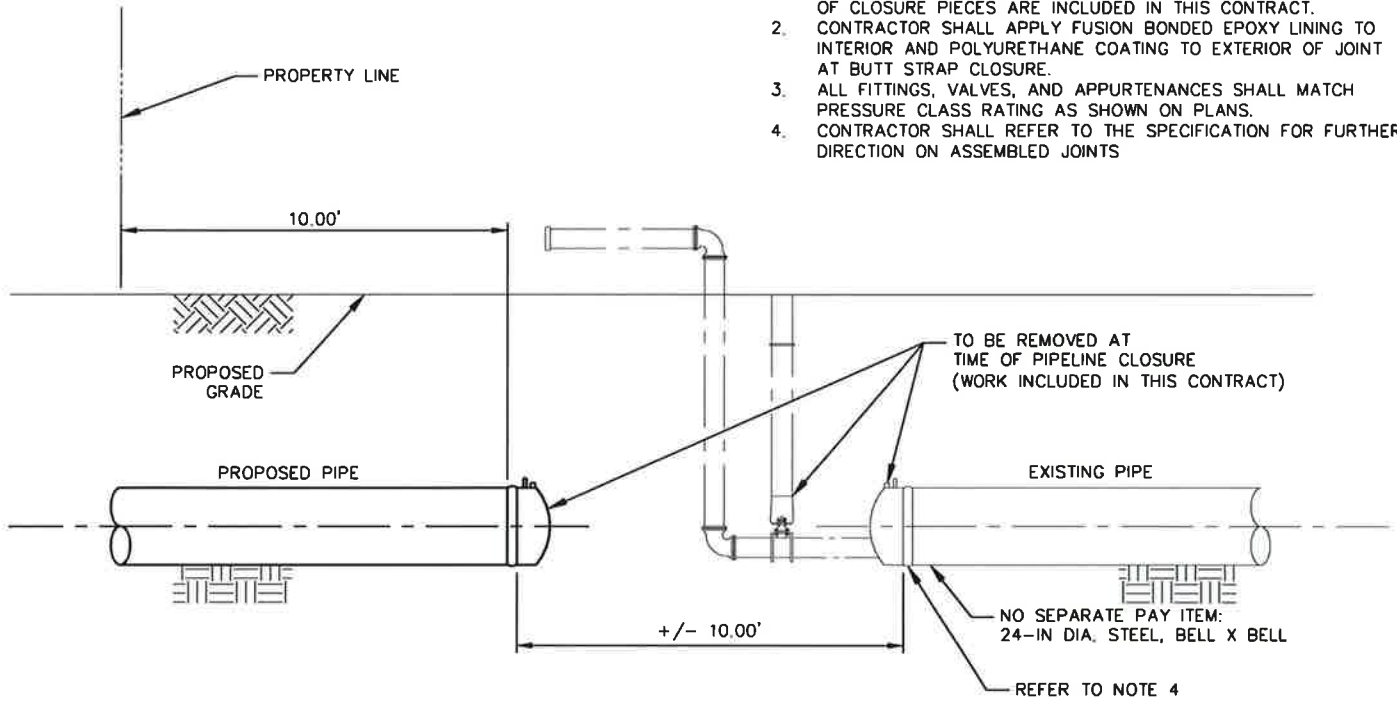
4-IN BLOW-OFF - TEMPORARY

**EXHIBIT A
 2 OF 3**

garzabury
 LLC
 922 Isom Road, Suite 100
 San Antonio, TX 78216
 Tel. (210) 526-0286 Fax (210) 526-0325
 TBPE Registration Number F-14629
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NOTES:

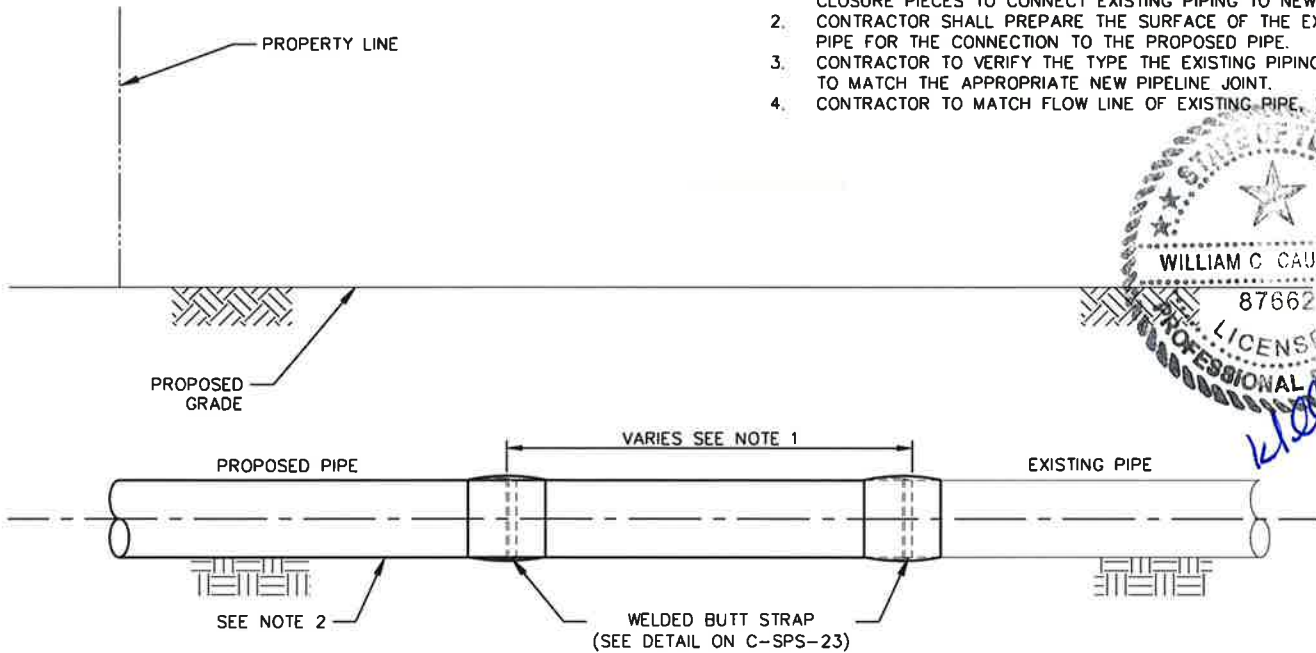
1. CONTRACTOR SHALL VERIFY LENGTH OF CLOSURE AND TYPE OF JOINT PRIOR TO ORDERING PIPE. FURNISHING AND INSTALLATION OF CLOSURE PIECES ARE INCLUDED IN THIS CONTRACT.
2. CONTRACTOR SHALL APPLY FUSION BONDED EPOXY LINING TO INTERIOR AND POLYURETHANE COATING TO EXTERIOR OF JOINT AT BUTT STRAP CLOSURE.
3. ALL FITTINGS, VALVES, AND APPURTENANCES SHALL MATCH PRESSURE CLASS RATING AS SHOWN ON PLANS.
4. CONTRACTOR SHALL REFER TO THE SPECIFICATION FOR FURTHER DIRECTION ON ASSEMBLED JOINTS



TIE-IN TO EXISTING PIPE
 SCALE: N.T.S.

NOTES:

1. CONTRACTOR SHALL VERIFY LENGTH OF CLOSURE PIECE AND TYPE OF JOINT PRIOR TO OPENING PIPE. FURNISH AND INSTALL CLOSURE PIECES TO CONNECT EXISTING PIPING TO NEW PIPING.
2. CONTRACTOR SHALL PREPARE THE SURFACE OF THE EXISTING PIPE FOR THE CONNECTION TO THE PROPOSED PIPE.
3. CONTRACTOR TO VERIFY THE TYPE THE EXISTING PIPING JOINTS TO MATCH THE APPROPRIATE NEW PIPELINE JOINT.
4. CONTRACTOR TO MATCH FLOW LINE OF EXISTING PIPE, TYP.



PIPE CLOSURE DETAIL
 SCALE: N.T.S.



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**DETAIL A
 TIE-IN TO EXISTING AND CLOSURE DETAILS**

**EXHIBIT A
 3 OF 3**



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