VICINITY MAP

PROJECT COORDINATES
6390 FM 1102 NEW BRAUNFELS, TX 78132

0 5' 10'

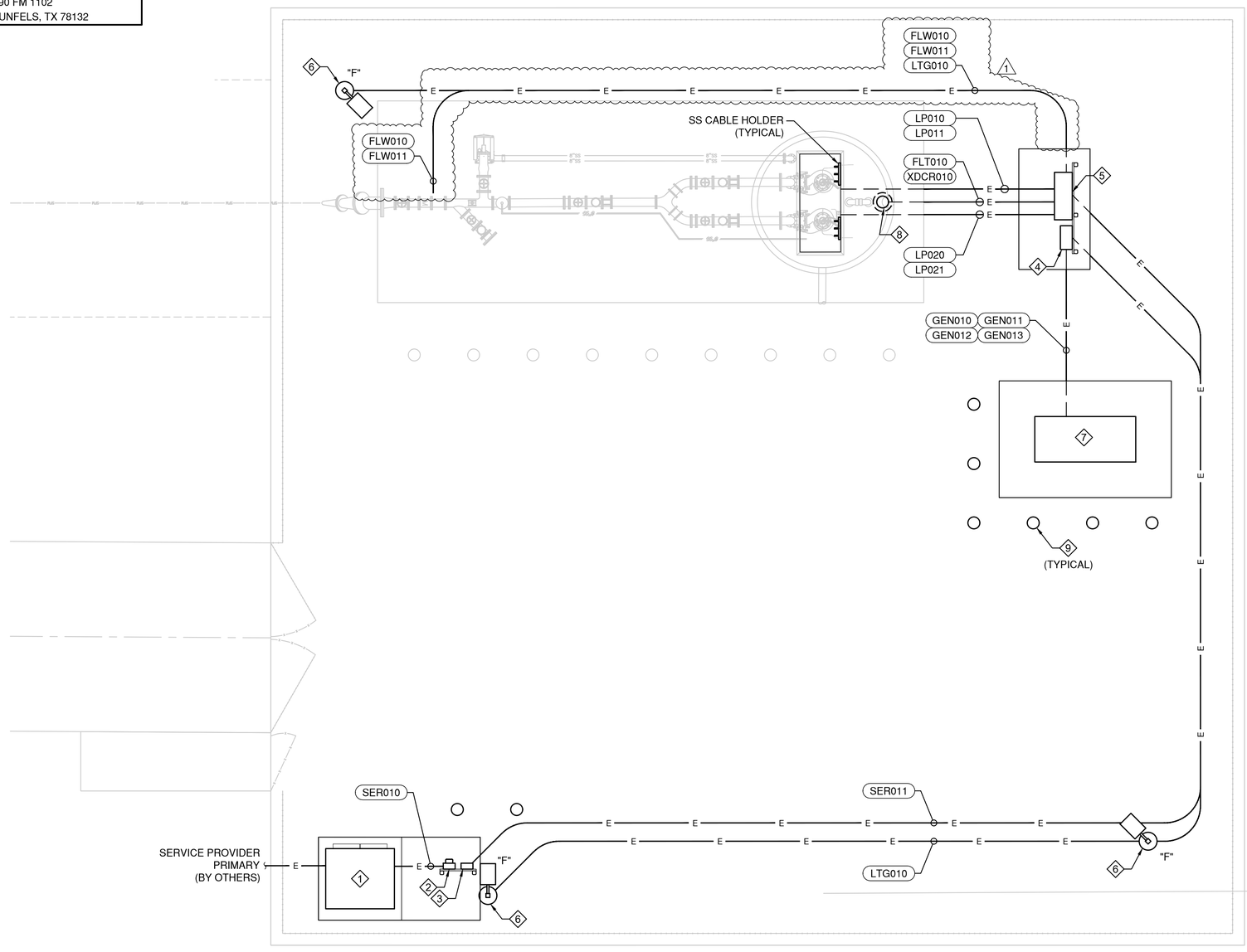
SCALE: 1 IN. = 5 FT.

KEYED NOTES: ⟨#⟩

1. PAD-MOUNTED SERVICE TRANSFORMER (RE: NOTE 1)
2. METER (RE: NOTE 1)
3. MAIN BREAKER (RE: NOTE 1)
4. AUTOMATIC TRANSFER SWITCH.
5. LIFT PUMP CONTROL CABINET.
6. AREA LIGHT.
7. STANDBY DIESEL GENERATOR
8. HANDHOLE.
9. BOLLARDS (TYPICAL).

GENERAL NOTES:

1. COORDINATE FINAL LOCATION OF SERVICE TRANSFORMER, METER, AND SERVICE DISCONNECT WITH SERVICE PROVIDER (NEW BRAUNFELS UTILITIES (NBU). REFER TO NBU ELECTRICAL SPECIFICATION DRAWING: METERING ASSEMBLY UNDERGROUND SERVICE ON RACK 100AMP - 200 AMP FOR INSTALLATION REQUIREMENTS.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD SELECTING OPTIMUM ROUTING OF CONDUITS.
3. ALL ELECTRICAL EQUIPMENT CONCRETE FOUNDATIONS ARE TO BE INSTALLED ABOVE FINISHED GRADE. ADDITIONAL ELEVATION DUE TO FLOOD PLANE REQUIREMENTS ARE NOT SHOWN.
4. PROVIDE GROUND CONNECTION AT SERVICE, PANELS, METALLIC EQUIPMENT AT RACK, PIPING, AND ALL METALLIC PARTS WITHIN PROJECT SITE.
5. REFER TO CONDUIT SCHEDULE FOR FULL CONDUIT AND CABLE REQUIREMENTS.
6. CONDUITS SHALL NOT BE INSTALLED UNDERNEATH CONCRETE STRUCTURES, MEANS OF EGRESS, OR WALKWAYS. ROUTE AROUND EQUIPMENT AND AVOID CONFLICT WITH OTHER UNDERGROUND EQUIPMENT. ROUTE DUCTBANK 24 INCHES BELOW UTILITY LINES.
7. EQUIPMENT SHALL NOT BE INSTALLED WITHIN ELECTRICAL EASEMENTS. WHERE EASEMENT CONFLICT EXISTS, CONTACT ENGINEER PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ANY AND ALL EASEMENTS.
8. DO NOT INSTALL CONCRETE FOR EQUIPMENT OR DUCTBANK OVER WATER OR SEWER LINES. FIELD VERIFY AND MARK ALL UNDERGROUND LINES.
9. EQUIPMENT SHOWN MAY NOT BE TO SCALE. REFER TO ALL PLAN SHEETS AND ELECTRICAL DETAILS FOR ADDITIONAL INFORMATION. REFER TO DRAWINGS FROM OTHER DISCIPLINES FOR SITE DIMENSIONS. SUBMIT DIMENSIONED LAYOUT PLANS FOR ALL WORK. DO NOT START INSTALLATION UNTIL ALL SUBMITTALS ARE REVIEWED BY ENGINEER.
10. ALL EQUIPMENT WORKING SPACE SHALL BE PER NEC. PROVIDE ADEQUATE WORKING SPACE FOR ALL ELECTRICAL EQUIPMENT.
11. FIELD VERIFY ALL UNDERGROUND UTILITIES, PIPING, CONDUITS, AND OBSTRUCTIONS PRIOR TO EXCAVATING. REPAIR ANY DAMAGE TO EXISTING OBSTRUCTIONS TO ORIGINAL CONDITION.
12. REFER TO CIVIL AND/OR STRUCTURAL PLANS FOR ADDITIONAL MODIFICATIONS.
11. COORDINATE INSTALLATION OF PUMP STATION CONDUITS WITH LOCATION OF GUIDE RAILS FOR CABLE CLEARANCE.
12. PROVIDE HEAVY DUTY SS KELLUM GRIPS FOR PUMP CABLES, FLOATS. INSTALL FLOATS CLEAR OF INTAKE. PROVIDE STILLING WELL AS NEEDED.
13. CABLE HOLDER SHOWN FOR CLARITY. FIELD LOCATE.
14. COORDINATE INSTALLATION OF CONDUITS WITH LOCATIONS OF GUIDE RAILS FOR CABLE CLEARANCE.
15. SEAL ALL CONDUITS FROM WET WELL INTO TERMINAL BOX TO PREVENT CORROSIVE GAS DAMAGE.



ELECTRICAL SITE PLAN

SCALE: 1 IN. = 5 FT.

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FLYING W
SANITARY SEWER
IMPROVEMENTS

ELECTRICAL SITE PLAN – DUPLEX LIFT STATION

DATE
12/03/2025
PROJECT NO.
04024-003
DRAWN BY
CSM
CHECKED BY
EWB

REVISIONS
1. ADDENDUM NO.1 12-03-25
2.
3.
4.
5.
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7.
8.

STATE OF TEXAS
C. SAAD MAHMOUD
127648
LICENSED
PROFESSIONAL ENGINEER
12-03-2025
CUDE ENGINEERS
TBPELS No. 10048500

PLAT NO.
22-118XXXX

E1.01

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CABLE AND CONDUIT SCHEDULE

CABLE/CONDUIT TAG	CONDUIT QUANTITY	CONDUIT SIZE	FROM	TO	CONDUCTOR (EACH CONDUIT)	CABLE TYPE	DESCRIPTION
ATS010	1	2 IN.	AUTOMATIC TRANSFER SWITCH	CONTROL CABINET	3-#1 + #6 GND	XHHW-2	DUPLEX LIFT STATION POWER
FLT010	1	1 & 1/2 IN.	CONTROL CABINET	WET WELL HANDHOLE	(5) MANUFACTURER'S CABLE	-	DUPLEX LIFT STATION FLOAT CONTROL
FLW010	1	1 IN.	CONTROL CABINET	MAGNETIC FLOW METER	2 - #12 + #12 GND	XHHW-2	FLOW METER (REMOTE AMPLIFIER) POWER
FLW011	1	1 IN.	CONTROL CABINET	MAGNETIC FLOW METER	4 - #14 + 1 #12 GND 4 - #14 TWISTED SHIELDED CABLE	XHHW-2	FLOW METER (REMOTE AMPLIFIER) SIGNAL WIRING (MODIFY PER MANUFACTURER'S WIRING DIAGRAMS)
GEN010	1	2 IN.	EMERGENCY GENERATOR	AUTOMATIC TRANSFER SWITCH	3-#1 + #6 GND	XHHW-2	EMERGENCY POWER
GEN011	1	1 IN.	EMERGENCY GENERATOR	AUTOMATIC TRANSFER SWITCH	4-#12 + #12 GND	THWN-2	ATS CONTROLS
GEN012	1	1 & 1/2 IN.	EMERGENCY GENERATOR	CONTROL CABINET	4-#12 + #12 GND	THWN-2	GENERATOR ALARM SIGNALS
GEN013	1	1 IN.	PANELBOARD 'A'	EMERGENCY GENERATOR	12-#10 + #12 GND	THWN-2	GENERATOR DEVICES (HEATER, BATTERY CHARGER, LIGHTS, RECEPTACLE)
LP010	1	1 & 1/2 IN.	CONTROL CABINET	LIFT PUMP NO. 1	3-#8 + #8 GND	THWN-2	LIFT PUMP NO. 1 POWER
LP011	1	1 IN.	CONTROL CABINET	LIFT PUMP NO. 1	6-#12 + #12 GND	THWN-2	LIFT PUMP NO. 1 CONTROLS
LP020	1	1 & 1/2 IN.	CONTROL CABINET	LIFT PUMP NO. 2	3-#8 + #8 GND	THWN-2	LIFT PUMP NO. 2 POWER
LP021	1	1 IN.	CONTROL CABINET	LIFT PUMP NO. 2	6-#12 + #12 GND	THWN-2	LIFT PUMP NO. 2 CONTROLS
LTG010	1	1 IN.	PANEL LVP	AREA LIGHTS	2-#10 + #10 GND	THWN-2	AREA LIGHT
REC010	1	1 IN.	PANEL LVP	WET WELL CONVENIENCE RECEPTACLE	2-#12 + #12 GND	THWN-2	WET WELL CONVENIENCE RECEPTACLE
SER010	1	3 IN.	SERVICE UNDERGROUND	XFMR (BY SERVICE PROVIDER)	MULE TAPE	-	UTILITY PRIMARY (PROVIDED BY UTILITY)
SER011	1	3 IN.	XFMR (BY SERVICE PROVIDER)	MAIN BREAKER (VIA TRANSOCKET METER FURNISHED BY SERVICE PROVIDER)	3-#1 + #6 GND	XHHW-2	UTILITY SECONDARY (COORDINATE FINAL CONNECTION WITH SERVICE PROVIDER)
SER012	1	3 IN.	MAIN BREAKER	AUTOMATIC TRANSFER SWITCH	3-#1 + #6 GND	XHHW-2	UTILITY SERVICE LATERAL
XDCR010	1	1 IN.	CONTROL CABINET	LEVEL TRANSDUCER	(1) MANUFACTURER'S CABLE	-	ANALOG LEVEL TRANSDUCER

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LUMINAIRE FIXTURE SCHEDULE

SYMBOL	DESCRIPTION	VOLTAGE	LUMENS	WATTAGE	MOUNTING	MANUFACTURER	LUMINAIRE CATALOG NUMBER	POLE DATA
AL1	ALARM LIGHT	-	-	-	PANEL	EDWARDS	125LEDFR120A-125GRD	PER DETAIL OR APPROVED EQUAL
B	STRIP LIGHT - NEMA 4X	MVOLT	4000	42	CEILING	LITHONIA	CSVT-L48-5000LM-MVOLT-40K-80CRI	CIRCUIT CONTROLLED BY EXTERNAL PHOTOCELL
F	AREA LIGHT	MVOLT	7200	51	POLE	LITHONIA	DSX1 LED-P1-40K-70CRI-T3M-MVOLT-SPA-HS-EGSR-DDBXD	PROVIDE POLE: SSS-12-4C-DM19AS-FBCSTL2PC-DDBXD CIRCUIT CONTROLLED BY EXTERNAL PHOTOCELL

PANEL PANELBOARD "A"

SERVICE VOLTAGE 120/240V
MAIN BREAKER SIZE 40A
PHASE BUS RATING 60A
NEUTRAL BUS RATING 60A
SHORT CIRCUIT RATING 22 KAIC
LOCATION SERVICE RACK
WIRE SIZE #8
NEU WIRE SIZE #8
PHASE 1
MOUNTING RACK

WITH:
■ SOLID NEUTRAL & GROUND
☐ ISOLATED GROUND BUS
☐ 200% NEUTRAL
NOTE: ADJ. CKTS. TO BAL. PNL.

CKT. DESCRIPTION	WIRE	BREAKER POLE	BREAKER AMP	VA/WATTS A	VA/WATTS B	CKT NO.		CKT NO.	VA/WATTS A	VA/WATTS B	BREAKER POLE	BREAKER AMP	WIRE	CKT. DESCRIPTION
JACKET WATER HEATER	10	1	20	1500		1		2	180		1	20	12	CONV. RECEPT.
OIL PAN HEATER	10	1	20		250	3		4		42	1	20	12	CANOPY LIGHT
GENERATOR LIGHTS	12	1	20	180		5		6	153		1	20	12	AREA LIGHTS
GENERATOR CONTROLLER	12	1	20		500	7		8		300	1	20		LEVEL TRANSMITTER
GENERATOR CONV. RECEPT.	12	1	20	180		9		10	500		1	20		DUPLEX PUMP STATION CONTROLS
GENERATOR BATTERY CHARGER	12	1	20		1200	11		12		300	1	20		AUTODIALER
SPARE	12	1	20	-		13		14	-		1	20		SPARE
SPARE	12	1	20		-	15		16		-	1	20		SPARE
SPARE	12	1	20	-		17		18	-		1	20		SPARE

TOTAL PHASE A: 2693 VOLT-AMPS
TOTAL PHASE B: 2592 VOLT-AMPS

TOTAL PHASE A CURRENT: 22 AMPS
TOTAL PHASE B CURRENT: 22 AMPS

TOTAL CONNECTED LOAD: 5285 VA

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FLYING W SANITARY SEWER IMPROVEMENTS

ELECTRICAL SCHEDULES – DUPLEX LIFT STATION

DATE
12/03/2025
PROJECT NO.
04024-003
DRAWN BY
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REVISIONS
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STATE OF TEXAS
C. SAAD MAHMOUD
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TBPELS No. 10048500

PLAT NO.
22-118XXXX

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email: info@burrereng.com

E3.01

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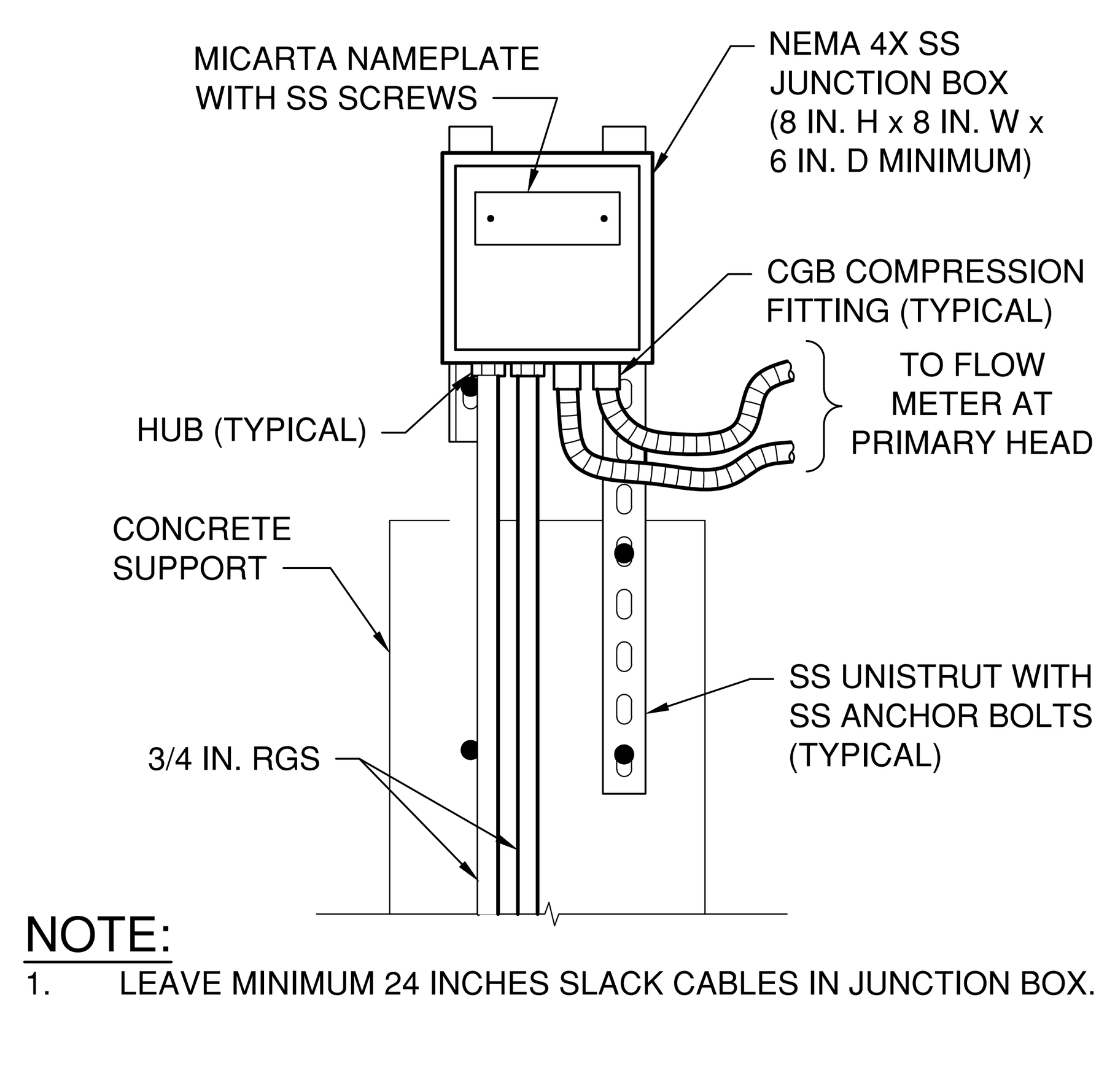
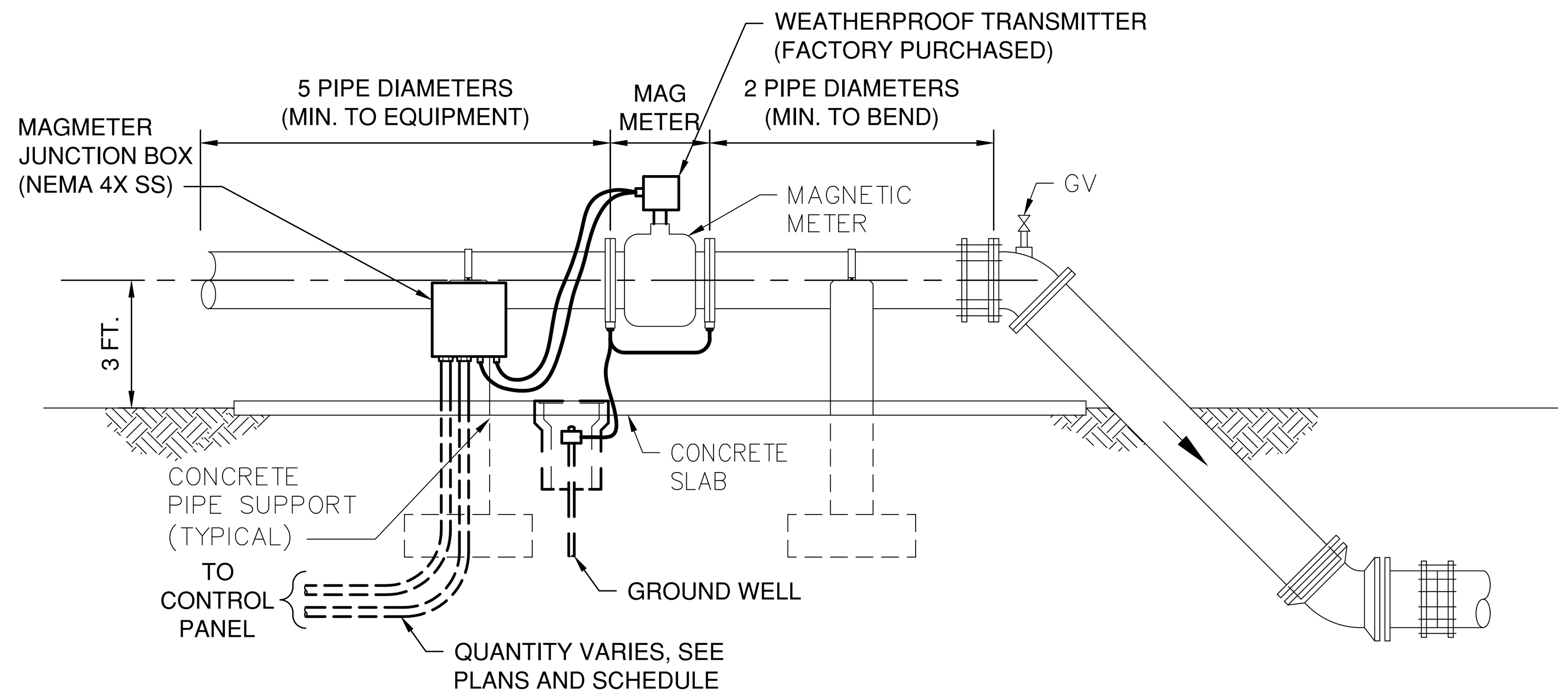
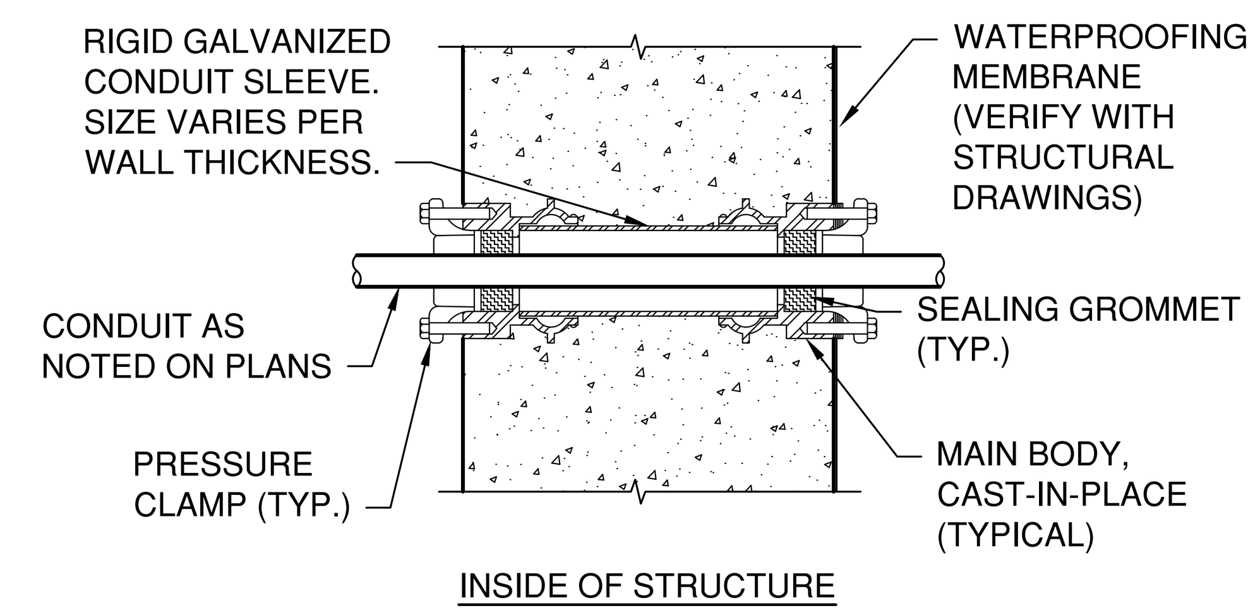


NOTE:
1. LEAVE MINIMUM 24 INCHES SLACK CABLES IN JUNCTION BOX.

MAGMETER JUNCTION BOX DETAIL
N.T.S.



FLOW METER DETAIL
N.T.S.

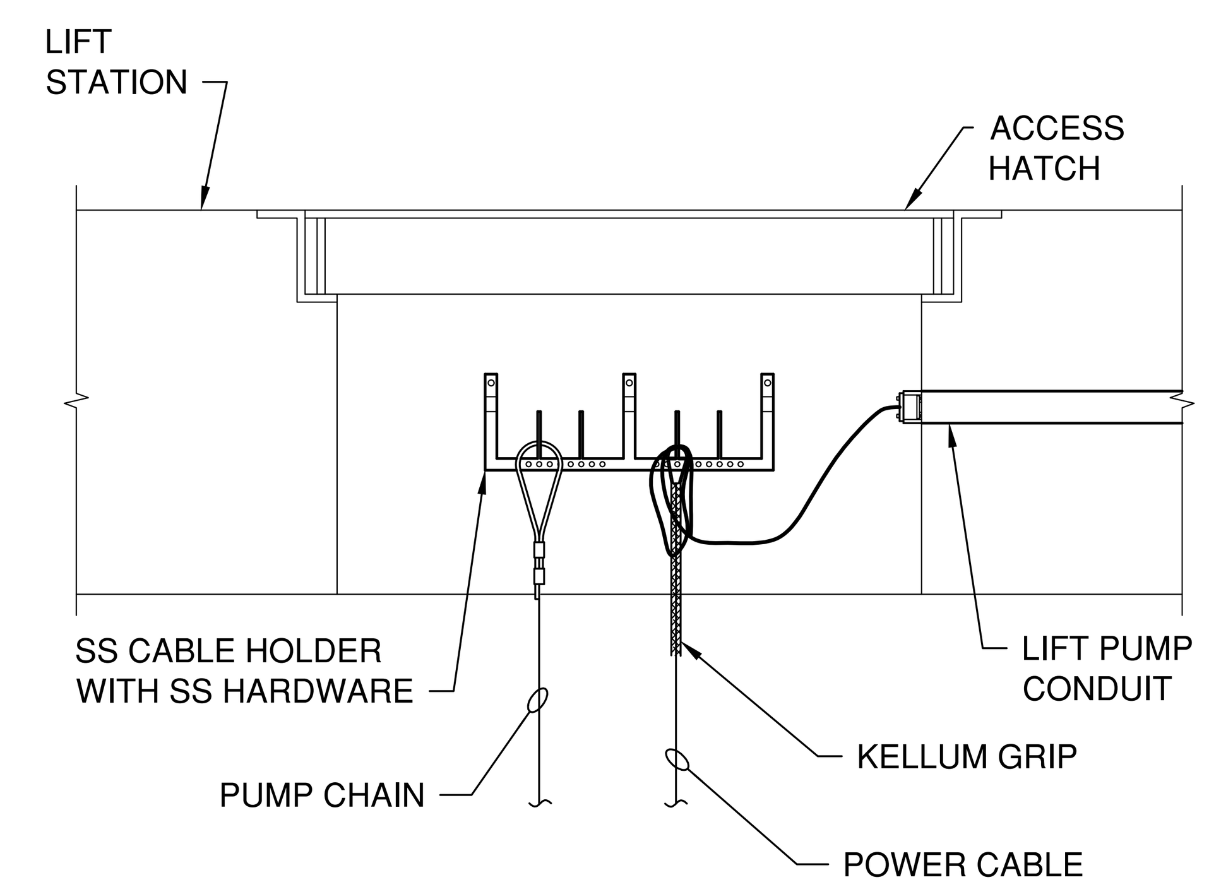


DOUBLE ENDED TYPE WITH MEMBRANE

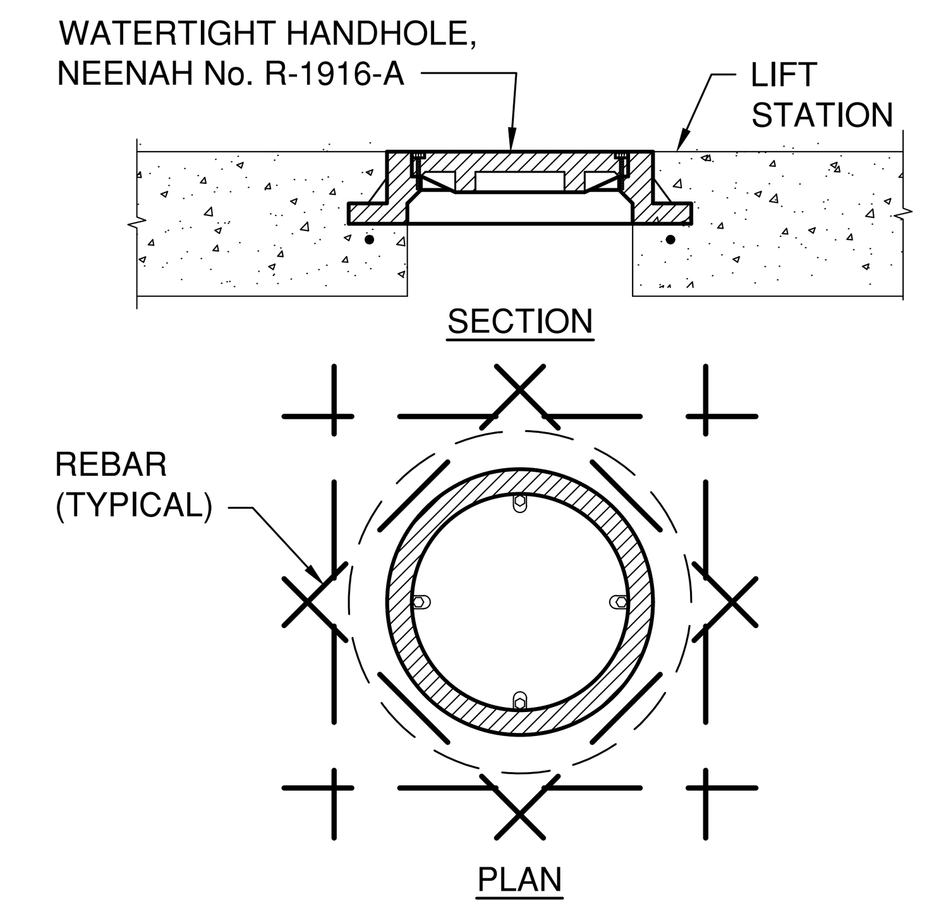
FOR USE WHERE CONDUIT OUTSIDE THE STRUCTURE IS NOT ENCASED IN CONCRETE

CONDUIT SEALS DETAIL
N.T.S. (TYPICAL)

GENERAL NOTES:
1. MAINTAIN MINIMUM SEPARATION REQUIRED UNDER NEC ARTICLE 504, BETWEEN INTRINSICALLY SAFE CONTROL WIRING AND NON-INTRINSICALLY SAFE MOTOR FEEDER WIRING.
2. UNLESS OTHERWISE NOTED, ALL NUTS, BOLTS, SCREWS WASHERS, ETC SHALL BE STAINLESS STEEL.

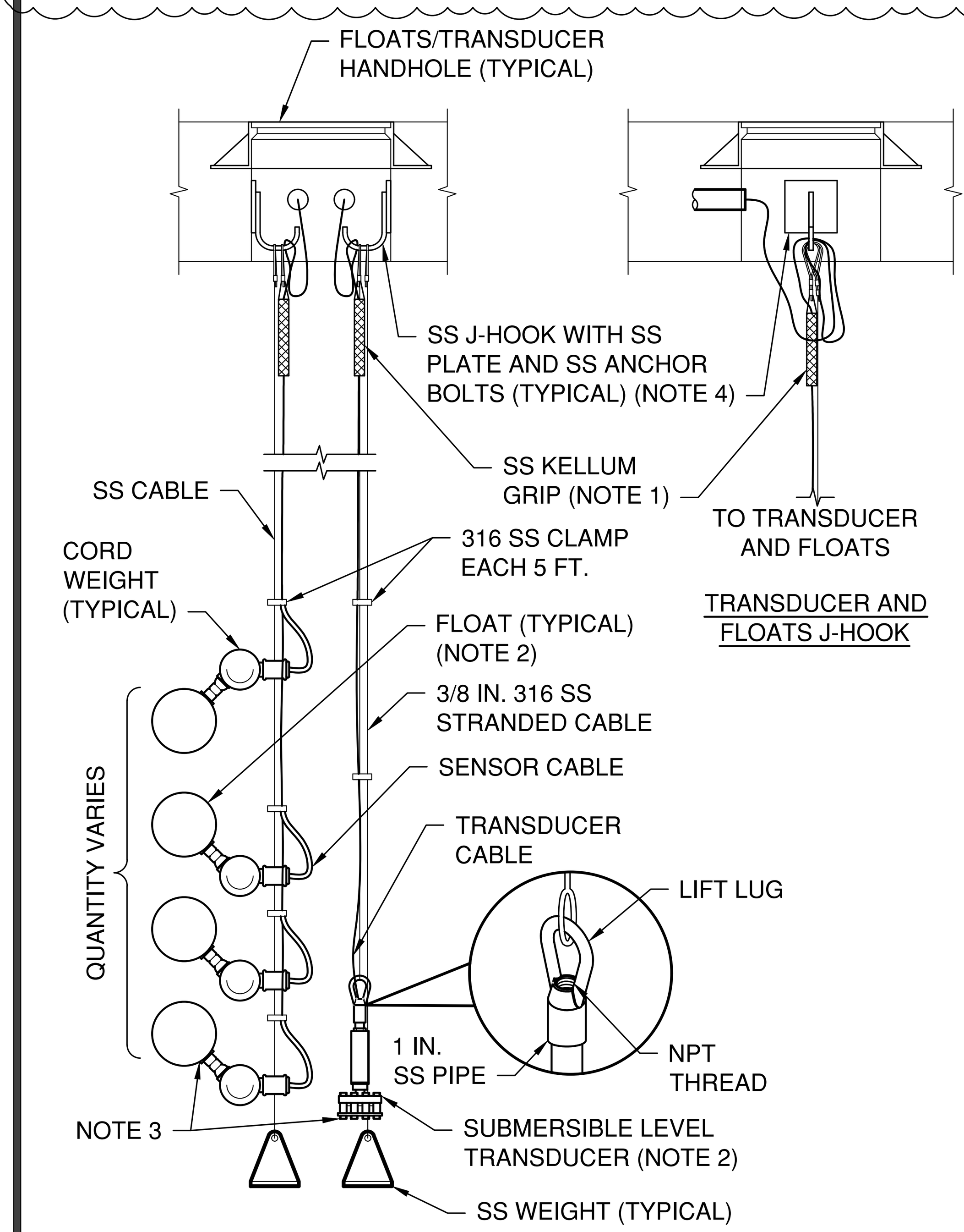


PUMP CABLE INSTALLATION DETAIL
N.T.S.



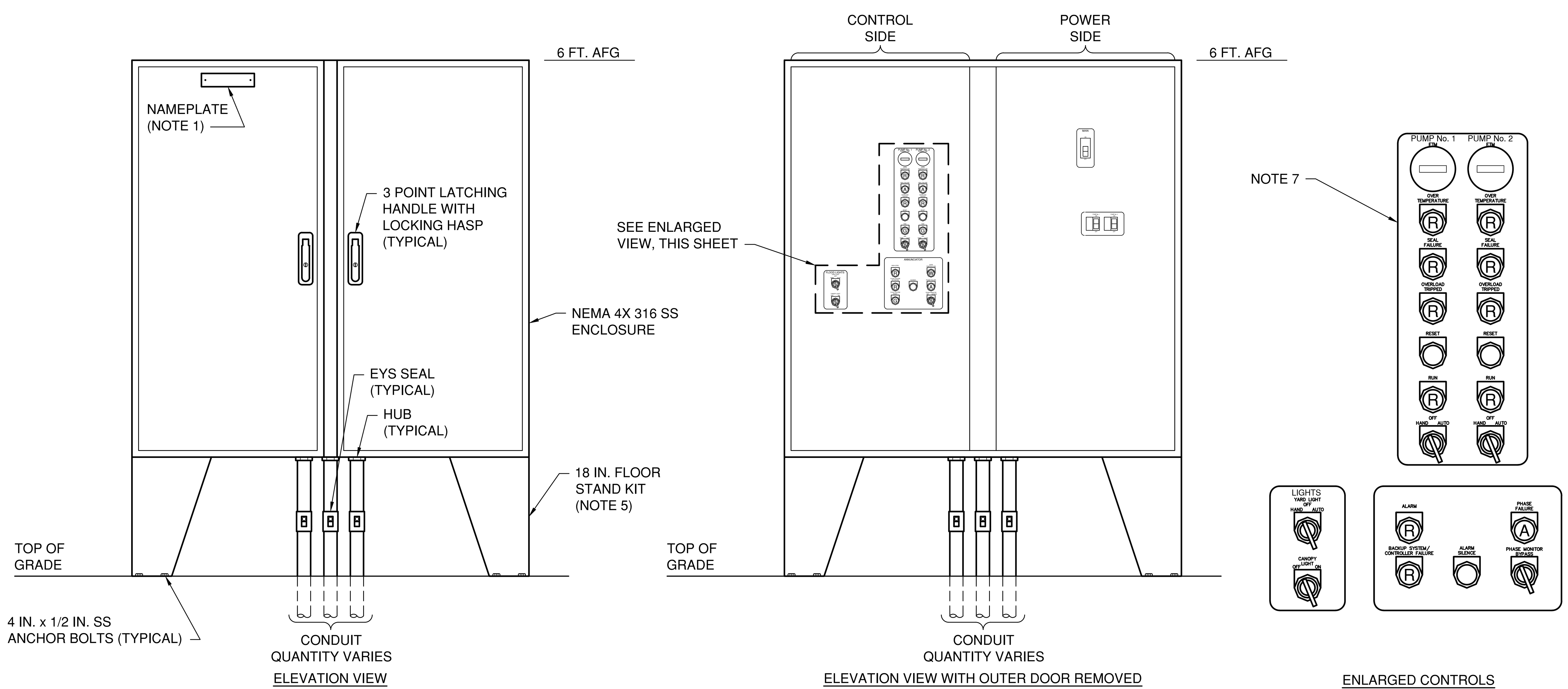
NOTE:
1. REBAR SIZING BY STRUCTURAL ENGINEER.

HANDHOLE DETAIL
N.T.S.



NOTES:
1. KELLUM GRIPS ARE REQUIRED ON ALL CABLES.
2. INSTALL FLOATS AND TRANSDUCER CLEAR OF PUMP INTAKE.
3. MEASURE AND RECORD LEVEL OF TRANSDUCER "SENSOR ELEMENT" AND FLOAT SWITCH "TIPPING" LEVELS ABOVE FINISHED FLOOR OF WET WELL. COPY TO ENGINEER AND INCLUDE DATA IN AS-BUILT DRAWINGS AND O&M MANUALS.
4. LOCATION SHOWN FOR CLARITY.
5. SET LEVEL PER ENGINEER.

FLOATS/TRANSDUCER INSTALLATION DETAIL
N.T.S. (TYPICAL)



NOTES:
1. NAMEPLATES SHALL BE MOUNTED TO CONTROL PANEL USING STAINLESS STEEL HARDWARE.
2. UNLESS OTHERWISE NOTED, ALL NUTS, BOLTS, SCREWS WASHERS, ETC SHALL BE TYPE 316 STAINLESS STEEL.
3. SEAL ALL CONDUITS ENTERING CONTROL PANEL FROM WETWELL WITH CSBE SEALS. ALL OTHER CONTROL PENETRATIONS SHALL USE LIQUID TIGHT RE-ENTERABLE SEALING COMPOUND.
4. BASE OF ENCLOSURE TO BE 18 IN. ABOVE FINISHED GRADE AND NOT LESS THAN 12 IN. ABOVE FLOOD PLAIN ELEVATION.
5. ARRANGE INNER DOOR DEVICES TO MATCH DETAIL.
6. ADJUST PILOT DEVICES PER SITE PUMP QUANTITIES.

CONTROL CABINET DETAIL
N.T.S.

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FLYING W SANITARY SEWER IMPROVEMENTS

ELECTRICAL DETAILS SHEET NO. 3

DATE 12/03/2025
PROJECT NO. 04024-003
DRAWN BY CSM
CHECKED BY EWB

REVISIONS
1. ADDENDUM NO.1 12-03-25

STATE OF TEXAS C. SAAD MAHMOUD 127648 LICENSED PROFESSIONAL ENGINEER 12-03-2025

CUDE ENGINEERS TBPELS No. 10048500

PLAT NO. 22-118XXXX

E9.03