

STANDARD DETAILS



ISSUED FOR BID

VOLUME 4 OF 4

MOBILE AREA WATER AND SEWER SYSTEM

MOBILE, AL

Garver Project No. 2402007

Prepared For:

MOBILE AREA WATER AND SEWER SYSTEM

AUGUST 2026



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MOBILE AREA WATER AND SEWER SYSTEM

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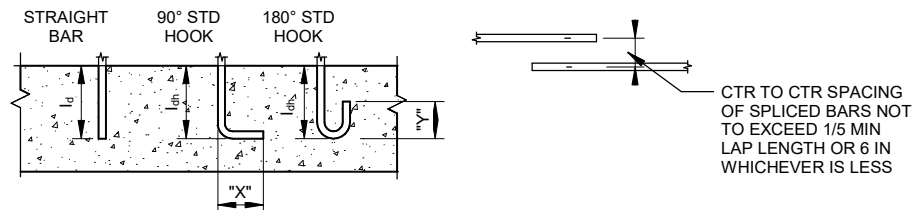
JOB NO.: 2402007

DETAIL NOT TO SCALE

REV	DATE	DESCRIPTION	BY
STANDARD DETAILS INDEX 1			DIVISION
			SECTION - DETAIL NO.
			DATE: AUGUST

FOR CLEAR COVER OF 2", F'c=4,500PSI, & GRADE 60 STEEL

BAR SIZE	DIAMETER (db) (INCHES)	DEVELOPMENT LENGTH (l_d) (INCHES)		CLASS A LAP SPLICE (INCHES)		CLASS B LAP SPLICE (INCHES)		90° STD HOOK (INCHES)		180° STD HOOK "Y" (INCHES)
		"TOP" BARS	OTHER	"TOP" BARS	OTHER	"TOP" BARS	OTHER	HOOK "X"	l_{dh}	
		REINFORCING BARS IN TENSION								
#3	0.375	12	12	12	12	14	12	8	7	6
#4	0.5	14	12	14	12	19	14	10	9	6
#5	0.625	18	14	18	14	23	18	12	12	7
#6	0.75	21	17	21	17	28	21	15	16	9
#7	0.875	34	26	34	26	44	34	17	20	10
#8	1.0	44	34	44	34	57	44	19	24	11
#9	1.128	56	43	56	43	73	56	22	29	13
#10	1.27	71	55	71	55	92	71	25	34	14
#11	1.41	87	67	87	67	113	87	27	40	16
REINFORCING BARS IN COMPRESSION										
#3	0.375	8		12				HOOKED BARS SHALL NOT BE USED IN COMPRESSION		
#4	0.5	9		15						
#5	0.625	12		19						
#6	0.75	14		23						
#7	0.875	16		27						
#8	1.0	18		30						
#9	1.125	21		34						
#10	1.25	23		39						
#11	1.375	26		43						



NOTES:

- "TOP" BARS SHALL BE HORIZONTAL REINFORCEMENT PLACED SO THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE DEVELOPMENT LENGTH OR SPLICE.
- BARS BEING DEVELOPED OR SPLICED SHALL EITHER:
 - HAVE A MINIMUM CLEAR SPACING AND CLEAR COVER OF d_b AND STIRRUPS OR TIES THROUGHOUT l_d NOT LESS THAN THE CODE MINIMUM
 - OR;
 - HAVE MINIMUM CLEAR SPACING OF $2d_b$ AND CLEAR COVER OF d_b
- WHERE:
 - d_b = DIAMETER OF REINFORCING BAR
 - l_d = DEVELOPMENT LENGTH
- ALL LAP SPLICES SHALL BE CLASS B UNLESS NOTED OTHERWISE.
- l_{dh} OF BARS WITH 180° STD HOOK SHALL BE THAT OF A 90° HOOK WITH THE SAME DIAMETER.



MOBILE AREA WATER AND SEWER SYSTEM

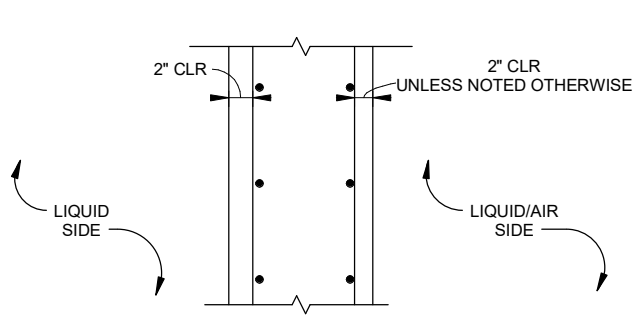
MOBILE, AL

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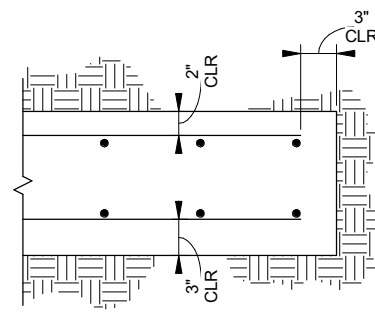
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DETAIL NOT TO SCALE

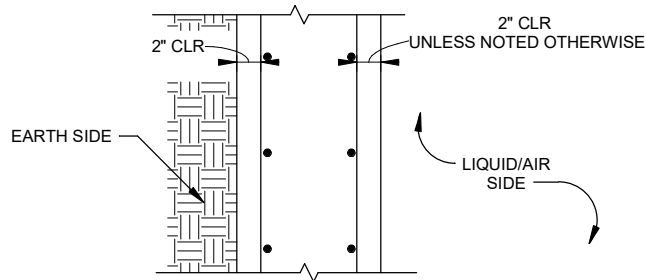
REV	DATE	DESCRIPTION	BY
STANDARD HOOK AND REINFORCING LAP SPLICE			DIVISION D03
			SECTION - DETAIL NO. 3000-100C
			DATE: AUGUST



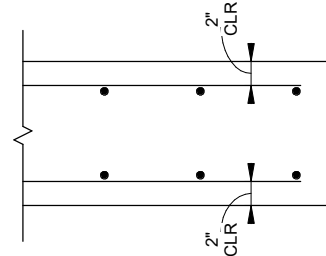
ABOVE GRADE
CONCRETE WALLS



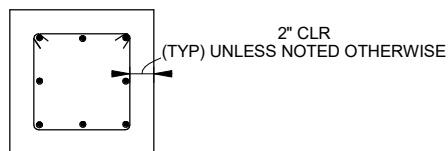
BASE SLAB AND FTG's
POURED AGAINST EARTH



BELOW GRADE WALLS



SUSPENDED SLAB



COLUMN, PIER, AND BEAM

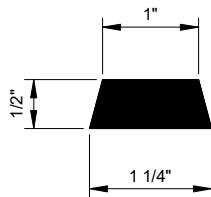
NOTE:

1. SEE PLANS FOR PROPER REBAR ORIENTATION



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REV	DATE	DESCRIPTION	BY
STANDARD COVER FOR REINFORCING STEEL			DIVISION D03
			SECTION - DETAIL NO. 3000-101
DETAIL NOT TO SCALE			DATE: AUGUST



TYPE A: NON-HYDROPHILIC WATERSTOP

1. SIZE: 3/4" X 1" X CONT.
2. REQUIRED HYDROSTATIC PRESSURE RESISTANCE: 20 PSI
3. SUPPLY NON-HYDROPHILIC WATERSTOP WHERE INDICATED ON PLANS AND IN SPECIFICATIONS ONLY.

TYPE B: HYDROPHILIC WATERSTOP

1. SIZE: 3/4" X 1" X CONT.
2. REQUIRED HYDROSTATIC PRESSURE RESISTANCE: 100 PSI
3. ALL STRIP-TYPE WATERSTOPS SHALL BE HYDROPHILIC UNLESS NOTED AS NON-HYDROPHILIC ON PLANS OR IN SPECIFICATIONS



**MOBILE AREA WATER AND
SEWER SYSTEM**

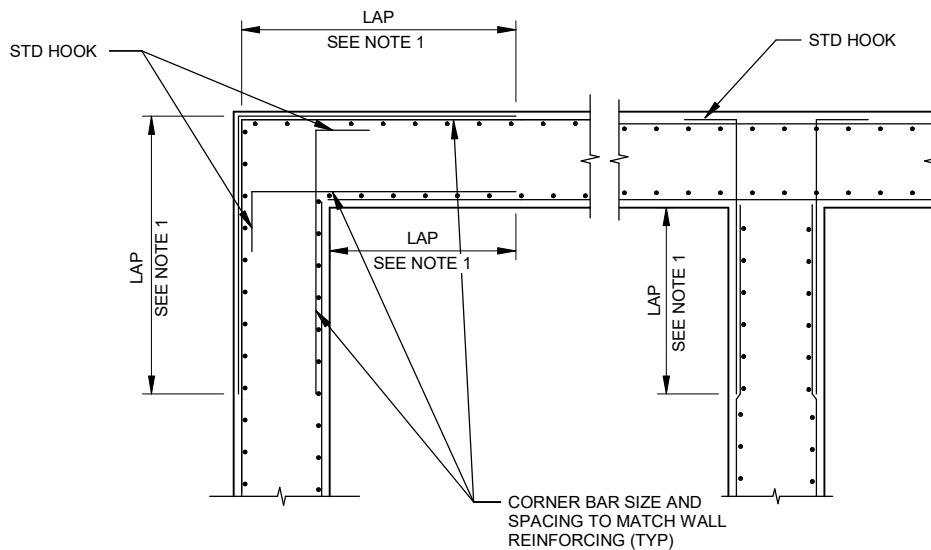
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CONTROL

JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
STRIP-TYPE WATERSTOP DETAIL			DIVISION D03
			SECTION - DETAIL NO. 3000-102B
			DATE: AUGUST

DETAIL NOT TO SCALE



NOTES:

1. UNLESS OTHERWISE NOTED ON THE DRAWINGS, LAP LENGTH SHALL BE THE MINIMUM CLASS B LAP SPLICE LENGTH AS REQUIRED. IF BAR SIZES DIFFER, USE THE MINIMUM LAP LENGTH AS REQUIRED FOR THE SMALLER OF THE TWO BARS BEING SPLICED. SEE DETAIL D03 3000-100C
2. ALL SLABS AND PIER CAPS SHALL HAVE CORNER BARS AS SHOWN.



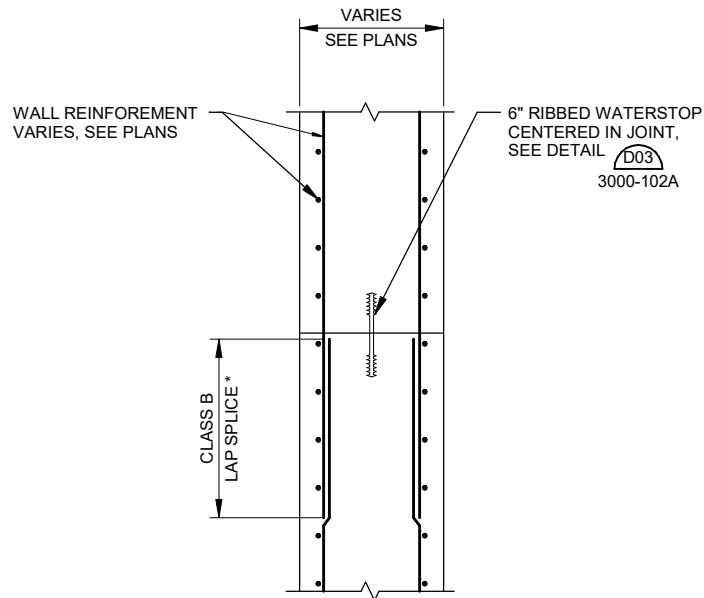
**MOBILE AREA WATER AND
SEWER SYSTEM**

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CONTROL

JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
		TYPICAL REINFORCED WALL, GRADE BEAM, AND FOUNDATION INTERSECTION/CORNER REINFORCING	
			DIVISION D03
			SECTION - DETAIL NO. 3000-200
DETAIL NOT TO SCALE			DATE: AUGUST



WALL REINFORCEMENT CONTINUES THROUGH JOINT AS INDICATED

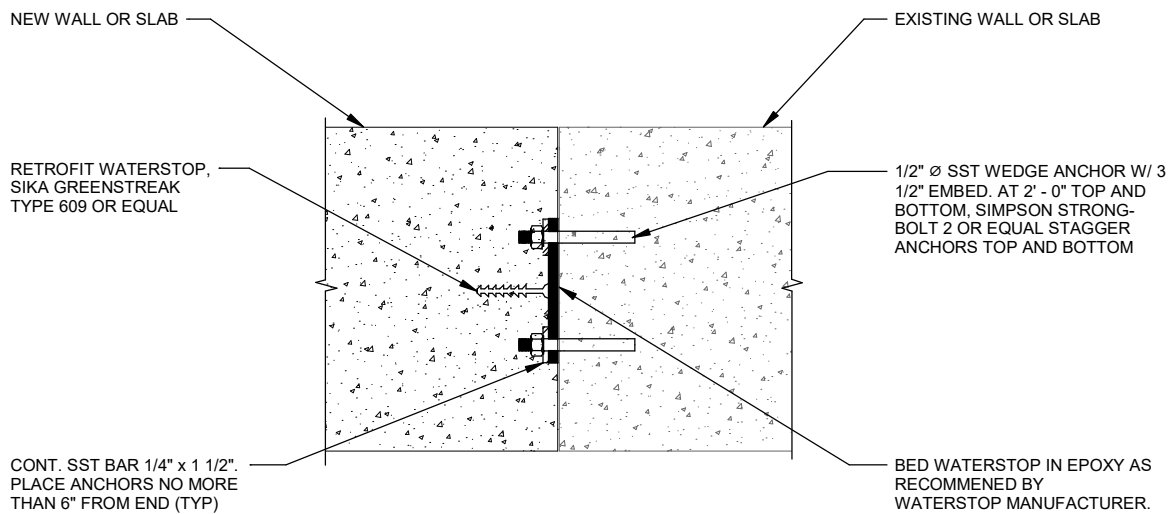
NOTE:

1. VERTICAL CONSTRUCTION JOINTS ALONG RECONSTRUCTED WALLS AT HEADWORKS SHALL MATCH EXISTING LOCATIONS, IF APPLICABLE



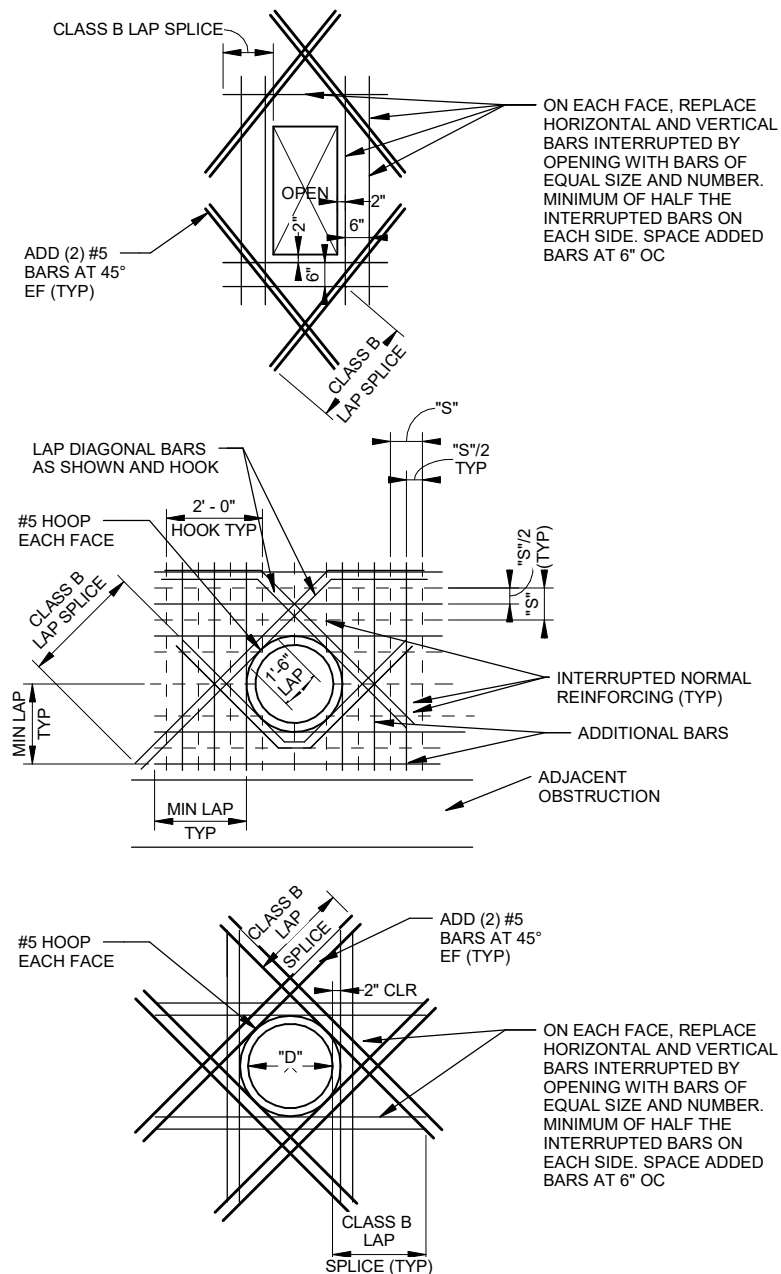
MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
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JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
WALL VERTICAL CONSTRUCTION JOINT			DIVISION D03
			SECTION - DETAIL NO. 3000-202
DETAIL NOT TO SCALE			DATE: AUGUST



MOBILE AREA WATER AND
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REV	DATE	DESCRIPTION	BY
RETROFIT WATERSTOP			DIVISION D03
			SECTION - DETAIL NO. 3000-206
DETAIL NOT TO SCALE			DATE: AUGUST



NOTES:

1. NUMBER OF ADDITIONAL REINFORCING BARS AT EACH SIDE OF OPENING SHALL EQUAL HALF THE NUMBER OF INTERRUPTED BARS IN EACH LAYER OF REINFORCING.
2. SIZE OF ADDITIONAL REINFORCING BARS TO EQUAL SIZE OF INTERRUPTED REINFORCING BARS.
3. PROVIDE STD HOOKS FOR BARS IF LAP LENGTH EXTENSION CANNOT BE OBTAINED AT JOINTS OR OTHER OBSTRUCTIONS. PLACE ADDITIONAL BARS IN SAME PLANES AS INTERRUPTED REINFORCING.
4. UNLESS NOTED OTHERWISE, SIZE OF DIAGONAL BARS SHALL BE THE SAME SIZE AS THE INTERRUPTED NORMAL REINFORCING LOCATE DIAGONALS IN EACH LAYER OF REINFORCING.
5. PLACE DIAGONAL BARS INSIDE NORMAL REINFORCING.
6. PROVIDE 2 DIAGONAL BARS EACH LAYER OR FACE, EACH WAY AS SHOWN. ALL REINFORCING TO CLEAR OPENING OR FLANGE COLLARS BY 2".



MOBILE AREA WATER AND SEWER SYSTEM

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JOB NO.: 2402007

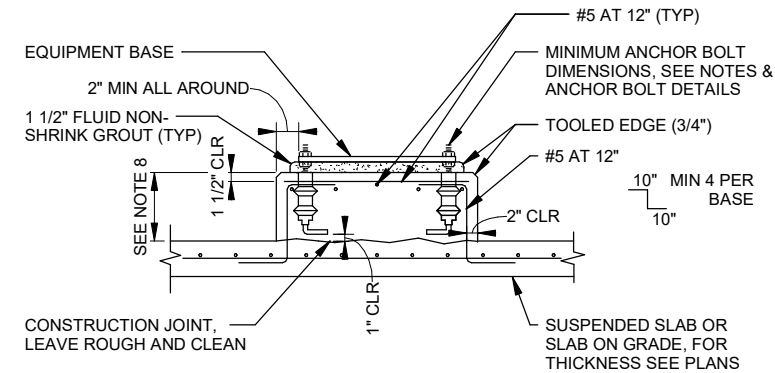
REV	DATE	DESCRIPTION	BY
ADDITIONAL REINFORCEMENT AT WALL OPENINGS			

DIVISION
D03

SECTION - DETAIL NO.
3000-600

DETAIL NOT TO SCALE

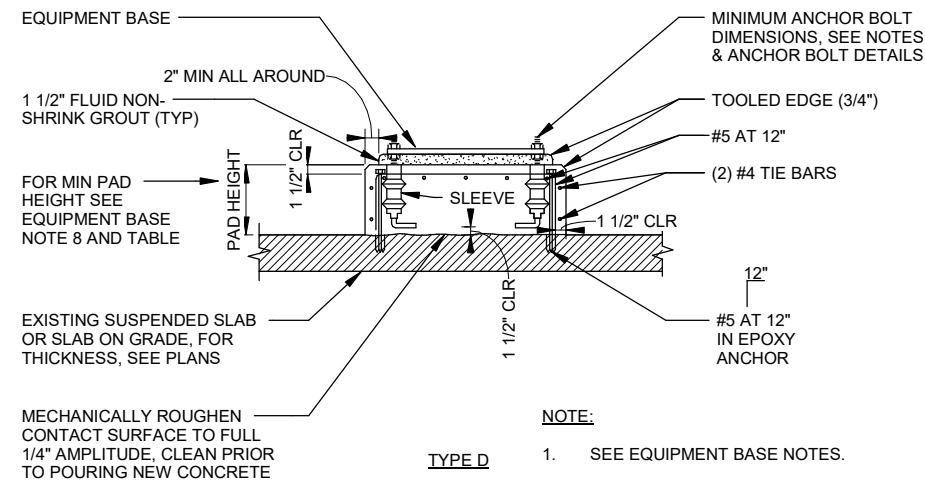
DATE: AUGUST



NOTES:

1. SEE EQUIPMENT BASE NOTES.
2. SEE TYPE B NOTES.

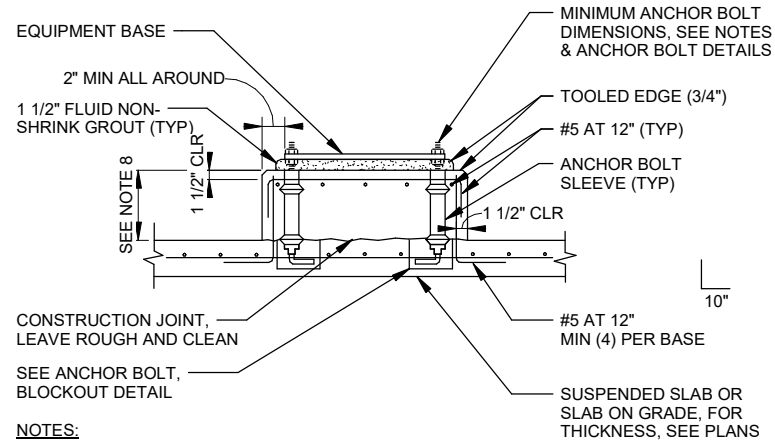
TYPE A



NOTE:

1. SEE EQUIPMENT BASE NOTES.

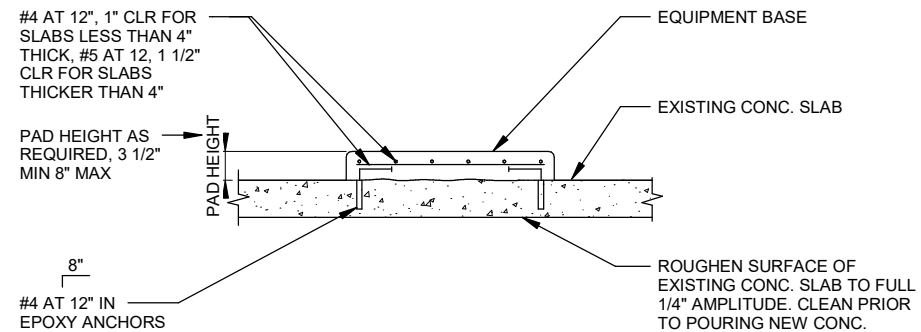
TYPE D



NOTES:

1. SEE EQUIPMENT BASE NOTES.
2. USE TYPE B BASE IN PLAVE OF TYPE A WHERE REQUIRED BY EQUIPMENT OR STUCTURE GEOMETRY. SEE NOTE 8.

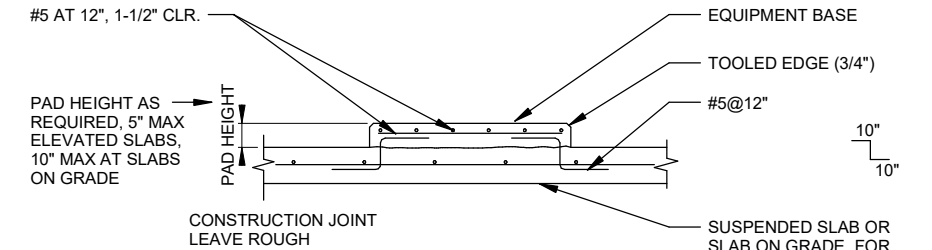
TYPE B



NOTE:

1. ANCHOR EQUIPMENT TO CONCRETE USING SST CONCRETE ANCHORS SPECIFIED.

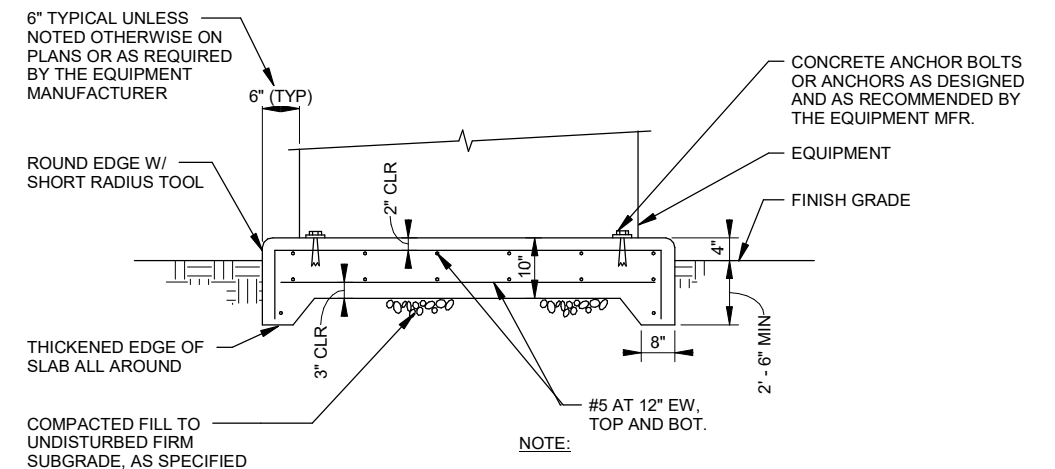
TYPE E



NOTES:

1. SEE EQUIPMENT BASE NOTES.
2. ANCHOR EQUIPMENT TO CONCRETE USING SST CONCRETE ANCHORS OR ANCHOR BOLTS SPECIFIED
3. PAD SHALL BE 6\"

TYPE C



NOTE:

1. VERIFY PAD SIZE WITH EQUIPMENT MANUFACTURER PRIOR TO CONSTRUCTION.

TYPE F

EQUIPMENT BASE NOTES:

1. PAD SIZE SHALL BE MINIMUM INDICATED OR AS SHOWN ON THE PLANS. VERIFY ALL PAD SIZE REQUIREMENTS WITH SHOP DRAWINGS OF ACTUAL EQUIPMENT FURNISHED AND OBTAIN ENGINEER'S APPROVAL OF FINAL DIMENSIONS.
2. THE SIZE, NUMBER, TYPE, LOCATION, AND THREAD PROJECTION OF THE ANCHOR BOLTS SHALL BE DETERMINED BY THE EQUIPMENT MANUFACTURER, AND SHALL BE AS APPROVED BY THE ENGINEER. ANCHOR BOLTS SHALL BE HELD IN POSITION WITH A ONE PIECE TEMPLATE, MATCHING THE BASE PLATE, WHILE PAD IS BEING POURED.
3. ANCHOR BOLT A MINIMUM MOVEMENT OF 1/2\"
4. ANCHOR BOLT SLEEVES SHALL HAVE A MINIMUM INTERNAL DIAMETER 1\"
5. EQUIPMENT BASES SHALL BE INSTALLED LEVEL UNLESS SPECIFIED OTHERWISE.
6. WEDGES OR SHIMS SHALL BE USED TO SUPPORT THE BASE WHILE THE NON-SHRINK GROUT IS PLACED. TEMPORARY LEVELING NUTS SHALL BE BACKED OFF. IF LEFT IN THE WEDGES OR SHIMS SHALL NOT BE EXPOSED TO VIEW.
7. HEIGHT OF PADS SHALL BE MINIMUM REQUIRED FOR ANCHOR BOLT CLEARANCE TO KEEP ANCHOR BOLT OUT OF SLAB (SEE TABLE BELOW). WHERE EQUIPMENT OR PIPING ELEVATION REQUIRE A PAD HEIGHT LESS THAN THE MINIMUM SHOW, USE TYPE B WITH BLOCKOUT.

ANCHOR BOLT DIA (IN.)	1/2	5/8	3/4	7/8	1	1 1/4	1 3/8	1 1/2	1 3/4	2
MIN PAD HT (IN.)	7	8 1/2	10	11	12 1/2	15	16 1/2	18	21	24

8. TYPE "D" PADS MAY BE SUBSTITUTED FOR TYPE "A" PADS FOR LOCATIONS APPROVED IN WRITING BY THE ENGINEER.
9. SEE ANCHOR BOLT AND BLOCKOUT DETAILS.

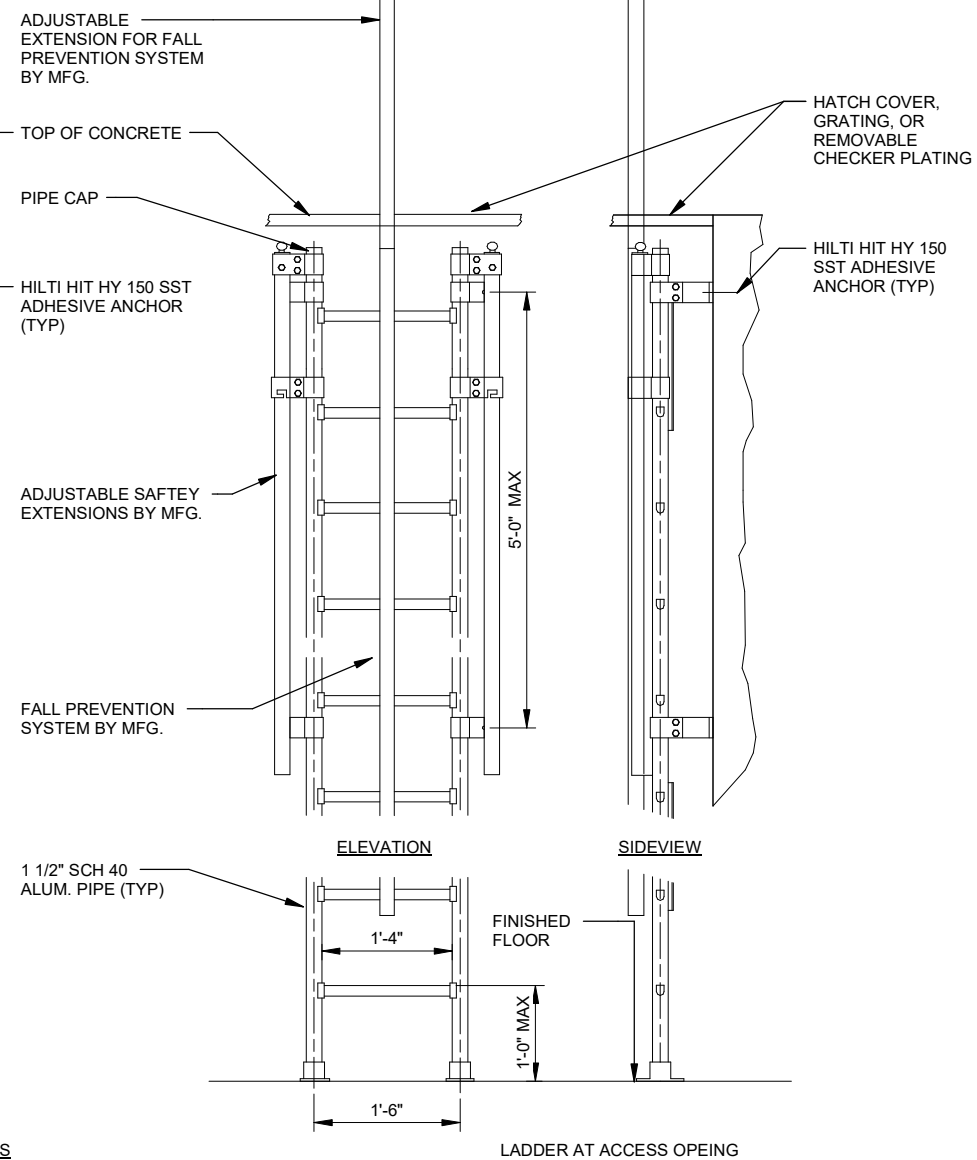
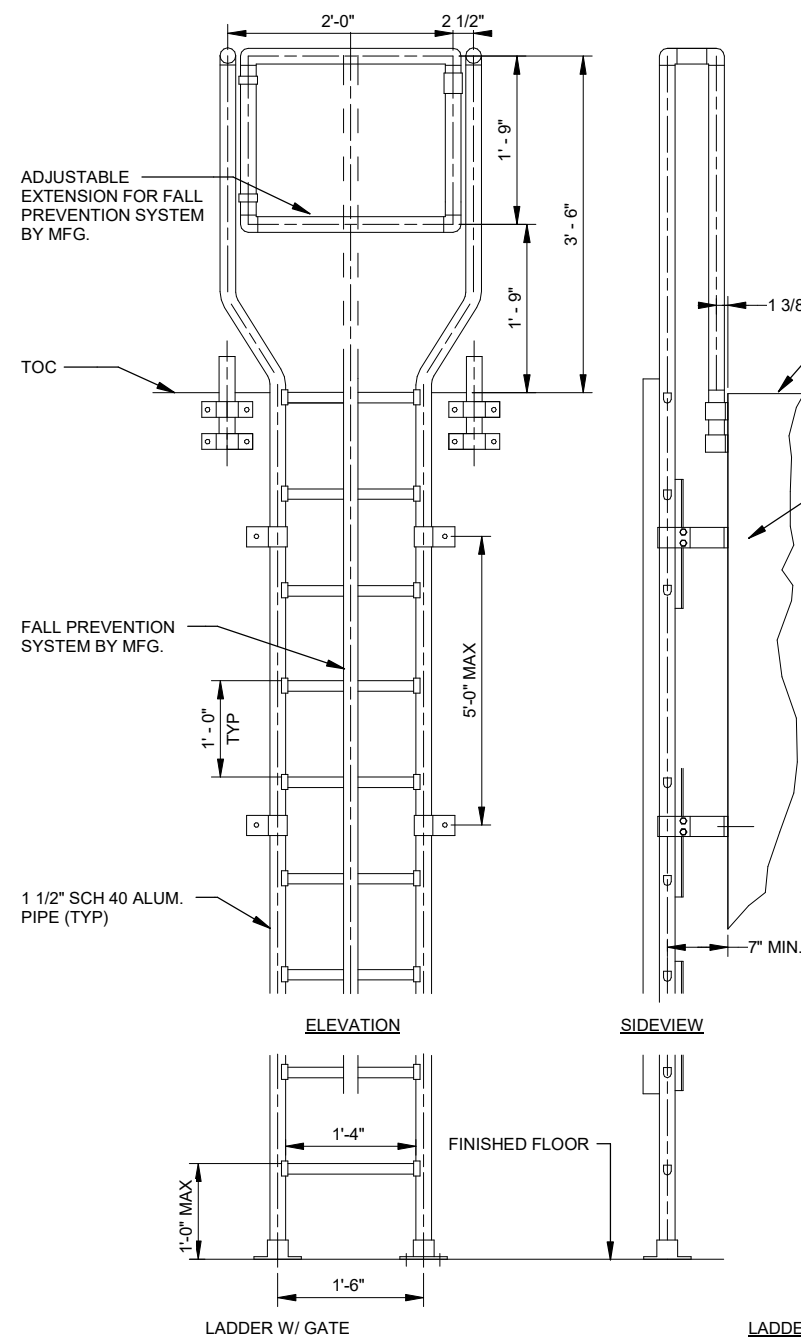
MOBILE AREA WATER AND SEWER SYSTEM

MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
EQUIPMENT BASE DETAIL			DIVISION D03
			SECTION - DETAIL NO. 3000-1000
			DATE: AUGUST





LADDER NOTES

1. ALL LADDERS TO BE ALUMINUM UNLESS OTHERWISE NOTED.
2. PROVIDE ADJUSTABLE EXTENSIONS, SAFTEY CAGES, FALL PREVENTION SYSTEMS AS SPECIFIED.
3. DESIGN PER SPECIFICATION.

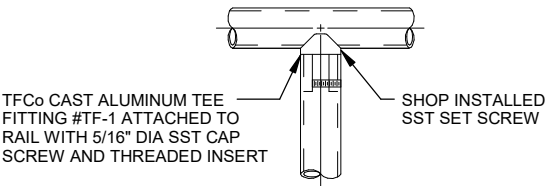
MOBILE AREA WATER AND SEWER SYSTEM

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JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
STANDARD LADDER DETAILS			DIVISION D05
			SECTION - DETAIL NO. 5000-805
			DATE: AUGUST





**MOBILE AREA WATER AND
SEWER SYSTEM**

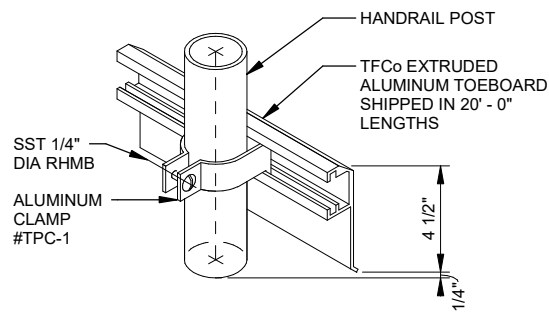
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CONTROL

JOB NO.: 2402007

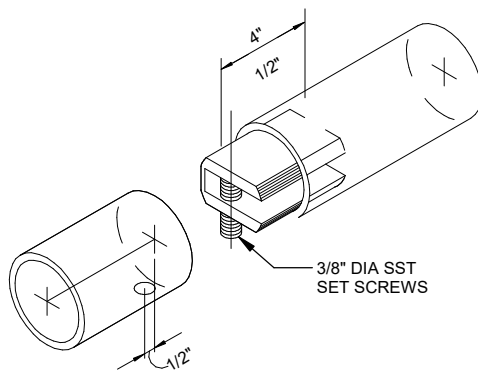
REV	DATE	DESCRIPTION	BY
TEE FITTING DETAIL			DIVISION D05
			SECTION - DETAIL NO. 5213-100
			DATE: AUGUST

DETAIL NOT TO SCALE



MOBILE AREA WATER AND SEWER SYSTEM
 MOBILE, AL
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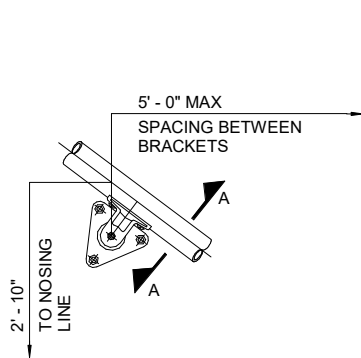
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TOEBOARD DETAILS			DIVISION D05
			SECTION - DETAIL NO. 5213-101
DETAIL NOT TO SCALE			DATE: AUGUST



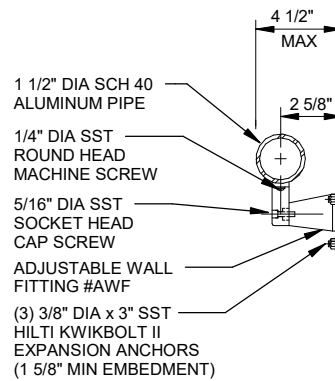
**MOBILE AREA WATER AND
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MOBILE, AL
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REV	DATE	DESCRIPTION	BY
SPLICE LOCK			DIVISION D05
			SECTION - DETAIL NO. 5213-102
			DATE: AUGUST

DETAIL NOT TO SCALE



WALL RAIL ELEVATION

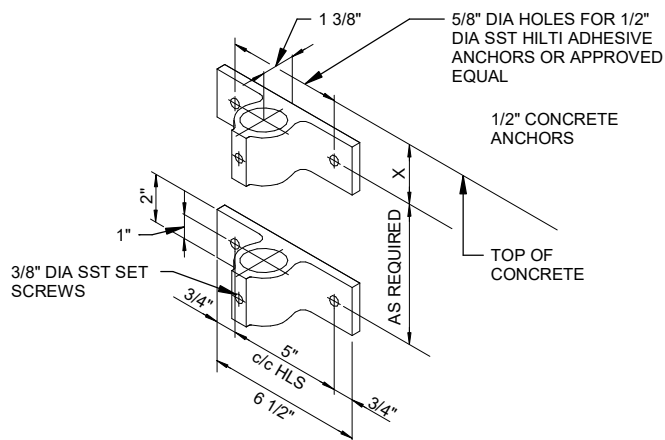


SECTION A - A



**MOBILE AREA WATER AND
SEWER SYSTEM**
MOBILE, AL
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CONTROL
JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
TYPICAL WALL RAIL DETAIL			
DIVISION D05			SECTION - DETAIL NO. 5213-103
DETAIL NOT TO SCALE			DATE: AUGUST



NOTES:

1. DIMENSION "X", EDGE DISTANCE SHALL COMPLY WITH FASTENER CALCULATIONS.



**MOBILE AREA WATER AND
SEWER SYSTEM**

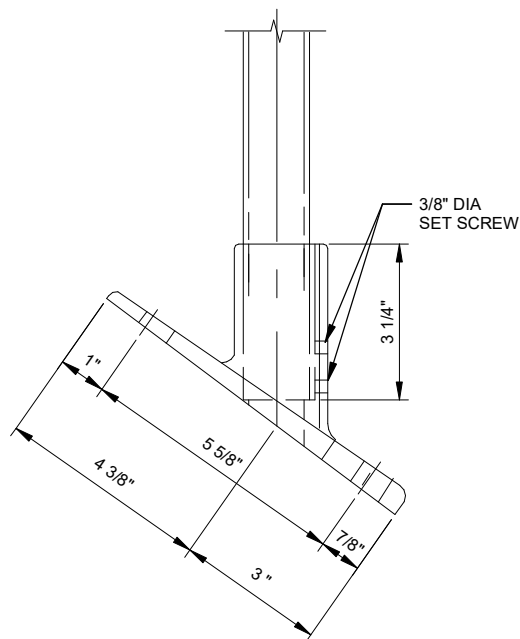
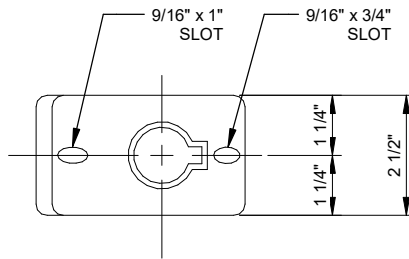
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CONTROL

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DETAIL NOT TO SCALE

REV	DATE	DESCRIPTION	BY
SIDE MOUNT BRACKET			DIVISION D05
			SECTION - DETAIL NO. 5213-105
			DATE: AUGUST



**MOBILE AREA WATER AND
SEWER SYSTEM**

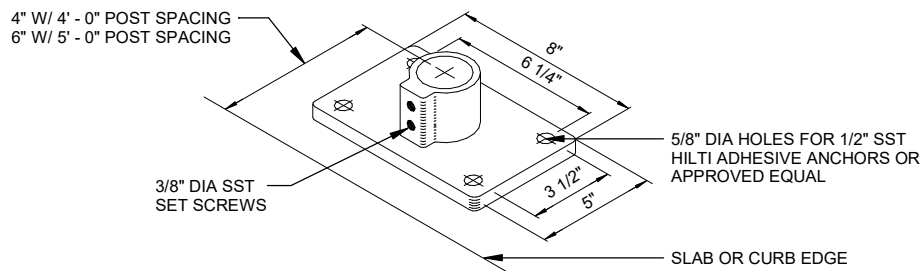
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CONTROL

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DETAIL NOT TO SCALE

REV	DATE	DESCRIPTION	BY
STAIR STRINGER BASE FLANGE DETAIL			DIVISION D05
			SECTION - DETAIL NO. 5213-106
			DATE: AUGUST



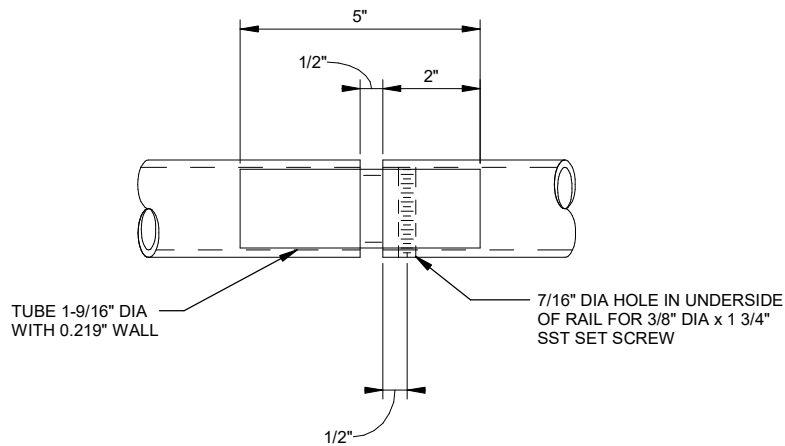
NOTES:

1. LOCATE SET SCREWS IN BASE FLANGE AT 90 DEGREES FROM CENTERLINE OF HANDRAIL RUN AND ON SIDE AWAY FROM WALKING SURFACE.



**MOBILE AREA WATER AND
SEWER SYSTEM**
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REV	DATE	DESCRIPTION	BY
BASE FLANGE DETAIL			DIVISION D05
			SECTION - DETAIL NO. 5213-107
DETAIL NOT TO SCALE			DATE: AUGUST



NOTES:

1. LOCATED AT 60' - 0" MAXIMUM INTERVALS.



**MOBILE AREA WATER AND
SEWER SYSTEM**

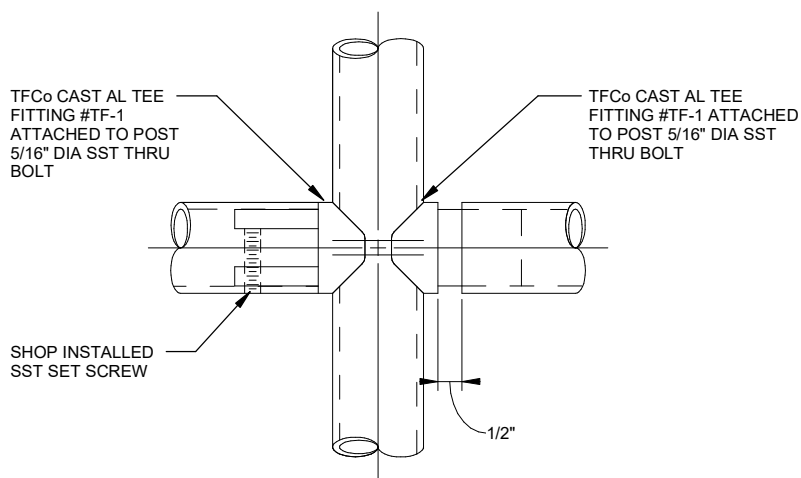
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL

JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
EXPANSION JOINT SPLICE			DIVISION D05
			SECTION - DETAIL NO. 5213-108
			DATE: AUGUST

DETAIL NOT TO SCALE



NOTES:

1. MIDRAIL EXPANSION SPLICE LOCATED AT 60' - 0" MAXIMUM INTERVALS.



**MOBILE AREA WATER AND
SEWER SYSTEM**

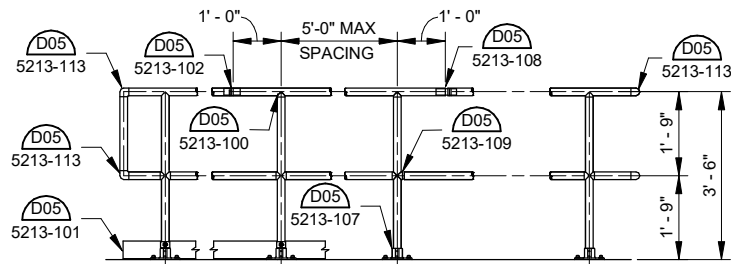
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL

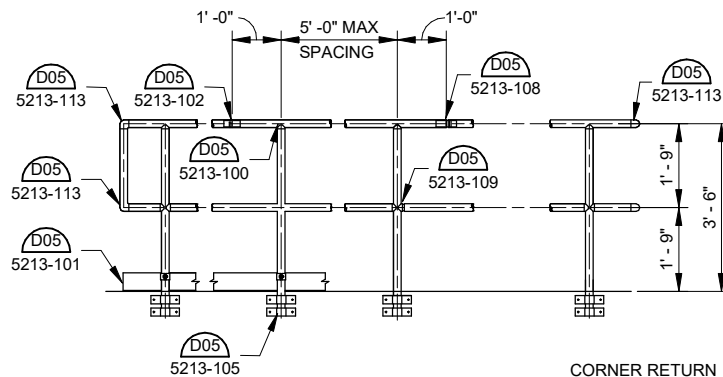
JOB NO.: 2402007

DETAIL NOT TO SCALE

REV	DATE	DESCRIPTION	BY
EXPANSION SPLICE DETAIL			DIVISION D05
			SECTION - DETAIL NO. 5213-109
			DATE: AUGUST



LOOP END METHOD A TYPICAL TOP MOUNT RAILING CORNER RETURN



LOOP END METHOD B TYPICAL SIDE MOUNT RAILING CORNER RETURN

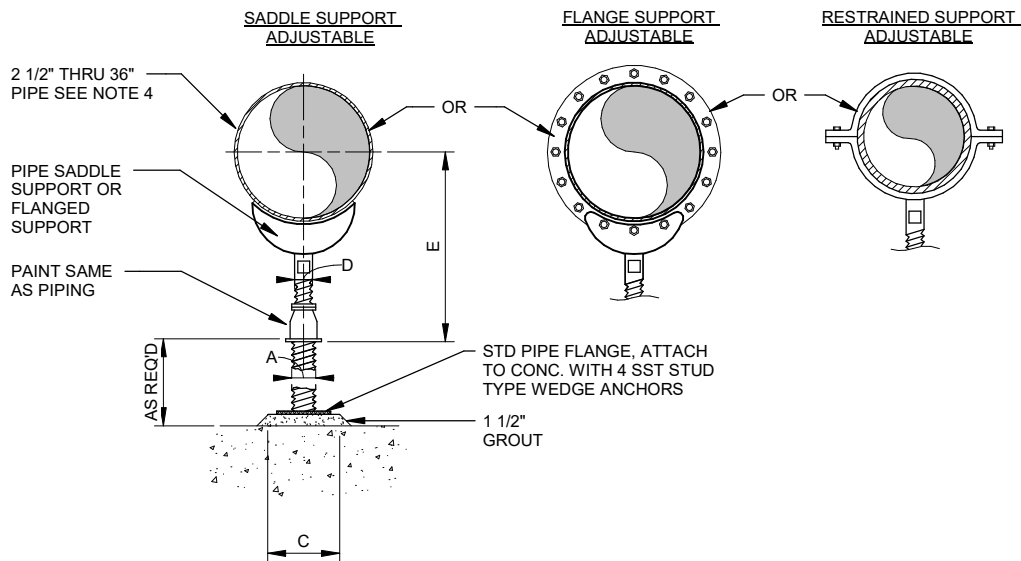
NOTE:

1. GUARDRAILS SHALL BE TOP MOUNTED OR SIDE MOUNTED AS SHOWN ON PLANS.



MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL
JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
OSHA TYPE GUARDRAIL			DIVISION D05
			SECTION - DETAIL NO. 5213-600
DETAIL NOT TO SCALE			DATE: AUGUST



DIMENSION TABLE						
PIPE SIZE	A	B	C	D	E	
					MIN	MAX
2-1/2"	2-1/2"	3-1/2"	6"	1-1/2"	8"	13"
3"	2-1/2"	3-3/4"	8"	1-1/2"	8-1/4"	13-1/4"
3-1/2"	2-1/2"	4"	8"	1-1/2"	8-1/2"	13-1/2"
4"	3"	4-1/4"	8"	2-1/2"	9-1/4"	14"
5"	3"	4-7/8"	8"	2-1/2"	10"	14-3/4"
6"	3"	5-1/2"	10"	2-1/2"	10-1/2"	15-1/4"
8"	3"	6-7/8"	10"	2-1/2"	11-3/4"	15-1/2"
10"	3"	8-1/2"	14"	2-1/2"	13-1/2"	18-1/4"
12"	3"	9-15/16"	18"	2-1/2"	15"	19-3/4"
14"	4"	10-15/16"	18"	3"	16-1/4"	20-3/4"
16"	4"	12-3/8"	20"	3"	17-3/4"	22-1/4"
18"	6"	13-7/8"	22"	3-1/2"	19-1/2"	24"
20"	6"	15-3/8"	22"	3-1/2"	21"	25-1/2"
24"	6"	17-15/16"	24"	4"	23-3/4"	28-1/4"
30"	6"	21-5/16"	30"	4"	27"	31-1/2"
32"	6"	22-1/2"	30"	4"	28-1/4"	32-3/4"
36"	6"	24-1/2"	30"	4"	30-1/4"	34-3/4"

NOTES:

1. PROVIDE HALF ROUND RIGID INSULATION AND INSULATION PROTECTION SHIELD WHERE PIPING IS INSULATED.
2. PROVIDE NEOPRENE WAFFLE INSULATION PAD, SIMILAR TO MASON TYPE "W" OR KORFUND 40, UNDER SUPPORT FOOT WHEN PIPING IS ISOLATED OR SUPPORT IS ADJACENT TO MECHANICAL EQUIPMENT.
3. FOR BASE, HEIGHT AND FLANGE DIMENSIONS, SEE TABLE.
4. USE 2 1/2" SUPPORTS FOR PIPES LESS THAN 2 1/2" DIAMETER.



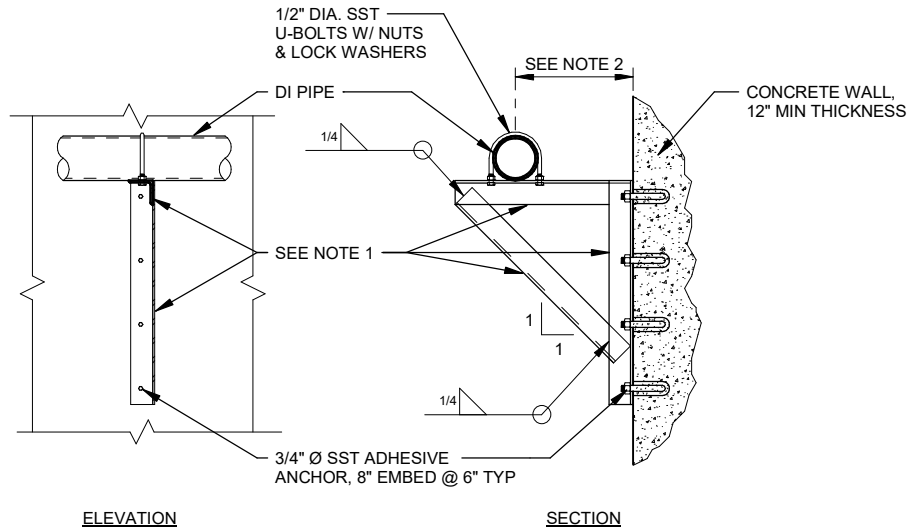
MOBILE AREA WATER AND SEWER SYSTEM

MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
ADJUSTABLE FLOOR MOUNTED PIPE SUPPORT			DIVISION D22
			SECTION - DETAIL NO. 0529-001
DETAIL NOT TO SCALE			DATE: AUGUST



NOTES:

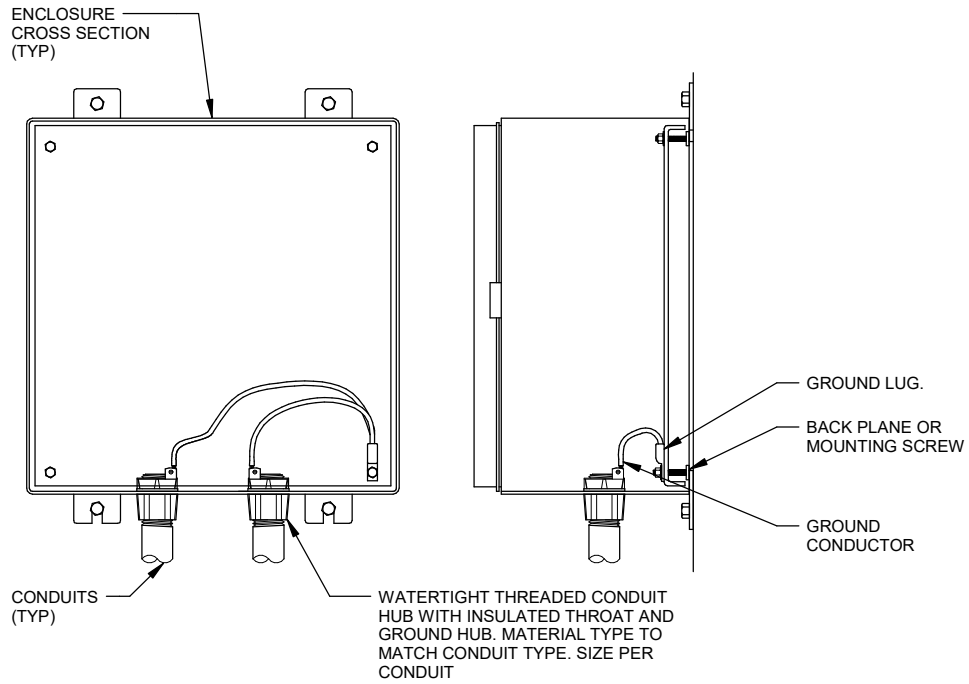
1. FOR WASTEWATER APPLICATIONS, SST L4X4X3/8. FOR ALL OTHER APPLICATIONS, L4X4X3/8 HDG AFTER FABRICATION.
2. DISTANCE FROM PIPE CENTERLINE TO FACE OF WALL SHALL BE AS SHOWN ON PLANS, NOT TO EXCEED 6'-0".
3. SPACING OF PIPE SUPPORTS SHALL BE AS SHOWN ON PLANS, NOT TO EXCEED VALUES SHOWN IN TABLE BELOW:

MAX SPACING OF SUPPORTS	
PIPE SIZE (IN)	MAX SPACING (FT)
4	14
6	14
8	14
10	14
12	12
14	8
16	6
18	6
20	4
24	4



MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL
JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
FABRICATED WALL MOUNTED PIPE SUPPORT			DIVISION D22
			SECTION - DETAIL NO. 0529-002
DETAIL NOT TO SCALE			DATE: AUGUST



NOTES:

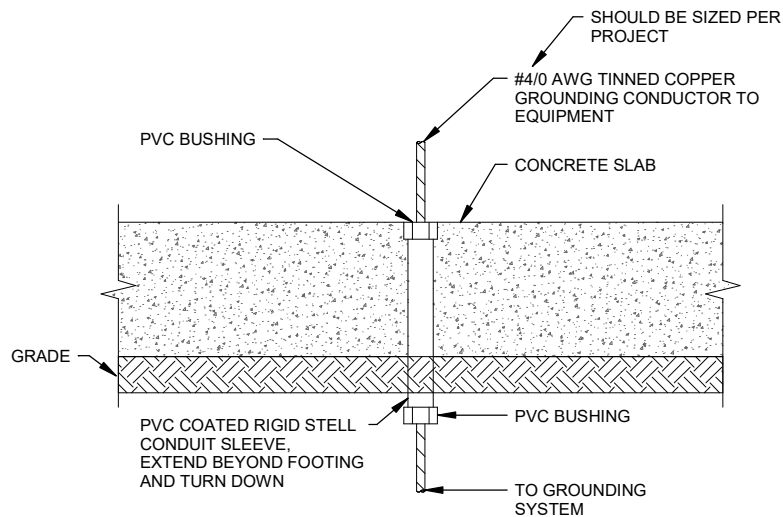
1. ALL METALLIC CONDUITS SHALL BE GROUNDED AT TERMINATION POINTS.



**MOBILE AREA WATER AND
SEWER SYSTEM**
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL
JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
CONDUIT GROUNDING DETAIL			DIVISION D26
			SECTION - DETAIL NO. 0526-006
			DATE: AUGUST

DETAIL NOT TO SCALE



NOTES:

1. EXTEND PVC CONDUIT TO TOP OF BASE, OR PEDESTAL BASE FOR PEDESTAL-MOUNTED EQUIPMENT. SUPPORT AT TWO PLACES MINIMUM.
2. SEAL ALL SLEEVES TO PREVENT WATER PENETRATION.
3. SEAL ANNULAR SPACE BETWEEN CONDUCTOR AND SLEEVE.



**MOBILE AREA WATER AND
SEWER SYSTEM**

MOBILE, AL

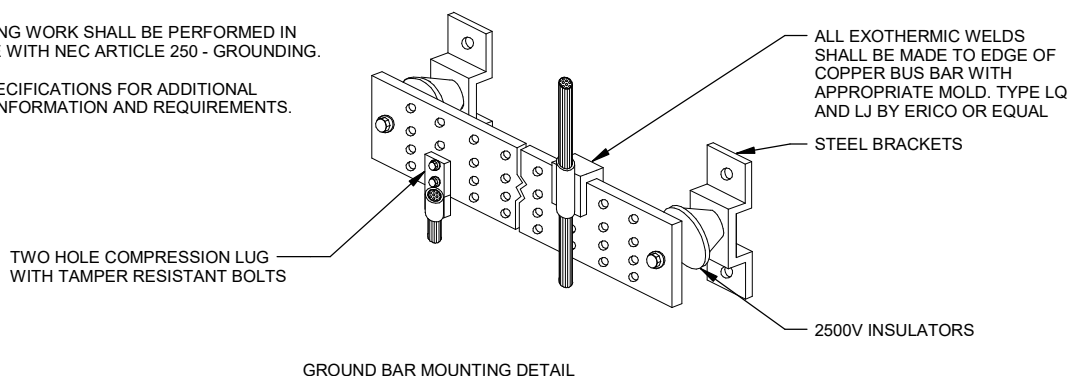
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL

JOB NO.: 2402007

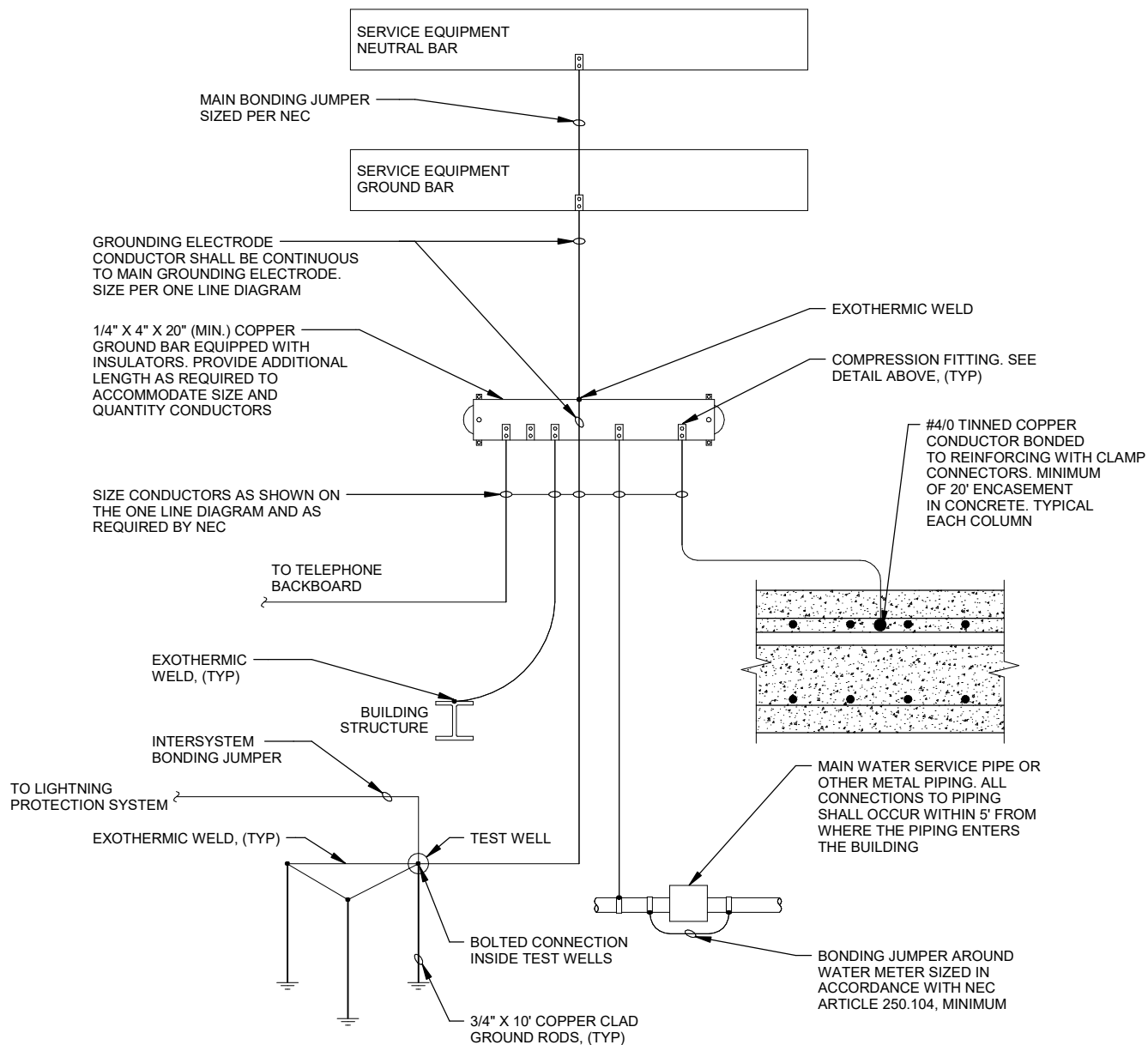
REV	DATE	DESCRIPTION	BY
GROUNDING CONDUIT SLEEVE DETAIL			DIVISION D26
			SECTION - DETAIL NO. 0526-009
DETAIL NOT TO SCALE			DATE: AUGUST

NOTES:

1. ALL GROUNDING WORK SHALL BE PERFORMED IN ACCORDANCE WITH NEC ARTICLE 250 - GROUNDING.
2. REFER TO SPECIFICATIONS FOR ADDITIONAL GROUNDING INFORMATION AND REQUIREMENTS.



GROUND BAR MOUNTING DETAIL



MOBILE AREA WATER AND SEWER SYSTEM

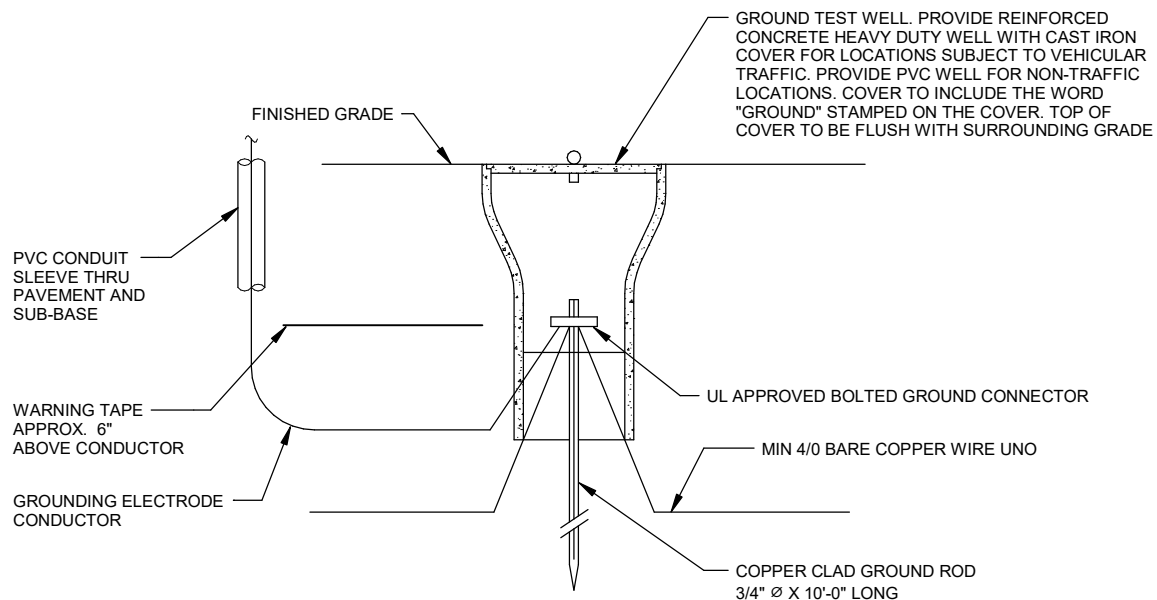
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

JOB NO.: 2402007

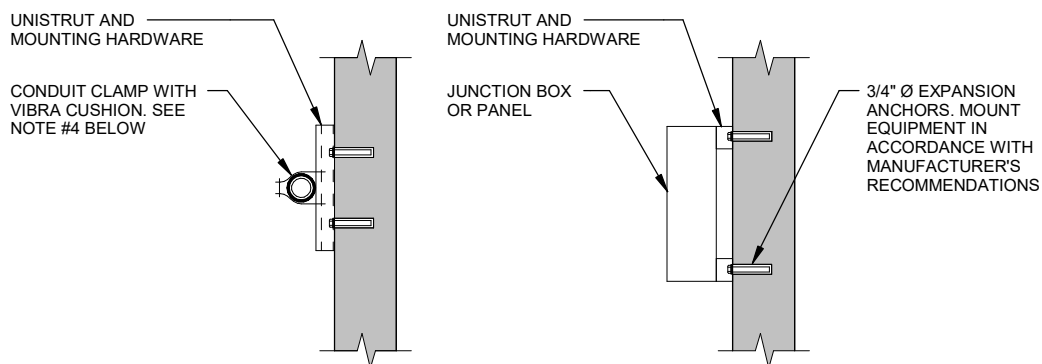
DETAIL NOT TO SCALE

REV	DATE	DESCRIPTION	BY
GROUND SYSTEM CONNECTION DETAIL			DIVISION D26
			SECTION - DETAIL NO. 0526-012
			DATE: AUGUST



MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL
JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
TYPICAL GROUND ROD WITH TEST WELL INSTALLATION			DIVISION D26
			SECTION - DETAIL NO. 0526-013
DETAIL NOT TO SCALE			DATE: AUGUST



NOTES:

1. UNISTRUT AND MOUNTING HARDWARE MATERIAL AS CALLED OUT IN ELECTRICAL PLAN SHEETS AND SPECIFICATIONS.
2. SINGLE CONDUIT SHOWN. SIMILAR FOR MULTIPLE CONDUITS.
3. SIMILAR FOR ALL ELECTRICAL ENCLOSURES AND PANELS.
4. VIBRA CUSHION ONLY REQUIRED WHERE NEEDED TO PREVENT METAL TO METAL CONTACT OF DISSIMILAR METAL TYPES OR WHERE EXCESSIVE VIBRATION MAY OCCUR.



**MOBILE AREA WATER AND
SEWER SYSTEM**

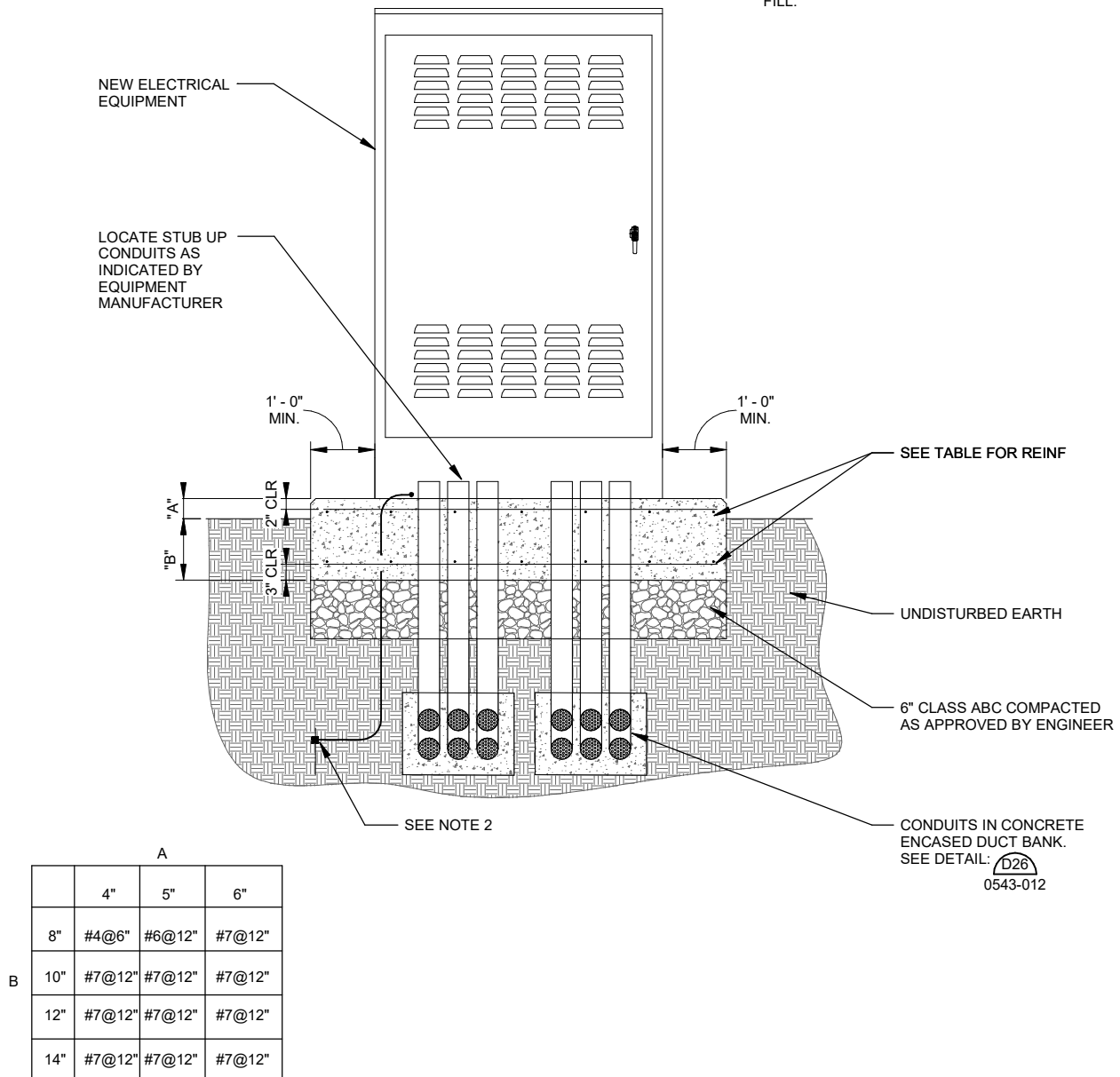
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL

JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
CONDUIT AND JUNCTION BOX SUPPORT DETAIL			DIVISION D26
			SECTION - DETAIL NO. 0529-001
DETAIL NOT TO SCALE			DATE: AUGUST

1. ALL BOLTS, NUTS, WASHERS, ANCHORS, PLATES, AND OTHER MOUNTING STEMS SHALL BE CORROSION RESISTANT, STAINLESS STEEL.
2. BOND ELECTRICAL EQUIPMENT SUPPORT FRAME TO GROUND RING USING 1-#2 AWG MINIMUM AND CLAMPING CONNECTION. SLEEVE PENETRATION.
3. PROVIDE 3' LANDING IN FRONT OF ENCLOSURE.
4. DISTURBED SOIL MUST BE REPLACED WITH COMPACTED SUBGRADE OR COMPACTED GRANULAR FILL.



	4"	5"	6"
8"	#4@6"	#6@12"	#7@12"
10"	#7@12"	#7@12"	#7@12"
12"	#7@12"	#7@12"	#7@12"
14"	#7@12"	#7@12"	#7@12"



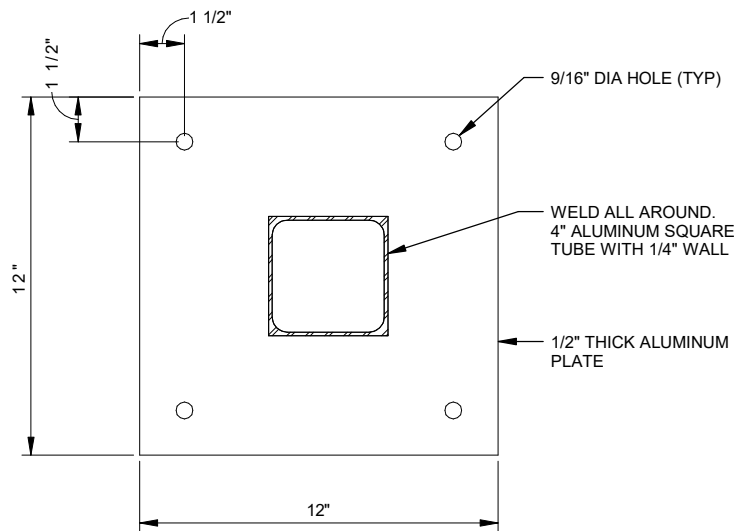
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

JOB NO.: 2402007

DETAIL NOT TO SCALE

REV	DATE	DESCRIPTION	BY
TYPICAL PAD MOUNTING ELECTRICAL EQUIPMENT DETAIL			DIVISION D26
			SECTION - DETAIL NO. 0529-002
NOT TO SCALE			DATE: AUGUST

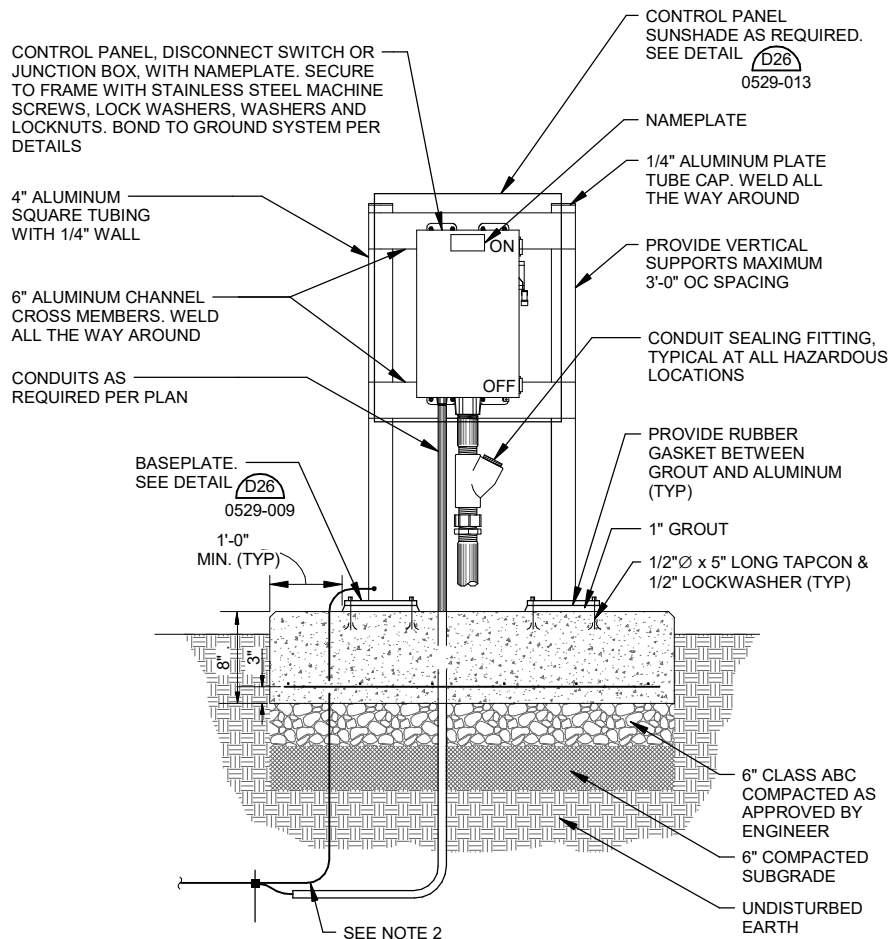


**MOBILE AREA WATER AND
SEWER SYSTEM**
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL
JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
RACK BASEPLATE DETAIL			DIVISION D26
			SECTION - DETAIL NO. 0529-009
			DATE: AUGUST

DETAIL NOT TO SCALE

REV	DATE	DESCRIPTION	BY
TYPICAL ELECTRICAL EQUIPMENT MOUNTING DETAIL - SIDE VIEW			DIVISION D26
			SECTION - DETAIL NO 0529-011
TAIL NOT TO SCALE			DATE: AUGUST



NOTES:

1. ALL BOLTS, NUTS, WASHERS, ANCHORS, PLATES, AND OTHER MOUNTING STEMS SHALL BE CORROSION RESISTANT, STAINLESS STEEL.
2. BOND ELECTRICAL EQUIPMENT SUPPORT FRAME TO COUNTERPOISE AND GROUND RINGS USING 1-#2 AWG MINIMUM AND CLAMPING CONNECTION. SLEEVE PAD PENETRATION.
3. OMIT PAD WHERE NOT SHOWN.



MOBILE AREA WATER AND SEWER SYSTEM

MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

JOB NO.: 2402007

DETAIL NOT TO SCALE

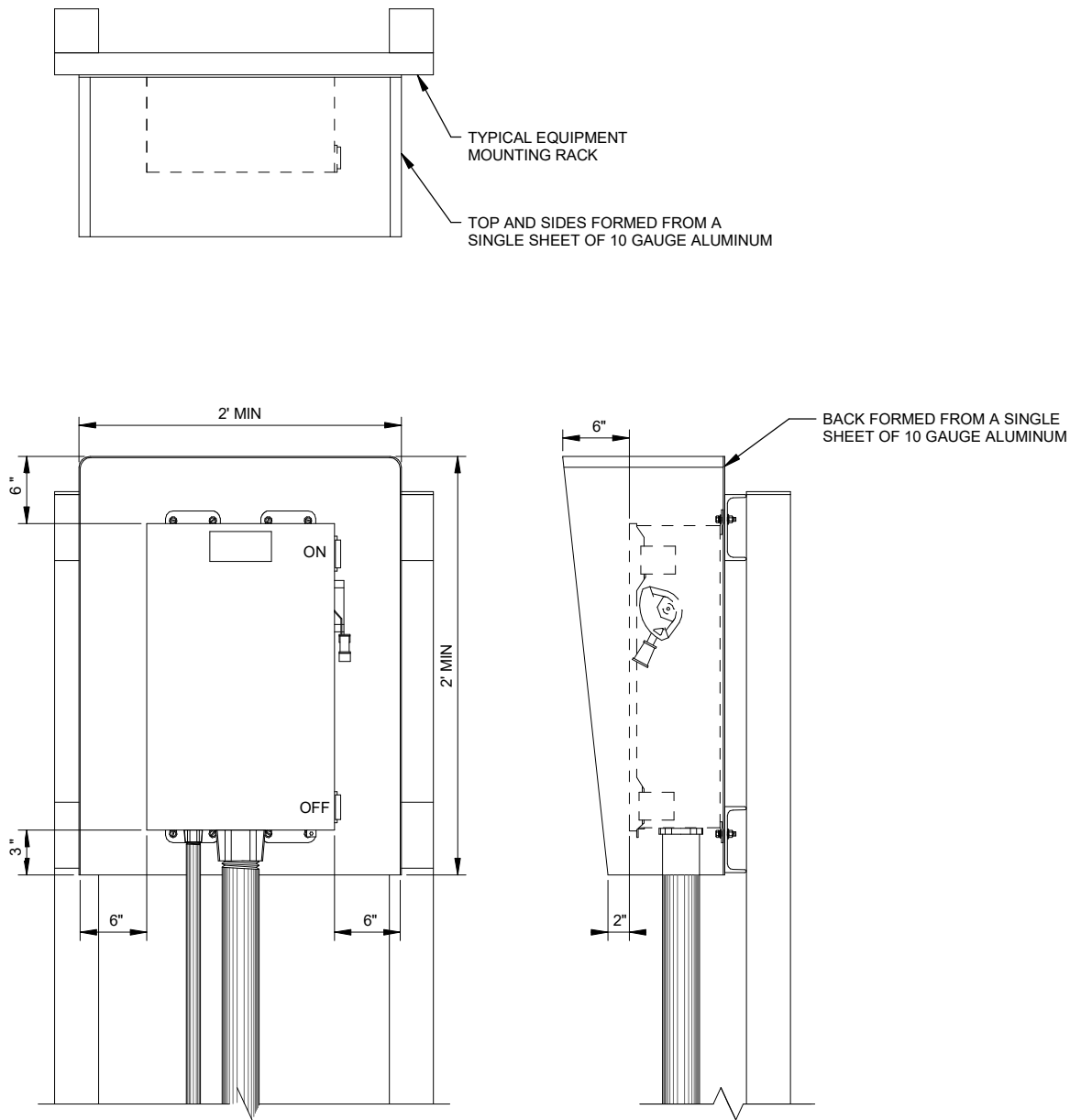
TYPICAL ELECTRICAL EQUIPMENT MOUNTING DETAIL- FRONT VIEW

DIVISION
D26
SECTION - DETAIL NO.
0529-012

DATE: AUGUST

NOTES:

1. ALL EXPOSED EDGES TO BE GROUND SMOOTH AND BURR FREE.
2. MOUNT HOOD BETWEEN INSTRUMENT AND MOUNTING BRACKET.
DRILL HOLES IN HOOD AS PER MOUNTING HOLES FOR INSTRUMENTS.



**MOBILE AREA WATER AND
SEWER SYSTEM**

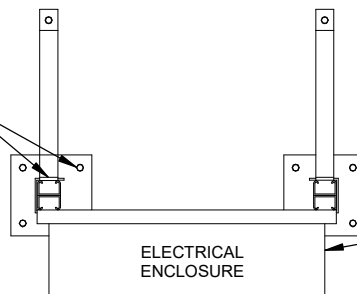
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL

JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
TYPICAL SUN SHIELD FOR CONTROL PANEL AND INSTRUMENTS			DIVISION D26
			SECTION - DETAIL NO. 0529-013
DETAIL NOT TO SCALE			DATE: AUGUST

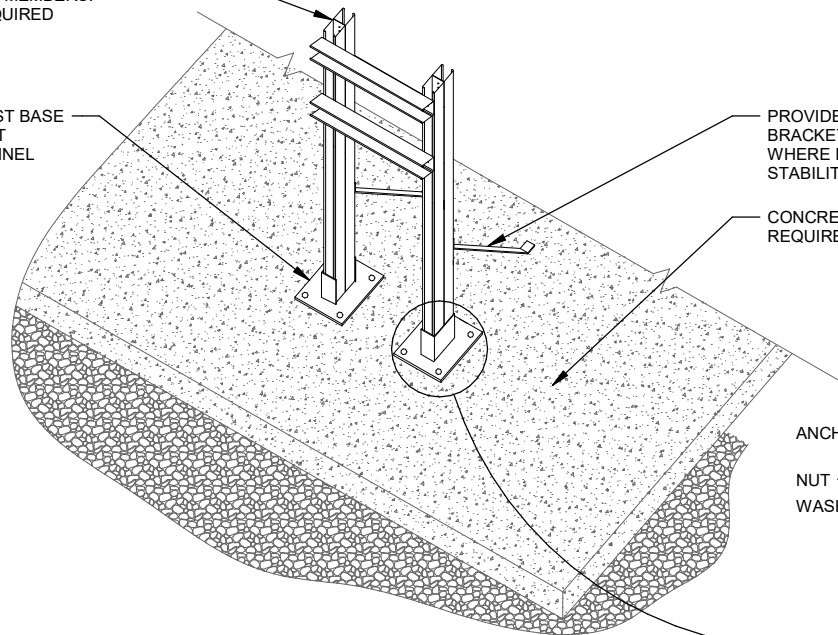
STAINLESS STEEL MOUNTING BRACKET, FOUR HOLE, DOUBLE POST, SECURE TO FRAME WITH STAINLESS STEEL BOLTS, LOCK WASHERS, WASHERS AND LOCKNUTS, SECURE TO CONCRETE PAD WITH 4" MIN. STAINLESS STEEL WEDGE ANCHOR BOLTS (TYP)



CONTROL PANEL
SUNSHIELD AS REQUIRED.
SEE DETAIL: **D26**
0529-013

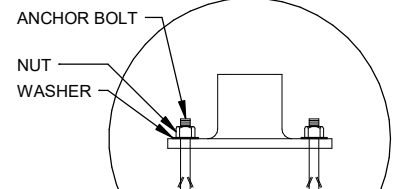
DOUBLE BACKED 1-5/8" STAINLESS STEEL UNISTRUT FRAME AND SINGLE 1-5/8" STAINLESS STEEL CROSS MEMBERS. CROSS MEMBERS AS REQUIRED

SQUARED POST BASE
FOR UNISTRUT
DOUBLE CHANNEL



PROVIDE KNEE BRACING
BRACKET, 1/4" THICK,
WHERE REQUIRED FOR
STABILITY. (OPTIONAL)

CONCRETE PAD AS
REQUIRED



(TYP) 4 CORNERS

NOTES:

1. ALL BOLTS, NUTS, WASHERS, ANCHORS, PLATES, AND OTHER MOUNTING STEMS SHALL BE CORROSION RESISTANT, STAINLESS STEEL. CUT OFF EXCESS BOLT LENGTH.
2. UTILIZE 5/16" STAINLESS STEEL WEDGE ANCHORS AS REQUIRED. GROUT UNDERNEATH POST BASES TO FILL GAPS AS REQUIRED.
3. OMIT PAD WHERE NOT SHOWN.
4. UNISTRUT STAND DETAIL INTENDED FOR SMALL AND LIGHTWEIGHT EQUIPMENT MOUNTING APPLICATIONS. SUBMIT LOAD ANALYSIS CALCULATIONS FOR ENGINEERING APPROVAL IF UTILIZED FOR LOAD APPLICATIONS GREATER THAN 200 LBS.



**MOBILE AREA WATER AND
SEWER SYSTEM**

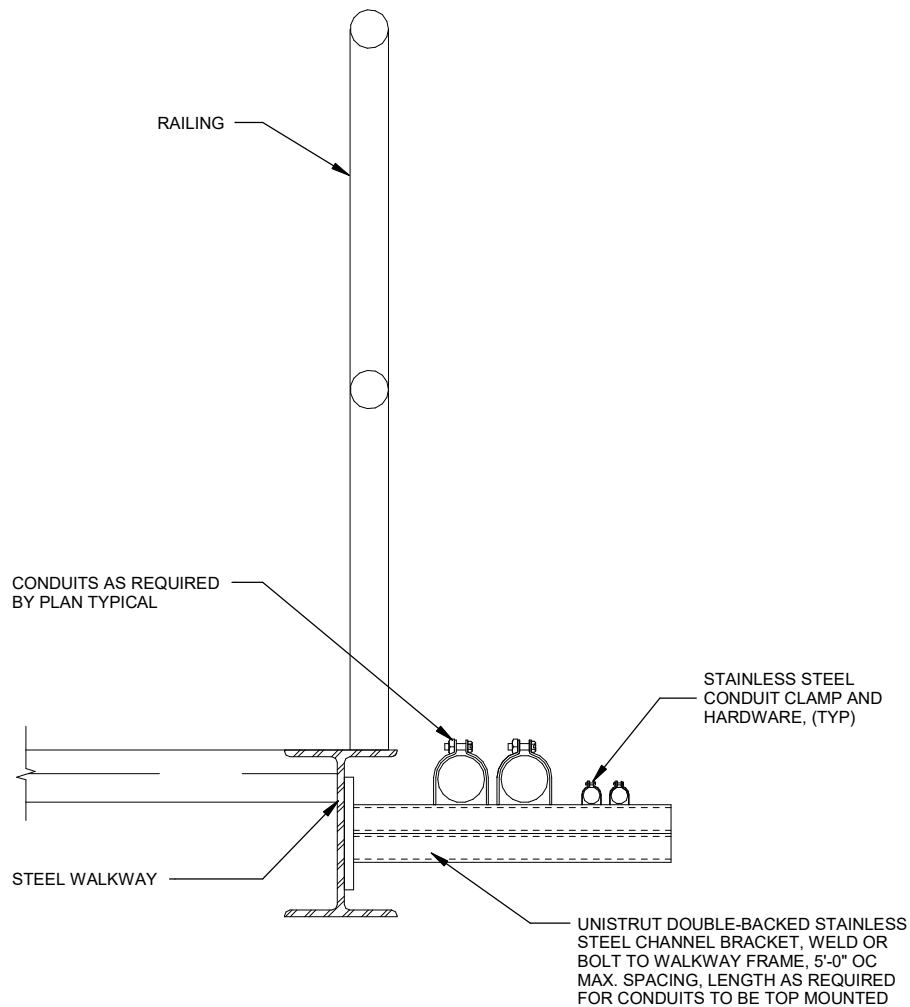
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL

JOB NO.: 2402007

DETAIL NOT TO SCALE

REV	DATE	DESCRIPTION	BY
TYPICAL UNISTRUT STAND DETAIL			DIVISION D26
			SECTION - DETAIL NO. 0529-014
			DATE: AUGUST



NOTES:

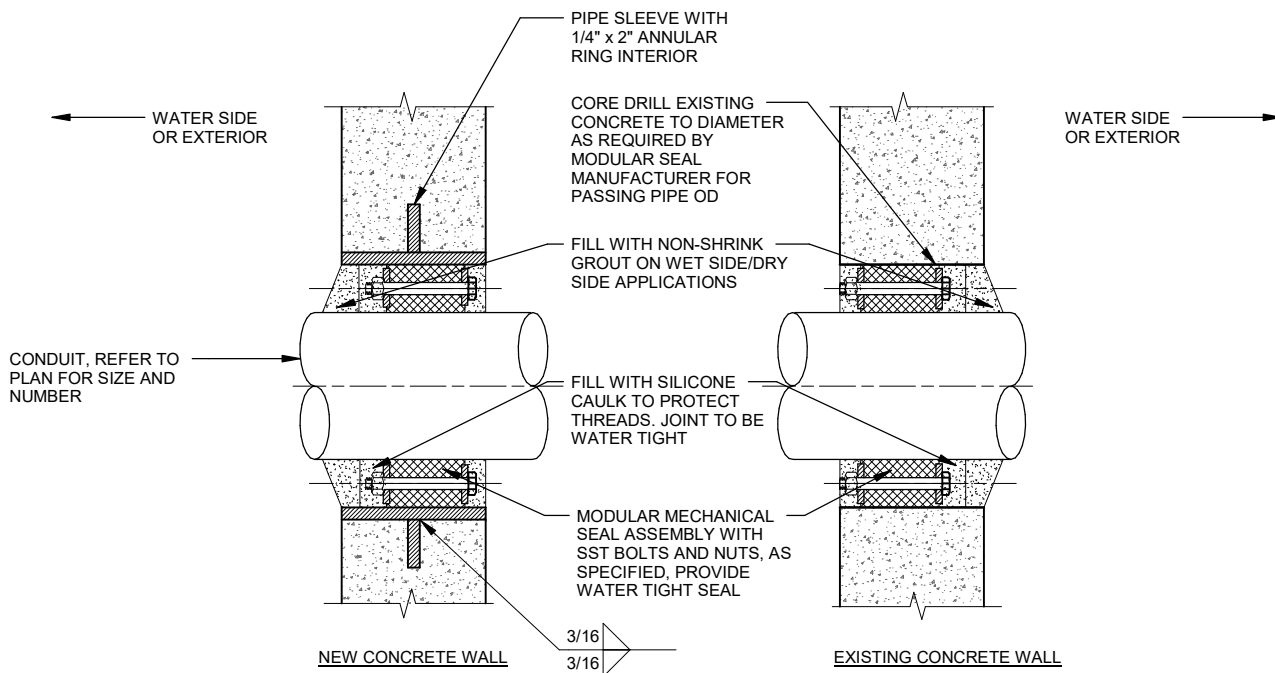
1. WALKWAY AND RAILING IS TYPICAL AND FOR REFERENCE ONLY. THE CONTRACTOR SHALL VERIFY WITH STRUCTURAL PLANS AND SECTIONS BEFORE INSTALLING ANY CONDUIT OR ELECTRICAL EQUIPMENT AND ADJUST ACCORDINGLY.



MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL
JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
TYPICAL CONDUIT INSTALLATION AT WALKWAY DETAIL			DIVISION D26
			SECTION - DETAIL NO. 0529-016
			DATE: AUGUST

DETAIL NOT TO SCALE



NOTES:

1. WHERE EXISTING CONCRETE STRUCTURE IS TO BE CORE DRILLED, THE CONTRACTOR SHALL ULTRASONIC TEST OR X-RAY THE AREA FOR EMBEDDED ITEMS BEFORE CORE DRILLING CAN PROCEED. IF EMBEDDED ITEMS ARE FOUND, NOTIFY THE ENGINEER IMMEDIATELY.
2. FOR NEW CONSTRUCTION, SLEEVES SHALL BE CAST INTO WALL. BLOCKOUTS AND SUBSEQUENT GROUTED IN SLEEVES WILL NOT BE PERMITTED UNLESS A KEYED WATERSTOP JOINT IS PROVIDED.
3. 6" DIAMETER SLEEVES AND SMALLER SHALL BE SCHEDULE 40 STEEL PIPE.
4. SLEEVES LARGER THAN 6" DIAMETER SHALL BE 1/4" THICK STEEL PIPE.
5. IN WALLS THICKER THAN 12", LINK SEAL SHALL BE INSTALLED AT BOTH ENDS OF THE WALL SLEEVE.
6. SLEEVE SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.



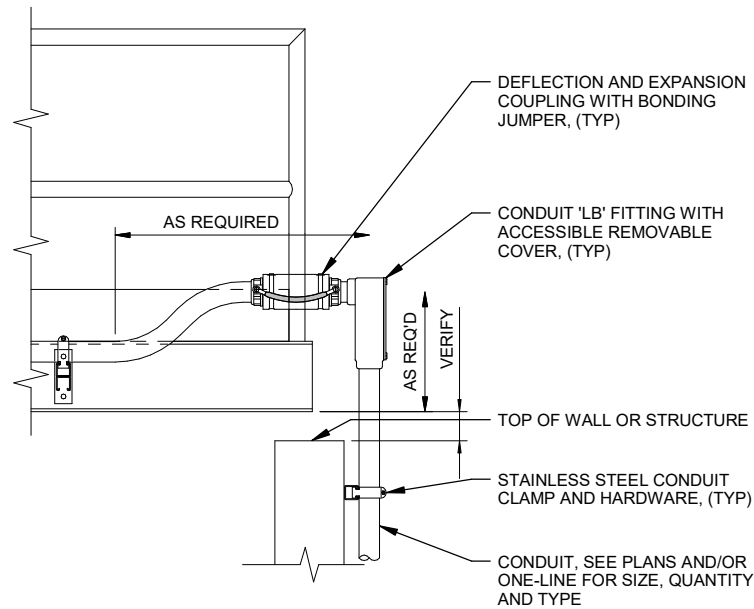
**MOBILE AREA WATER AND
SEWER SYSTEM**

MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL

JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
CONDUIT WALL PENETRATION SEAL DETAIL			DIVISION D26
			SECTION - DETAIL NO. 0533-017
DETAIL NOT TO SCALE			DATE: AUGUST



NOTE:

1. THE EQUIPMENT SHOWN IS TYPICAL AND FOR REFERENCE ONLY. THE ELECTRICAL CONTRACTOR SHALL VERIFY THE SITE CONDITIONS AND ADJUST THE WORK ACCORDINGLY.



MOBILE AREA WATER AND SEWER SYSTEM

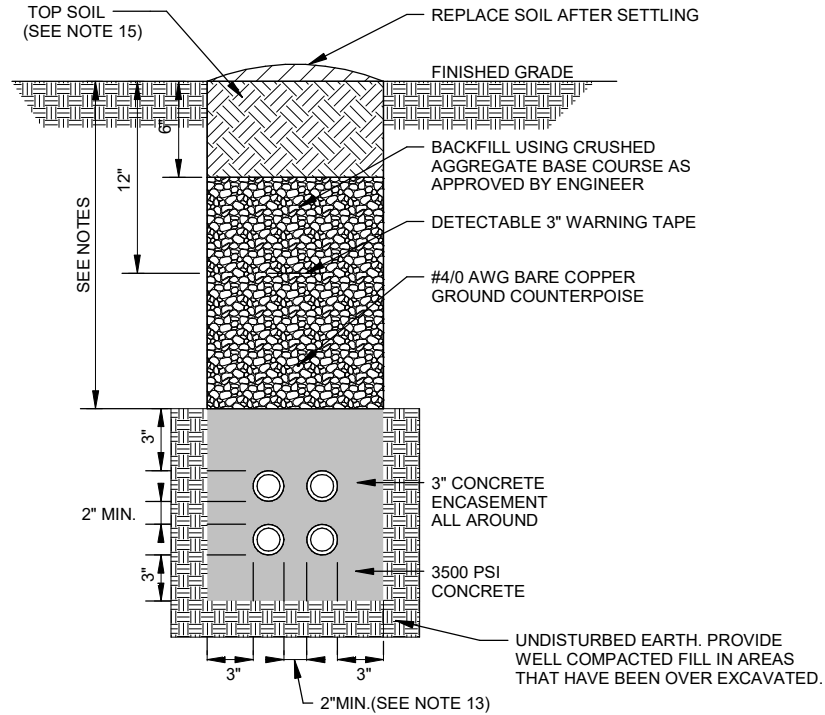
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

JOB NO.: 2402007

DETAIL NOT TO SCALE

REV	DATE	DESCRIPTION	BY
TYPICAL DEFLECTION COUPLING DETAIL			DIVISION D26
			SECTION - DETAIL NO. 0533-018
			DATE: AUGUST



NOTES:

1. CONTRACTOR SHALL STAKE THE DUCT INSTALLATION IN PLAN AND ELEVATION FOR NEW ELECTRICAL DUCTS TO AVOID EXISTING UTILITIES, STAKING PLAN SHALL BE APPROVED BY OWNER AND ENGINEER PRIOR TO WORK.
2. CONTRACTOR SHALL ADJUST THE DEPTH OF THE ELECTRICAL DUCTS AS REQUIRED TO MAINTAIN THE MINIMUM COVER REQUIREMENT INDICATED AND AVOID EXISTING UTILITIES.
3. SIMILAR CONSTRUCTION FOR OTHER DUCT SIZES. SEE ELECTRICAL PLAN SHEETS FOR QUANTITY AND SIZES.
4. INSTALL DUCT CONDUIT SUPPORTS AT 5'-0" OC MAXIMUM SPACING. UTILIZE LOCKING COLLARS OR HOLD DOWN BARS WITH ANCHORS TO PREVENT DUCT FLOTATION. (TYPICAL ALL DUCTS).
5. OFFSETS AND BENDS OVER 10 DEGREES AND ELBOWS IN PVC CONDUIT RUNS SHALL BE GALVANIZED RIGID STEEL.
6. NO PVC SHALL EMERGE FROM THE GROUND OR CONCRETE SLAB OR ENCASEMENT, PVC SHALL CONVERT TO PVC COATED GALVANIZED RIGID STEEL CONDUIT PRIOR TO ITS EMERGENCE UNLESS NOTED OTHERWISE.
7. SPARE PVC COATED GALVANIZED RIGID STEEL CONDUITS SHALL STUB UP 6" ABOVE FINISHED GRADE OR CONCRETE PAD SURFACE AND BE CAPPED WATERTIGHT.
8. INSTALL GROUND RODS AT ENDS OF ELECTRICAL DUCT AND CONNECT TO GROUND RING.
9. INSTALL CONDUCTORS AND CABLES AS NOTED ON DRAWINGS. INSTALL PULL ROPE IN ALL SPARE DUCTS.
10. MINIMUM COVER REQUIREMENT FOR DUCT BANKS UNDER ROADS, DRIVEWAYS AND PARKING LOTS SHALL BE 24".
11. MINIMUM COVER REQUIREMENTS FOR ELECTRICAL SECONDARY SERVICE DUCT BANKS SHALL BE 30".
12. MINIMUM COVER REQUIREMENTS FOR MEDIUM VOLTAGE DUCT BANKS SHALL BE 36".
13. VERTICAL AND HORIZONTAL DISTANCES BETWEEN CONDUITS SHALL BE 3" MINIMUM FOR DUCTS CONTAINING CIRCUITS OVER 600 VOLTS.
14. DUCT BANKS TO EXTEND BELOW FLOOR SLABS.
15. FOR DUCT BANKS INSTALLED IN EXISTING ASPHALT OR CONCRETE DRIVES, COVER WITH MATCHING MATERIAL TYPE AND THICKNESS.



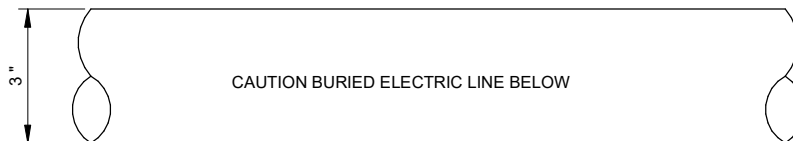
**MOBILE AREA WATER AND
SEWER SYSTEM**

MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL

JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
CONCRETE ENCASED ELECTRICAL DUCT DETAIL			DIVISION D26
			SECTION - DETAIL NO. 0543-012
DETAIL NOT TO SCALE			DATE: AUGUST



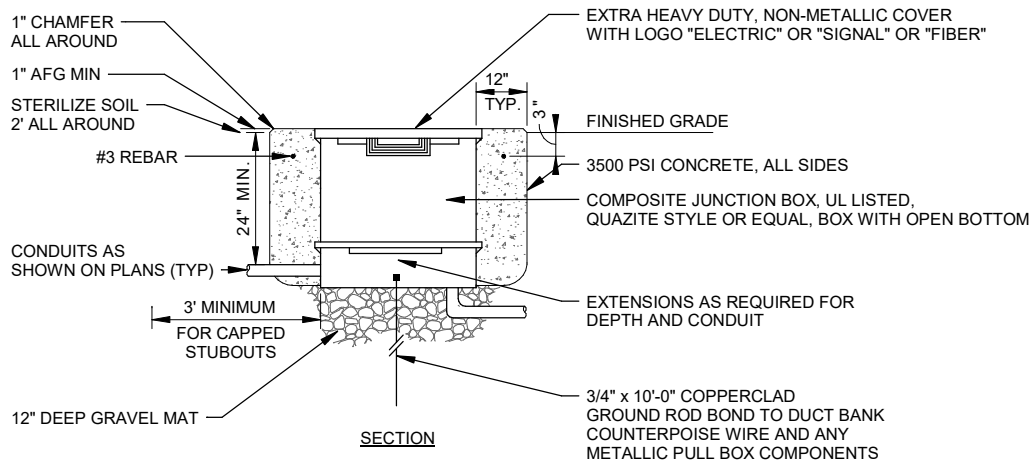
NOTES:

1. POWER MARKING TAPES SHALL BE DETECTABLE TYPE CONSTRUCTION WITH RED BACKGROUND AND BLACK LETTERING.
2. COMMUNICATION MARKING TAPES SHALL BE DETECTABLE TYPE CONSTRUCTION WITH ORANGE BACKGROUND AND BLACK LETTERING, "TELEPHONE LINE" OR "FIBER OPTIC LINE" RESPECTIVELY.
3. TAPE SHALL BE DETECTABLE, DURABLE, HIGHLY VISIBLE, RESISTANT TO ELEMENTS, MEETING AND/OR EXCEEDING ALL INDUSTRY STANDARDS.

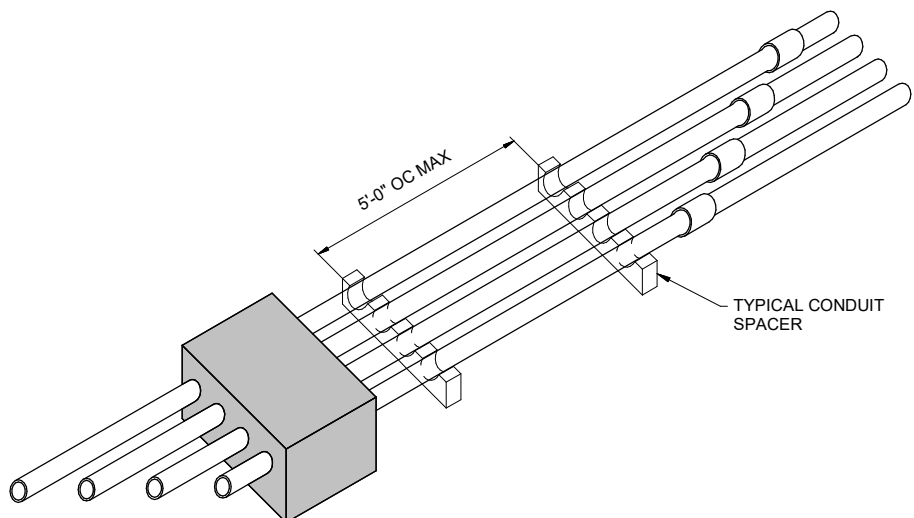


**MOBILE AREA WATER AND
SEWER SYSTEM**
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL
JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
UNDERGROUND DETECTABLE WARNING TAPE DETAIL			DIVISION D26
			SECTION - DETAIL NO. 0543-013
DETAIL NOT TO SCALE			DATE: AUGUST



	MOBILE AREA WATER AND SEWER SYSTEM MOBILE, AL CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL	REV DATE DESCRIPTION BY	DIVISION D26
		ELECTRICAL PULLBOX DETAIL	SECTION - DETAIL NO. 0543-014
	JOB NO.: 2402007	DETAIL NOT TO SCALE	DATE: AUGUST



NOTES:

1. CONDUIT SPACER TO BE 6" MIN FROM CONDUIT COUPLINGS.
2. TYPICAL DUCTBANK COUPLINGS SHALL BE SPACED AT 6" MIN. INTERVALS.



MOBILE AREA WATER AND SEWER SYSTEM
 MOBILE, AL
 CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL
 JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
TYPICAL DUCTBANK SPACING AND COUPLNG DETAIL			DIVISION D26
			SECTION - DETAIL NO. 0543-015
			DATE: AUGUST

DETAIL NOT TO SCALE

EQUIPMENT NAMEPLATE
PER DETAIL AND NEC

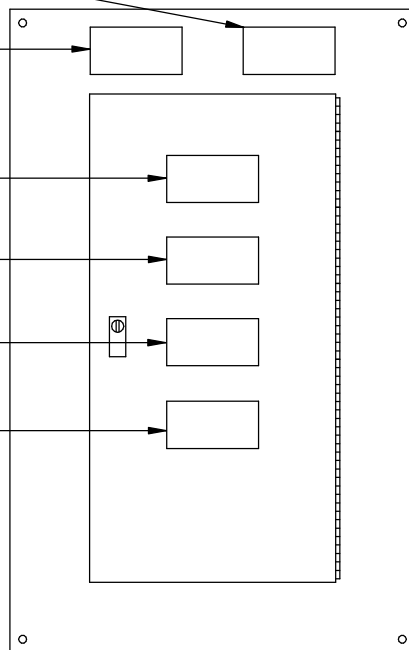
CONDUCTOR COLOR CODING
IDENTIFICATION NAMEPLATE PER NEC
ARTICLES 200.6, 210.5 AND 215.12; VERIFY
IDENTIFICATION SCHEME WITH AHJ AND
ENGINEER

ARC FLASH BOUNDARY, SHOCK
HAZARD, AND PPE REQUIREMENT
WARNING SIGN PER NEC AND NFPA 70E

ARC FLASH HAZARD WARNING
SIGN PER NEC ARTICLE 110.16
AND NFPA 70E

AVAILABLE FAULT CURRENT SIGN
INCLUDING DATE CALCULATED PER
NEC ARTICLE 110.24

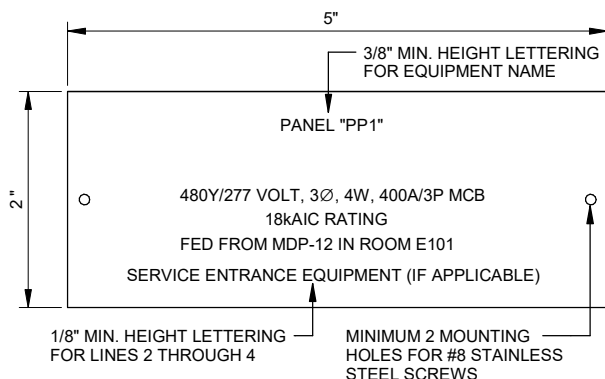
BY VOLTAGE SYSTEM TYPE, WHEN
REQUIRED, PROVIDE HIGH-LEG
IDENTIFICATION SIGN OR
UNGROUND SYSTEM SIGN BY NEC
ARTICLE 408.3(F)



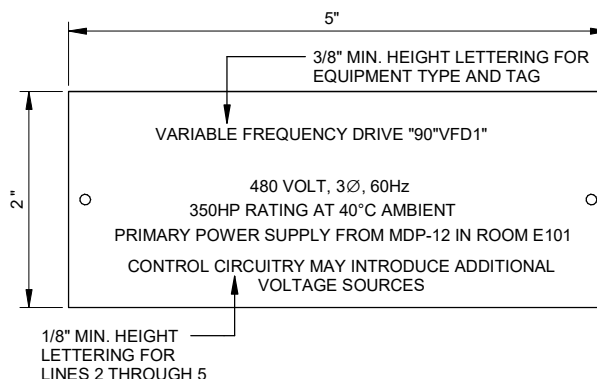
PANEL FRONT VIEW

NOTE:

1. INSTALL ALL NAMEPLATES AND WARNING SIGNS FOR NEW AND RECONDITIONED EQUIPMENT IN ACCORDANCE WITH NEC AND NFPA 70E REQUIREMENTS.
2. INSTALL NAMEPLATES AND WARNING SIGNS ON ALL ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO, SWITCHBOARDS, PANELBOARDS, TRANSFORMERS, SWITCHES, CONTROL PANELS, MOTOR CONTROL CENTERS, AND GENERATORS.
3. EXTERIOR EQUIPMENT SHALL HAVE WEATHER-RESISTANT, NON-FADING NAMEPLATES AND SIGNAGE.
4. INSTALL CIRCUIT DIRECTORY AND/OR CIRCUIT IDENTIFICATION FOR PROPER FIELD IDENTIFICATION.
5. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.



POWER DISTRIBUTION EQUIPMENT NAMEPLATE



MOTOR CONTROL PANEL NAMEPLATE

EQUIPMENT NAMEPLATE NOTES:

1. INSTALL 2-PLEX ACRYLIC, WHITE ON BLACK CORE, 5"x2" TILE, TEXT LINES AS INDICATED, CUSTOM ENGRAVED NAME PLATES.
2. MOUNT WITH STAINLESS STEEL SCREWS.
3. SEAL SCREW HOLES WITH SILICONE RUBBER.
4. NAMEPLATE INFORMATION SHALL INCLUDE:
 - A. IDENTIFICATION NAME.
 - B. VOLTAGE SYSTEM, AMPACITY RATING, WATTAGE AND TYPE.
 - C. EQUIPMENT AIC RATING.
 - D. FEEDER SOURCE OF SUPPLY DESCRIPTION.
5. RECONDITIONED EQUIPMENT NAMEPLATE (IF APPLICABLE):
 - A. NAME AND TRADEMARK FOR ORGANIZATION THAT PERFORMED RECONDITIONING.
 - B. DATE OF RECONDITIONING.
 - C. IDENTIFICATION OF RECONDITION TO EQUIPMENT.



MOBILE AREA WATER AND
SEWER SYSTEM

MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL

JOB NO.: 2402007

REV

DATE

DESCRIPTION

BY

TYPICAL ENGRAVED NAMEPLATE
DETAIL

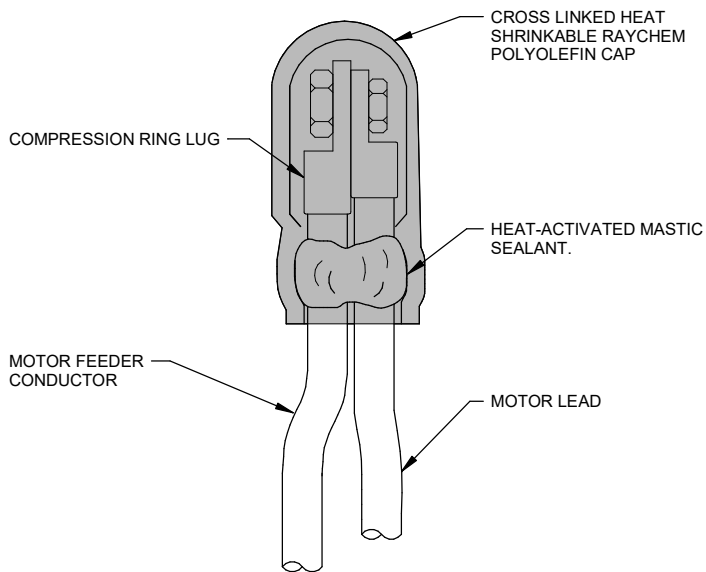
DIVISION
D26

SECTION - DETAIL NO.

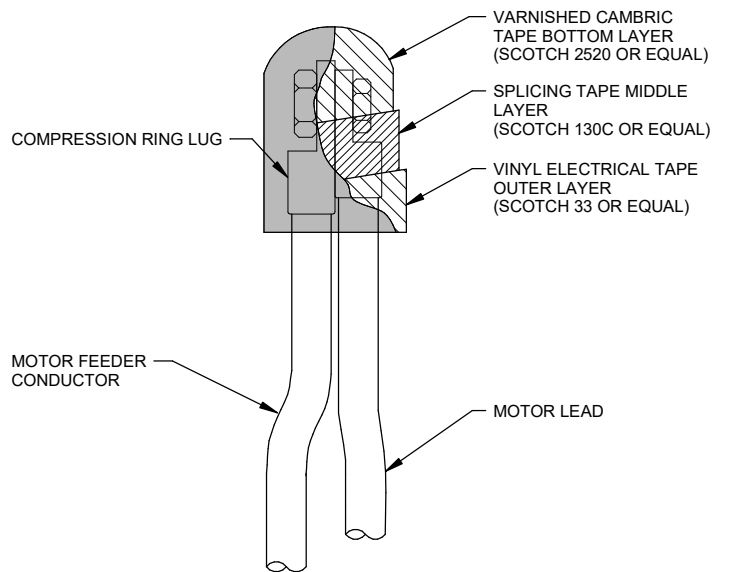
0553-002

DETAIL NOT TO SCALE

DATE: AUGUST



OPTION 1 - HEAT SHRINK RUBBER CAP



OPTION 2 - THREE LAYER TAPE WRAP



**MOBILE AREA WATER AND
SEWER SYSTEM**

MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL

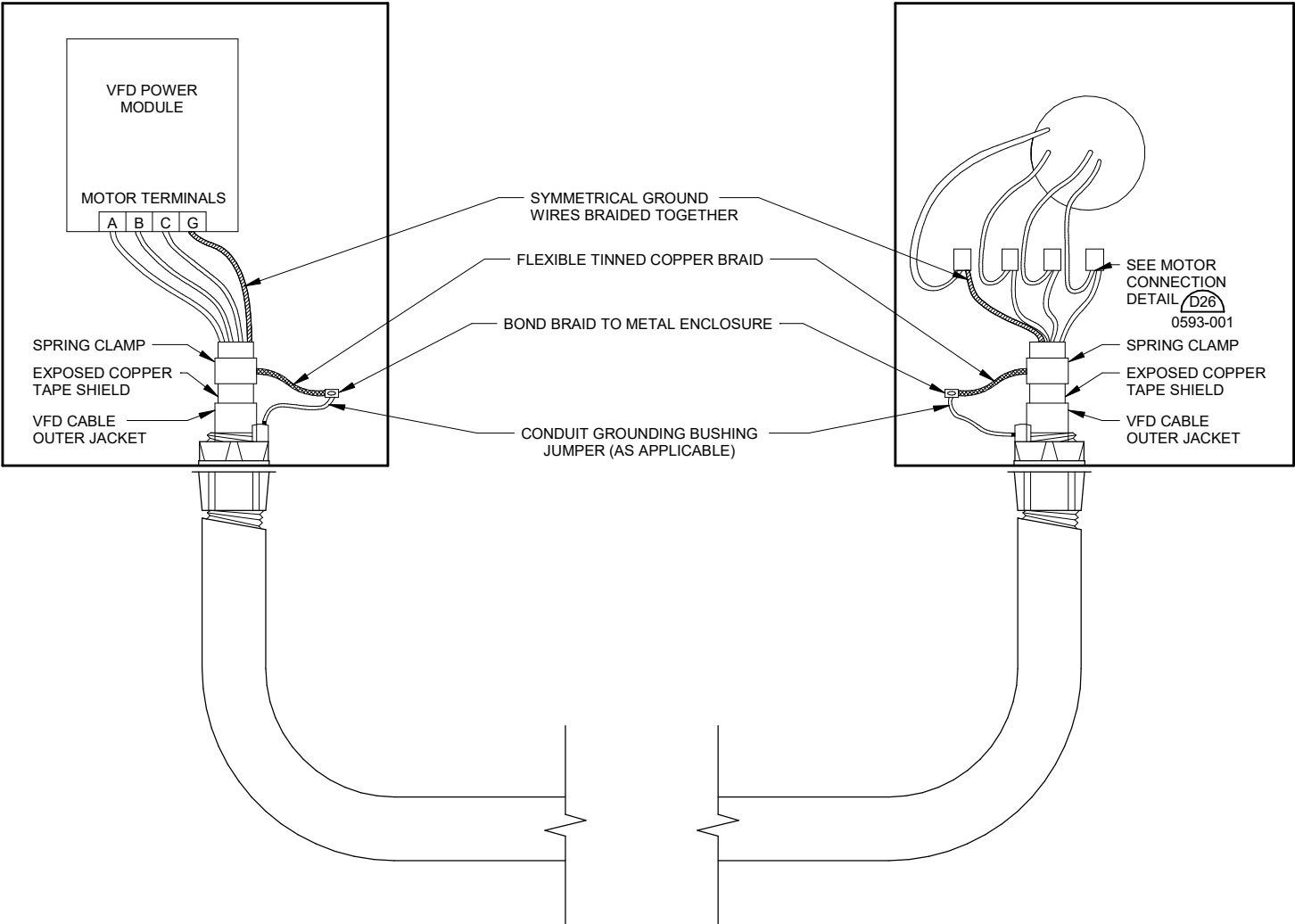
JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
TYPICAL MOTOR LEAD DETAIL			
DIVISION D26			SECTION - DETAIL NO. 0593-001
DATE: AUGUST			

DETAIL NOT TO SCALE

VFD ENCLOSURE

MOTOR TERMINAL BOX



NOTE:

1. CONNECT VFD CABLE SHIELD ON BOTH VFD AND MOTOR ENDS USING MANUFACTURER PROVIDED SHIELD TERMINATION KIT. KIT TO INCLUDE TINNED COPPER BRAID AND SPRING CLAMP FOR ATTACHING BRAID TO COPPER TAPE SHIELD.



MOBILE AREA WATER AND
SEWER SYSTEM

MOBILE, AL

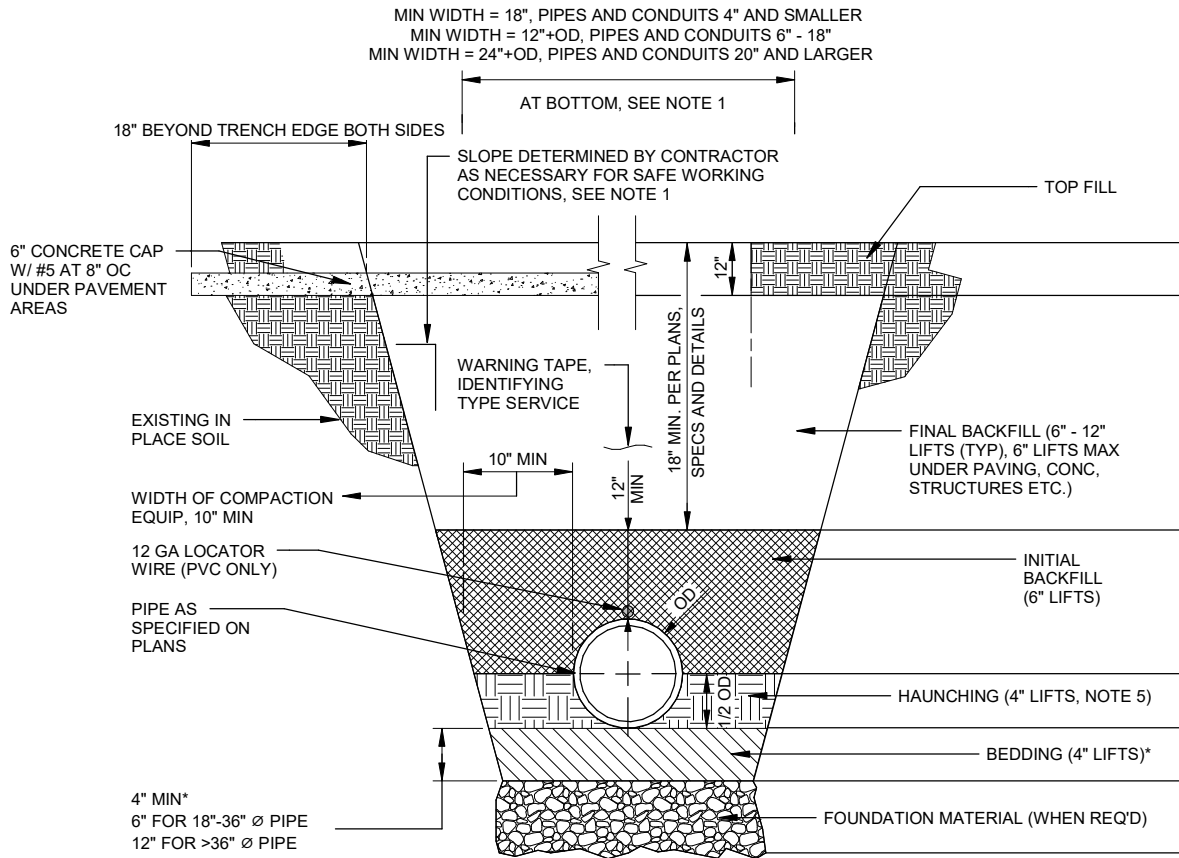
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL

JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
SHIELDED VFD CABLE TERMINATION DETAIL			DIVISION D26
			SECTION - DETAIL NO. 0593-002
DETAIL NOT TO SCALE			DATE: AUGUST

- NOTES:**
- SLOPE, BENCHING, SHORING, ETC. AS DETERMINED AND DESIGNED BY THE CONTRACTOR. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE OSHA REGULATIONS FOR "OPEN TRENCH EXCAVATIONS".
 - BEDDING REQUIRED FOR ALL GRAVITY LINES, ALL PVC LINES AND ALL CONCRETE LINES. BEDDING REQUIRED IN ALL AREAS OF ROCK EXCAVATION OR UNSUITABLE SOILS. BELL HOLES REQUIRED FOR PIPES > 4" DIAMETER. FOR DUCTILE IRON PRESSURE MAINS, SELECT EARTH MAY BE USED FOR BEDDING IN AREAS OF ROCK EXCAVATION.
 - ALL MATERIALS SHALL BE COMPACTED TO MINIMUM 95% MODIFIED PROCTOR DENSITY A 2%± OPTIMUM MOISTURE CONTENT. MATERIALS UNDER PAVING, CONCRETE, STRUCTURES, ETC. SHALL BE COMPACTED TO MIN 98%-100% MODIFIED PROCTOR. MECHANICAL COMPACTION SHALL BE BY VIBRATORY SHEEPSFOOT OR OTHER EQUIPMENT SPECIFICALLY DESIGNED FOR THE COMPACTION OF EARTH. COMPACTION EQUIPMENT SHALL BE ON-SITE PRIOR TO BEGINNING OF WORK. MECHANICAL COMPACTION SHALL BE COMPLETED IN LOOSE LIFTS AS SHOWN ON THE DETAIL.
 - TEMPORARY COMPACTED PUG-MIX BACKFILL REQUIRED UNTIL PAVEMENT PLACEMENT IS COMPLETE. THE CONTRACTOR SHALL CONTINUOUSLY MAINTAIN THE PUG-MIX TO KEEP IT FLUSH WITH THE ADJACENT PAVING, ETC. UNTIL THE FINAL PAVING IS PLACED. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY ASPHALT OR CONCRETE PATCHES WHEN NEEDED FOR PUBLIC SAFETY AND/OR CONVENIENCE.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING AND UTILIZE APPROPRIATE MEANS AND METHODS OF CONSTRUCTION TO ENSURE THAT THE ENTIRE AREAS UNDER THE HAUNCHES OF THE PIPE ARE FILLED WITH THE REQUIRED MATERIALS AND COMPACTED APPROPRIATELY.
 - ADDITIONAL AND/OR SPECIAL REQUIREMENTS MAY BE REQUIRED BY THE PLANS, SPECIFICATIONS, AND/OR CONTRACT DOCUMENTS.
 - TO THE EXTENT POSSIBLE, AS DETERMINED BY THE CONTRACTOR, TRENCH WALL SHORING METHODS SHALL BE USED IN PAVED AREAS TO MINIMIZE PAVING REPAIR REQUIREMENTS.

MATERIAL DESIGNATION/DESCRIPTIONS TABLE	
DESIGNATION/ MATERIALS	DESCRIPTION
1.	CRUSHED STONE, ATSM-448 NO. 57 GRADATION, OR OTHERWISE MEETING REQUIREMENTS OF SECTION 31 23 23.16-TRENCH BACKFILL.
2.	CRUSHED STONE, ATSM-448 NO. 67 GRADATION, OR OTHERWISE MEETING REQUIREMENTS OF SECTION 31 23 23.16-TRENCH BACKFILL.
3.	SELECT EXCAVATED MAT'L REASONABLY DRY (WITHIN LIMITS REQUIRED FOR COMPACTION) NO STONES > 1" DIAMETER.
4.	EXCAVATED MATERIAL REASONABLY DRY (WITHIN LIMITS REQUIRED FOR COMPACTION) NO STONES > 12" DIAMETER.
5.	SELECT TOPSOIL MATERIAL TO SUPPORT VEGETATION, NO STONES OR ROCK ALLOWED.
6.	PAVEMENT MATCHING EXISTING PAVEMENT OR AS SPECIFIED ON PLANS.
7.	CRUSHED STONE, ATSM-448 NO. 57 GRADATION



*** NOTE:**

- WHERE EXISTING LINES ARE DEEPER AND REMOVED FOR THE INSTALLATION OF NEW LINES. THE BEDDING MATERIAL SHALL BE EXTENDED TO THE FULL DEPTH AND WIDTH OF EXCAVATION. THESE COSTS SHALL BE INCLUDED IN THE "PER LF PRICED FOR PIPE".

BEDDING/BACKFILL REQUIREMENTS AND MATERIAL DESIGNATIONS (SEE MATERIAL DESIGNATIONS/DESCRIPTIONS TABLE)								
PRESSURE MAINS			GRAVITY LINES			PAVED AREAS		
DI	CONC	HDPE, PVC & FRP	DI	CONC	HDPE, PVC & FRP	DI	CONC	HDPE, PVC & FRP
5	5	5	5	5	5	6**	6**	6**
4	4	4	4	4	4	7	7	7
3	3	2	3	3	2	1	3	2
2	3	2	2	3	2	2	3	2
2	1	2	2	1	2	2	1	2
RIP RAP OR CRUSHED STONE CLASS 1B (USCS IN ASTM D2487)								

* SEE NOTE 2
** SEE NOTE 4

**MOBILE AREA WATER AND
SEWER SYSTEM**

MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL

JOB NO.: 2402007

**BEDDING BACKFILL FOR
TRENCHES - AL**

DIVISION

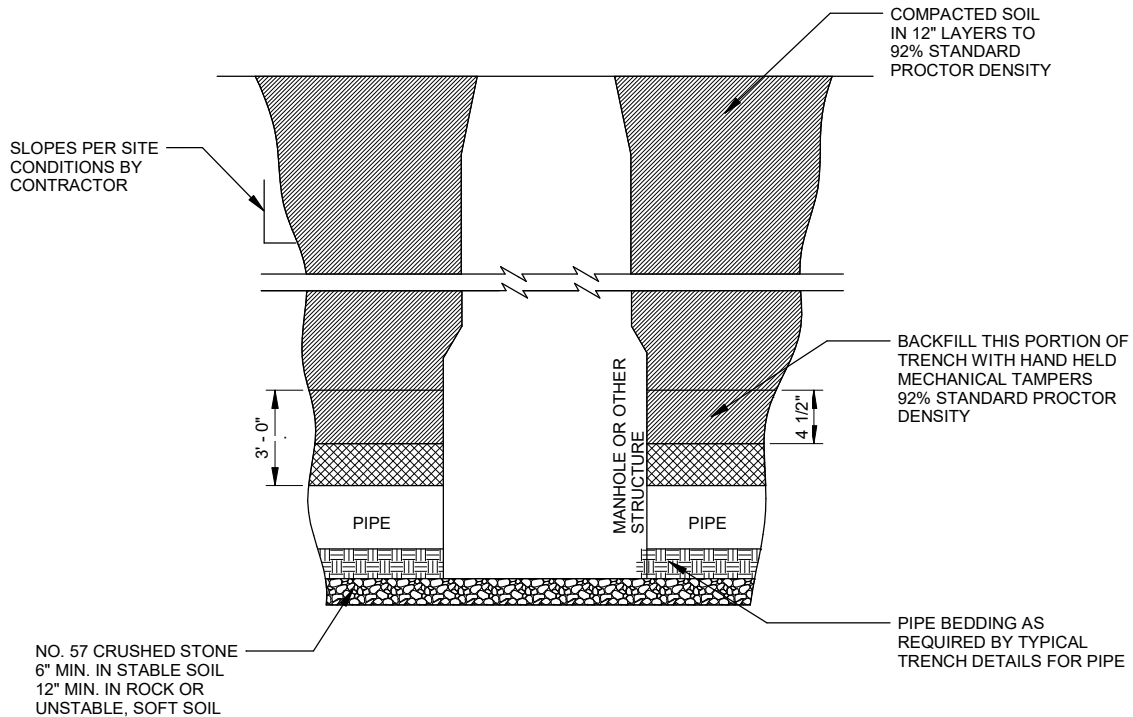
D31

SECTION - DETAIL NO.

2323-001_AL

DATE: AUGUST





NOTE:

1. BACKFILL IN PAVED AREAS SHALL BE STONE PER DETAIL FOR TRENCHES.



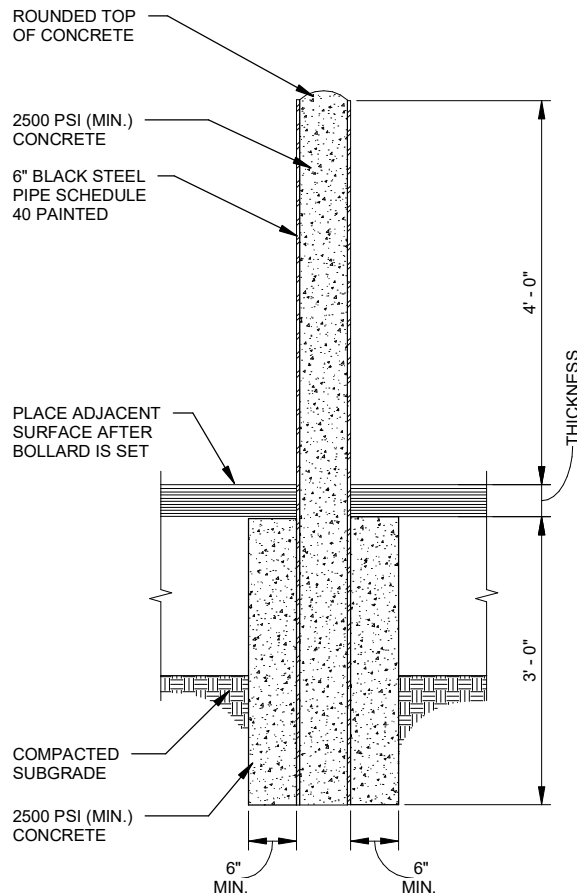
MOBILE AREA WATER AND SEWER SYSTEM

MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
BEDDING BACKFILL REQUIREMENTS AROUND MANHOLES & OTHER DRAINAGE/SANITARY STRUCTURES			DIVISION D31
			SECTION - DETAIL NO. 2323-002
DETAIL NOT TO SCALE			DATE: AUGUST

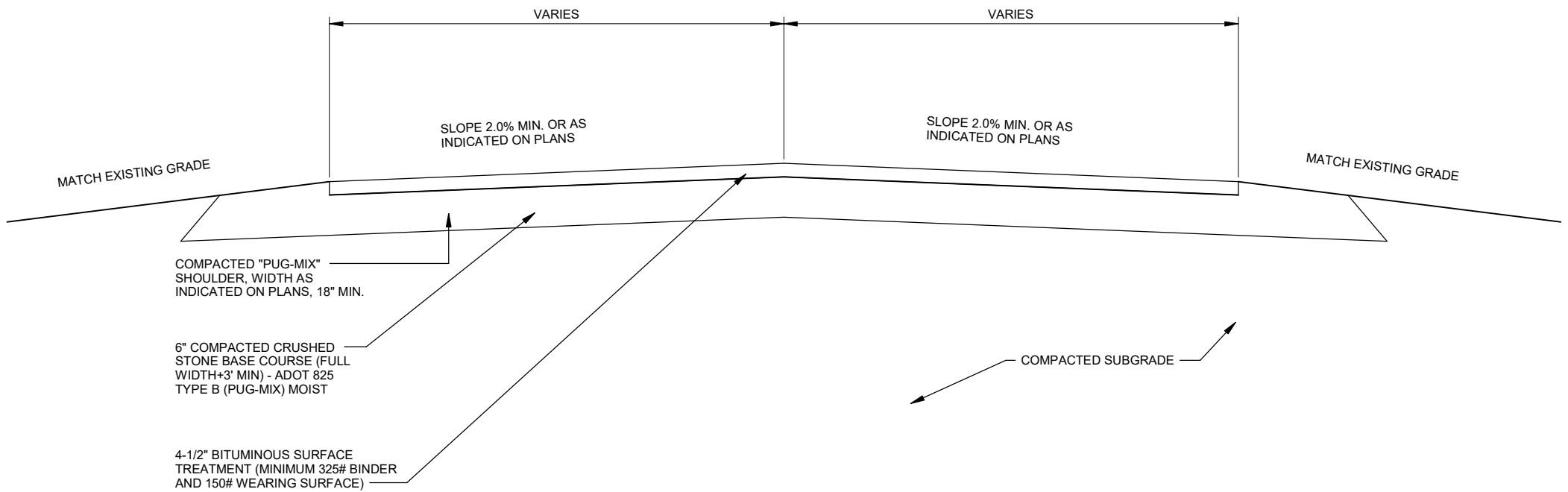


**MOBILE AREA WATER AND
SEWER SYSTEM**
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL
JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
TYPICAL BOLLARD			DIVISION D32
			SECTION - DETAIL NO. 0000-009
			DATE: AUGUST

DETAIL NOT TO SCALE

- NOTE:**
- 1. TYPICAL PAVING SECTION SHOWN WITH CROWN AND SLOPING SHOULDERS. PROVIDE DIFFERENT SLOPE ARRANGEMENTS WHERE REQUIRED FOR DRAINAGE AND/OR GRADING PLANS.



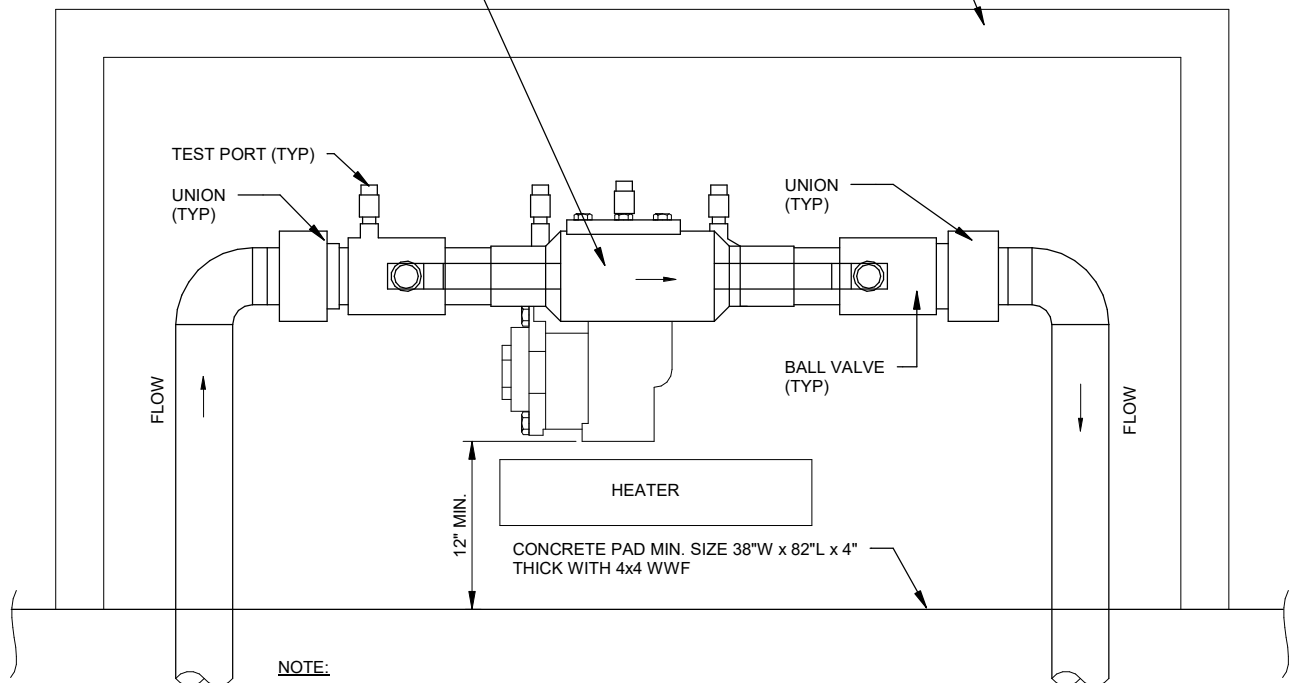
MOBILE AREA WATER AND
SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL
JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
ASPHALT PAVEMENT - AL			DIVISION D32
			SECTION - DETAIL NO. 1216-001_AL
			DATE: AUGUST



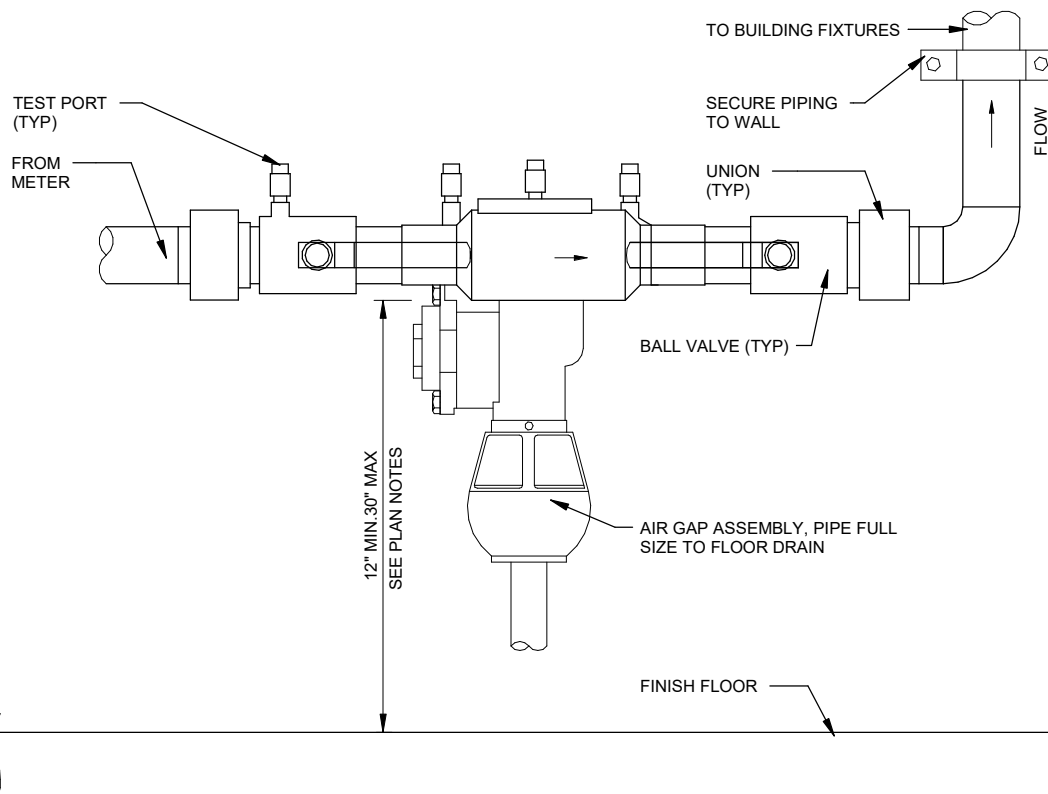
FEBCO MODEL 860LF REDUCED PRESSURE ASSEMBLY OUTDOOR INSTALLATION WITH NON RISING STEM GATES, OR APPROVED EQUAL

HUBBELL HOT BOX, DF3NH ENCLOSURE OR APPROVED EQUAL MIN. SIZE 26"W x 70" L x 28" H



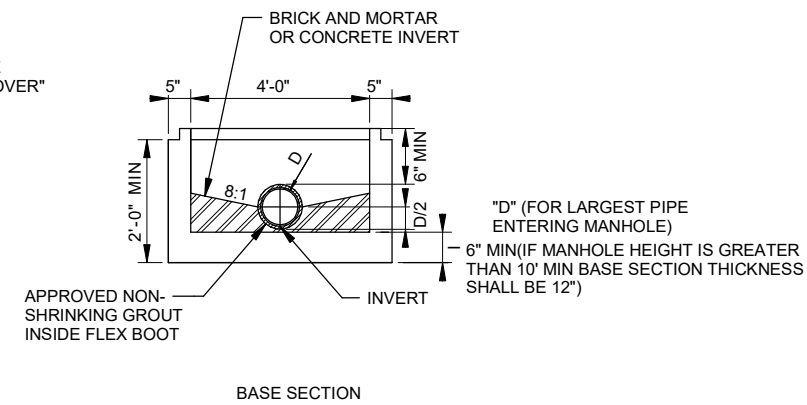
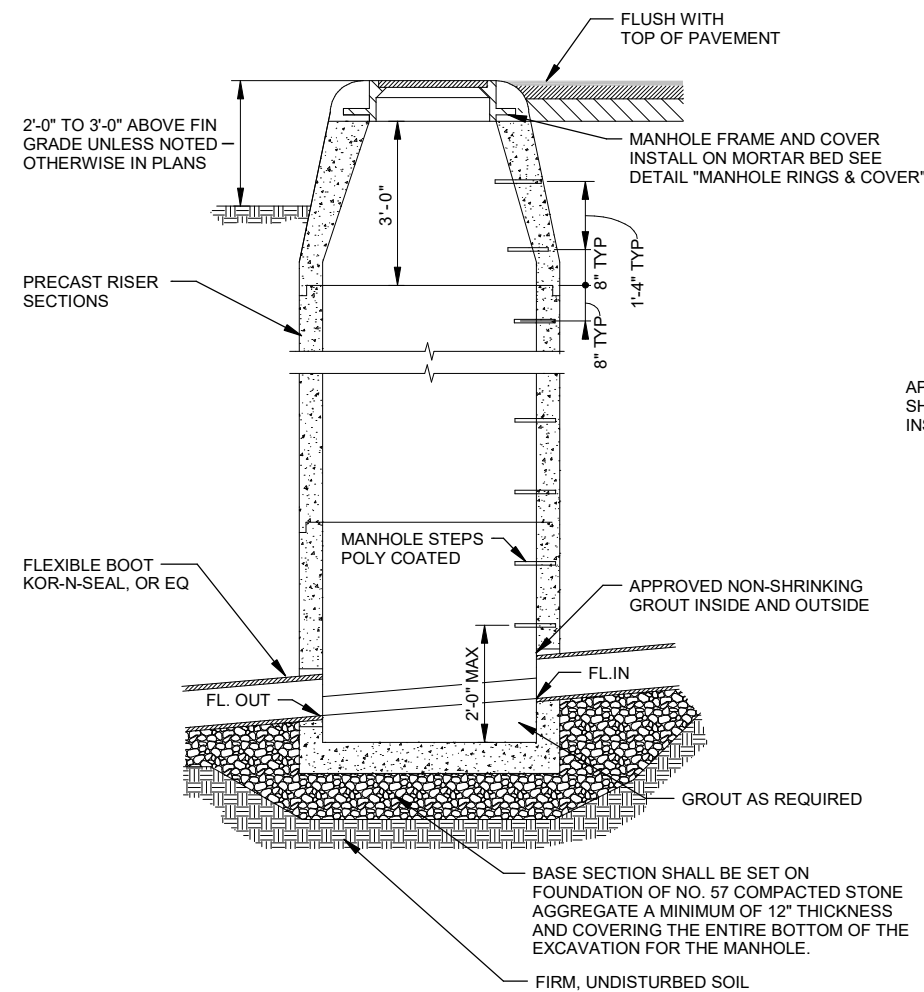
NOTE:

1. HEATER SHALL BE A 1000W 120V SINGLE PHASE HEATER.
2. ENCLOSURE SHALL HAVE A FLIP UP LID AND FOLDABLE/REMOVABLE FRONT PANEL FOR EASE OF MAINTENANCE.
3. ENCLOSURE SHALL BE SECURELY CONNECTED TO CONCRETE PAD PER ENCLOSURE MANUFACTURER.



MOBILE AREA WATER AND SEWER SYSTEM
MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL
JOB NO.: 2402007

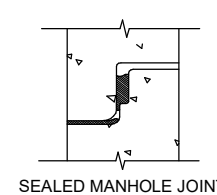
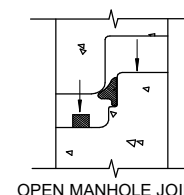
REV	DATE	DESCRIPTION	BY
EXTERIOR BACKFLOW PREVENTER (2" DIAMETER OR LESS)			DIVISION D33
			SECTION - DETAIL NO. 0000-001
DETAIL NOT TO SCALE			DATE: AUGUST



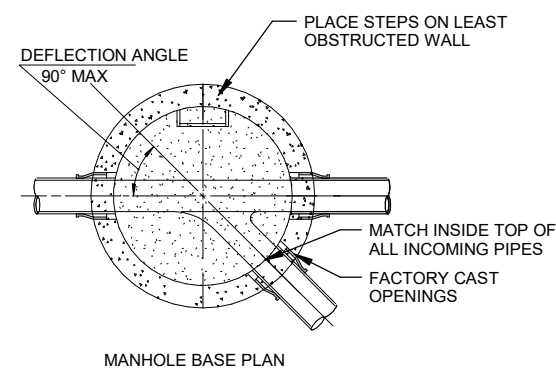
NOTES:

1. ALL MANHOLES WITH PIPE ENTERING WITH DIAMETER OF 24" D.I.P OR LESS SHALL BE SUPPLIED WITH KOR-N-SEAL FLEXIBLE BOOTS OR APPROVED EQUAL. LINES > 24" SHALL HAVE A-LOK (OR EQ) FLEX BOOTS CAST INTO MH WALLS, GROUT CONN (2" MIN CL OPNG) ONLY WHEN CALLED FOR IN PLANS
2. PRECAST SECTIONS SHALL BE REINFORCED PER ASTM C-478
3. UNLESS OTHERWISE INDICATED ON PLANS OR PROFILES, ALL MANHOLES SHALL BE 48" DIAMETER

TYLOX-SUPER (OR EQ) SEAL SIZE CHART	
48" OD	3/8
60" ID	3/8
72" ID	3/8
84" ID	3/4
96" ID	3/4



JOINT DETAIL TYP ALL SIZES



MOBILE AREA WATER AND
SEWER SYSTEM

MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL

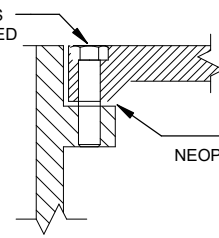
JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
TYPE A CAST IN PLACE MANHOLE			DIVISION D33
			SECTION - DETAIL NO. 3913-002
			DATE: AUGUST

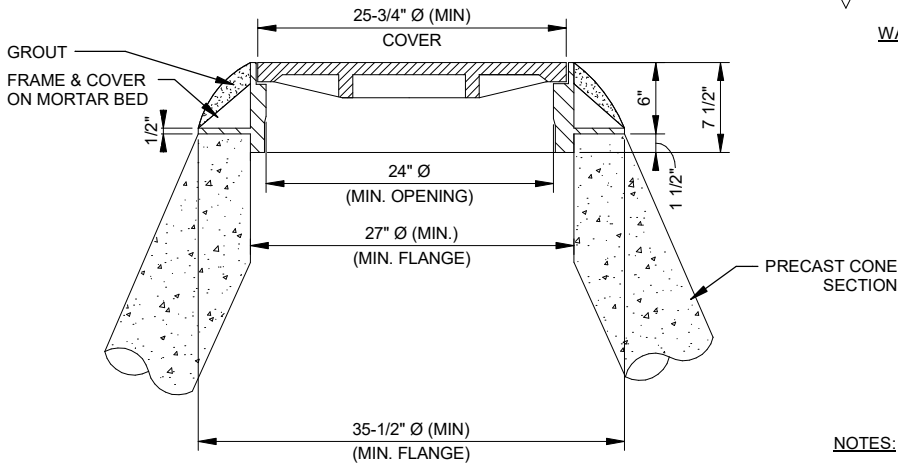


Ø4-5/8" x 2-1/2" (13 THREADS
PER INCH) SS BOLTS SPACED
EVENLY 90° APART

1/8" FLAT
NEOPRENE GASKET



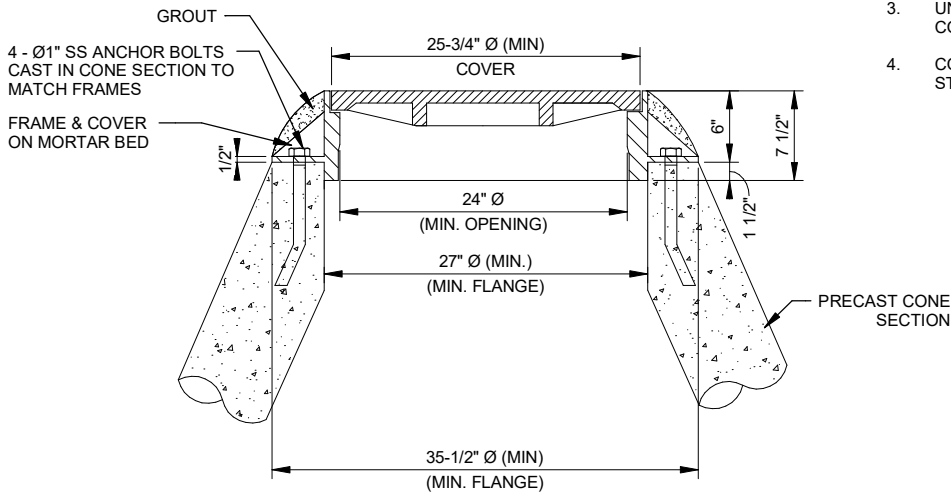
WATERTIGHT DETAIL



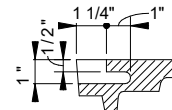
STANDARD

NOTES:

1. CONTACTING/SEALING SURFACES OF FRAME AND COVER SHALL BE MACHINED.
2. MINIMUM WEIGHTS:
FRAME - 180 LB
COVER - 120 LB
3. UNLESS INDICATED ON PLANS, ALL COVERS SHALL BE NON-VENTED.
4. COVER PATTERN SHALL MATCH THE STANDARD OF THE OWNER.



WATERTIGHT



TYPE TWO NON-PENETRATING PICKHOLES

PICKHOLE DETAIL

SCALE: 1" = 1' - 0"



**MOBILE AREA WATER AND
SEWER SYSTEM**

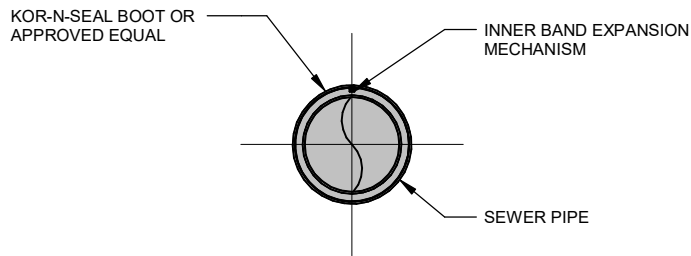
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL

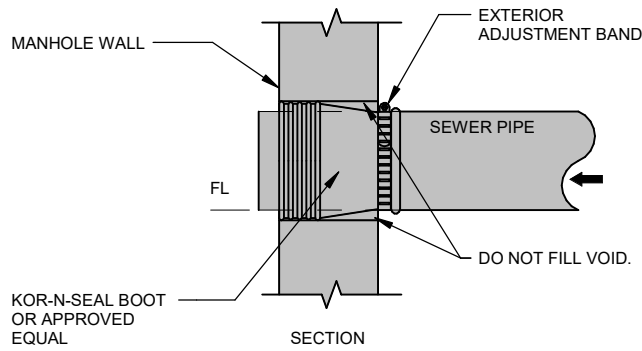
JOB NO.: 2402007

DETAIL NOT TO SCALE

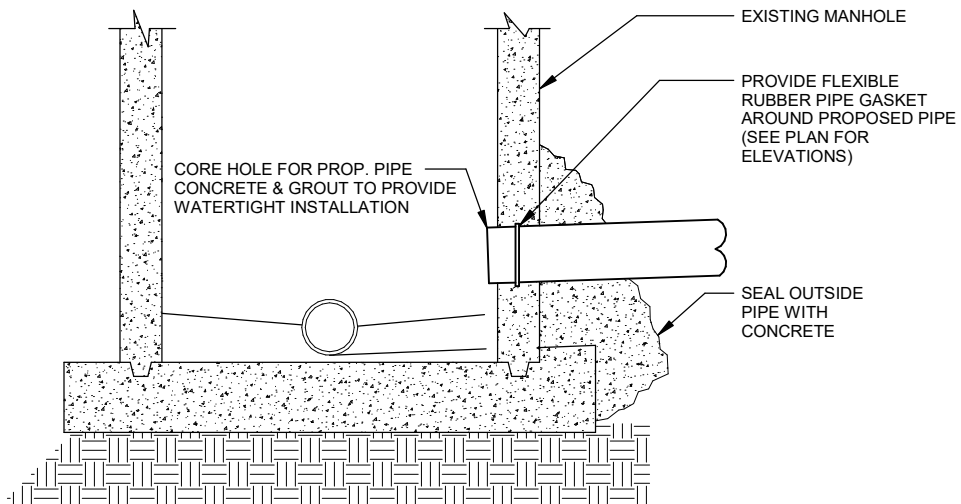
REV	DATE	DESCRIPTION	BY
TYPICAL MANHOLE RINGS & COVERS			DIVISION D33
			SECTION - DETAIL NO. 3913-004
			DATE: AUGUST



INTERIOR VIEW



MANHOLE CORING DETAILS



SEWER CONNECTION IN EXISTING MANHOLE



MOBILE AREA WATER AND
SEWER SYSTEM

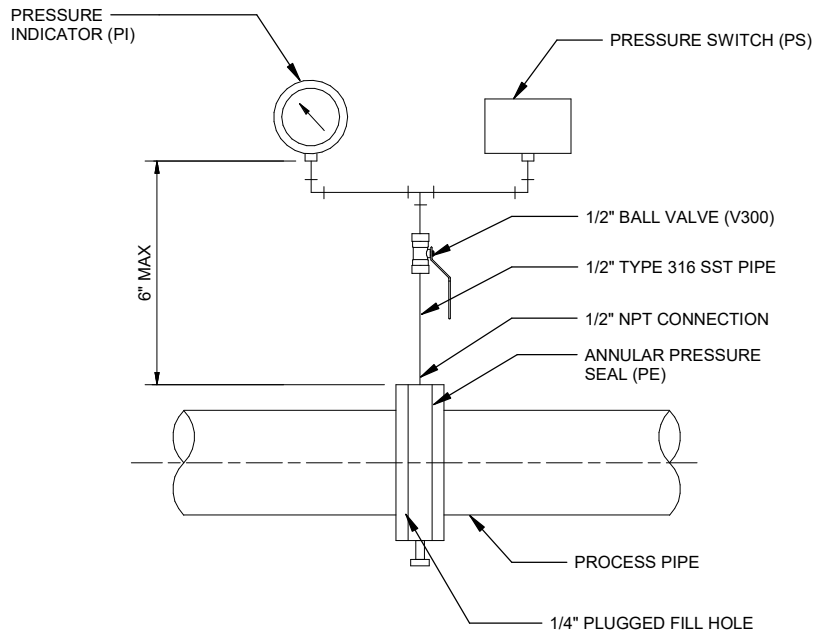
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL

JOB NO.: 2402007

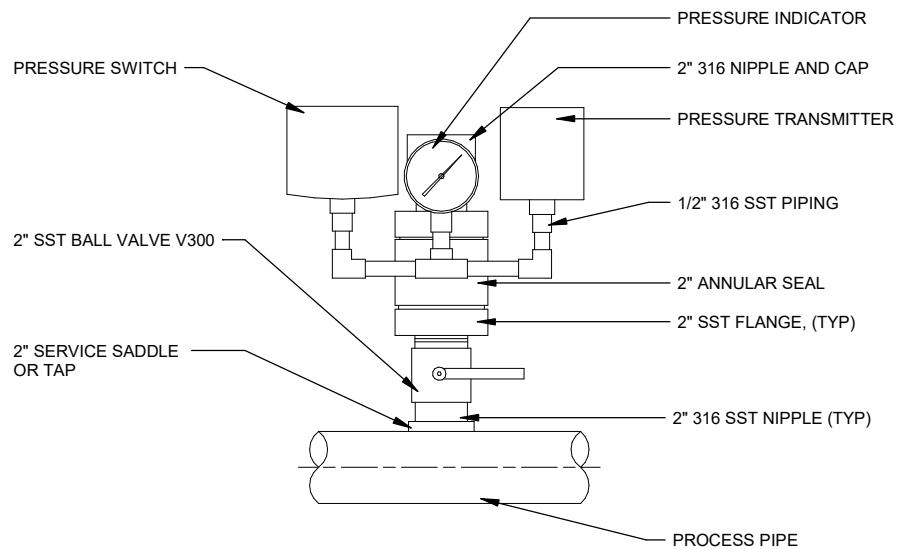
DETAIL NOT TO SCALE

REV	DATE	DESCRIPTION	BY
MANHOLE CORING DETAILS			DIVISION D33
			SECTION - DETAIL NO. 3913-005
			DATE: AUGUST



NOTE:
INDICATOR AND SWITCH INSTALLATION SHOWN. FOR SINGLE
INSTRUMENT INSTALLATIONS, MOUNT DEVICE DIRECTLY TO SEAL.

TYPE 1 ANNULAR SEAL



NOTE:
THREE INSTRUMENT PRESSURE TREE SHOWN. INSTALL INSTRUMENTS
AND SHOW ON THE PROCESS AND INSTRUMENTATION DRAWINGS.

TYPE 2 ANNULAR SEAL



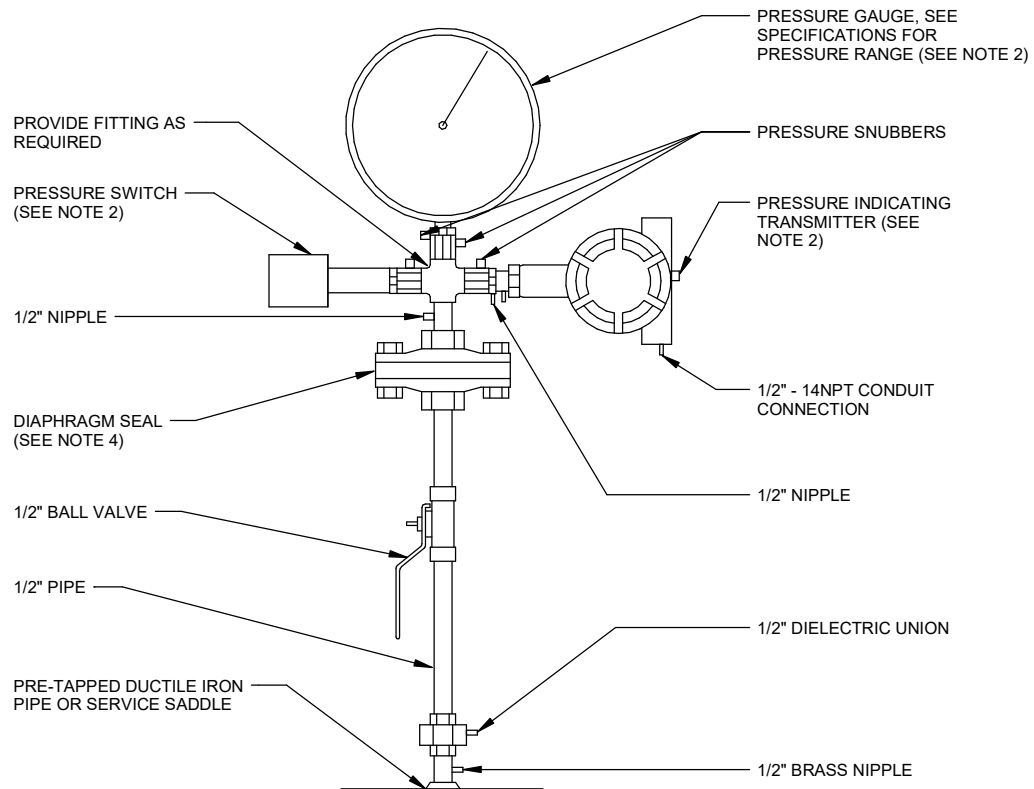
**MOBILE AREA WATER AND
SEWER SYSTEM**

MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL

JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
PRESSURE SWITCH AND INDICATOR WITH ANNULAR SEAL INSTALLATION			DIVISION D40
			SECTION - DETAIL NO. 0513-006
DETAIL NOT TO SCALE			DATE: AUGUST



NOTES:

1. ALL PIPING SHOWN IS 316 STAINLESS STEEL TYPE K UNLESS OTHERWISE NOTED.
2. PLUG BRANCH OF TEE IF NO PRESSURE TRANSMITTER, SWITCH, OR PRESSURE GAUGE IS REQUIRED AT LOCATION.
3. INSTALL GAUGE, TRANSMITTER, AND SWITCH AS SHOWN ON PLANS.
4. PROVIDE DIAPHRAGM ONLY WHERE SHOWN ON PROCESS AND INSTRUMENTATION DIAGRAMS.



**MOBILE AREA WATER AND
SEWER SYSTEM**

MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL

JOB NO.: 2402007

REV

DATE

DESCRIPTION

BY

**TYPICAL PRESSURE INDICATOR
INSTALLATION**

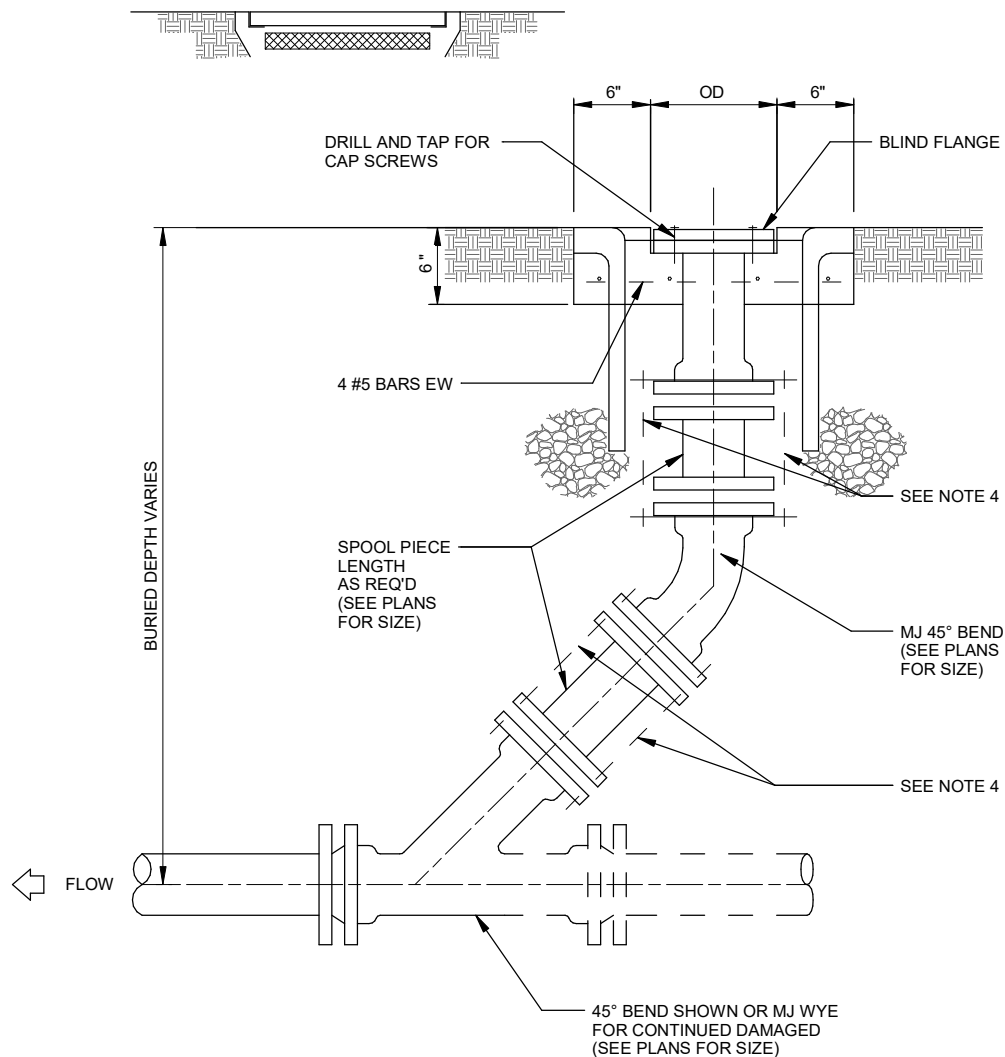
DIVISION
D40

SECTION - DETAIL NO.

0513-007

DETAIL NOT TO SCALE

DATE: AUGUST



NOTES:

1. SOIL BENEATH CONCRETE PADS SHALL BE WELL COMPACTED (MIN 98%-100% STANDARD PROCTOR). NO SETTLEMENT ALLOWED.
2. RISER SECTION AND ELBOW SAME SIZE AS LINE, UNLESS OTHERWISE SPECIFIED.
3. PIPE MATERIAL SHALL BE AS SHOWN ON THE DRAWINGS OR IN THE PIPE SCHEDULE. JOINTS AND FITTINGS SHALL BE COMPATIBLE WITH THE PIPING SHOWN IN THE DRAWINGS AND PIPE SCHEDULE.
4. FITTINGS SHALL BE MECHANICALLY RESTRAINED (TIE RODS SHOWN).
5. RECESS CLEANOUT TOP SO CAP SCREWS ARE FLUSH WITH CONCRETE PAD.



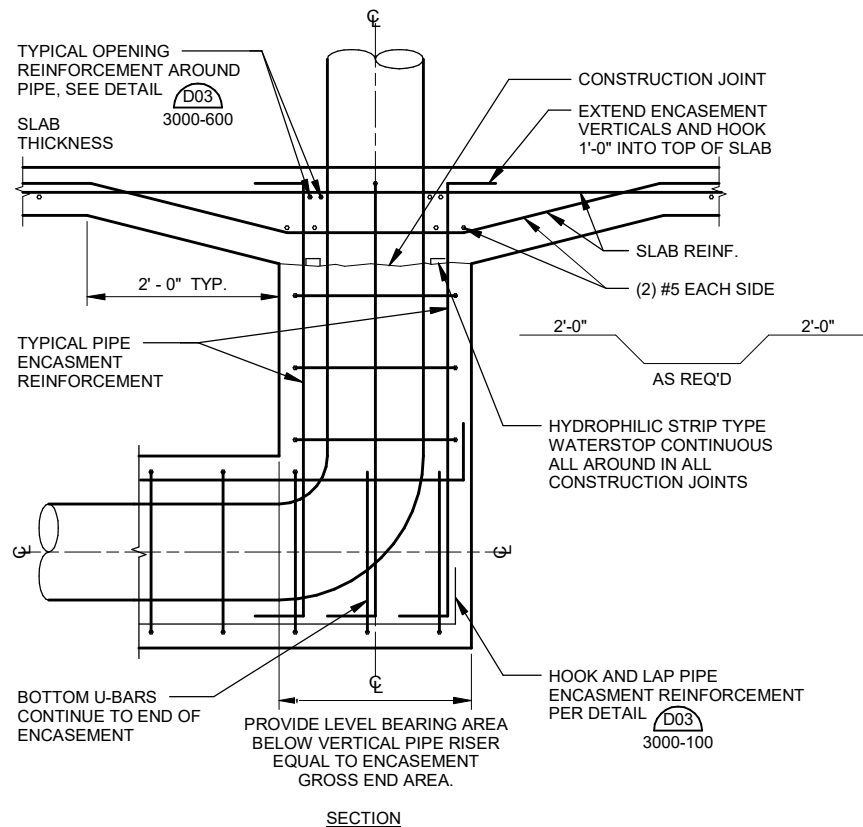
MOBILE AREA WATER AND SEWER SYSTEM

MOBILE, AL

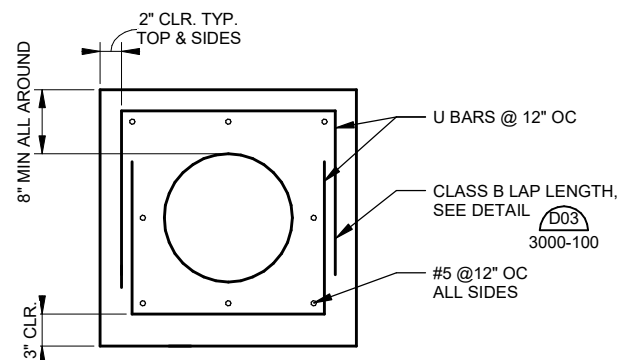
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
TYPICAL CLEANOUT DETAIL			DIVISION D40
			SECTION - DETAIL NO. 2339-004
DETAIL NOT TO SCALE			DATE: AUGUST



SECTION

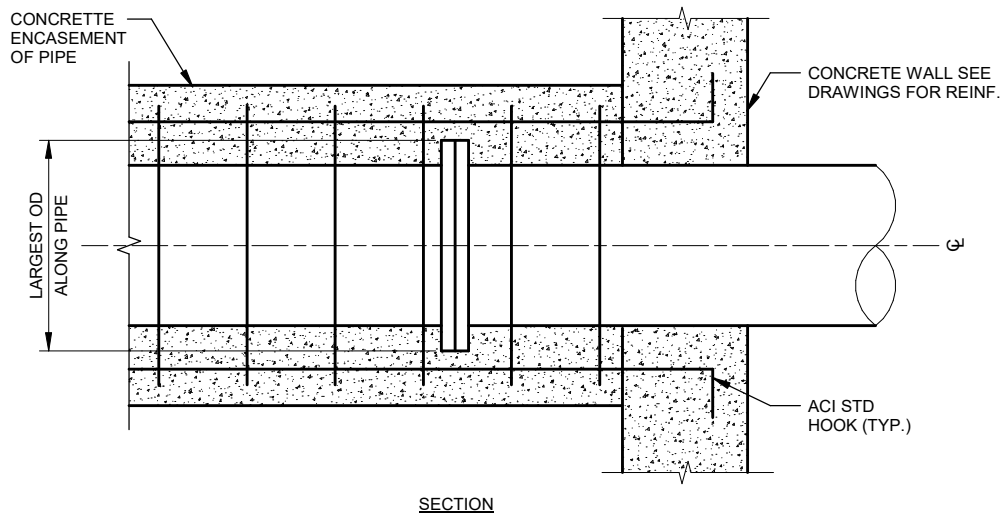


SECTION

NOTES:

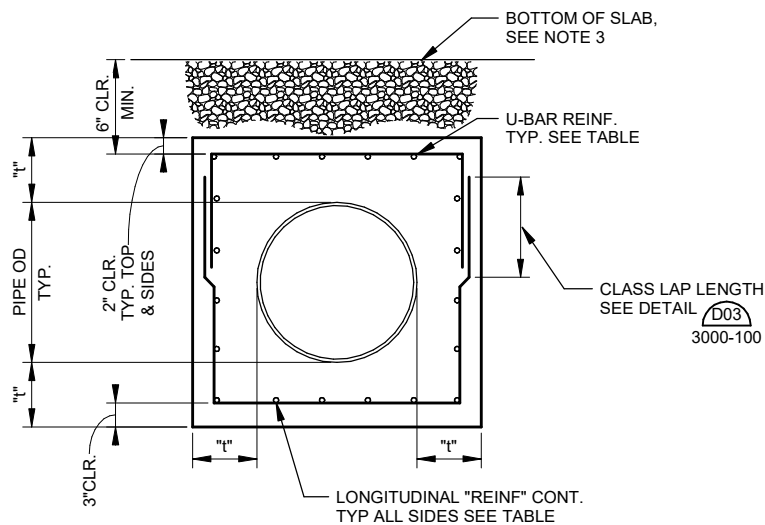
- SECTION APPLIES TO PIPE WITH DIAMETERS 18" AND SMALLER. FOR PIPES 20" AND LARGER, SEE DETAIL 2
- WHEN PIPE ENCASMENT IS CLOSER THAN 6" TO THE ABOVE SLAB, SEE DETAIL 3

1 PIPE ENCASMENT RISER



SECTION

ENCASMENT TABLE			
PIPE DIA. (IN)	"t" (IN)	REINF.	U-BARS
20" - 36"	8	#5@12"	#5@12"
36" - 48"	10	#6@12"	#6@12"
≥ 48"	12	#6@12"	#6@12"

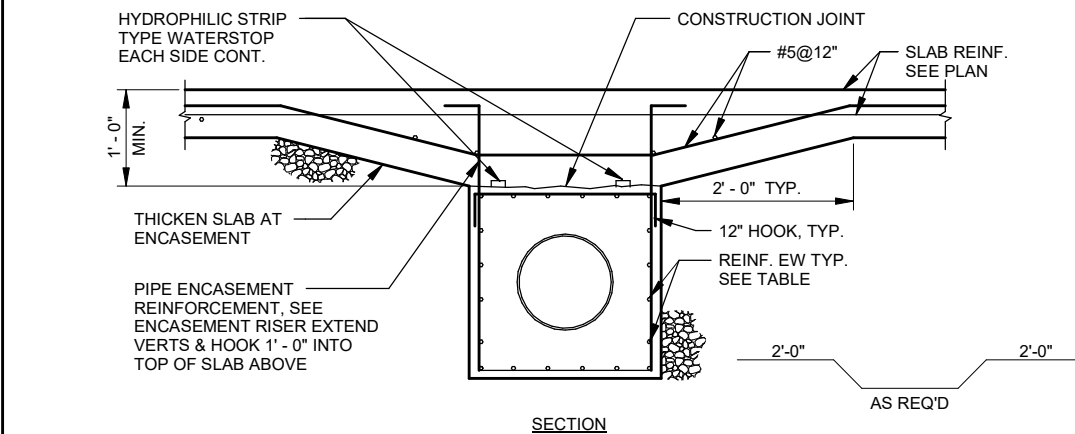


SECTION

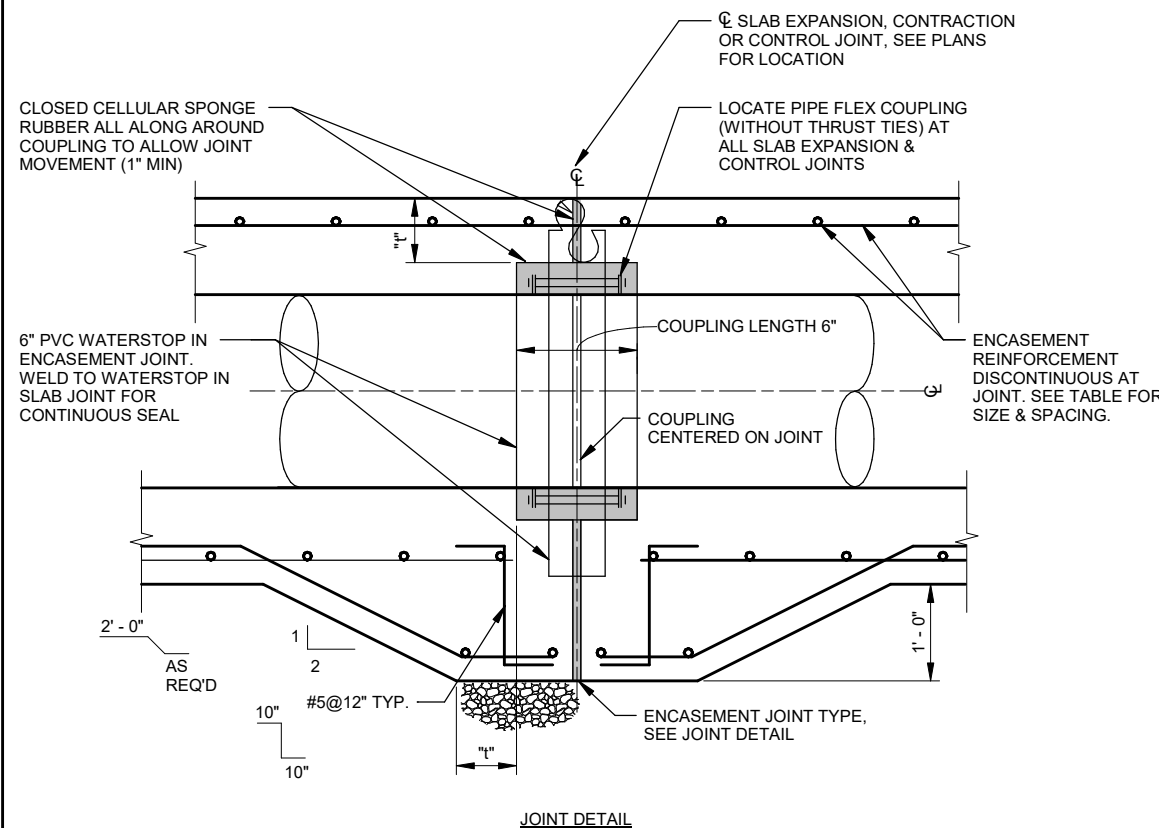
NOTES:

- SECTION APPLIES TO PIPE DIAMETERS 20" AND LARGER.
- FOR ENCASMENT AT PIPE RISER SEE DETAIL 1
- WHEN PIPE ENCASMENT IS CLOESR THAN 6" TO SLAB ABOVE, TIE SLAB AND ENCASMENT TOGETHER, SEE DETAIL 3

2 PIPE ENCASMENT BELOW GRADE



SECTION



JOINT DETAIL

NOTES:

- TIE PIPE ENCASMENT TO SLAB AS SHOWN WHEN DISTANCE BETWEEN PIPE ENCASMENT AND BOTTOM NOF SLAB IS LESS THAN 6".
- 6" PLASTIC WS IN ENCASMENT JOINTS. WELD TO WS IN SLAB JOINTS.

3 PIPE ENCASMENT AT SLAB

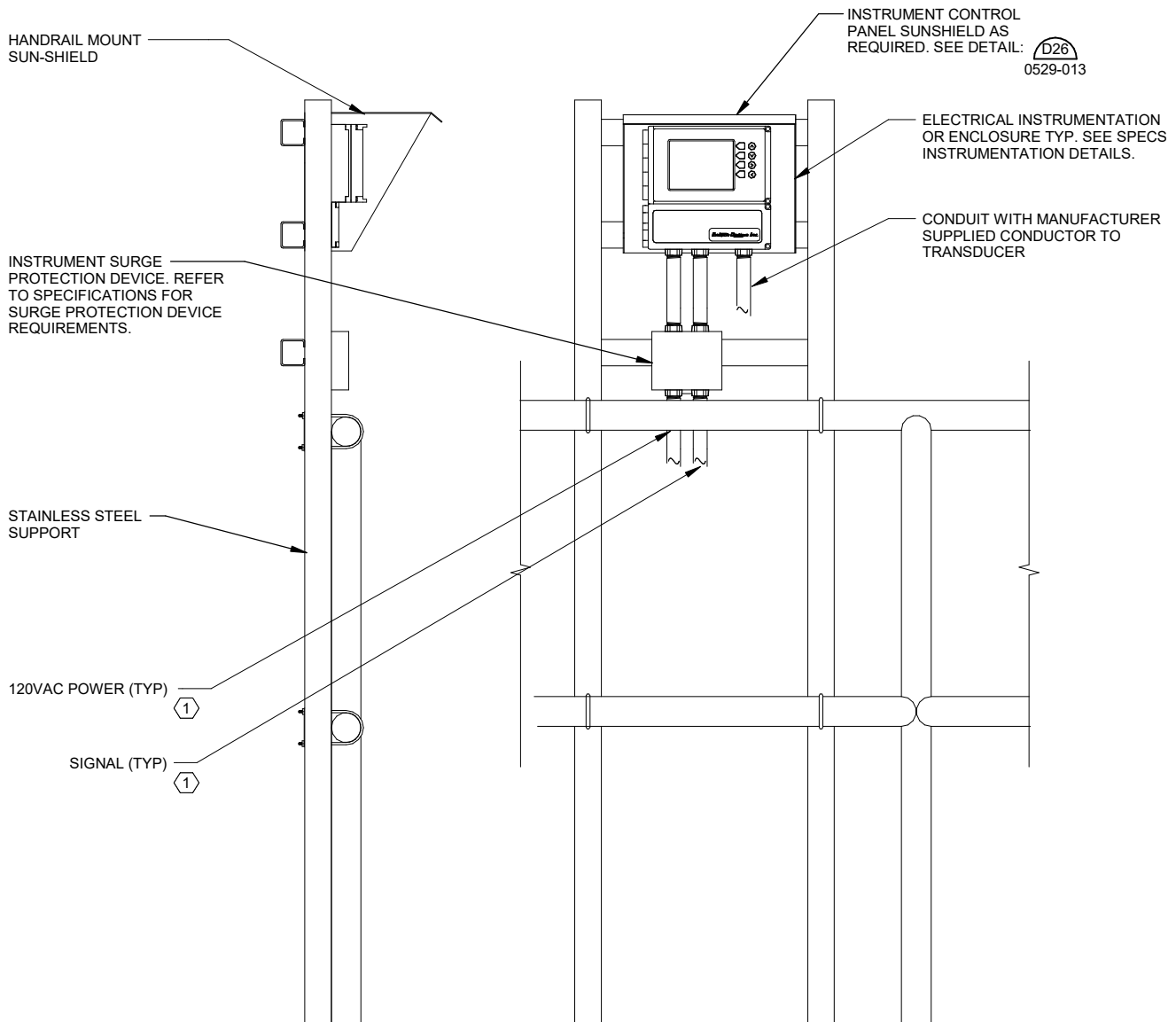
MOBILE AREA WATER AND SEWER SYSTEM

MOBILE, AL
CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
PIPE ENCASMENT			DIVISION D40
			SECTION - DETAIL NO. 2400-009
			DATE: AUGUST





NOTE:

1. WALKWAY AND RAILING IS TYPICAL AND FOR REFERENCE ONLY. THE CONTRACTOR SHALL VERIFY WITH STRUCTURAL PLANS AND SECTIONS BEFORE INSTALLING ANY CONDUIT OR ELECTRICAL EQUIPMENT AND ADJUST ACCORDINGLY.
2. MAKE ALL REQUIRED CONNECTIONS.
3. SEE MANUFACTURER MOUNTING INSTRUCTIONS FOR ADDITIONAL DETAILS.
4. KEEP POWER FEED SEPARATE FROM 4-20mA SIGNAL FEED.

KEYED NOTES:

1. CONDUIT AND CONDUCTORS SHOWN ARE TYPICAL. SEE ELECTRICAL PLAN SHEETS FOR CONDUIT AND CONDUCTOR REQUIREMENTS.



MOBILE AREA WATER AND SEWER SYSTEM

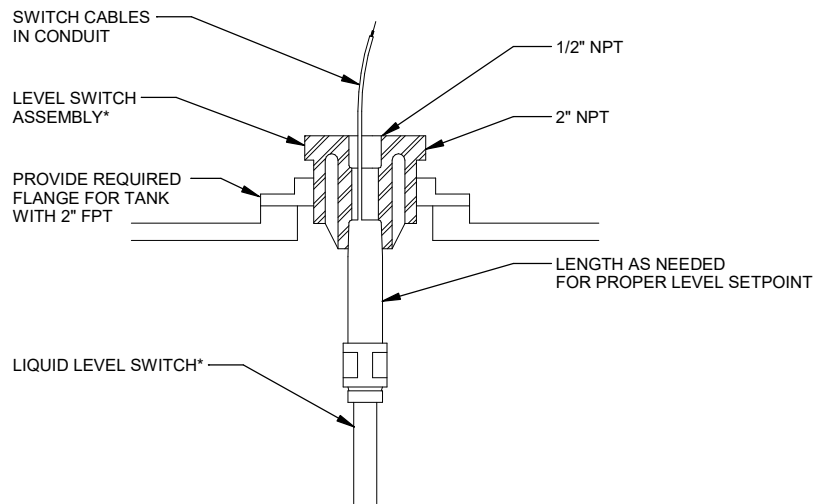
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR CONTROL

JOB NO.: 2402007

DETAIL NOT TO SCALE

REV	DATE	DESCRIPTION	BY
TYPICAL INSTRUMENT SURGE PROTECTION DETAIL			DIVISION D40
			SECTION - DETAIL NO. 7000-001
			DATE: AUGUST



NOTES:

1. THE MALE 2" NPT THREAD OF THE SWITCH IS TO BE TEFLON TAPED. INSPECT TAPED THREADS FOR UNIFORM TAPE COVERING.
2. INSERT LEVER SWITCH THROUGH OPENING IN TOP OF TANK. BOLT FLANGE TO TANK CONNECTION. PROVIDE SEAL BETWEEN TANK AND FLANGE.
3. COMPONENTS DESIGNATED BY * ARE SUPPLIED BY INSTRUMENT MANUFACTURER.



**MOBILE AREA WATER AND
SEWER SYSTEM**

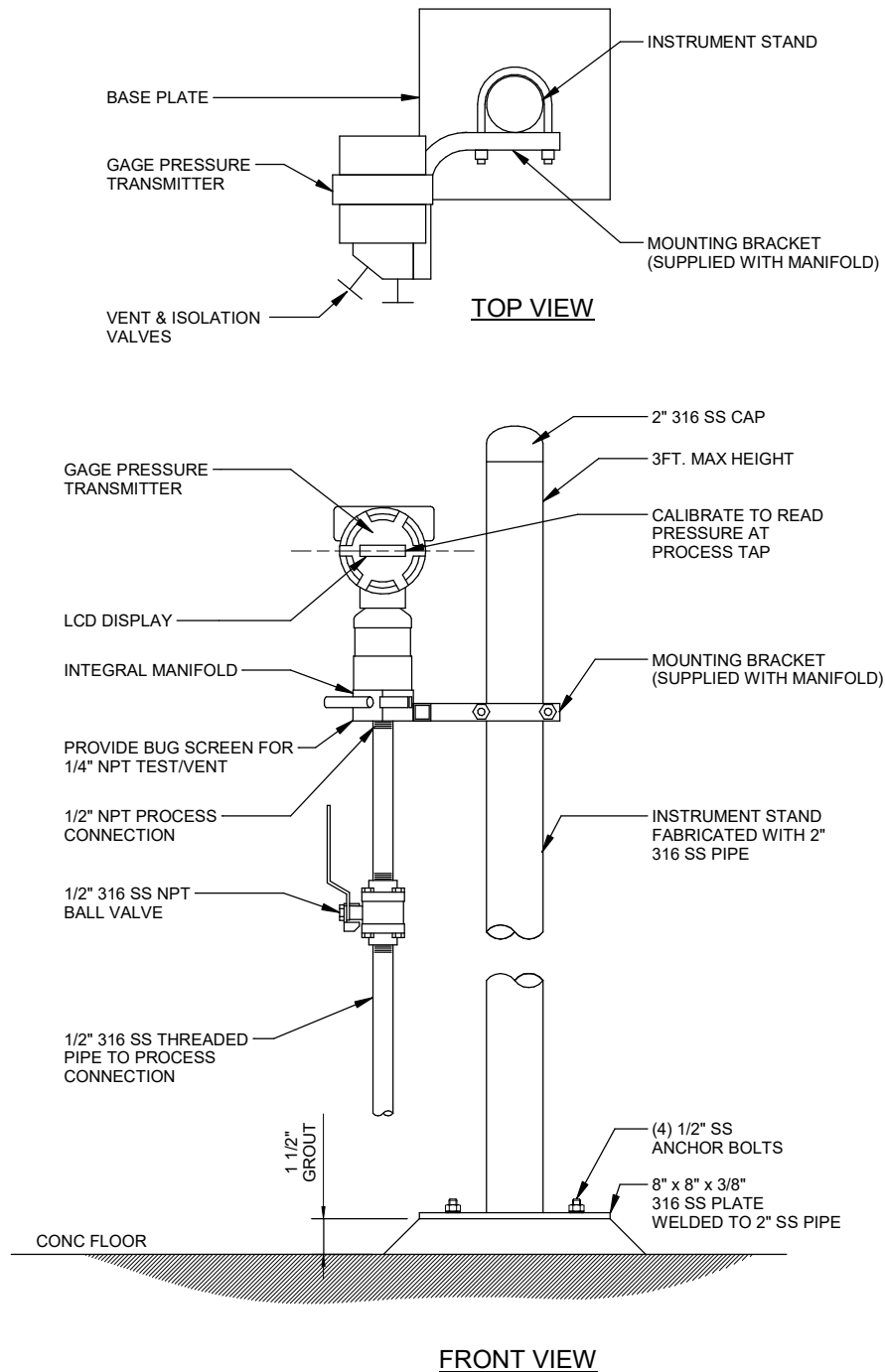
MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL

JOB NO.: 2402007

DETAIL NOT TO SCALE

REV	DATE	DESCRIPTION	BY
LEVEL SWITCH INSTALLATION - TANK DETAIL			DIVISION D40
			SECTION - DETAIL NO. 7276-002
			DATE: AUGUST



NOTES:

1. ALL PIPE FITTINGS AND VALVES SHALL BE OF THE SAME MANUFACTURER..
2. MAINTAIN 1/8" PER FT SLOPE TOWARD PROCESS TAP ON ALL HORIZONTAL PIPING.
3. ALL EXPOSED PIPING LOCATED OUTDOORS OR IN NON-HEATED INDOOR AREAS SHALL BE HEAT TRACED AND INSULATED.
4. TRANSMITTERS MAY ALSO BE MOUNTED ON DOUBLE POST UNISTRUT STANDS PER DETAIL 0529-014.



**MOBILE AREA WATER AND
SEWER SYSTEM**

MOBILE, AL

CC WILLIAMS HEADWORKS REHABILITATION AND ODOR
CONTROL

JOB NO.: 2402007

REV	DATE	DESCRIPTION	BY
PIPE MOUNTED PRESSURE TRANSMITTER DETAIL			DIVISION D40
			SECTION - DETAIL NO. 7326-002
DETAIL NOT TO SCALE			DATE: AUGUST