



Basin Pump Station Improvements Phase II Project  
SAWS Job No. 15-6004  
Solicitation No. CO-00163

**ADDENDUM No. 3**

March 30, 2018

This addendum, applicable to work designated above, is an amendment to the proposal and specification documents and as such shall be a part of and included in the Contract. Acknowledge receipt of this addendum by entering the addendum number and issue date on the space provided in submitted copies of the proposal.

**1. Questions/Comments**

- 1.1.** 6" Storm Drain East of Existing Pump Station Building is called out for replacement, but appears to be located under existing electrical building and loading dock. Will these facilities be removed prior to construction activities? Will lining this pipe be an acceptable alternative to remove/replace?

**Response:** Lining will be an acceptable alternative.

- 1.2.** Existing water pipe removal does not reference pipe type. For bidding purposes, should this pipe be assumed to be steel or AC?

**Response:** The existing yard piping to be removed is steel.

- 1.3.** Section 01040, 1.03, A, Please confirm the duration of winter months. October 1, 2017 is provided as a start date, but no end date is provided.

**Response:** Winter months are identified as October 1, 2018 through April 30, 2019.

- 1.4.** Section 01040, 1.04, Please define working the working restrictions for the tank rehabilitation. When can the tank be out of service and will the contractor need to maintain any functionality during the construction process?

**Response:** Refer to part 2, Modifications to the Specifications, item 2.1 herein.

- 1.5.** Addendum 1, 1.8 & 1.11, Will SAWS provided an updated list of approved PCSI and ASP contractors prior to bid date? If no list is provided, are bidders to select from the contractors provided in the bid documents?

**Response:** Refer to part 2, Modifications to the Specifications, item 2.3 herein and the contractor documents.

- 1.6. Please confirm depths of wells 5 and 6 and provide weights for pumps, motors, and shafts that will need to be lifted to allow for flange extension and motor rotation.

**Response:** Information not available. The larger well motor is 400 HP.

- 1.7. Section 02503, 1.01, A, Please confirm lead abatement requirements and lead containing materials. Specification refers to items located in the 34th Street Pump Station. Due to the bidding time constraints, we would recommend changing the lead abatement bid item to an allowance and conduct a full site investigation post award. If this is not possible, please provide the full extent of lead paint present on the project. Is the contractor to assume that the existing tank, well motors, and above grade piping all contain lead paint? Is the contractor hire a remediation consultant to investigate the full extent of lead contamination prior to beginning work?

**Response:** An asbestos and lead survey has been developed for SAWS on this project and has been made available for CONTRACTORS for informational purposes only. SAWS will require the execution of a SAWS disclaimer form by the CONTRACTOR as a condition of and prior to the release of the report. To complete the disclaimer form and obtain the report, please go to the following link on SAWS website: [CO-00163 – Basin Pump Station Improvements Phase II Project](#)

- 1.8. Section 0101, 1.05, F, requires the contractor to provide temporary power to the Basin Pump Station until final acceptance. Please provide the station power consumption records and utility bills for the previous year. Is it assumed that power consumption during the construction period will be more or less than the previous year? Does the contractor's financial obligation begin at NTP or when the existing primary power service is first affected?

**Response:** The cost of the facilities to provide temporary power by CONTRACTOR. The cost of the electricity to operate the Pump Station and Wells will be paid for by SAWS.

- 1.9. Section 16000, 1.07, D, requires the contractor to pay all power company charges for obtaining electrical service. Do these fees differ from the fees described in 1.07 C or the Line item 12 allowance? Additionally, has the owner secured a routing and timeline for new service from the power company?

**Response:** Refer to Addendum No. 2 part 2, Modifications to the Specification, Item 2.8. Also routing or time line is not established

- 1.10. Section 02504, PART 1, A, defines AC pipe as friable. 3.06, C, considers AC pipe to be nonfriable unless broken. Please confirm unbroken AC Pipe classification.

**Response:** AC pipe in good condition is classified as nonfriable. If the AC pipe can be crumbled, pulverized, or reduced to powder by hand pressure then it is classified as friable.

- 1.11.** Section 17300, 1.05, C requires to name the selected PCSI in the bid documents. Please clarify where in the bid documents this listing is to take place? Will the vendor/subcontractor listing in the SMWVB paperwork be sufficient for this purpose or will another form be required?

**Response:** The SMWVB paperwork is sufficient.

- 1.12.** Page 1 of 4 of the Good Faith Effort Plan for Construction SUBCONTRACTS form requires a listing of ALL subcontractors/suppliers to be used on this project. Due to the limited bid timeframe and the tightening vendor market, it may not be possible to have committed subcontractors/suppliers for all scopes of work available at the time of bid. If a subcontractor/supplier is not listed on this document at bid time, are they excluded from working on the project?

**Response:** CONTRACTOR must comply with all SAWS contract requirements and requirements for the SAWS Good Faith Effort Plan.

- 1.13.** Electrical drawings indicate shelters to be located above well electrical components. These shelters do not appear in the civil or architectural drawings and no specifications are provided. Please detail construction requirements for these shelters.

**Response:** Shelters are not required for the well electrical equipment.

- 1.14.** Second transformer pad is shown on electrical drawings, but does not appear on civil sheets. Please confirm horizontal alignment and elevation.

**Response:** Refer to part 3, Modifications to Drawings, item 3.2 and 3.3 herein.

- 1.15.** Please confirm if the existing and proposed above grade steel piping receives Polyurethane Coating per spec. section 09911 and Class 9 Coating System per spec. section 09900.

**Response:** Class 9 Coating system is for existing and proposed above grade steel piping. Section 09911 is for buried piping.

- 1.16.** Per painting and coating spec, 09900, “all existing facilities that will be upgraded as a part of the project” will be painted (1.01.B). Please identify specific element of the existing facilities that need to be recoated. Will all interior and exterior components of the existing pump station be recoated per this project? If so, please provide detailed plan sheets for the existing building and piping systems.

**Response:** The interior components of the High Service Pump Station will not be recoated. Exterior components including all steel elements including, handrails, the roof access ladder, and the steel rail and cage located on the loading deck will be recoated.

- 1.17.** Per painting and coating spec, 09900, exposed concrete receives coating (1.01.B.2). Please confirm that concrete structures in the yard such as the valve pads, transformed slab, switchgear foundation slab, proposed concrete paving, sidewalks, and flow control pads receive coating system #4. Additionally, do existing exterior concrete surfaces require coating?

**Response:** Concrete flatwork in the yard such as valve pads, transformed slab, switchgear foundation slab, proposed concrete paving, sidewalks, and flow control pads will not be coated.

- 1.18. Per painting and coating spec, 09900, please confirm that stainless steel tubing is not coated. Exclusion item number 1.01.E.4 and 1.01.E.6 appear in contradiction regarding the coating of stainless steel tubing.

**Response:** Stainless steel tubing is not to be coated unless otherwise noted on the plans and/or specifications.

- 1.19. Please confirm whether or not the existing wells pump and motors need to have their existing coating removed and then have a new coating applied per spec 09900. If so, are we to assume that the existing coating contains lead?

**Response:** The existing well pumps and motors to be recoated per specification 09900.

An asbestos and lead survey has been developed for SAWS on this project and has been made available for CONTRACTORS for informational purposes only. SAWS will require the execution of a SAWS disclaimer form by the CONTRACTOR as a condition of and prior to the release of the report. To complete the disclaimer form and obtain the report, please go to the following link on SAWS website: [CO-00163 – Basin Pump Station Improvements Phase II Project](#)

- 1.20. Please provide technical specifications for the motorized gate operators.

**Response:** Refer to part 2, Modifications to the Specifications, item 2.2 herein.

- 1.21. With the issuance of Addendum #1 and the added tank rehab scope of work, there were not any modifications made to the Coordination Specification 01040, specifically no further detailed shutdown constraints were provided. Please advise if the Basin Pump Station in entirety can be shutdown and taken offline for the duration of the contract time.

**Response:** Refer to part 2, Modifications to the Specifications, item 2.1 herein.

## 2. Modifications to the Specifications

### 2.1. Section 01040 – Coordination

Section 1.03.A – **Replace** October 1, 2017 with October 1, 2018.

Section 1.05.A – Delete paragraph in its entirety and replace with the following:

- A. Shutdown No. 1 – GST Rehabilitation Only: \_The tank shall be drained and empty during all paint removal and all cleaning, application, and curing of the new coating. The OWNER shall drain the tank and the CONTRACTOR shall be responsible for removing any excess water and cleaning any sediment in the tank interior in preparation for the blasting and coating application operations. A plan of action as

required in Article H.1.c above shall be submitted for approval by SAWS at least 14 calendar days ahead of the proposed work date. The shutdown must occur during the winter months of October 31, 2018 through April 30, 2019. While the tank is shutdown the High Service Pump Station must remain operational.

- B. Shutdown No. 2: Shutdown of existing Pump Station facilities for the replacement of the isolation valves at the existing storage tank. A plan of action as required in Article H.1.c above shall be submitted for approval by SAWS at least 14 calendar days ahead of the proposed work date. The shutdown shall not exceed 3 days, no more than two shutdowns will be allowed.

## 2.2. Section 02821 – Chain-Link Fences and Gates

Add the following Paragraph:

### 2.14 ROLLING GATE OPERATOR:

1. There shall be a Chain Driven Type Slide Gate Operator for the opening/closing of each access gate. 208 V single phase single-phase power will be furnished on-site. It shall be provided with and connected to obstruction loops inserted on both sides of the entrance access gate. The obstruction loops inserted on both sides of the entrance access gate. The obstruction loops shall be buried 4 –inches in the concrete pavement an arranged as per the Contract Drawings.
2. Manufacturer: Door King model DKS 9150 with:
  - a. Plug in Loop Detector Option
  - b. Provide Disconnection Switch adjacent to operator. Mount to rack constructed of 2” galvanized pipe and strut similar to other racks specified for this project.
  - c. Operator shall be mounted on contractor installed 26”L x21.5”W x 4” H concrete slab per the manufacturer. Refer to installation manual for spacing from gate and other requirements.

## 2.3. Section 17300 – Process Control Systems General Provisions

Article 1.06.E.3– **Add** the following:

3. Prime Controls (for PLC and other HMI system applications, as applicable)  
1725 Lakepointe Dr.  
Lewisville, TX 75057  
Attn: Gary McNeil  
Phone: 972-221-4849  
Fax: 972-420-4842

## 3. Modifications to the Drawings

### 3.1. Sheet C-108

Add the following Note:

7. Demolish the existing piping & appurtenances regarding the existing chlorine gas disinfection system. Coordinate removal of retained/salvaged equipment with SAWS. The existing chlorine gas disinfection area shall be sandblasted and coated per Specification 09900.

**3.2.** Sheet C-111.

Replace sheet in its entirety with the attached sheet.

**3.3.** Sheet C-112.

Replace sheet in its entirety with the attached sheet.

**3.4.** Sheet D-1101.

Replace sheet in its entirety with the attached sheet.

**3.5.** Sheet D-1102.

Replace sheet in its entirety with the attached sheet.

**3.6.** Sheet D-1103.

Replace sheet in its entirety with the attached sheet.

**3.7.** Sheet D-1104.

Replace sheet in its entirety with the attached sheet.

**3.8.** Sheet D-1105.

Replace sheet in its entirety with the attached sheet.

**3.9.** Sheet D-1106.

Replace sheet in its entirety with the attached sheet.

**3.10.** Sheet D-1107.

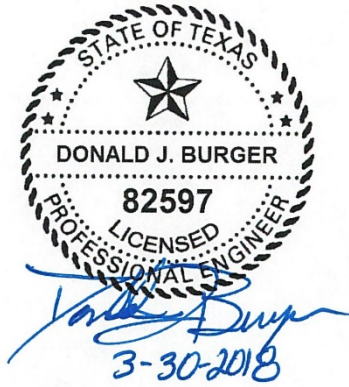
Replace sheet in its entirety with the attached sheet.

**3.11.** Sheet D-1108.

Replace sheet in its entirety with the attached sheet.

The remainder of the bid documents remain unchanged.

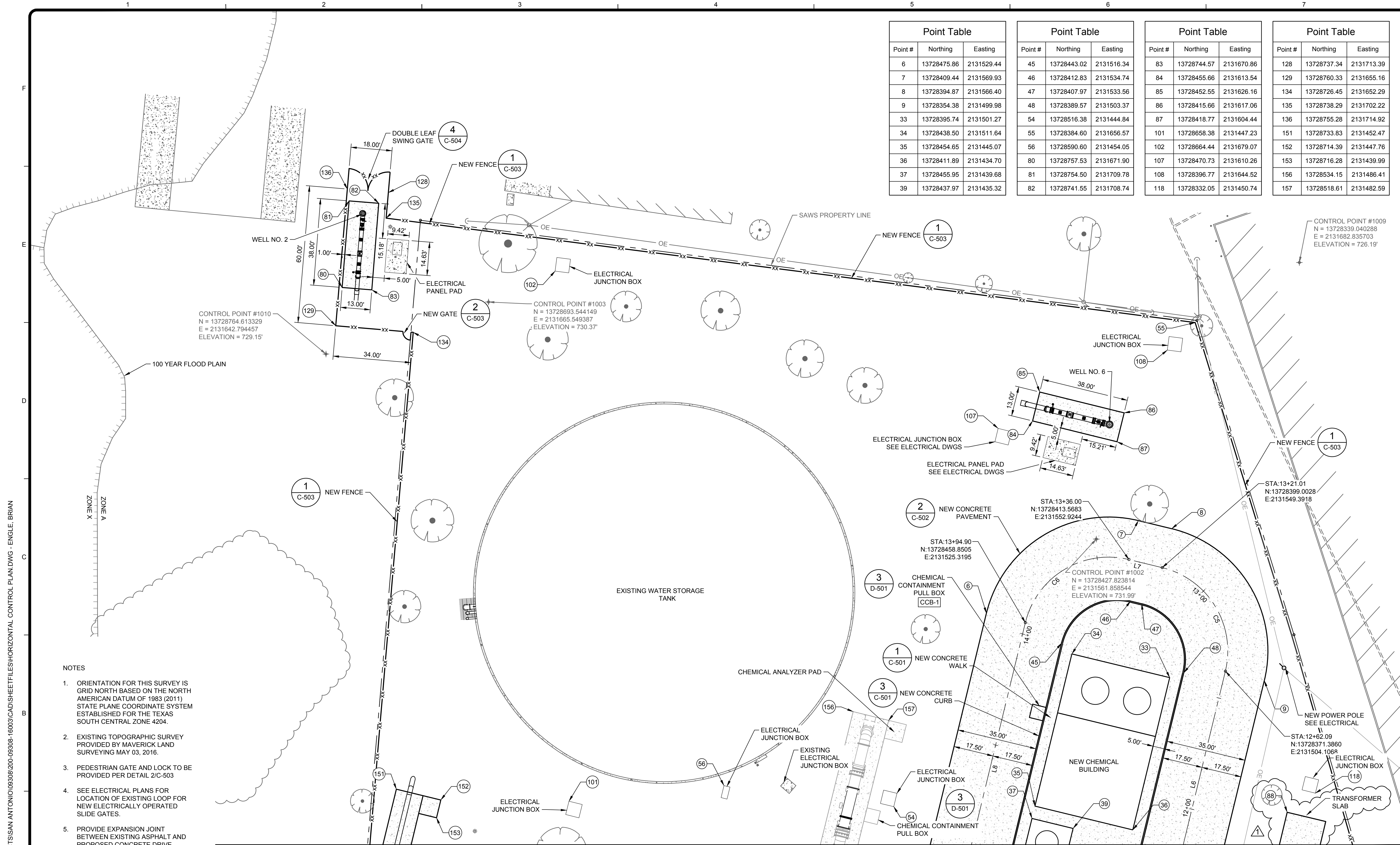
This addendum is comprised of a total of 17 pages (including attachments).



**Don Burger, P.E.**

Tetra Tech, Inc.

**END OF ADDENDUM NO. 3**



Point Table			Point Table			Point Table			Point Table		
Point #	Northing	Easting	Point #	Northing	Easting	Point #	Northing	Easting	Point #	Northing	Easting
6	13728475.86	2131529.44	45	13728443.02	2131516.34	83	13728744.57	2131670.86	128	13728737.34	2131713.39
7	13728409.44	2131569.93	46	13728412.83	2131534.74	84	13728455.66	2131613.54	129	13728760.33	2131655.16
8	13728394.87	2131566.40	47	13728407.97	2131533.56	85	13728452.55	2131626.16	134	13728726.45	2131652.29
9	13728354.38	2131499.98	48	13728389.57	2131503.37	86	13728415.66	2131617.06	135	13728738.29	2131702.22
33	13728395.74	2131501.27	54	13728516.38	2131444.84	87	13728418.77	2131604.44	136	13728755.28	2131714.92
34	13728438.50	2131511.64	55	13728384.60	2131656.57	101	13728658.38	2131447.23	151	13728733.83	2131452.47
35	13728454.65	2131445.07	56	13728590.60	2131454.05	102	13728664.44	2131679.07	152	13728714.39	2131447.76
36	13728411.89	2131434.70	80	13728757.53	2131671.90	107	13728470.73	2131610.26	153	13728716.28	2131439.99
37	13728455.95	2131439.68	81	13728754.50	2131709.78	108	13728396.77	2131644.52	156	13728534.15	2131486.41
39	13728437.97	2131435.32	82	13728741.55	2131708.74	118	13728332.05	2131450.74	157	13728518.61	2131482.59

**TETRA TECH**  
Texas Registration No. F-3924

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ADDENDUM

**SAN ANTONIO WATER SYSTEM**

MARK	DATE	DESCRIPTION
1	03/30/18	PER ADDENDUM #3

**SAN ANTONIO WATER SYSTEM**  
BASIN PUMP STATION IMPROVEMENT  
PROJECT PHASE II  
**HORIZONTAL CONTROL PLAN I**

Project No.:	15-6004
Designed By:	BLE
Drawn By:	DAC
Checked By:	DJB

**C-111**

Bar Measures 1 inch

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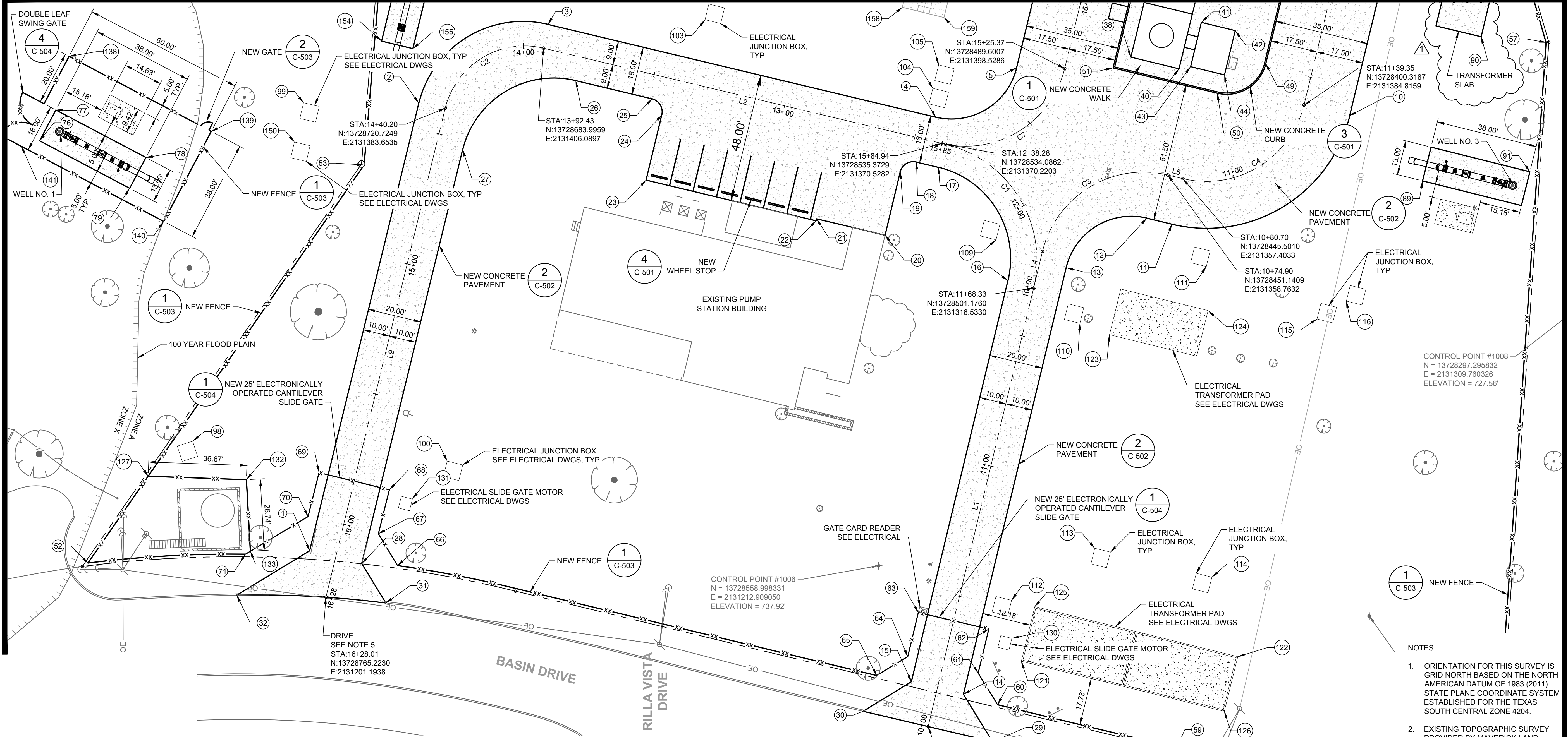
- NOTES**
- ORIENTATION FOR THIS SURVEY IS GRID NORTH BASED ON THE NORTH AMERICAN DATUM OF 1983 (2011) STATE PLANE COORDINATE SYSTEM ESTABLISHED FOR THE TEXAS SOUTH CENTRAL ZONE 4204.
  - EXISTING TOPOGRAPHIC SURVEY PROVIDED BY MAVERICK LAND SURVEYING MAY 03, 2016.
  - PEDESTRIAN GATE AND LOCK TO BE PROVIDED PER DETAIL 2/C-503
  - SEE ELECTRICAL PLANS FOR LOCATION OF EXISTING LOOP FOR NEW ELECTRICALLY OPERATED SLIDE GATES.
  - PROVIDE EXPANSION JOINT BETWEEN EXISTING ASPHALT AND PROPOSED CONCRETE DRIVE.
  - REINSTALL ALL EXISTING SIGNS REMOVED FOR CONSTRUCTION.
  - REPLACE EXISTING ROCK WITH SAME OR EQUAL MATERIAL.
  - SEE SHEET C-114 FOR LINE TABLE AND CURVE TABLE.

**HORIZONTAL CONTROL PLAN**

SCALE: 1" = 20'



MATCH LINE SEE SHEET C-111



MATCH LINE SEE SHEET C-113

MATCH LINE SEE SHEET C-114

Point #	Northing	Easting
1	13728771.30	2131218.47
2	13728730.56	2131385.53
3	13728682.39	2131414.96
4	13728537.67	2131380.33
5	13728507.55	2131398.75
10	13728383.26	2131380.90
11	13728449.60	2131340.39
12	13728458.95	2131342.64
13	13728489.05	2131324.17
14	13728527.36	2131164.93
15	13728546.81	2131169.60
16	13728510.78	2131319.36
17	13728536.67	2131361.58
18	13728544.89	2131363.55
19	13728550.92	2131359.86
20	13728556.61	2131336.26

Point #	Northing	Easting
21	13728582.18	2131342.38
22	13728582.35	2131341.67
23	13728645.76	2131356.85
24	13728639.86	2131381.12
25	13728643.56	2131387.16
26	13728672.05	2131393.98
27	13728714.19	2131368.23
28	13728751.87	2131213.73
29	13728516.52	2131147.21
30	13728564.85	2131158.56
31	13728742.85	2131198.99
32	13728798.51	2131201.93
38	13728464.91	2131402.75
40	13728446.93	2131398.39
41	13728438.61	2131415.71
42	13728425.98	2131412.65

Point #	Northing	Easting
43	13728442.62	2131399.19
44	13728429.99	2131396.13
49	13728414.57	2131400.32
50	13728432.68	2131389.28
51	13728471.55	2131398.70
52	13728854.00	2131213.92
53	13728750.97	2131362.50
57	13728309.99	2131408.22
58	13728332.63	2131079.64
59	13728447.84	2131144.91
60	13728514.65	2131161.04
61	13728521.86	2131172.83
62	13728517.91	2131189.27
63	13728544.19	2131195.45
64	13728548.15	2131179.01
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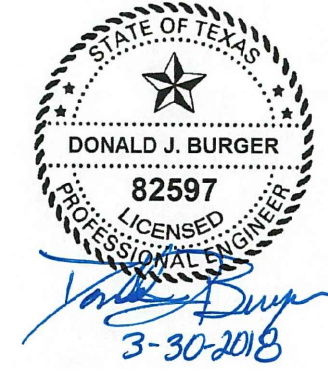
Point #	Northing	Easting
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67	13728745.65	2131224.86
68	13728741.55	2131241.27
69	13728767.79	2131247.66
70	13728771.88	2131231.26
71	13728795.20	2131217.25
76	13728872.04	2131371.52
77	13728865.97	2131383.02
78	13728832.37	2131365.28
79	13728838.44	2131353.78
88	13728344.36	2131442.39
89	13728356.07	2131356.55
90	13728334.22	2131410.35
91	13728316.05	2131359.97
98	13728814.95	2131259.40
99	13728773.57	2131385.70

Point #	Northing	Easting
100	13728719.98	2131251.97
103	13728623.77	2131416.72
104	13728538.78	2131391.11
105	13728536.62	2131399.85
109	13728515.20	2131334.55
110	13728483.90	2131303.39
111	13728436.79	2131324.59
112	13728509.40	2131200.01
113	13728478.38	2131219.43
114	13728434.69	2131208.65
115	13728395.43	2131305.00
116	13728384.51	2131311.69
121	13728505.78	2131177.27
122	13728425.02	2131178.97
123	13728472.89	2131299.17
124	13728436.12	2131308.17

Point #	Northing	Easting
125	13728500.75	2131197.66
126	13728430.05	2131158.58
127	13728831.53	2131246.33
130	13728509.31	2131185.82
131	13728732.96	2131237.81
132	13728794.88	2131245.02
133	13728793.40	2131218.33
138	13728861.05	2131403.04
139	13728807.99	2131375.02
140	13728825.74	2131341.42
141	13728878.80	2131369.44
150	13728776.98	2131371.04
154	13728744.43	2131408.73
155	13728732.76	2131405.91
158	13728550.17	2131421.36
159	13728534.64	2131417.53

- NOTES
- ORIENTATION FOR THIS SURVEY IS GRID NORTH BASED ON THE NORTH AMERICAN DATUM OF 1983 (2011) STATE PLANE COORDINATE SYSTEM ESTABLISHED FOR THE TEXAS SOUTH CENTRAL ZONE 4204.
  - EXISTING TOPOGRAPHIC SURVEY PROVIDED BY MAVERICK LAND SURVEYING MAY 03, 2016.
  - PEDESTRIAN GATE AND LOCK TO BE PROVIDED PER DETAIL 2/C-503
  - SEE ELECTRICAL PLANS FOR LOCATION OF EXISTING LOOP FOR NEW ELECTRICALLY OPERATED SLIDE GATES.
  - PROVIDE EXPANSION JOINT BETWEEN EXISTING ASPHALT AND PROPOSED CONCRETE DRIVE.
  - REINSTALL ALL EXISTING SIGNS REMOVED FOR CONSTRUCTION.
  - REPLACE EXISTING ROCK WITH SAME OR EQUAL MATERIAL.
  - SEE SHEET C-114 FOR LINE TABLE AND CURVE TABLE.

**HORIZONTAL CONTROL PLAN**



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ADDENDUM

**SAN ANTONIO WATER SYSTEM**

MARK	DATE	DESCRIPTION
1	03/30/18	PER ADDENDUM #3

SAN ANTONIO WATER SYSTEM  
BASIN PUMP STATION IMPROVEMENT  
PROJECT PHASE II  
**HORIZONTAL CONTROL PLAN II**

Project No.:	15-6004
Designed By:	BLE
Drawn By:	DAC
Checked By:	DJB

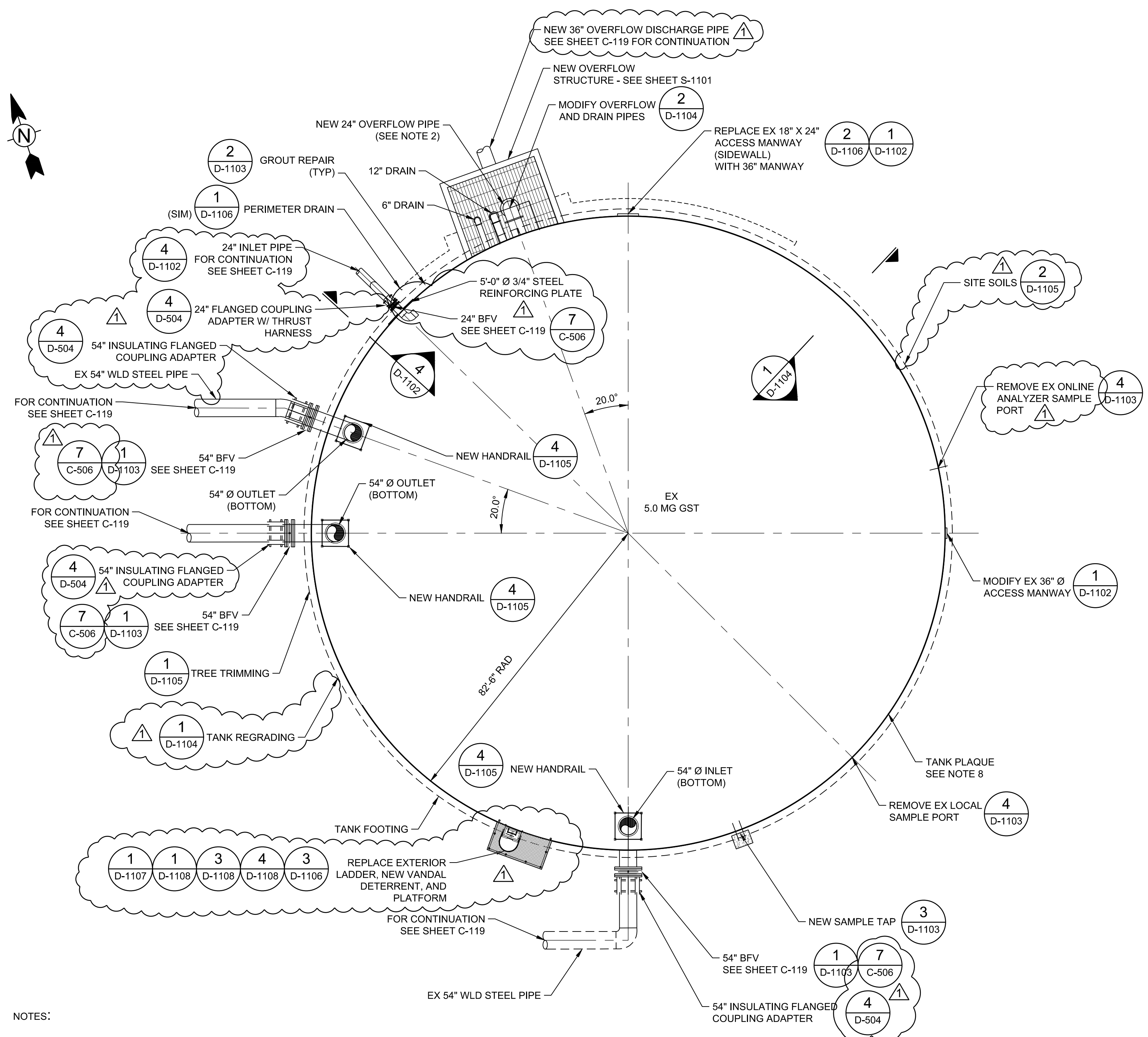
**C-112**

Bar Measures 1 inch

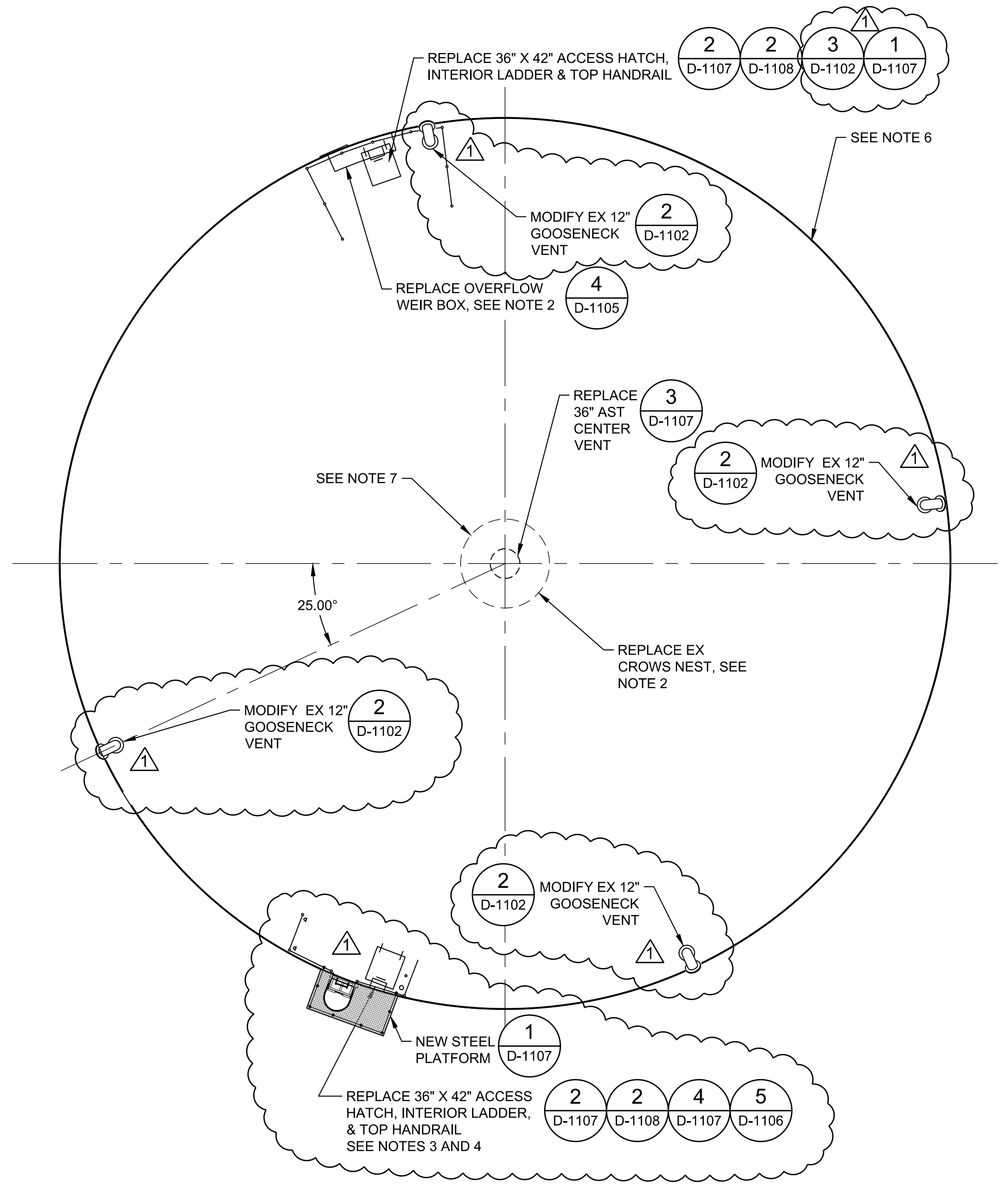
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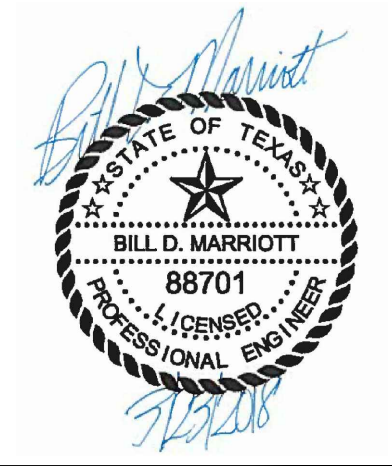


**1 TANK FLOOR LAYOUT PLAN**  
SCALE: NTS



**2 TANK ROOF LAYOUT PLAN**  
SCALE: NTS

- NOTES:
- REGRADE AROUND TANK TO PROVIDE MINIMUM 4" OF EXPOSED CONCRETE FOUNDATION.
  - STRUCTURAL REPAIR WORK SHALL BE COVERED BY AN ALLOWANCE, AS GIVEN IN THE BID PROPOSAL FORM, THAT INCLUDES THE FOLLOWING ITEMS:
    - REPLACEMENT OF OVERFLOW WEIR BOX
    - NEW OVERFLOW PIPE SUPPORTS
    - REPLACEMENT OF CROWS NEST MEMBERS
    - REINFORCEMENT OF ROOF MEMBERS
  - INSTALL SAFETY CHAINS AT PRIMARY HATCH OPENING.
  - REPLACE INTERIOR LADDER WITH OSHA - COMPLIANT STEEL LADDER. PROVIDE SLIP - RESISTANT RUNGS AND ADEQUATE TOE CLEARANCE (EXTEND LADDER BRACKETS 7 INCHES).
  - COVER ALL EXPOSED OPENINGS ON TANK ROOF (TO PREVENT INGRESS OF INSECTS, RAIN WATER, ETC.).
  - PROVIDE SSPC - SP 6 SURFACE PREPARATION ON EXTERIOR SURFACES (INCLUDING TANK ROOF). APPLY 3 - COAT EXTERIOR COATING SYSTEM WITH FLUOROPOLYMER FINISH. TANK EXTERIOR COATING SHALL MATCH EXISTING COLOR (WHICH IS FOREST GREEN).
  - PROVIDE SSPC - SP 10 SURFACE PREPARATION ON ALL INTERIOR SURFACES AND SUPPORT MEMBERS.
  - REMOVE AND CLEAN PLAQUE PRIOR TO PAINTING. REATTACH PLAQUE AFTER EXTERIOR COATING IS APPLIED.



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ADDENDUM

**SAN ANTONIO WATER SYSTEM**

MARK	DATE	DESCRIPTION	BY	NG
1	03/30/18	PER ADDENDUM #3		

SAN ANTONIO WATER SYSTEM  
 BASIN PUMP STATION IMPROVEMENT  
 PROJECT PHASE II ADDENDUM  
 BASIN PS EXISTING  
 TANK REHAB FLOOR &  
 ROOF PLAN

Project No.: 200-09308-16003

Designed By: BM

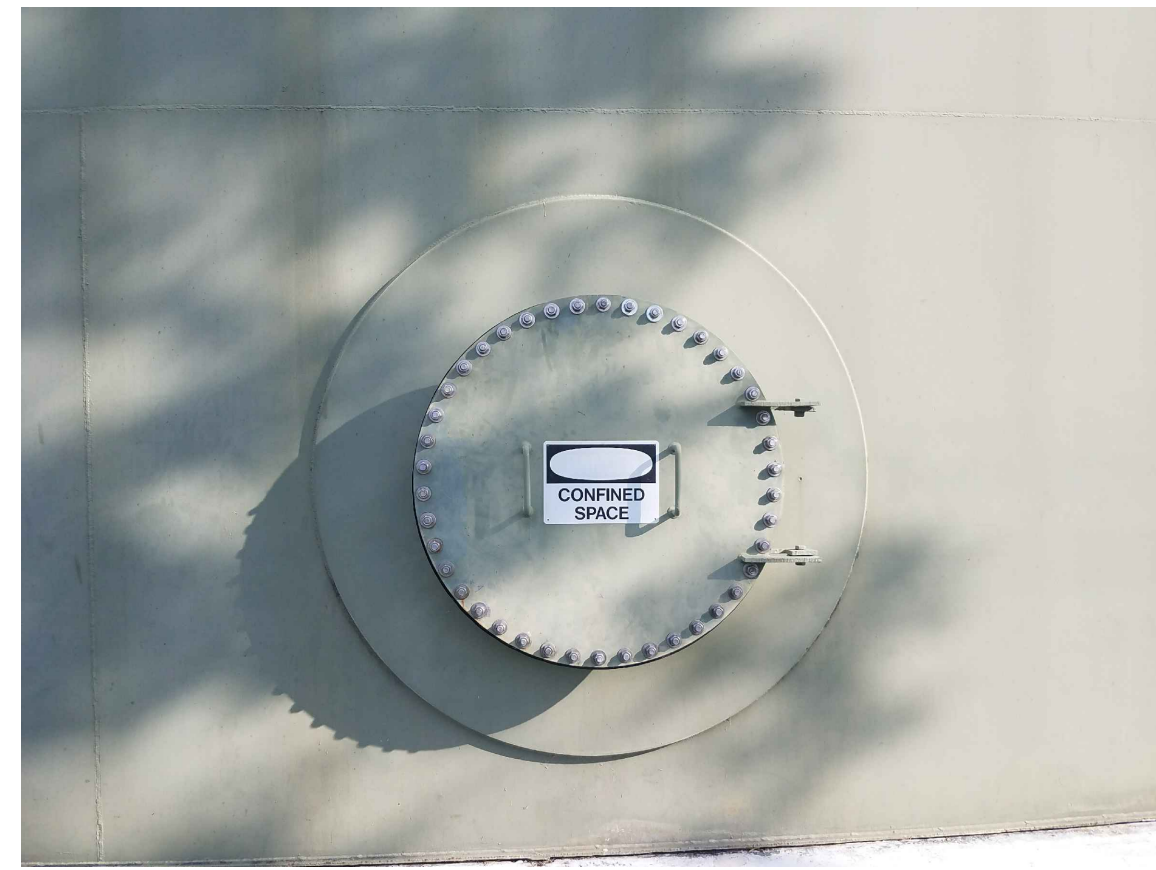
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Checked By: DB

D-1101

Bar Measures 1 inch

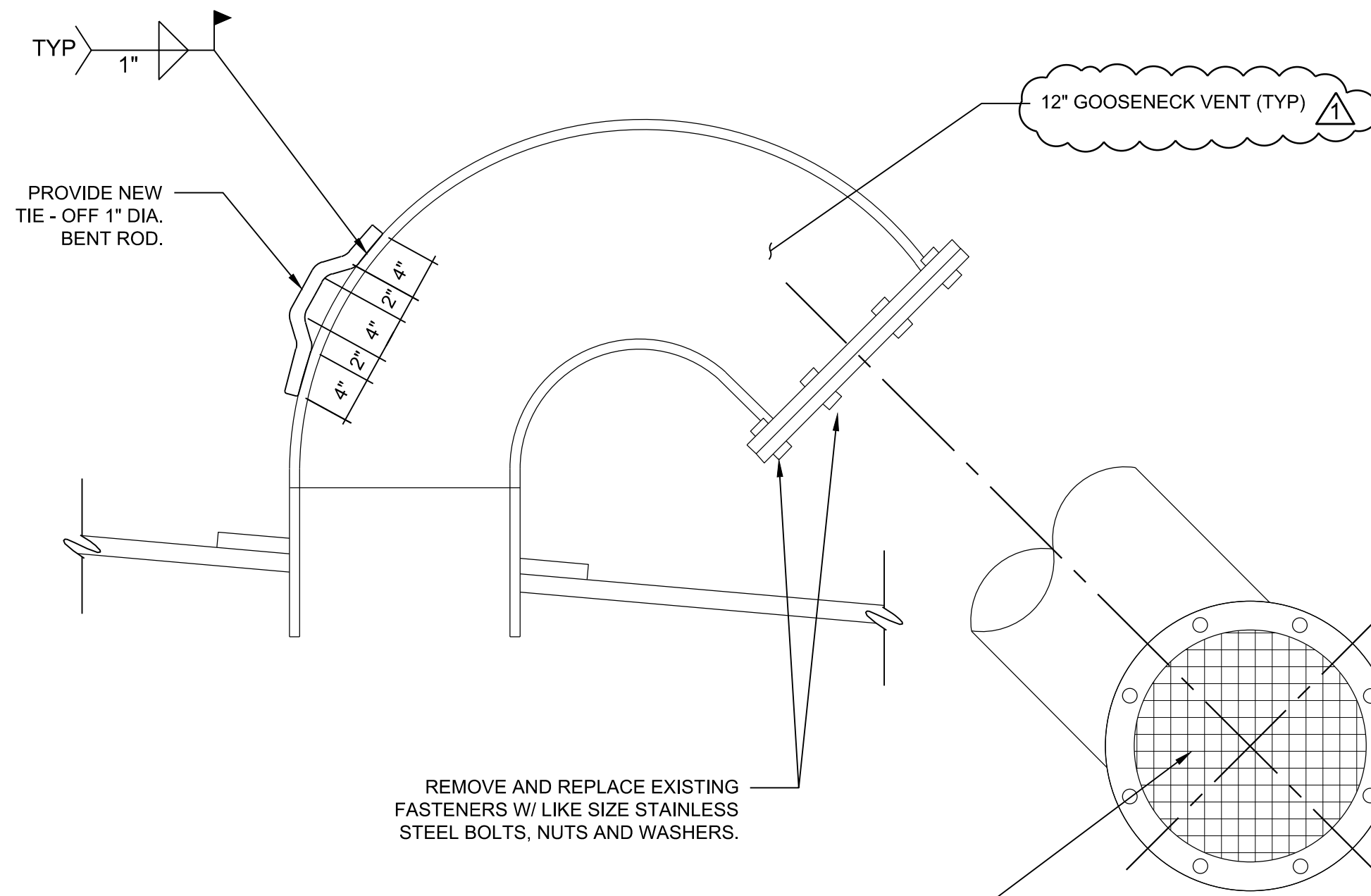
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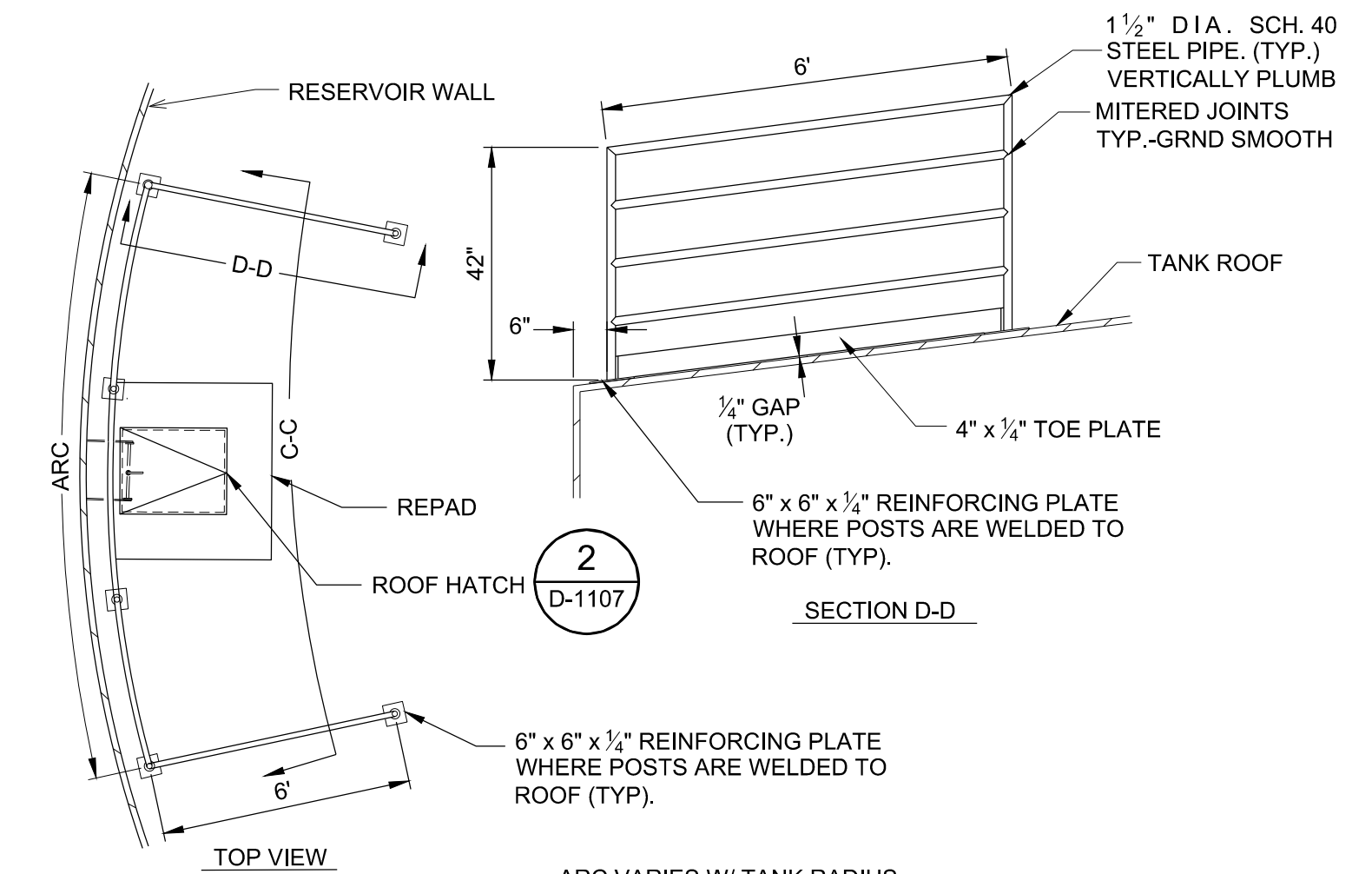
**NOTES:**

1. MANWAY SIZES: 36" Ø MANWAY
2. PROVIDE NEW 1/4" CLOTH - INSERTED GASKETS, S.S. NUTS, BOLTS & WASHERS AND REINSTALL FOR EACH EXISTING MANWAY.
3. INSTALL NEW "CONFINED SPACE" SIGNAGE FOR BOTH MANWAYS (ONE EXISTING, ONE PROPOSED) PER OSHA REGULATIONS.

**1 EXISTING ACCESS MANWAYS**  
SCALE: NTS



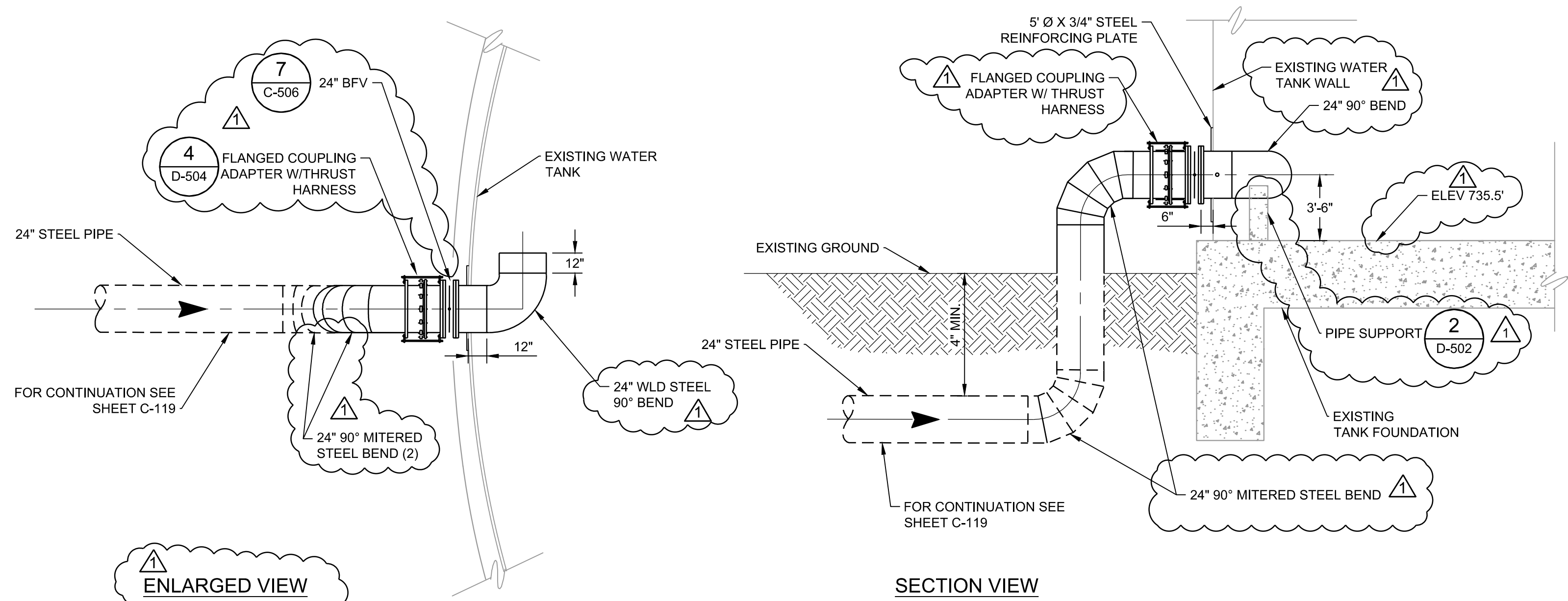
**2 GOOSENECK VENT**  
SCALE: NTS



**NOTE:**

1. REPLACE EXISTING HANDRAIL AT OVERFLOW. REFERENCE SECTIONS C-C AND D-D. IN THE VICINITY OF THE HATCH OPENINGS AN EXTRA HANDRAIL SHALL BE ADDED (AS SHOWN IN SECTION C-C).

**3 HANDRAIL DETAIL AT OVERFLOW**  
SCALE: NTS



**4 24 INCH TANK SIDEWALL INLET DETAIL**  
SCALE: NTS

**TETRA TECH**  
Texas Registration No. F-3924

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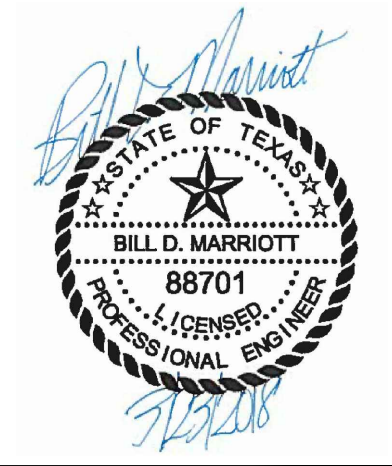
ADDENDUM

**SAN ANTONIO WATER SYSTEM**

MARK	DATE	DESCRIPTION	BY	NG
1	03/30/18	PER ADDENDUM #3		

SAN ANTONIO WATER SYSTEM  
BASIN PUMP STATION IMPROVEMENT  
PROJECT PHASE II ADDENDUM  
BASIN PS  
TANK DETAILS I

Project No.: 200-09308-16003  
Designed By: BM  
Drawn By: DA  
Checked By: DB

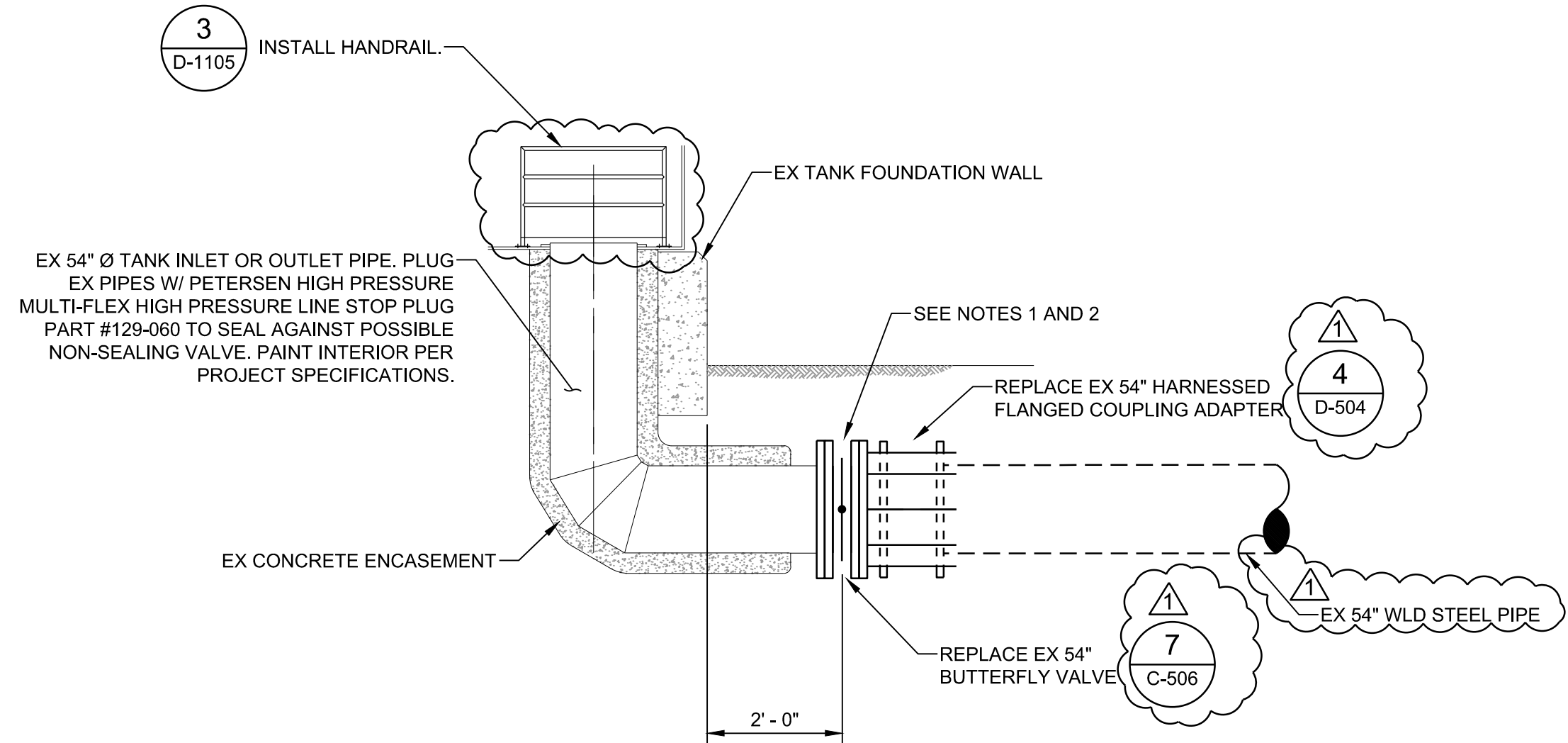


**D-1102**

Bar Measures 1 inch

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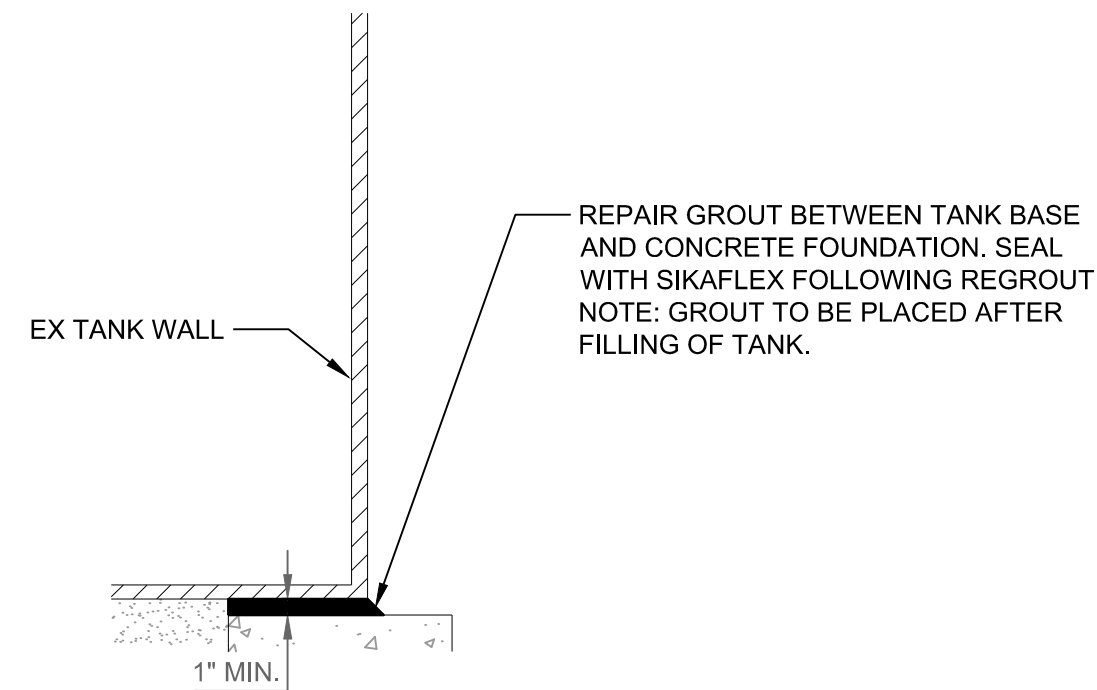
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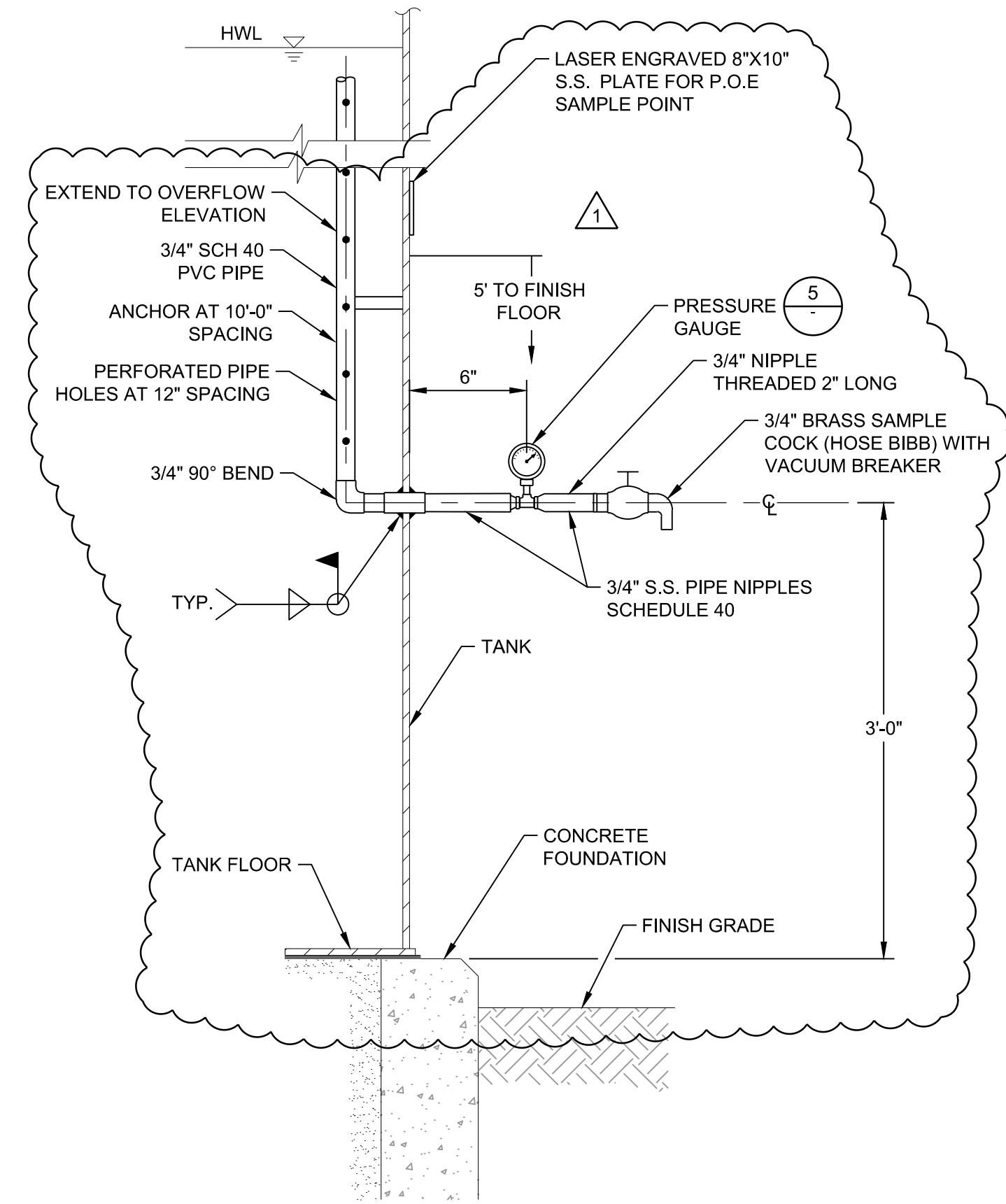
NOTES:

1. REPLACE EX 54" ISOLATION BUTTERFLY VALVE, ON TANK OUTLETS.
2. INSTALL 54" BUTTERFLY ON TANK INLET.
3. THE SCHEMATIC REPRESENTATION IS FOR ONE OF THE 54" OUTLET PIPES. POSITIONING OF MECHANICAL COUPLINGS AND VALVE MANHOLES WILL VARY FOR THE OTHER 54" OUTLET PIPE AS WELL AS THE 54" INLET PIPE. REFERENCE THE TANK FLOOR LAYOUT PLAN GIVEN ON SHEET D-1101.

1 54" INLET / OUTLET PIPES  
SCALE: NTS



2 GROUT REPAIR  
SCALE: NTS



NOTES:

1. CONTRACTOR TO VERIFY ALL LENGTHS AND DIMENSIONS PRIOR TO FABRICATION.
2. ALL WELDED COUPLINGS SHALL BE RATED FOR 3000 LBS.
3. ALL LAPPED SEAL WELDS SHALL BE MAG SEAL WELDS AND SHALL BE X-RAY TESTED.
4. PROVIDE PIPING INSULATION.

3 SAMPLE TAP  
SCALE: NTS

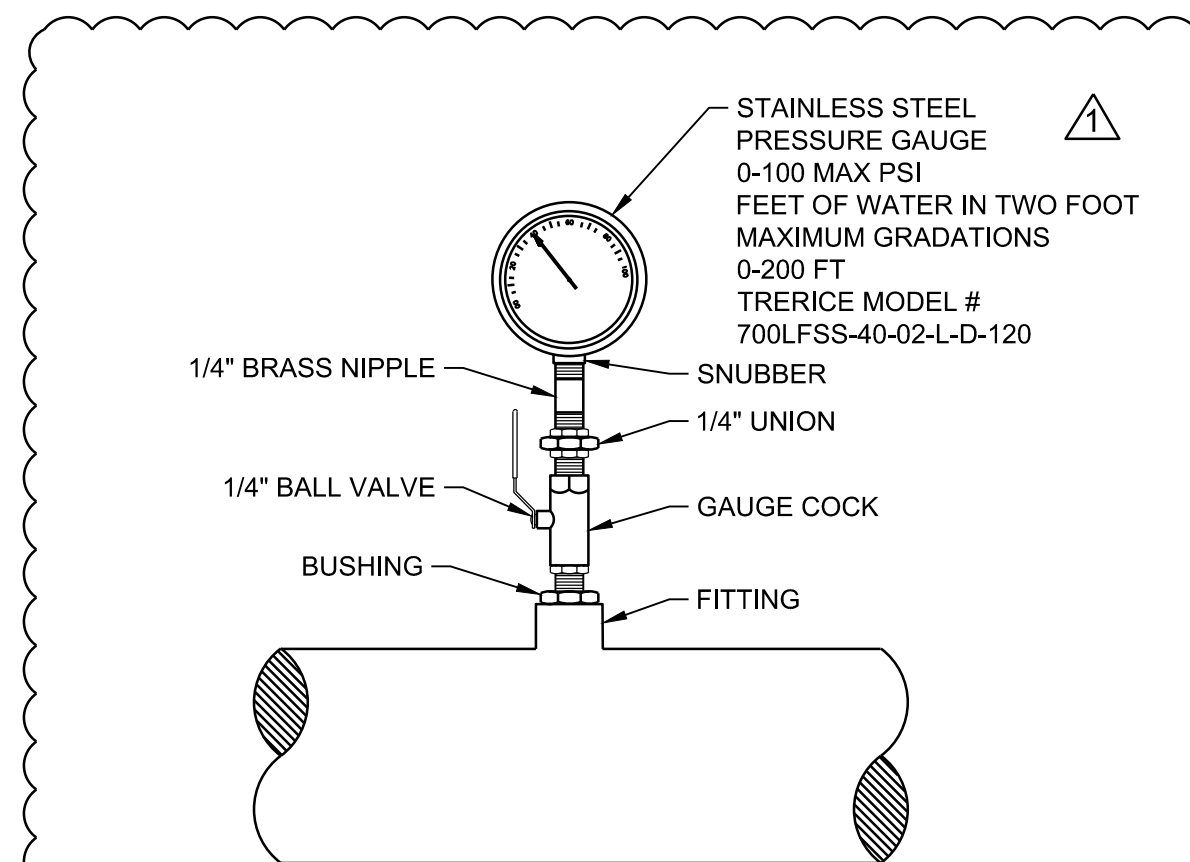


LOCAL SAMPLE PORT ONLINE ANALYZER SAMPLE PORT

NOTES:

1. REMOVE AND PLUG EXISTING SAMPLE PORT.
2. REMOVE AND PLUG EXISTING SAMPLE PORT. RELOCATE TO TANK FILL LINE A MINIMUM OF 20 FT FOLLOWING ALL CHEMICAL INJECTION POINTS.

4 EXISTING SAMPLE PORTS  
SCALE: NTS



NOTES:

1. ALL GAUGES TO BE GLYCOL FILLED AT A 4" MIN.
2. ALL GAUGES MUST READ PRESSURE IN POUNDS PER SQUARE INCH (PSI) AND FEET OF WATER.

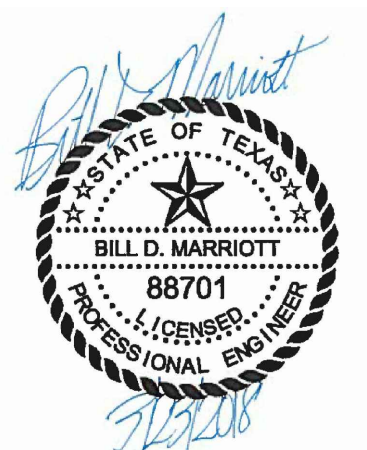
5 PRESSURE GAUGE  
SCALE: NTS

ADDENDUM

MARK	DATE	DESCRIPTION	BY	NG
1	03/30/18	PER ADDENDUM #3		

SAN ANTONIO WATER SYSTEM  
BASIN PUMP STATION IMPROVEMENT  
PROJECT PHASE II ADDENDUM  
BASIN PS  
TANK DETAILS II

Project No.: 200-09308-16003  
Designed By: BM  
Drawn By: DA  
Checked By: DB

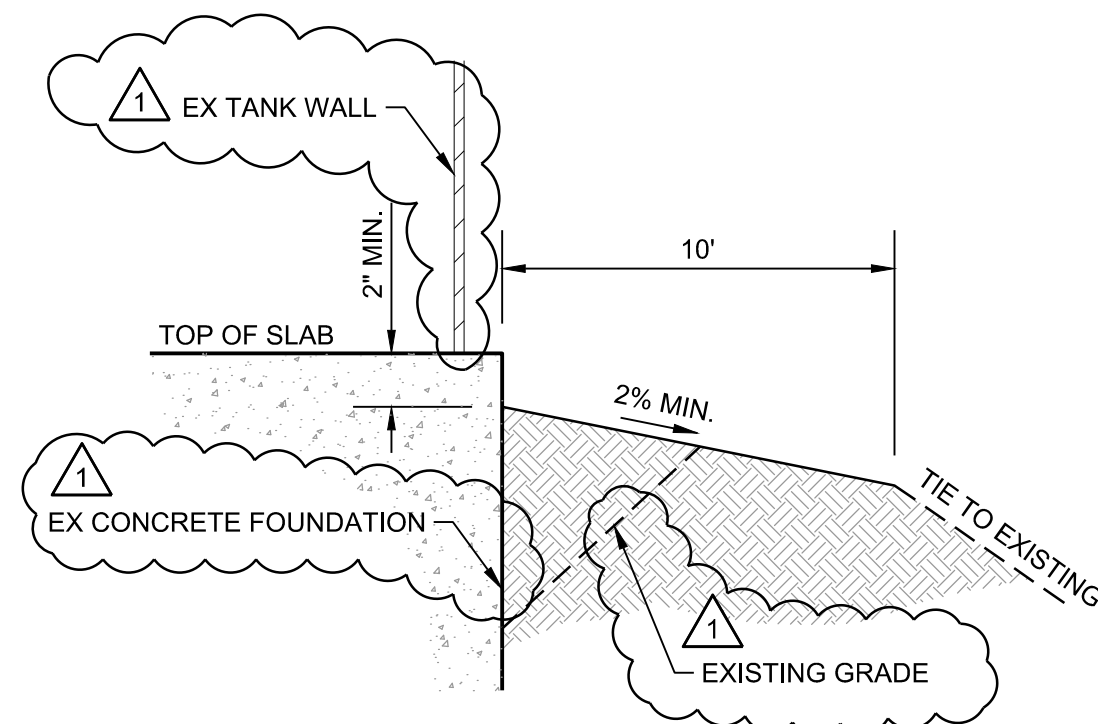


**D-1103**



**1** REGRADE AROUND TANK TO PROVIDE 2" MINIMUM OF EXPOSED CONCRETE FOUNDATION AND POSITIVE DRAINAGE AWAY FROM TANK.

**1** **TANK REGRADING**

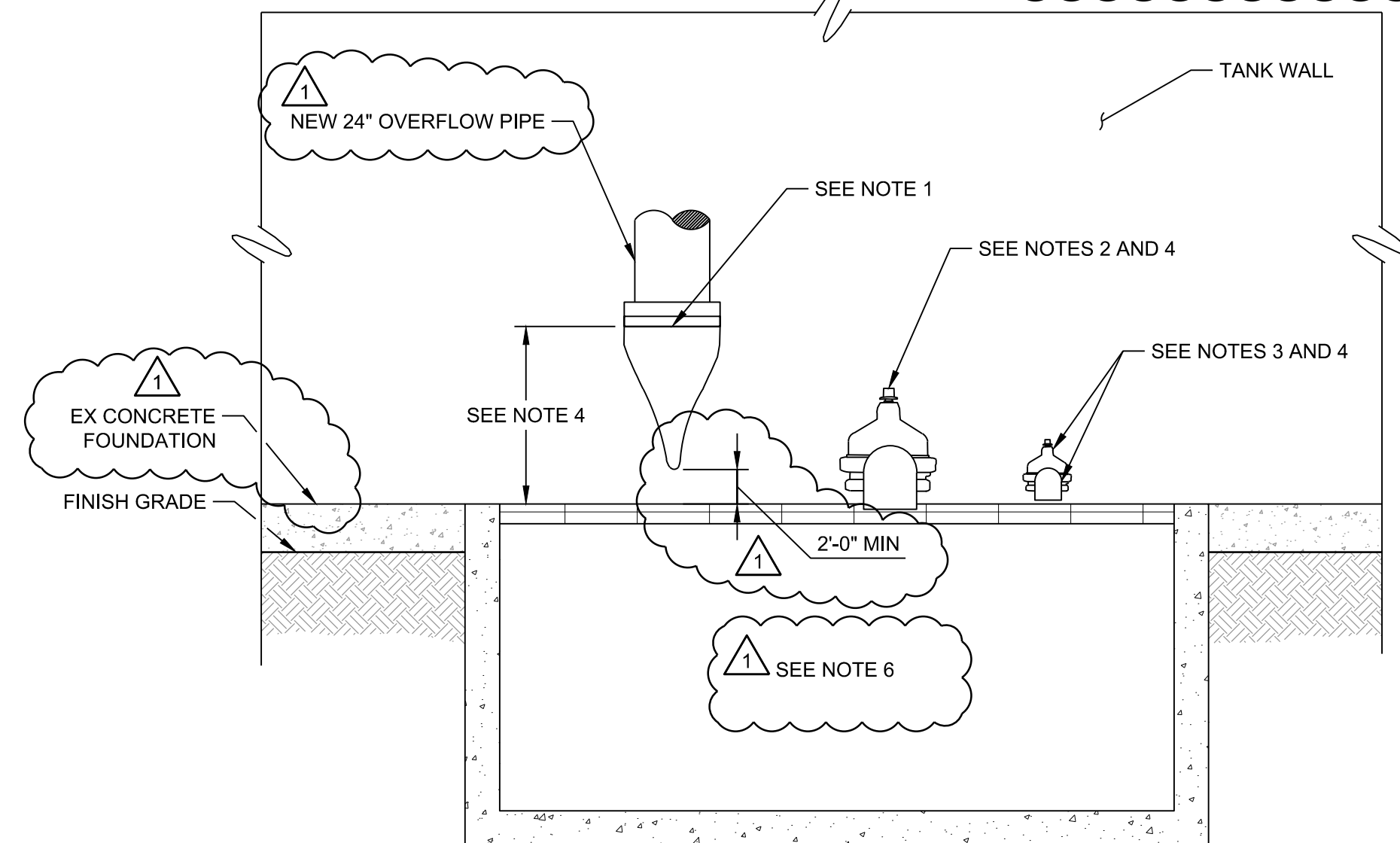
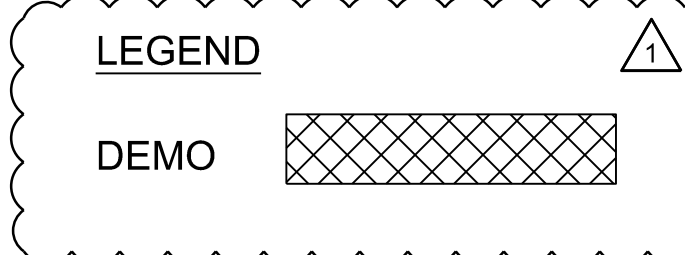


NOTE:  
1. TIE TO EXISTING GRADE. TRANSITION TO SHEET FLOW.

**1** **TANK REGRADING DETAIL**  
SCALE: NTS

**DEMOLITION**

- NOTES:
1. REMOVE EXISTING 12" AND 6" GATE VALVES ON TANK DRAIN LINES.
  2. DEMOLISH EXISTING OVERFLOW BASIN AND REPLACE. REFER TO SHEET S-1101.
  3. REMOVE EXISTING COUNTERWEIGHTED FLAP GATE AND DEMOLISH EXISTING 16" OVERFLOW PIPE.

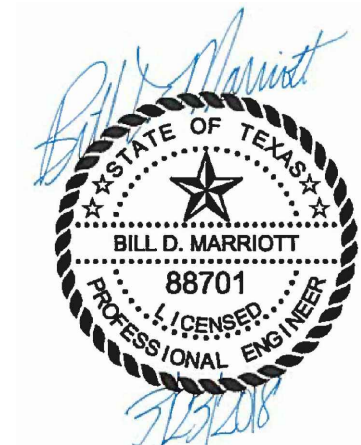


- NOTES:
1. INSTALL NEW 24" TIDEFLEX SERIES 35 CHECK VALVE OR EQUAL ON NEW 24" OVERFLOW PIPE.
  2. INSTALL NEW 12" GATE VALVE ON 12" DRAIN LINE.
  3. FOR EXISTING 6" DRAIN LINE, PROVIDE NEW 6" GATE VALVE AND NEW 6" 90° BEND.
  4. PROVIDE ADEQUATE AIR GAP BETWEEN PIPE DISCHARGE AND TOP OF OVERFLOW BASIN. COORDINATE REQUIREMENTS WITH ENGINEER.
  5. ALL PIPING (EXISTING AND NEW) SHALL BE PAINTED AS PER PROJECT SPECIFICATIONS.
  6. NEW OVERFLOW BASIN, INTO WHICH OVERFLOW PIPE AND DRAIN LINES WILL DISCHARGE IS GIVEN ON SHEET S-1101. APPROXIMATE BASIN DIMENSIONS ARE SHOWN HERE.

**1** **MODIFICATIONS**

**2** **OVERFLOW AND DRAIN PIPES**  
SCALE: NTS

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ADDENDUM

**SAN ANTONIO WATER SYSTEM**

MARK	DATE	DESCRIPTION
1	03/30/18	PER ADDENDUM #3

SAN ANTONIO WATER SYSTEM  
BASIN PUMP STATION IMPROVEMENT  
PROJECT PHASE II ADDENDUM  
**BASIN PS TANK DETAILS III**

Project No.: 200-09308-16003  
Designed By: BM  
Drawn By: DA  
Checked By: DB

**D-1104**

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Bar Measures 1 inch

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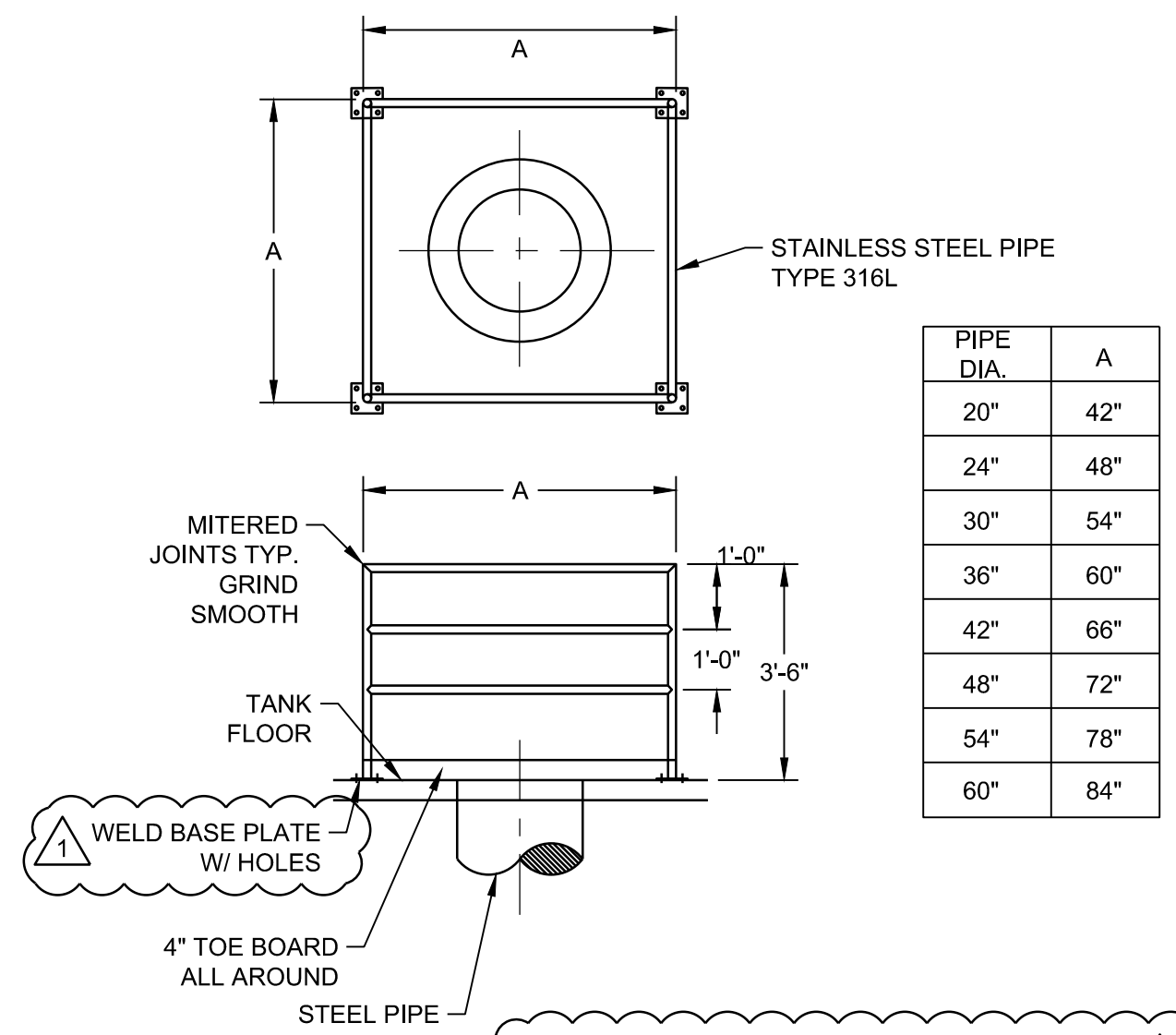
- NOTES:**
1. PRUNE / TRIM TREE ON WEST SIDE OF TANK TO CREATE MINIMUM CLEARANCE OF 10 FT FROM TANK EXTERIOR.
  2. INSPECT TANK PERIMETER AND PERFORM SIMILAR TRIMMING / PRUNING OPERATION FOR ANY TREE BRANCH WITHIN 10 FT OF THE TANK.
  3. HIRE ARBORIST TO SUPERVISE TREE TRIMMING AND WOUND DRESSING.

**1 TREE TRIMMING**  
SCALE: NTS



- NOTES:**
1. TESTING OF SOIL LEAD LEVELS (AT A DISTANCE OF 5 FT FROM THE TANK FOUNDATION) SHALL BE CONDUCTED AT THE FOLLOWING TIMES:
    - PRIOR TO THE START OF TANK REHABILITATION OPERATIONS.
    - FOLLOWING THE CONCLUSION OF ABRASIVE BLAST CLEANING / PAINTING OPERATIONS.
  2. COORDINATE WITH ENGINEER ON PROPOSED TESTING APPROACH.
  3. PROVIDE OWNER AND ENGINEER WITH A COPY OF ALL TEST RESULTS.

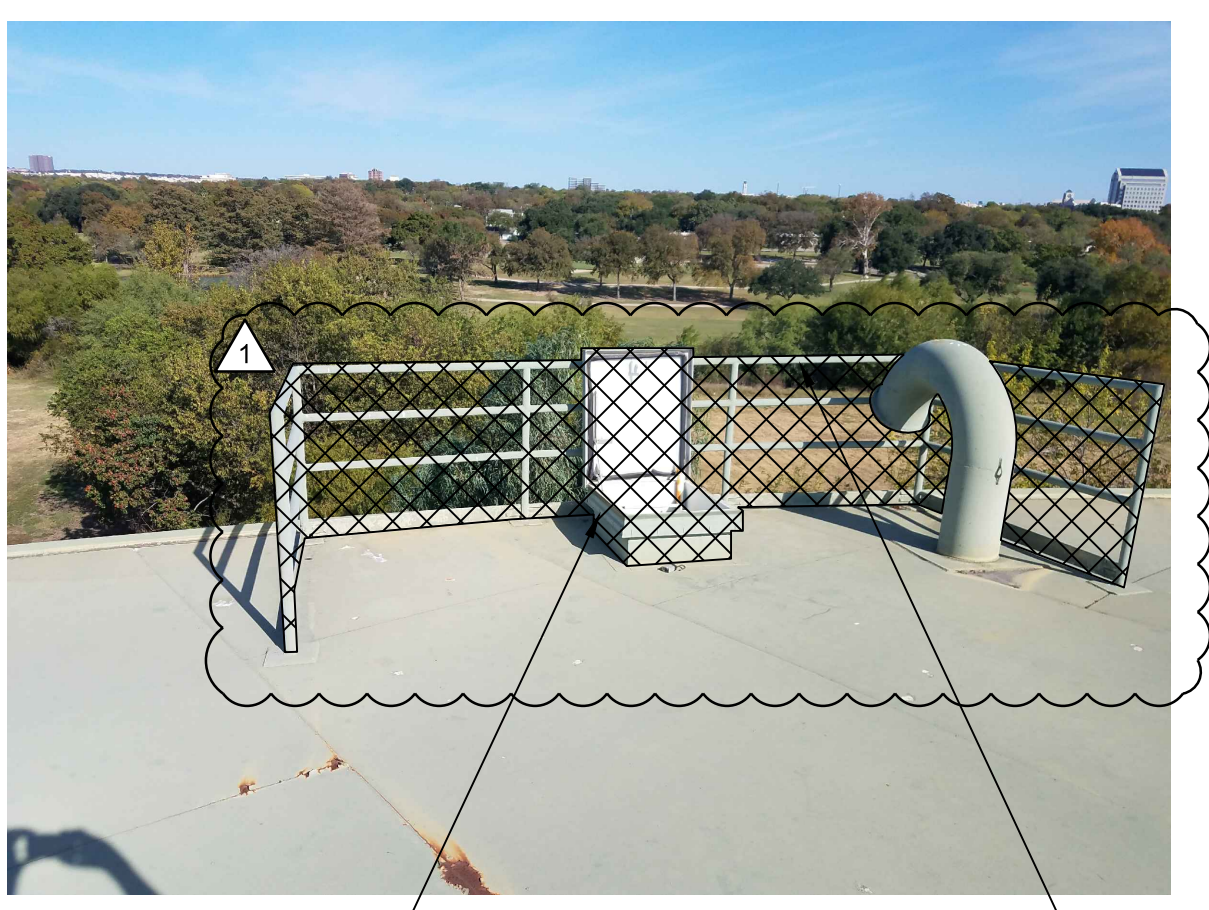
**2 SITE SOILS**  
SCALE: NTS



PIPE DIA.	A
20"	42"
24"	48"
30"	54"
36"	60"
42"	66"
48"	72"
54"	78"
60"	84"

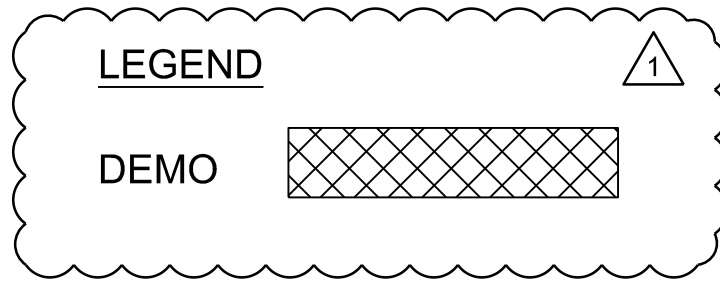
- NOTES:**
1. ALL S.S. TO BE ISOLATED FROM STEEL USING NEOPRENE GASKETS.
  2. TOE BOARD TO BE PROVIDED ON ALL SIDES OF PIPE.
  3. REMOVABLE RAILING. ONE SIDE OF RAILING SHALL BE REMOVABLE FOR MAINTENANCE.

**3 PIPE SAFETY RAILING**  
SCALE: NTS

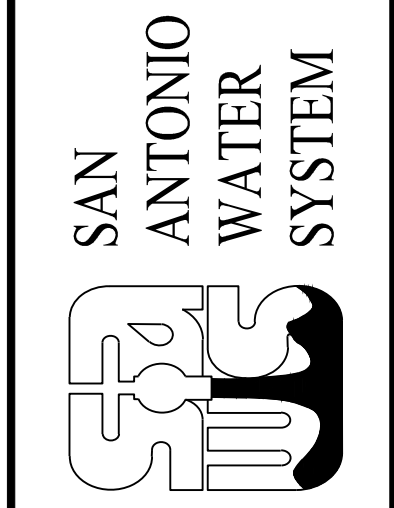


- NOTES:**
1. REPLACE ACCESS LADDER HATCH FOR OVERFLOW WEIR BOX. SEE DETAIL 2 / D-1107.
  2. REPLACE HANDRAIL MEETING ALL REQUIREMENTS GIVEN IN DETAIL 3 / D-1102.
  3. REPLACE ACCESS LADDER TO OVERFLOW WEIR BOX. FOLLOW INTERIOR LADDER GUIDELINES GIVEN IN DETAIL 2 / D-1108.

**4 OVERFLOW WEIR BOX ACCESS MODIFICATIONS**  
SCALE: NTS

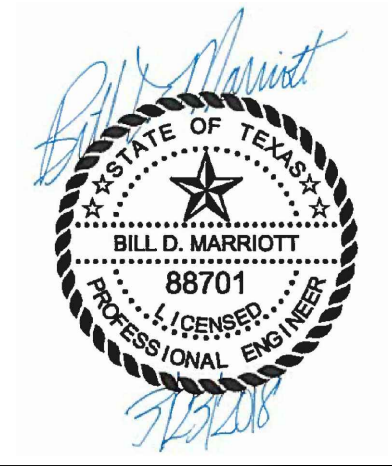


ADDENDUM



MARK	DATE	DESCRIPTION	BY	DA
1	03/30/18	PER ADDENDUM #3		

SAN ANTONIO WATER SYSTEM  
BASIN PUMP STATION IMPROVEMENT  
PROJECT PHASE II ADDENDUM  
BASIN PS  
TANK DETAILS IV

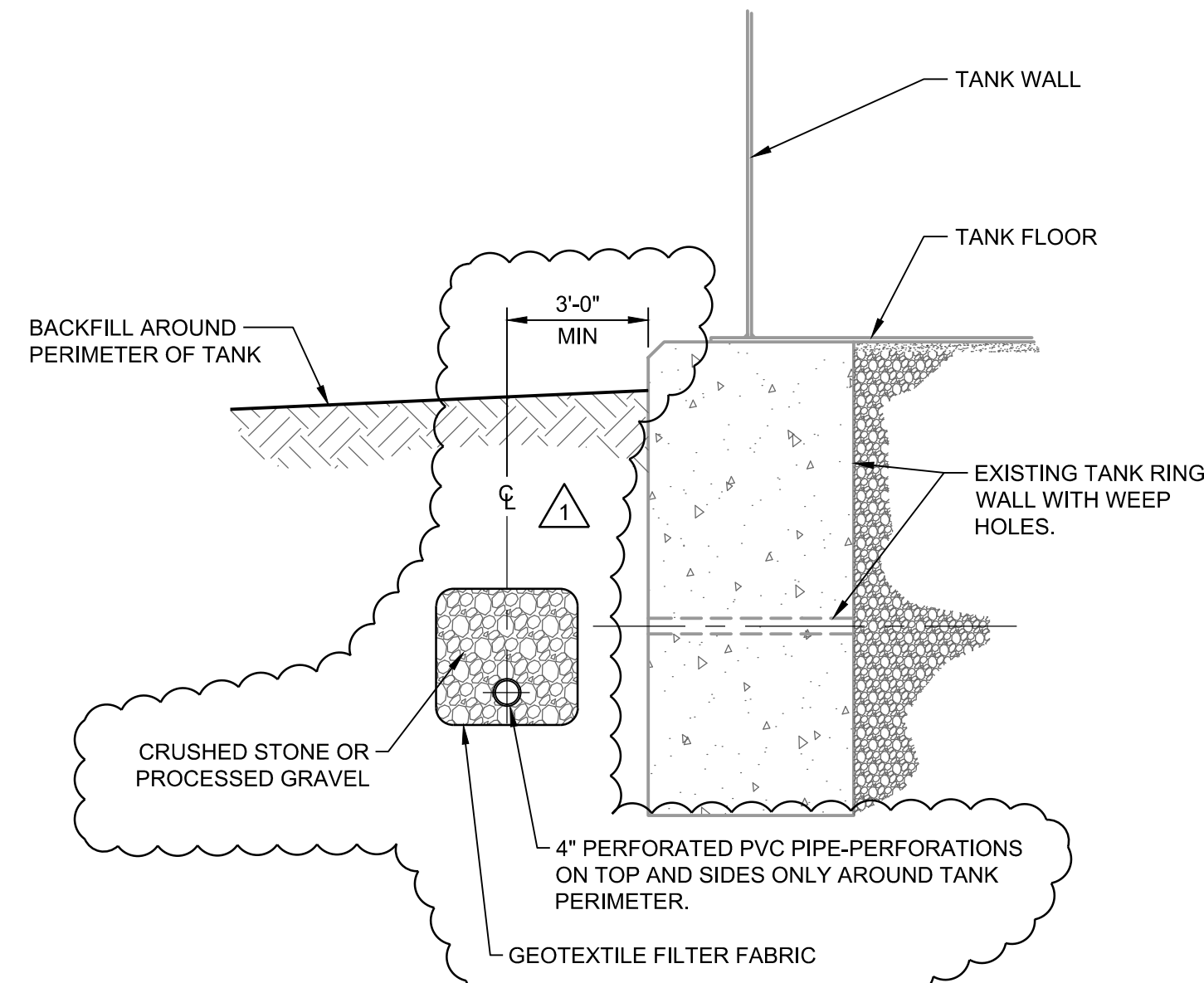


Project No.: 200-09308-16003

Designed By:	BM
Drawn By:	DA
Checked By:	DB

**D-1105**

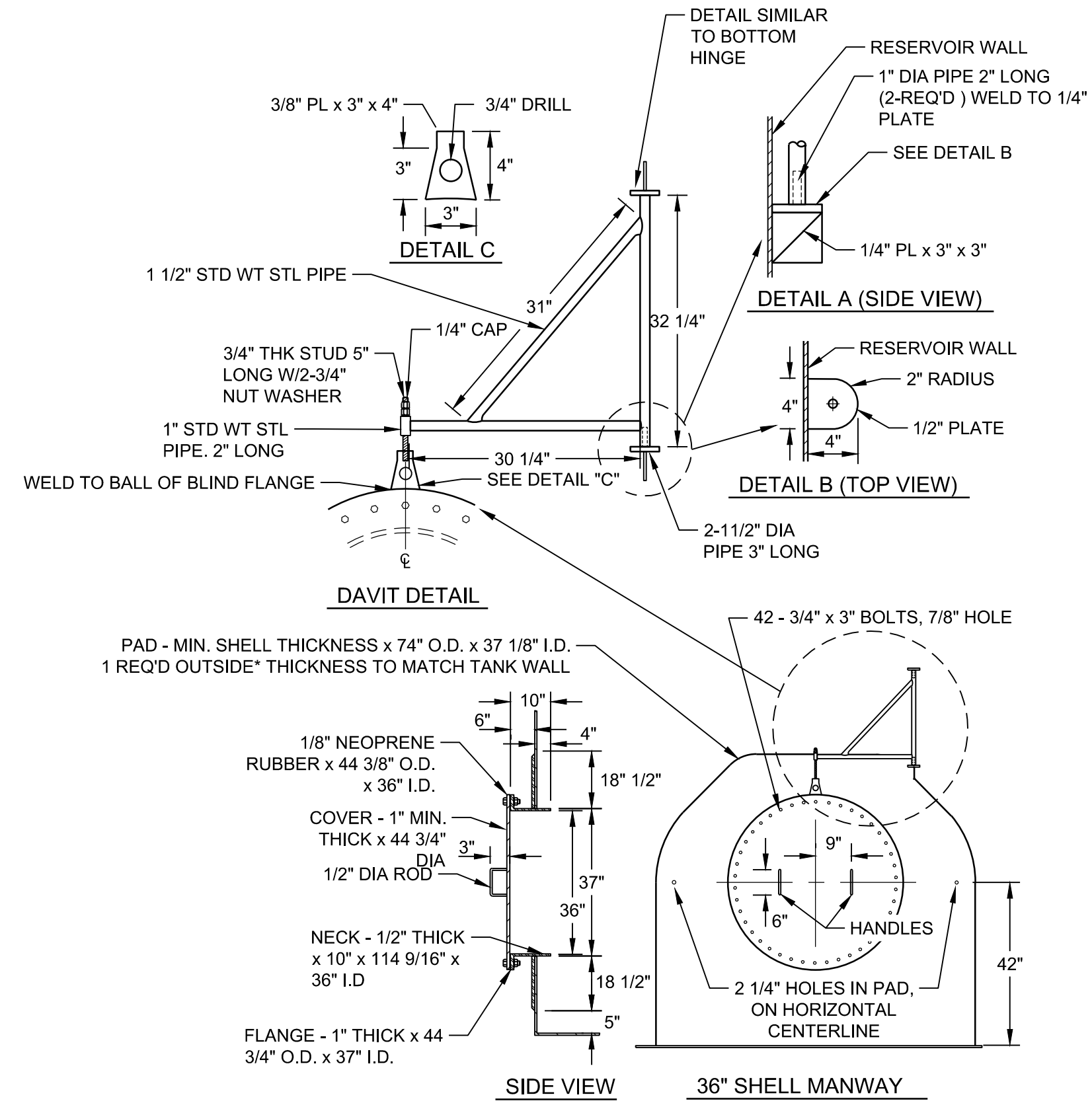
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NOTES:

1. PURPOSE OF 4" PERFORATED PIPE IS TO DETECT A TANK LEAK - PIPE TO DRAIN INTO OVERFLOW STRUCTURE.
2. SEE SHEET S-1101 FOR PERFORATED PIPE PENETRATIONS INTO NEW OVERFLOW STRUCTURE.

**1 PERIMETER DRAIN**  
SCALE: NTS



- NOTE:
1. ALL WELDS SHALL BE CONTINUOUS FULL FILLET WELDS MINIMUM. LARGER WELDS SHALL BE PROVIDED ARE REQUIRED BY THE TANK MANUFACTURER.

**2 36" SHELL MANWAY W / DAVIT**  
SCALE: NTS

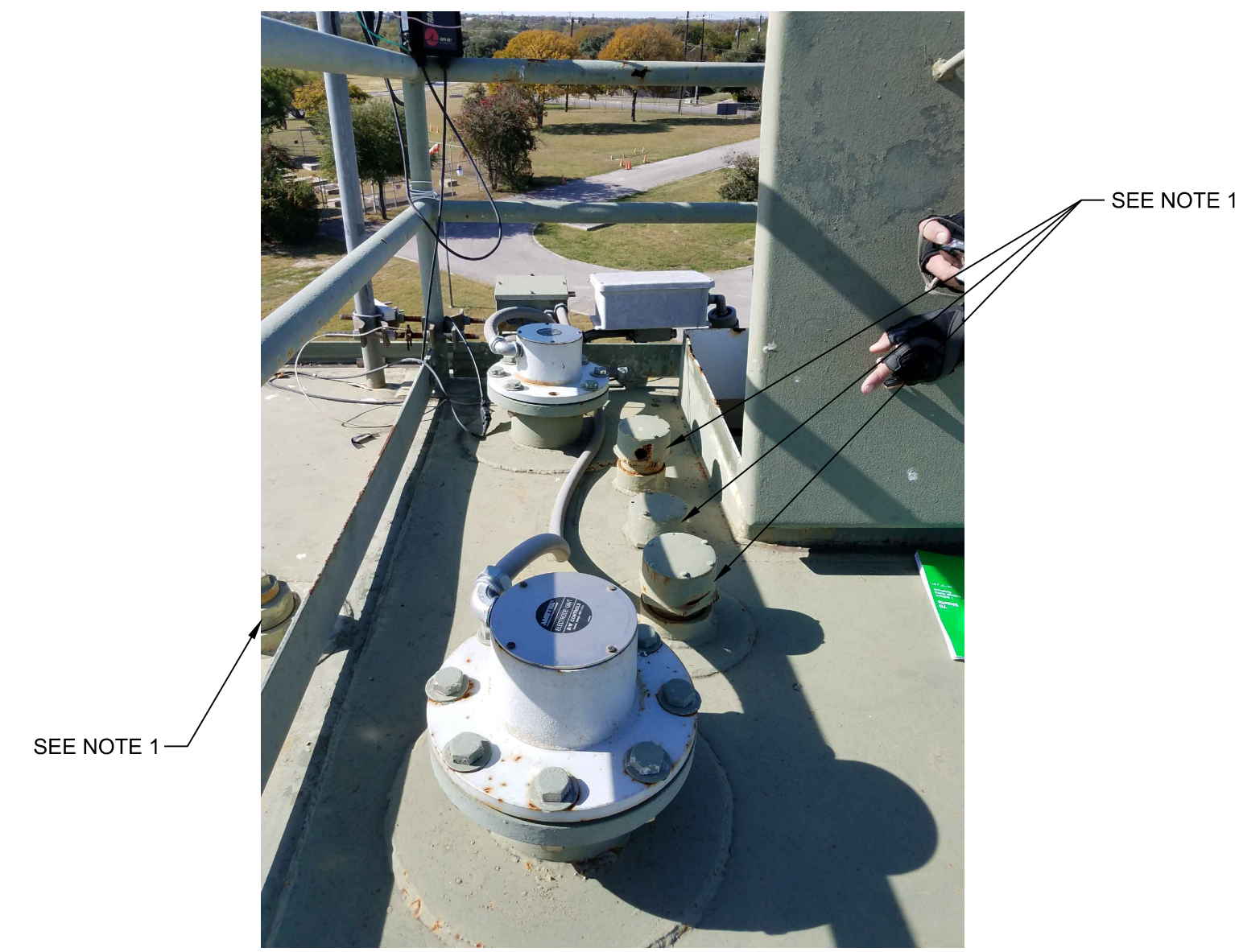


- NOTES:
1. REPLACE EXTERIOR LADDER PER DETAIL 1 / D-1108.
  2. REPLACE HANDRAIL AND ROOF HATCH PER DETAIL 2 / D-1107 & 4 / D-1107.

**LEGEND**

DEMO

**3 EXTERIOR LADDER MODIFICATIONS**  
SCALE: NTS

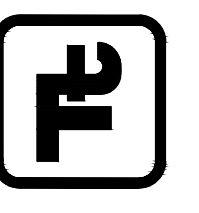


- NOTES:
1. FOR EXISTING ELECTRODE PENETRATIONS (4 IN TOTAL) THAT ARE NO LONGER UTILIZED, REMOVE EXISTING FLANGE FLUSH WITH ROOF AND SEAL WELD WITH PLATE.

**5 ABANDONED PENETRATIONS**  
SCALE: NTS

**4 NOT USED**  
SCALE: NTS

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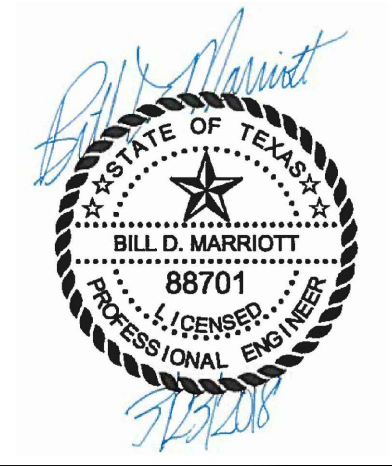
ADDENDUM

**SAN ANTONIO WATER SYSTEM**

MARK	DATE	DESCRIPTION	BY
1	03/30/18	PER ADDENDUM #3	DA

SAN ANTONIO WATER SYSTEM  
BASIN PUMP STATION IMPROVEMENT  
PROJECT PHASE II ADDENDUM  
BASIN PS  
TANK DETAILS V

Project No.: 200-09308-16003  
Designed By: BM  
Drawn By: DA  
Checked By: DB

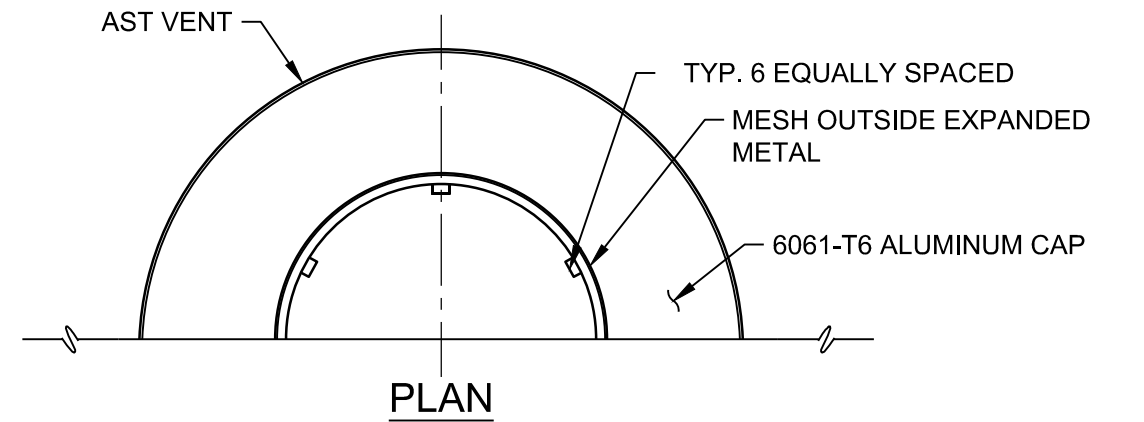
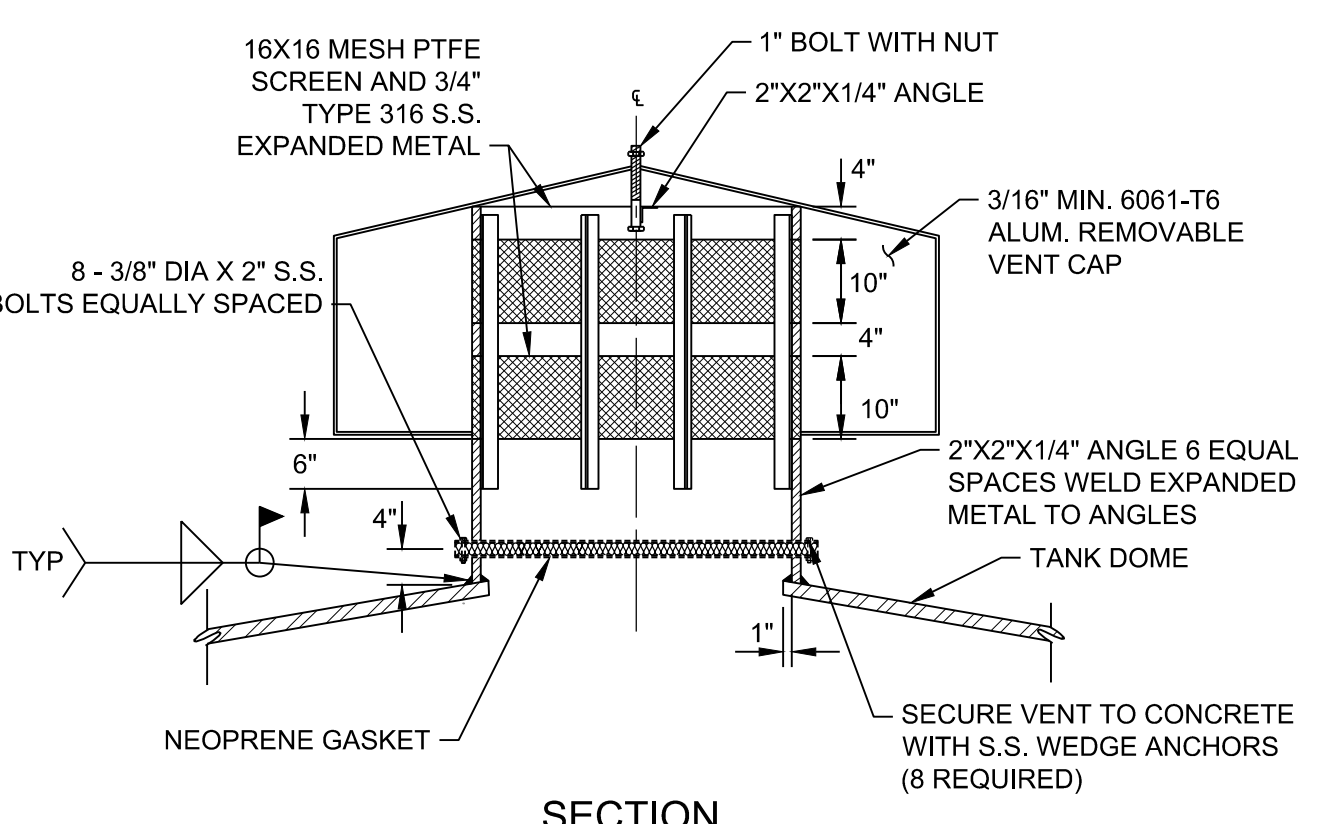
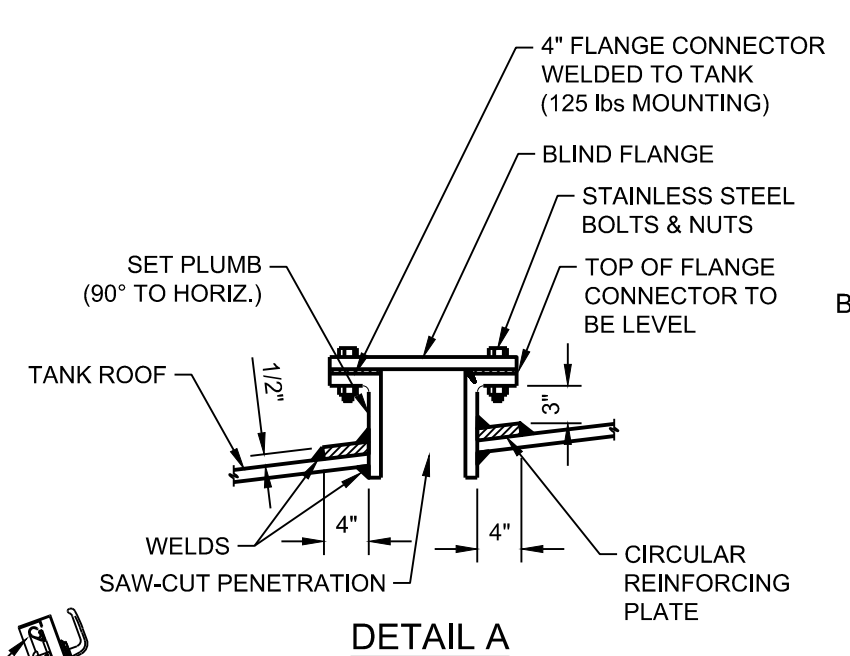
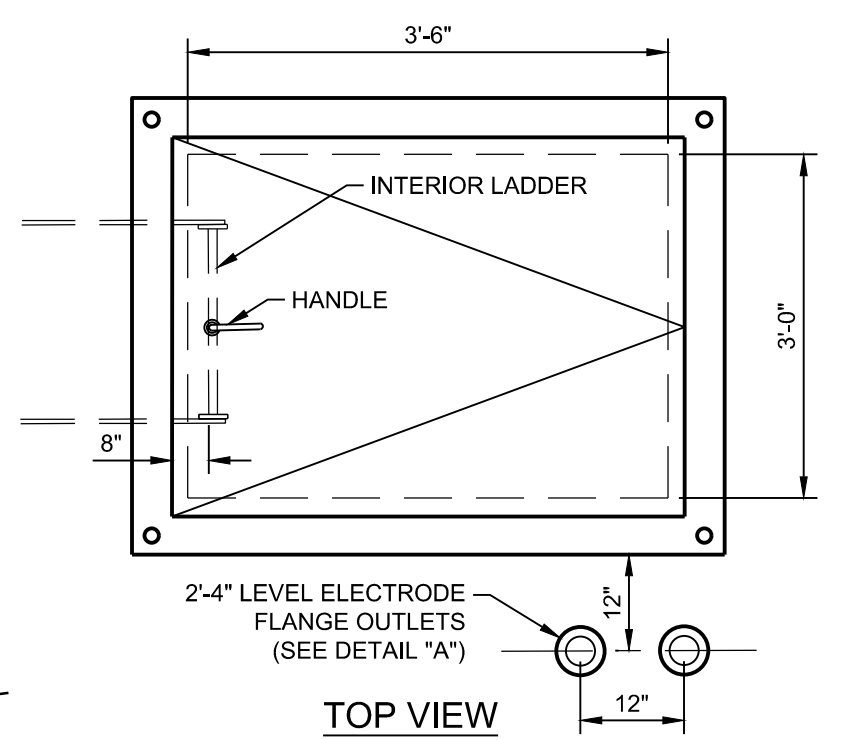
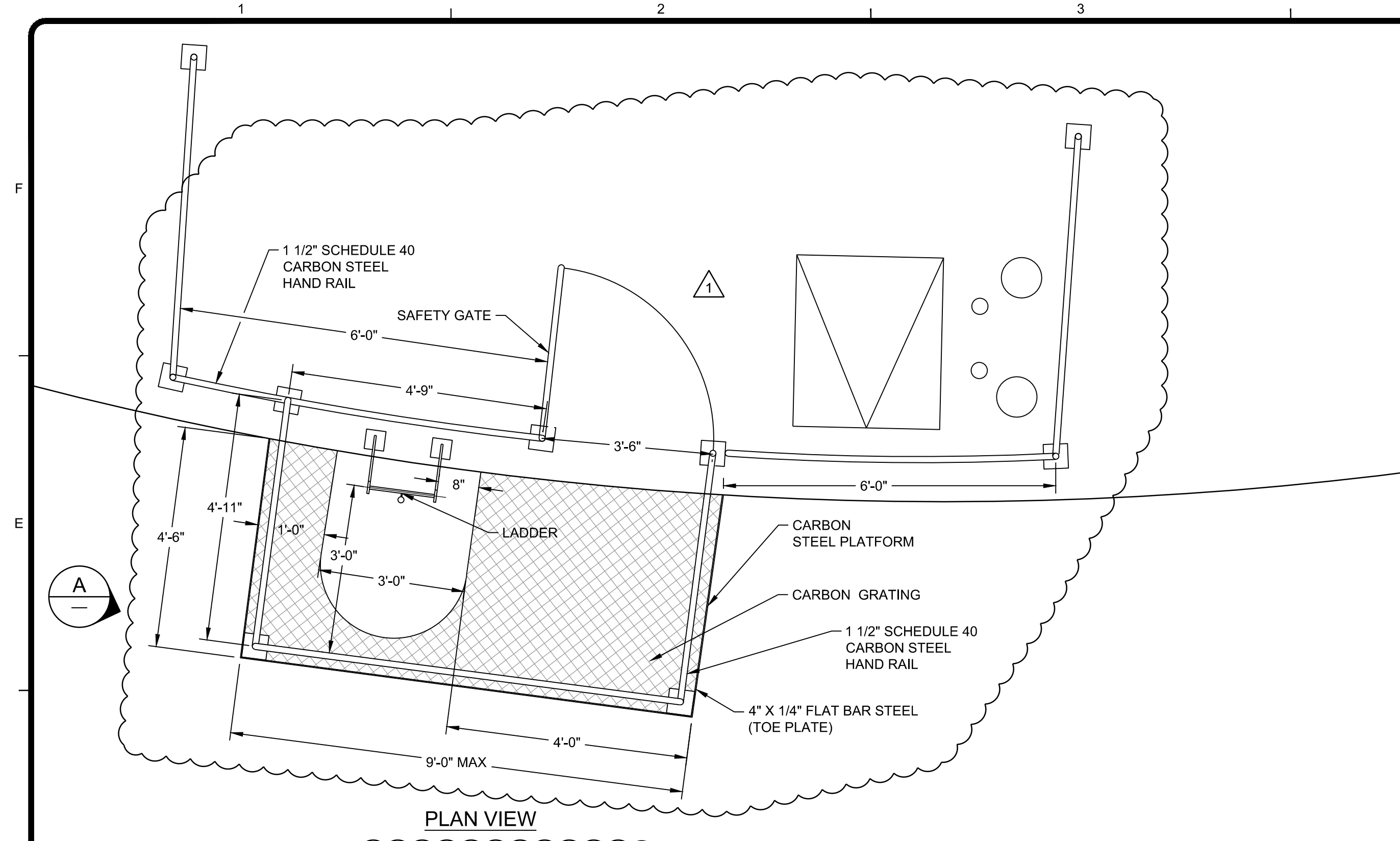


**D-1106**

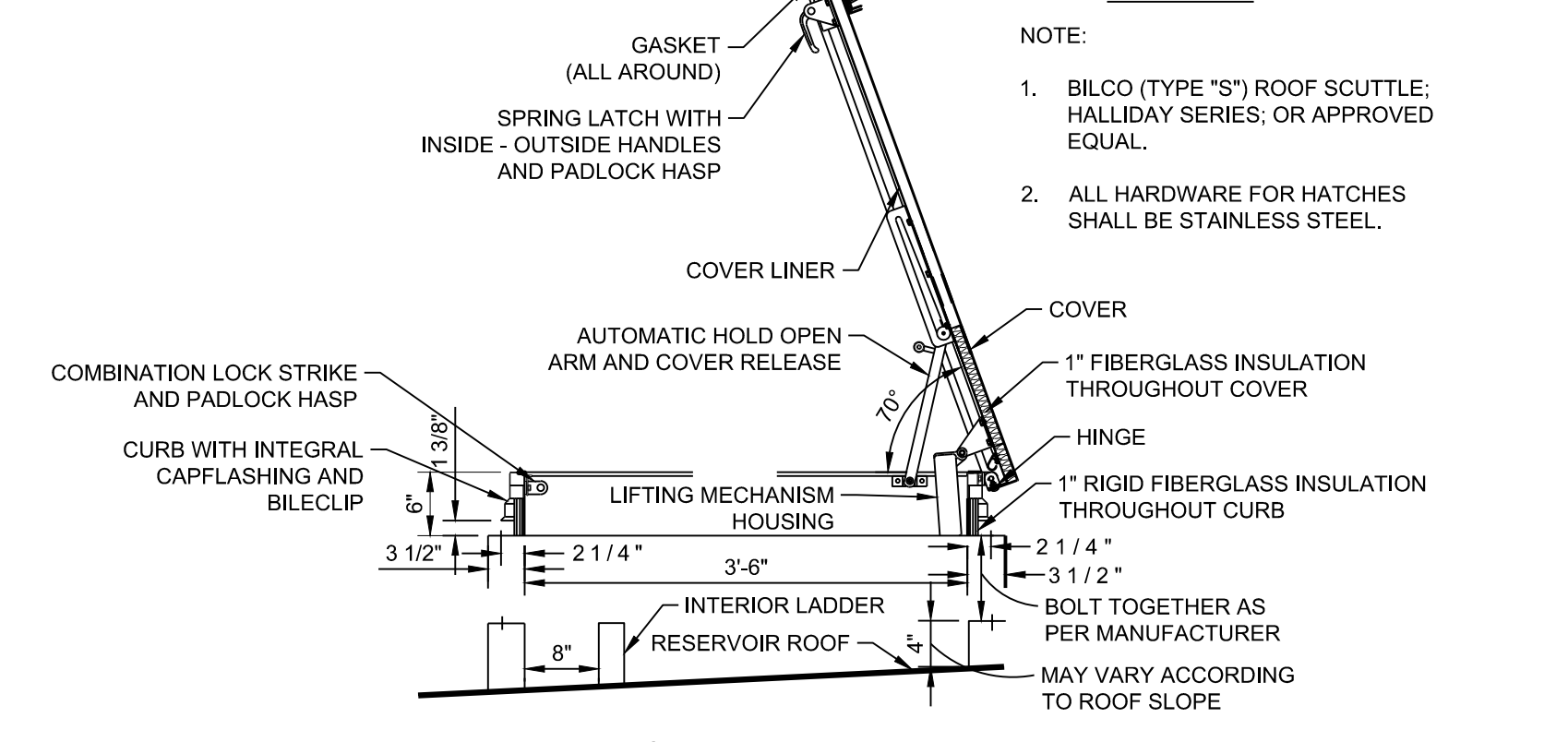
Bar Measures 1 inch

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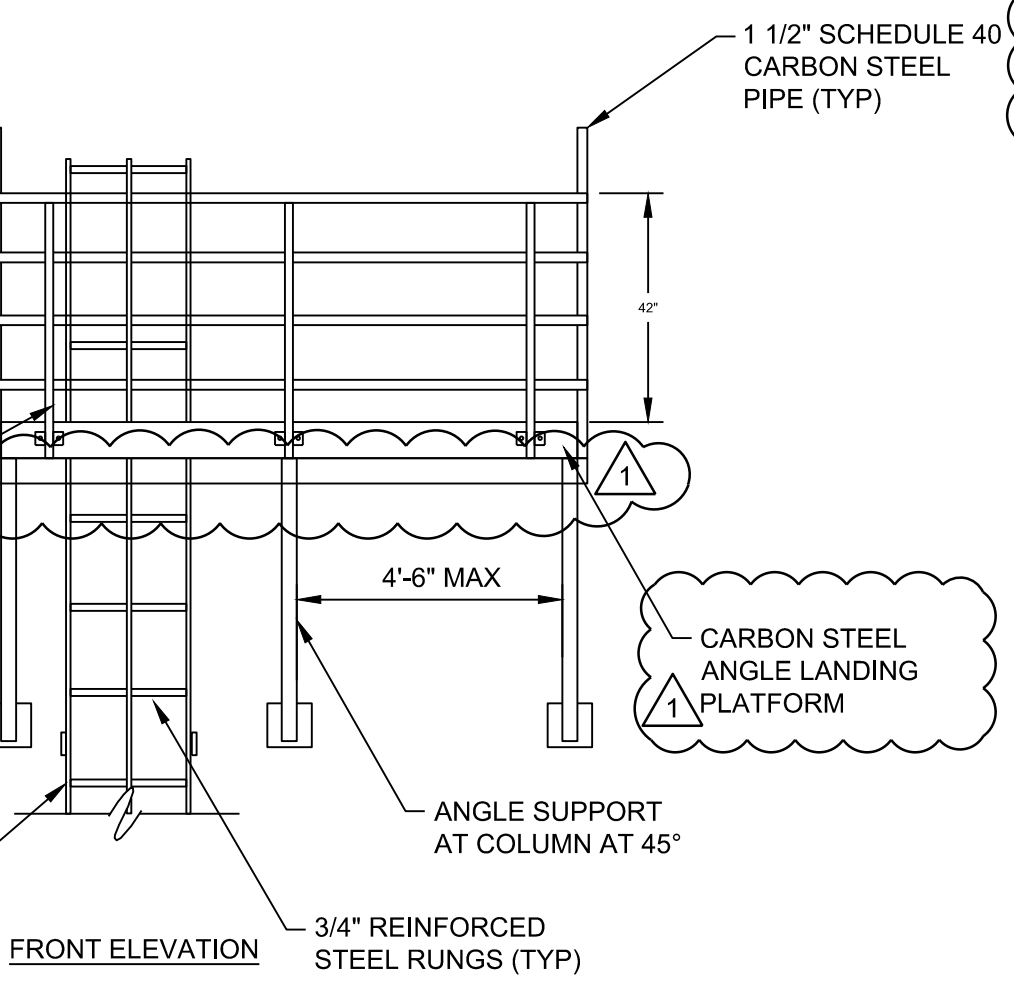
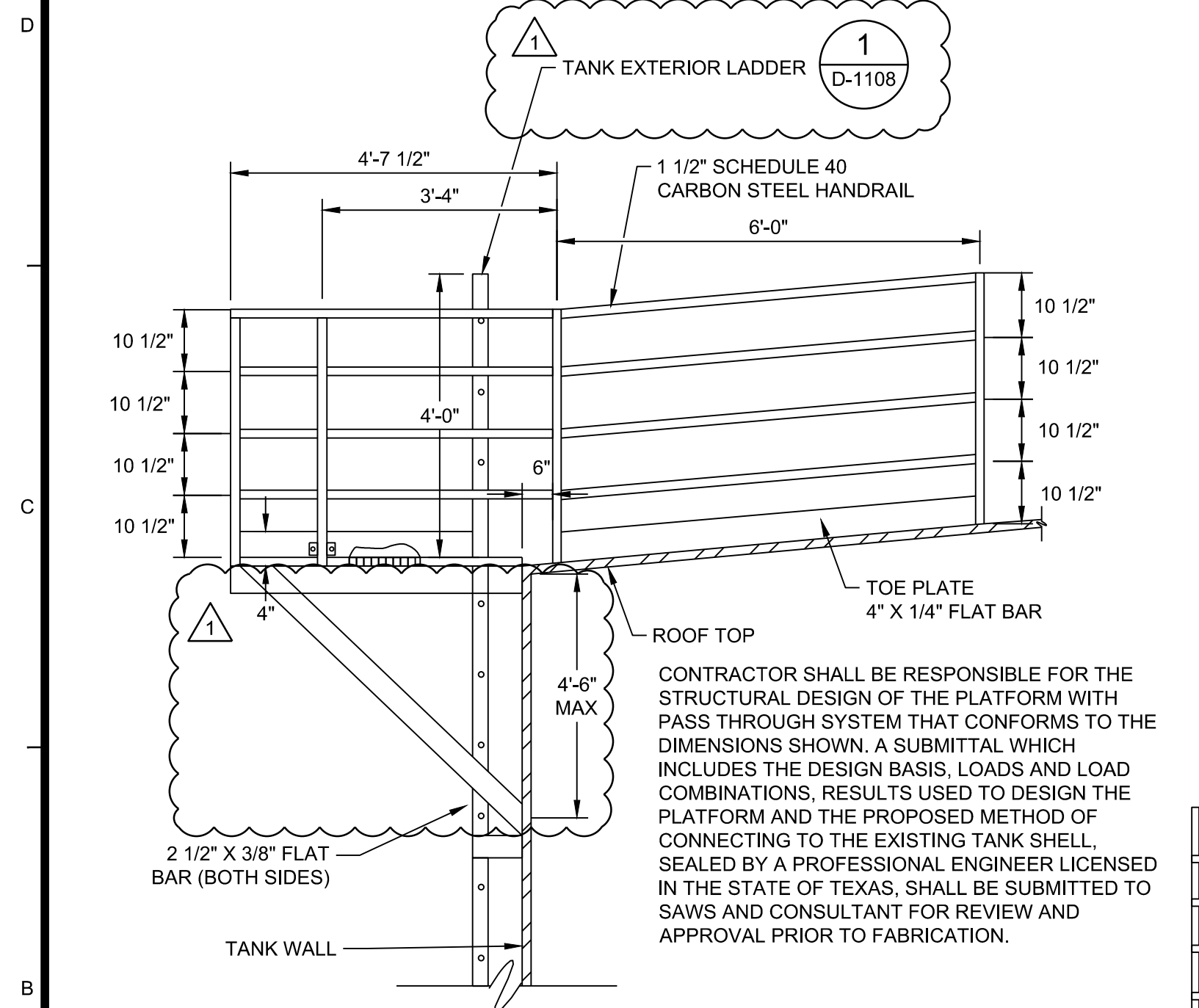
NOTE:  
VENT SIZE AS REQUIRED BY DESIGN. AST VENT ONLY. (ALWAYS SAFE TANK VENT)



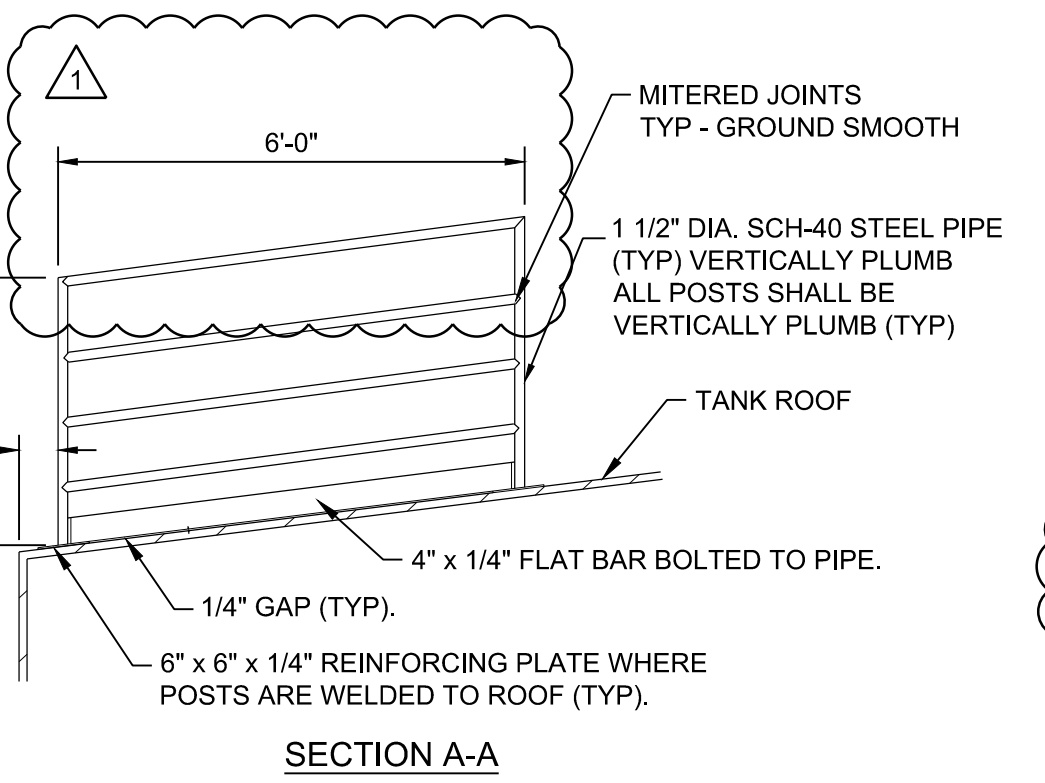
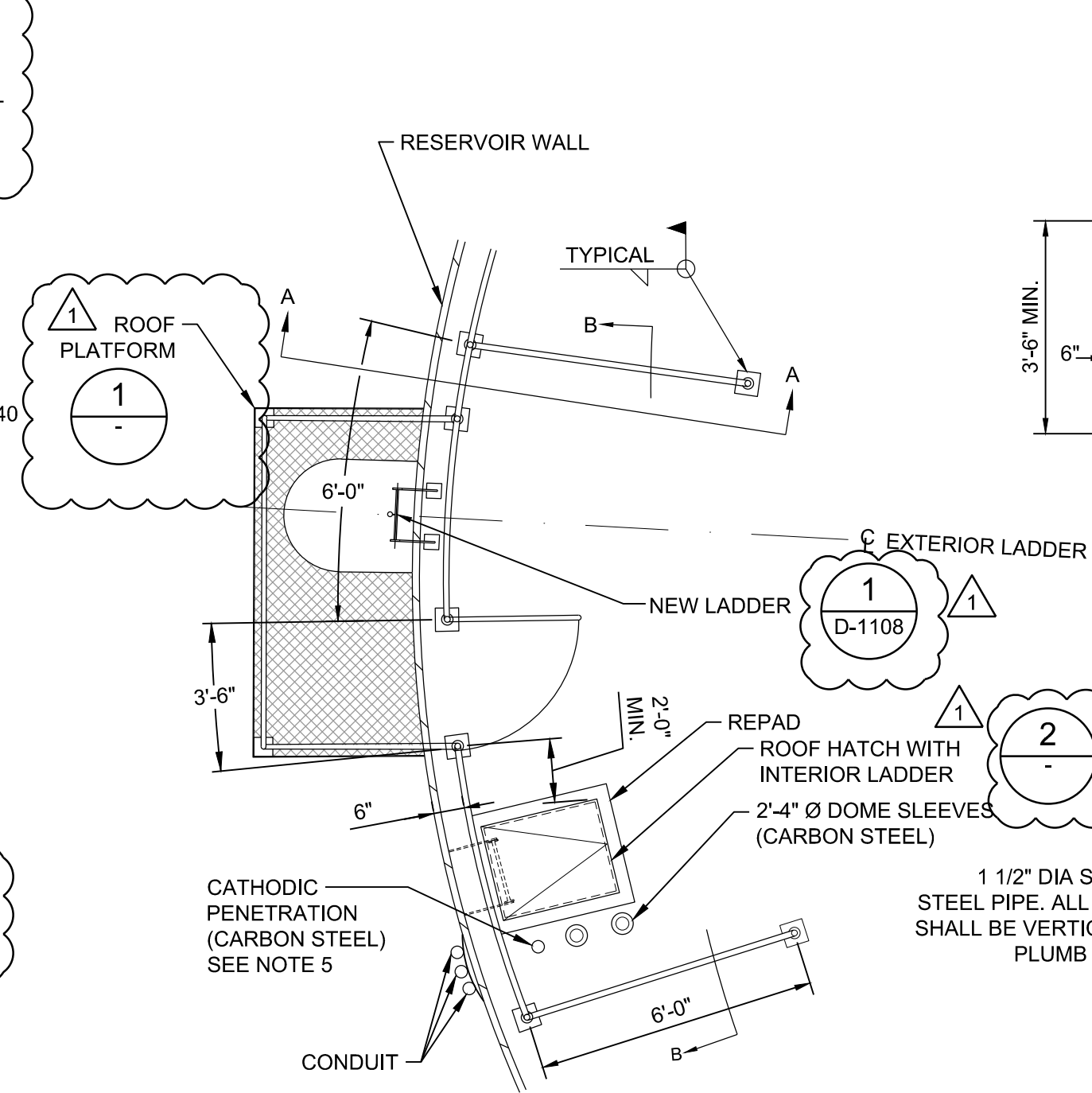
**2 ACCESS HATCH**  
SCALE: NTS

**3 CENTER VENT**  
SCALE: NTS

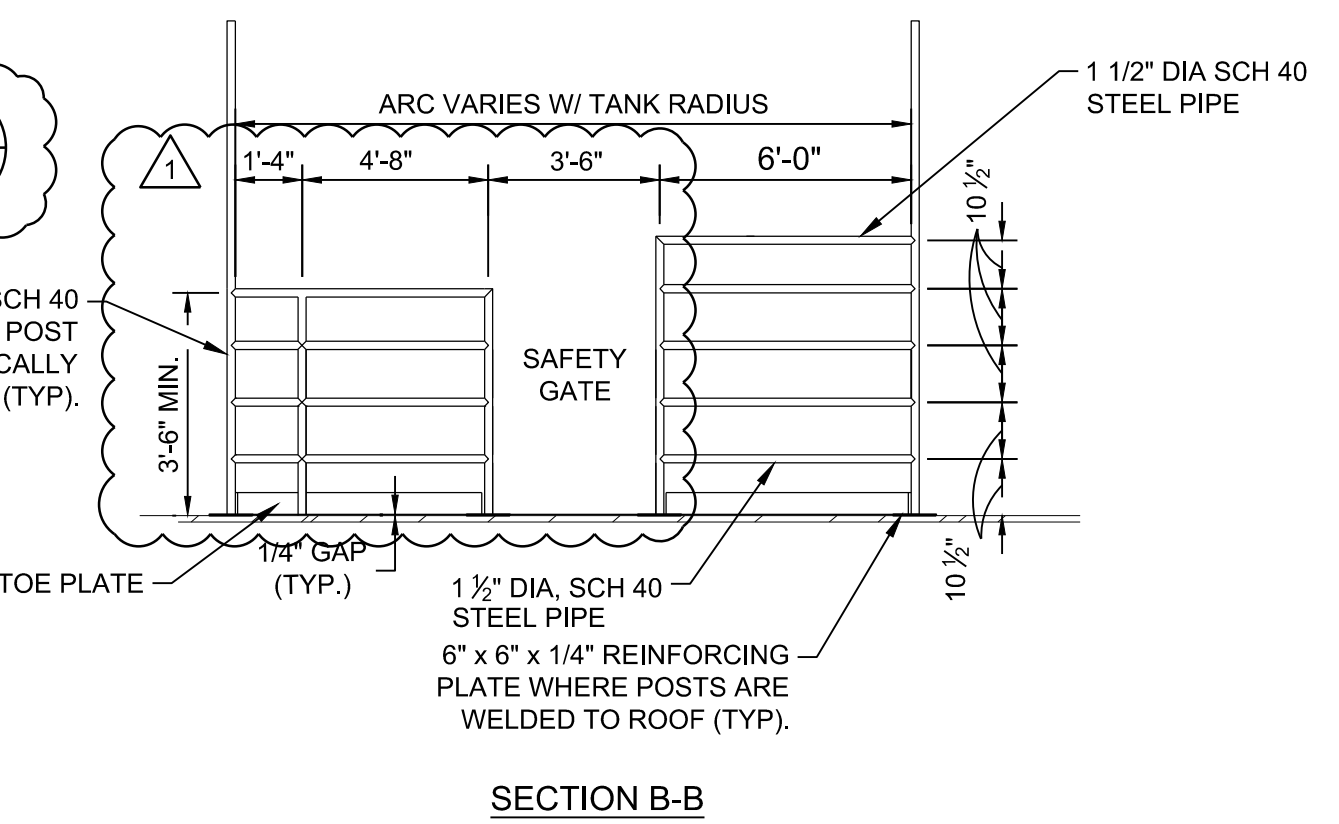
- NOTES:**
1. PLATFORM AND HANDRAIL SHALL BE HOT DIPPED CARBON STEEL. ALL HARDWARE, BOLTS, NUTS AND HINGES SHALL BE CARBON A 325.
  2. ALL NEW PLATFORM ADDITIONS SHALL BE SHOP ASSEMBLED.
  3. ALL WELDS TO BE CONTINUOUS 3/16" FILLET WELDS.
  4. CONTRACTOR TO VERIFY ALL LENGTHS AND DIMENSIONS PRIOR TO FABRICATION.
  5. PROVIDE ADEQUATE CONDUIT PENETRATION OPENINGS AT LEFT AND RIGHT OF LADDER ON NEW 1" DECKING.



**1 ROOF PLATFORM**  
N.T.S.



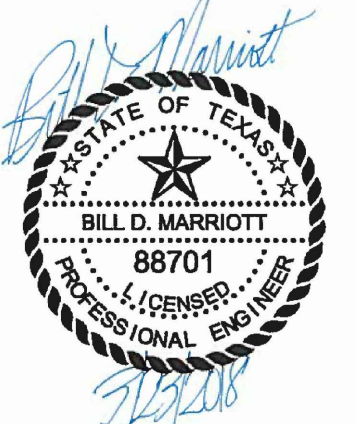
- NOTES:**
1. ADJUST LOCATION BASED ON FIELD MEASUREMENT.
  2. PROVIDE NEW TOP HANDRAIL AT HATCH OPENING.
  3. ALL GALVANIZED STEEL SURFACES IN CONTACT WITH CARBON STEEL AND OTHER DISSIMILAR METALS SHALL RECEIVE A PVC SHIM.
  4. REFER TO ELECTRICAL DRAWINGS FOR DETAILS RELATED TO THE ANTENNA MAST WITH GROUNDING LUG.
  5. REFER TO ELECTRICAL DRAWINGS FOR DETAILS RELATED TO THE NEW CATHODIC PROTECTION SYSTEM.



**4 HANDRAIL FOR ROOF HATCH**  
SCALE: NTS

MARK	DATE	DESCRIPTION	BY	DA
1	03/30/18	PER ADDENDUM #3		

SAN ANTONIO WATER SYSTEM  
BASIN PUMP STATION IMPROVEMENT  
PROJECT PHASE II ADDENDUM  
BASIN PS  
TANK DETAILS V1



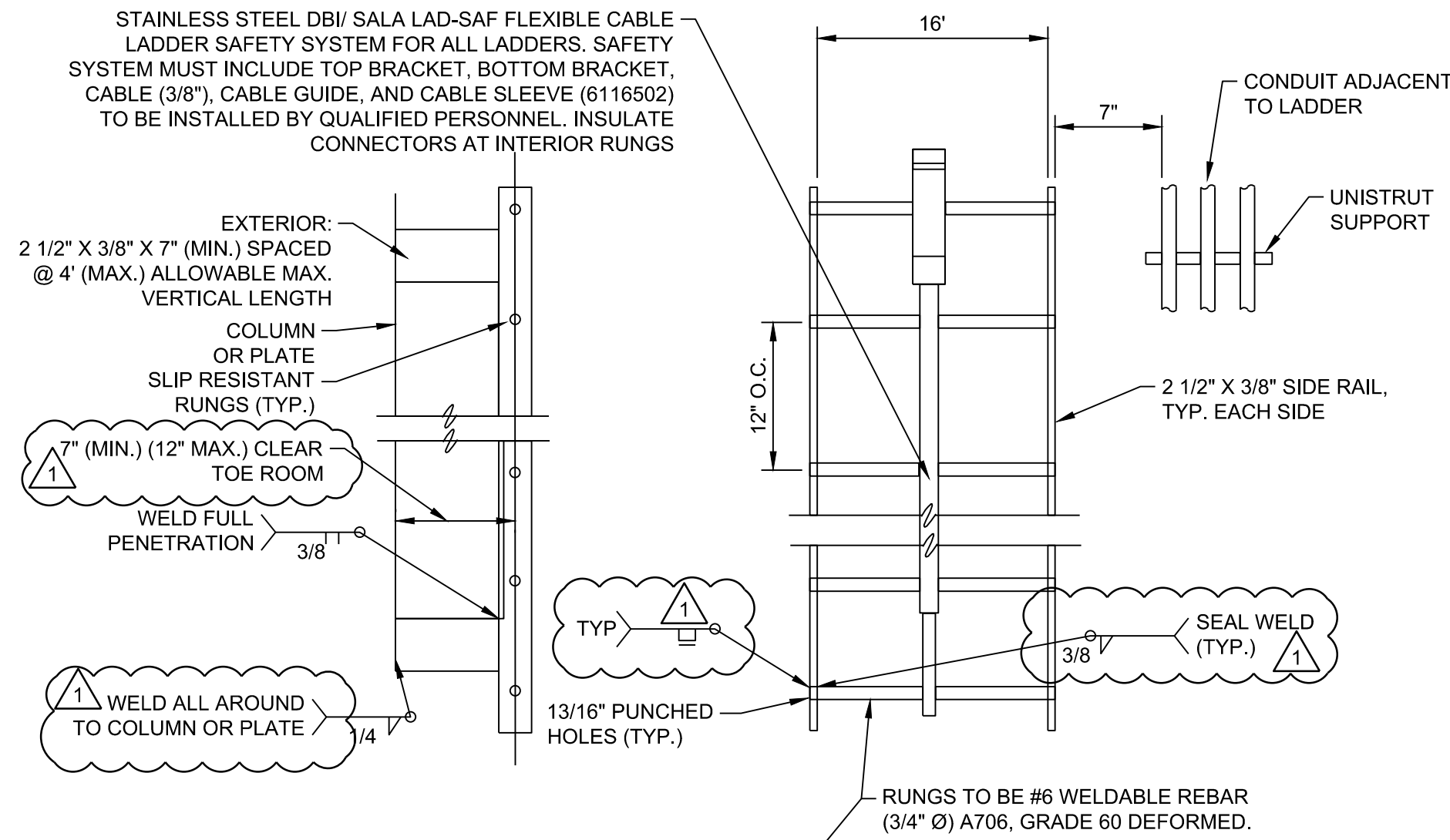
Project No.: 200-09308-16003  
Designed By: BM  
Drawn By: DA  
Checked By: DB

**D-1107**

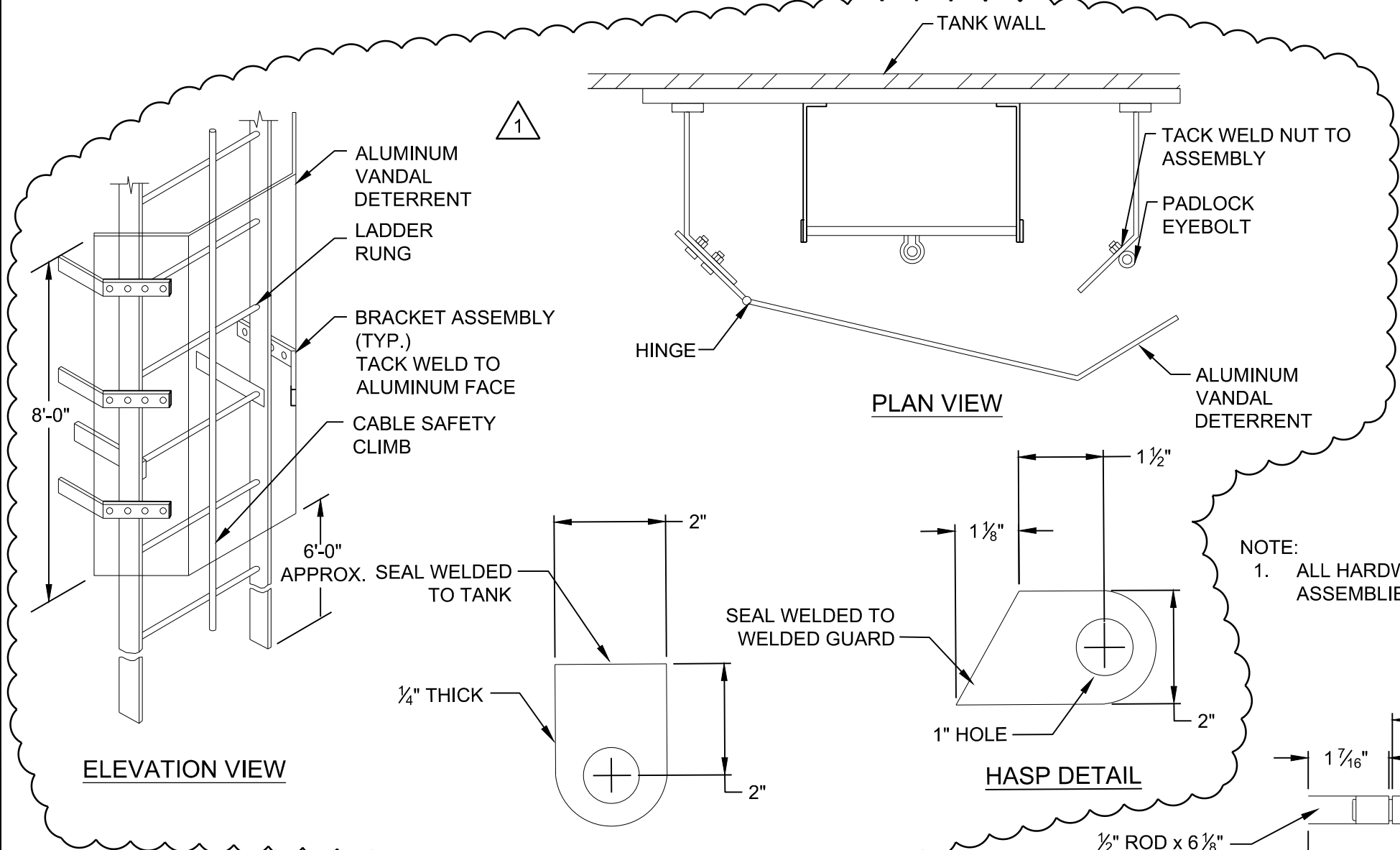


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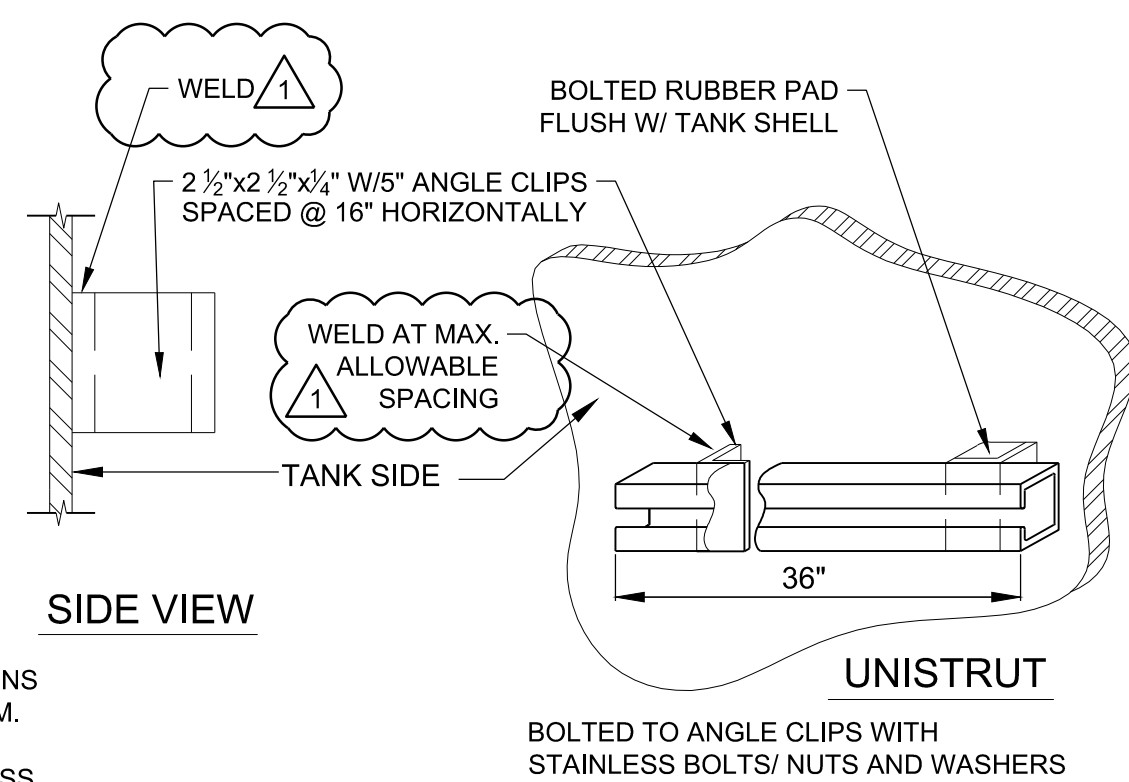
- ALL WELDS TO BE CONTINUOUS 3/16" FILLET WELDS MINIMUM.
- RUNGS TO BE SLIP RESISTANT AS APPROVED BY SAWS.
- ALL LADDER SHALL BE WELDED ALONGSIDE RAILS AND NOT BOLTED.
- ALL LADDERS TO BE CARBON STEEL PAINTED.
- CONTRACTOR TO VERIFY ALL LENGTHS AND DIMENSIONS PRIOR TO FABRICATION TO INSURE 8" MINIMUM TO 12" MAXIMUM TOE CLEARANCE FROM CENTERLINE OF RUNGS TO FACE OF WALL.
- THE FIRST RUNG OFF THE TANK PEDESTAL FLOOR SHALL BE INSTALLED 17" (FROM CENTER OF RUNG) ABOVE THE FINISHED FLOOR ELEVATION.



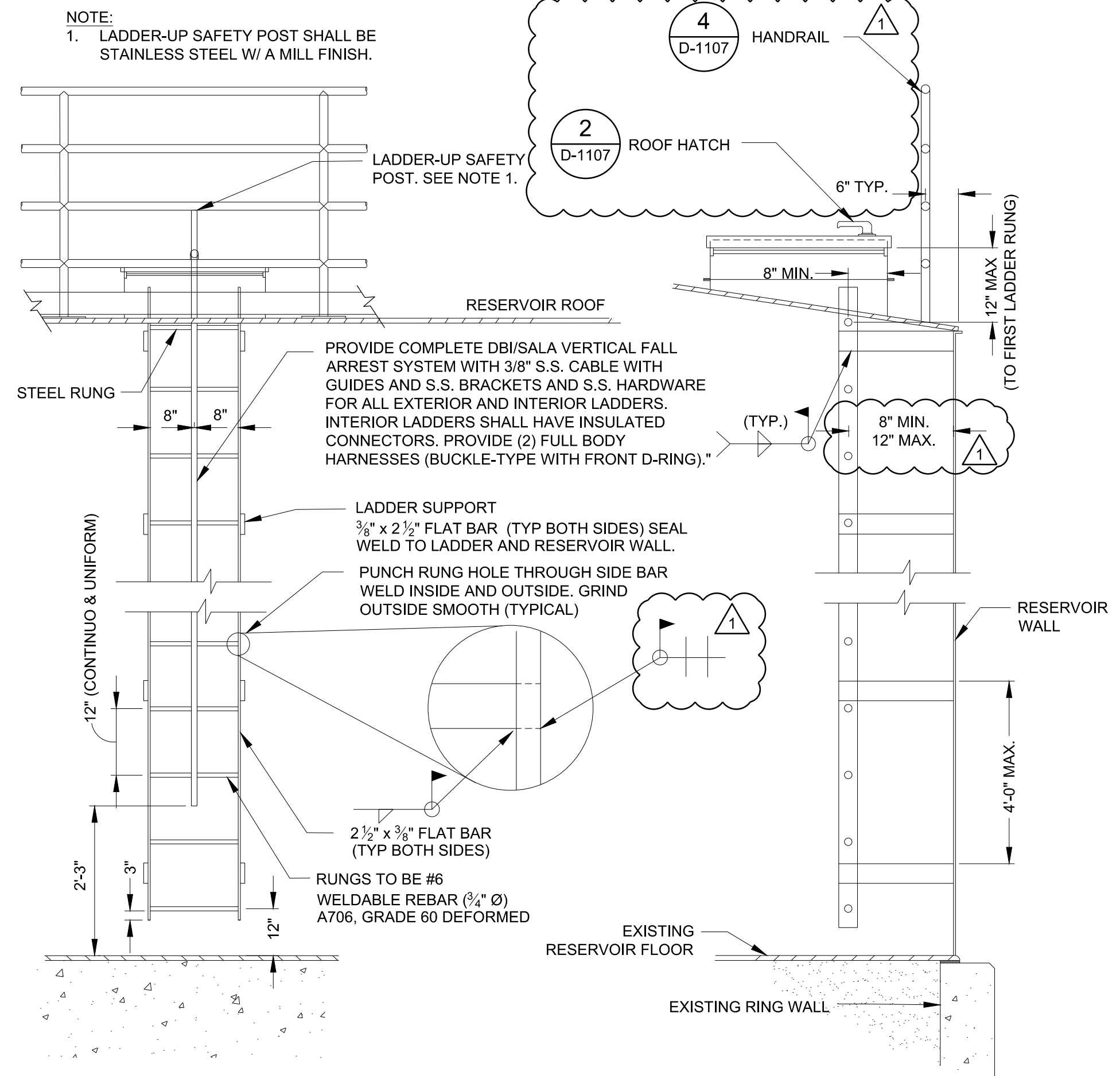
**1 TANK EXTERIOR LADDER**  
SCALE: NTS



**3 VANDAL DETERRENT DETAIL**  
SCALE: NTS



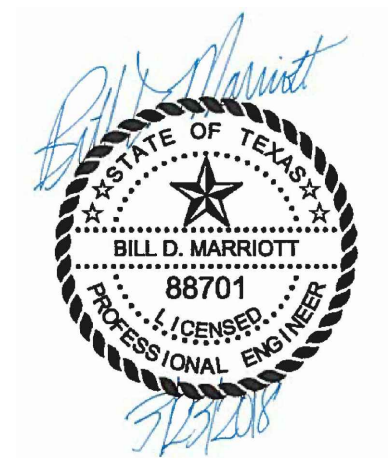
**4 CABLE SUPPORT BRACKETS**  
SCALE: NTS



**2 TANK INTERIOR LADDER**  
SCALE: NTS

- NOTES:
- REMOVE EXISTING INTERIOR LADDER AND REPLACE WITH NEW LADDER PER THIS DETAIL.
  - CONTRACTOR TO VERIFY ALL LENGTHS AND DIMENSIONS PRIOR TO FABRICATION TO ENSURE 8" MIN. TOE CLEARANCE FROM CENTER OF RUNGS.
  - INSTALL COMPLETE DBI/SALA VERTICAL FALL ARREST SYSTEM FOR EACH LADDER TO INCLUDE ALL NECESSARY BRACKETS, CABLES, SLEEVE GUIDES, AND MISCELLANEOUS HARDWARE TO PROVIDE FOR A FULLY FUNCTIONAL SYSTEM TO BE INSTALLED BY CERTIFIED PERSONNEL.

- NOTES:
- NEW "KINDORF" CLAMPS FOR CONDUIT AND CABLE INSTALLATION. INSTALL 7" MAX FROM LADDER SIDE RAILS. (MAX. 10 FT. O.C. VERTICAL SPACING)



MARK	DATE	DESCRIPTION	BY	DA
1	03/30/18	PER ADDENDUM #3		