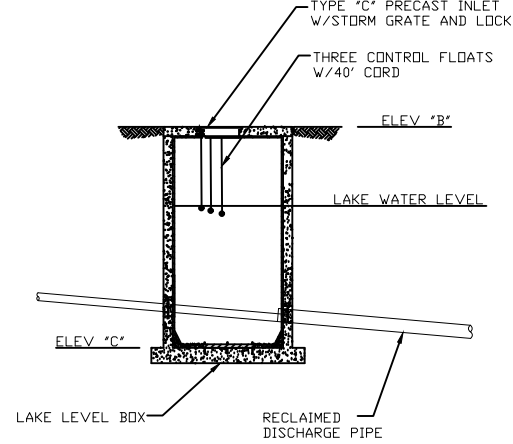
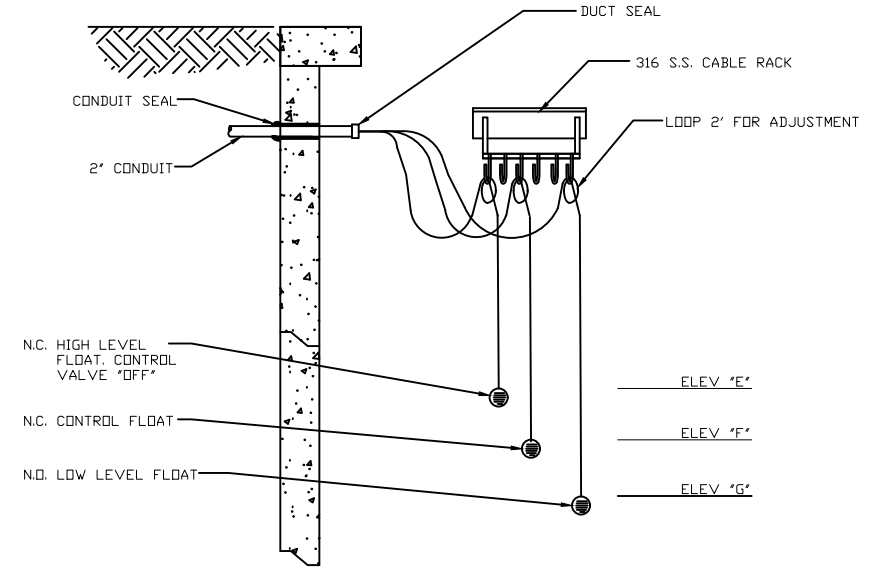


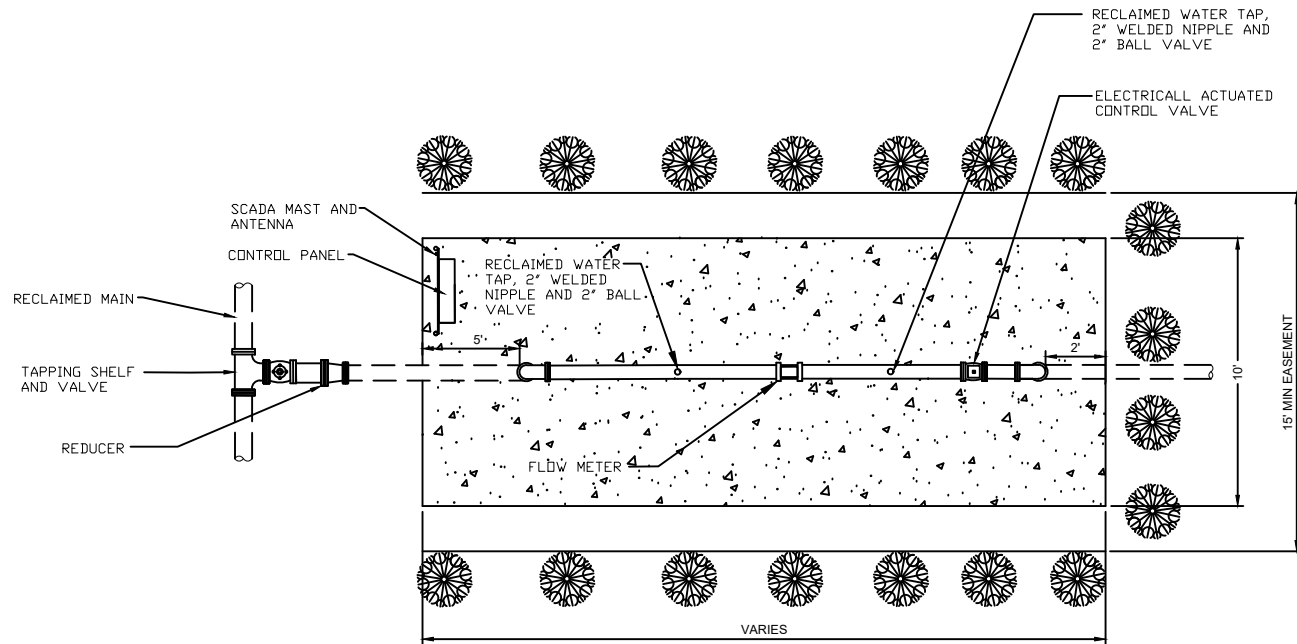
SECTION VIEW
NOT TO SCALE



CONNECTION DETAIL
NOT TO SCALE



FLOAT STABILIZER BRACKET DETAIL
NOT TO SCALE



PLAN VIEW
NOT TO SCALE

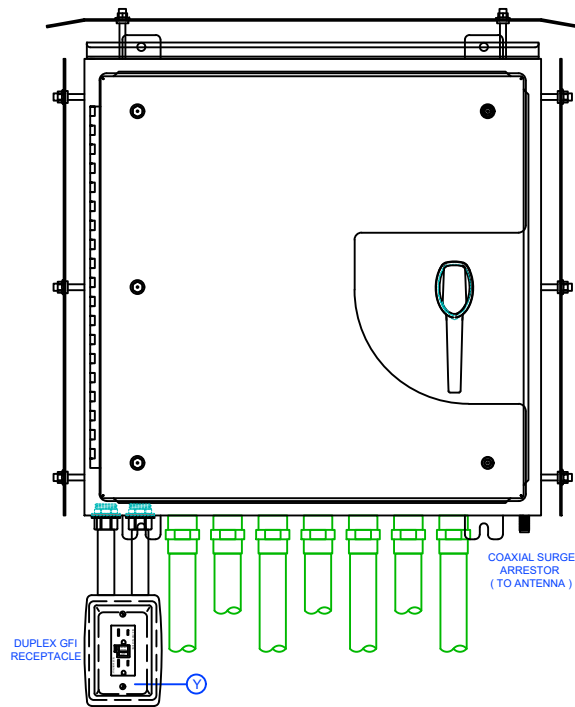
GENERAL NOTES:

- ALL WORK SHALL COMPLY WITH SPECIFICATIONS, SECTION 703, "RECLAIMED WATER DELIVERY STATIONS" IN JEA WATER AND SEWER STANDARDS MANUAL.
- PRECAST STRUCTURE SHALL MEET A S.T.M. C-478 STANDARD WITH 4,000 LB. CONCRETE TYPE II CEMENT. ALL LIFTING HOLES AND OUTSIDE INSERTS SHALL BE FILLED WITH NON-SHRINK GROUT AND COAT WITH BITUMINOUS WATERPROOFING MATERIAL.
- ALL PRECAST STRUCTURE JOINTS BELOW THE TOP SECTION SHALL INCLUDE A 6" WIDE (MIN) EXTERIOR JOINT TAPE (W/PRIMER)
- IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 24" (AT MIN) AND BACKED FILLED WITH AASHTO CLASS A-3 SOIL (COMPACTED TO 98%, ASTM D1557) OR OVER-EXCAVATE AN ADDITIONAL 12" (AT MIN) AND BACK FILL WITH GRANULAR BACK FILL (57 STONE).
- PIPING ABOVE GROUND SHALL BE 316 S.S. AND PIPING BELOW GROUND SHALL BE C-900 DR-25 OR DR-18. FITTING SHALL BE DUCTILE IRON.
- A FLANGED SPOOL PIECE WITH A MINIMUM LENGTH OF FIVE PIPE DIAMETER SHALL BE INSTALLED ENTERING THE FLOW METER AND A FLANGED SPOOL PIECE WITH A MINIMUM LENGTH OF THREE PIPE DIAMETERS SHALL BE INSTALLED EXITING THE FLOW METER AND A FLANGED SPOOL PIECE WITH A MINIMUM LENGTH OF THREE PIPE DIAMETERS SHALL BE INSTALLED EXITING THE CONTROL VALVE.
- FLOW METER, CONTROL VALVE, ORIFICE PLAT AND CONTROL PANEL TO BE PURCHASED FROM JEA APPROVED VENDOR.
- DIMENSION "L" TO BE DESIGNED BY ENGINEER.
- JE A TO FURNISH AND INSTALL MAST, ANTENNA AND PRESSURE TRANSDUCERS.
- SUBMIT SHOP DRAWINGS FOR CONTROL PANEL, LAKE LEVEL BOX AND CONTROL VALVE.
- SUBMIT RECORD DRAWINGS SHOWING FINISHED ELEVATIONS, COORDINATES OF CORNERS OF STRUCTURES, AND COORDINATES OF EASEMENT.
- ALL REQUIREMENTS OF JEA "RULES AND REGULATIONS FOR WATER, SEWER AND RECLAIMED WATER SERVICES", LATEST EDITIONS, INCLUDING TAGGING, LABELS, SIGNAGE, PAINTING OF EXPOSED PIPING PANTONE PURPLE NO. 522, ETC. SHALL BE COMPLETED BEFORE DELIVERY STATION IS ACCEPTED.
- PLACE GEOTEXTILE FABRIC AND SAND CEMENT BAGS OVER MAINTENANCE BERM. SIDE SLOPE OF BERM SHALL NOT BE LESS THAN 2:1. EXTEND BAGS TO TOP OF BERM AND T 2- FEET BEYOND POINT WHERE SIDE OF BERM MEETS EXISTING GROUND.
- TYPE "C" PRECAST INLET BOX SHALL BE FURNISHED WITH AN ENVIRONMENT COMPOSITE, INC. MODEL CNFM NON-TRAFFIC RATED FIBERGLASS GRATE, 32LB MAX., IN LIEU OF A C.I. STORM GRATE (USE JEA APPROVED PRECASTERS).
- CONTROL FLOATS SHALL BE SJE RHOMBUS SIGNALMASTER CONTROL SWITCH, 40' CORD LENGTH, MIN. TWO FLOATS SHALL BE NORMALLY CLOSED TYPE, AND ONE SHALL BE NORMALLY OPEN TYPE.

DELIVERY STATION PIPE/VALVE CAPACITY	
NOMINAL SIZE	PEAK DELIVERY RATE (GPM)
4-INCH	375
6-INCH	900
8-INCH	1500

ELEVATIONS		
LOCATION	ITEM	ELEVATION
'A'	SLAB	
'B'	LAKE LEVEL BOX-TOP	
'C'	LAKE LEVEL BOX-BOTTOM	
'E'	HIGH LEVEL FLOAT	
'F'	CONTROL FLOAT	
'G'	LOW LEVEL FLOAT	

		DESIGN ENGINEER	FLORIDA REGISTRATION NO.
		DRAWN BY	CHECKED BY
NO. SHEETS	SHEET NO.	DRAWING NO.	DATE
RECLAIMED WATER DELIVERY STATION DETAILS PIPING LAYOUT		PROJ. NO. DATE SCALE	REVISIONS NO. BY DATE



- GENERAL NOTES:**
- REFER TO "REUSE STATION CONTROLS SPECIFICATION" FOR FURTHER DETAILS THAT MUST BE ADHERED TO.
 - THIS DRAWING IS AN EXAMPLE OF HOW OVERALL CABINET IS TO BE DESIGNED.
 - REFER TO NOTES AND DETAILS ON ALL DRAWING SHEETS.
 - ALL FIELD WIRING SHALL BE #14 AWG STRANDED, TIN-PLATED COPPER.
 - ALL PLC I/O WIRING SHALL BE #18 AWG.
 - ALL MOUNTING SCREWS SHALL BE DRILLED AND TAPPED (NO SELF-TAPPING SCREWS ARE ALLOWED).
 - ALL MOUNTING SCREWS SHALL BE STAINLESS STEEL.

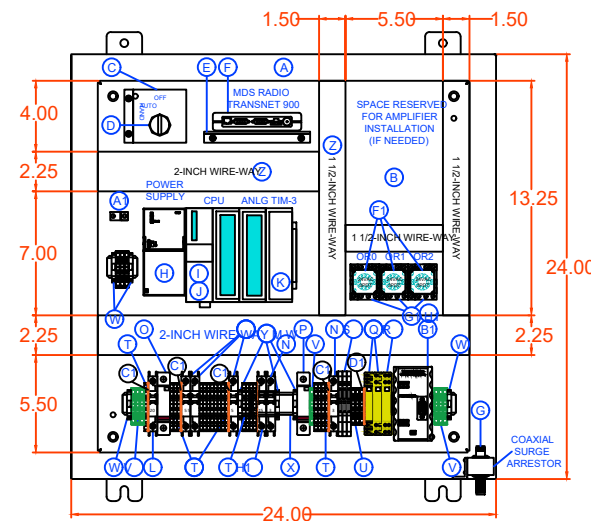
CONTROL WIRE UL508A COLOR:

RED - 120 VAC
 WHITE - NEUTRAL
 BLUE - +24 VDC
 WHITE / BLUE STRIPE - 0 VDC

DRAWING LAYER COLOR LEGEND:

GREY - NOTES
 BLACK - ELECTRICAL SCHEMATIC WIRING DIAGRAMS AND DEVICES
 BLUE - PART IDENTIFICATION
 PURPLE - WIRE NUMBERS
 GREEN - FIELD DEVICES AND WIRING OUTSIDE ENCLOSURE (DASHED)
 RED - FUTURE DEVICES AND WIRING
 TEAL - DIMENSIONS

FRONT PANEL VIEW



ENCLOSURE:
 SPN12AL-242410-1532 (24"H x 24"W x 10"D) NEMA 12/3R RATED, FABRICATED FROM 12S MARINE GRADE ALUMINUM WITH WHITE POLYESTER POWDER COAT FINISH INSIDE AND OUT. OUTER DOOR HAS 3-POINT PADLOCKABLE HANDLE. ENCLOSURE HAS ALUMINUM SUNSHIELDS MOUNTED ON TOP, FRONT, AND BOTH SIDES, AND INCLUDES A DRIPSHIELD.

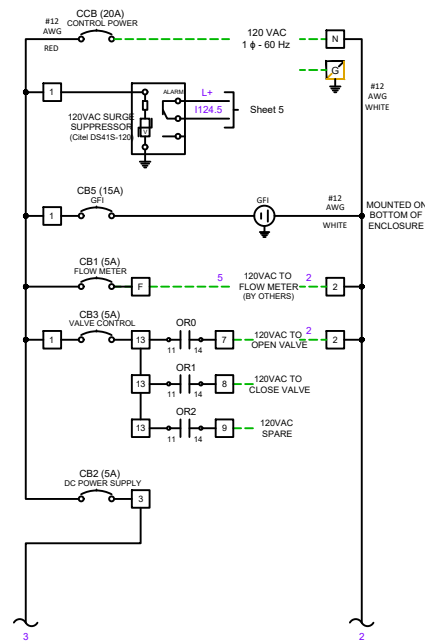
BACK PANEL:
 SPP-2424 (21"H x 21"W) FABRICATED FROM 12 GA. CARBON STEEL WITH WHITE INDUSTRIAL GRADE ENAMEL FINISH.

REFER TO ENCLOSURE SPECIFICATIONS FOR FURTHER DETAILS.

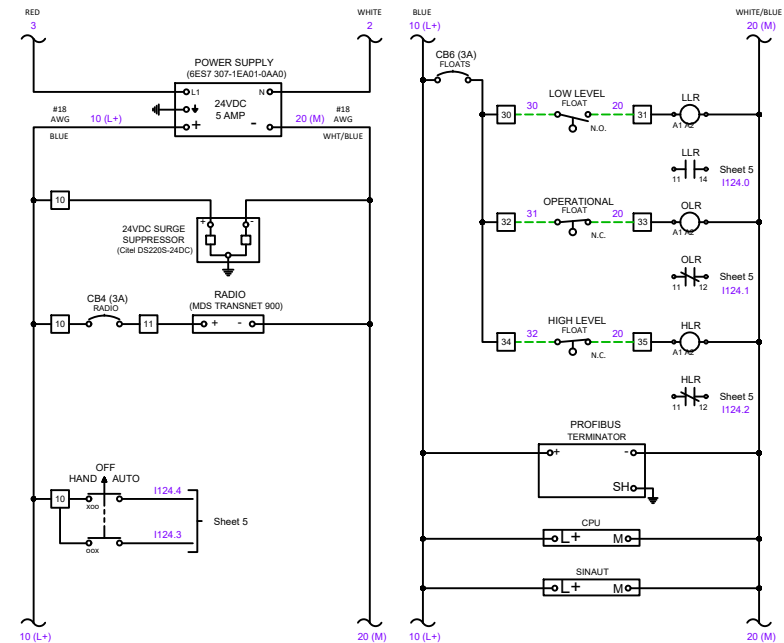
BILL OF MATERIALS

QTY	MANUFACTURER	PART NUMBER	DESCRIPTION
A 1	SCHAEFER	SPN12AL-242410-1532	ENCLOSURE, NEMA 12/3R, ALUM. WHITE
B 1	SCHAEFER	SPP-2424	BACK PANEL, CARBON STEEL, WHITE
C 1	ECS	-	CUSTOM SWITCH BRACKET
D 1	SQUARE D	8001 SKS43B	3 POSITION SWITCH, 30mm, MAINTAINED
E 1	SQUARE D	8001 KA1	CONTACT BLOCK, 1 NO., 1 N.C.
F 1	ECS	-	CUSTOM RADIO BRACKET
G 1	MDS	TRANSNET 900	SPEARED-SPECTRUM RADIO
H 1	MDS	TRANSNET 900	TRANSNET 900
I 1	SIEMENS	6ES7 331-7KF02-0AB0	ANALOG INPUT MODULE, 8 CHANNEL
J 1	SIEMENS	6ES7 392-1BM01-0AA0	40-PIN SCREW CONNECTOR
K 1	SIEMENS	6ES7 390-1AE80-0AA0	480mm MOUNTING RAIL FOR PLC
L 1	MOLEX	1201 030 100 (PARD01-4)	PROFIBUS CONNECTOR, 90-DEGREE
M 3	SIEMENS	6NH7 800-3BA00	SINAUT ST7 MODULE, TM 3V4E
N 2	PHOENIX CONTACT	2907573	CB, 1 POLE, 20A, BRANCH RATED, UL489
O 1	PHOENIX CONTACT	2907562	CB, 1 POLE, 5A, BRANCH RATED, UL489
P 1	PHOENIX CONTACT	2907569	CB, 1 POLE, 3A, BRANCH RATED, UL489
Q 1	CITEL	DS415-120	120VAC SURGE SUPPRESSOR
R 1	CITEL	DS2205-24DC	24VDC SURGE SUPPRESSOR
S 1	CITEL	DLAW-24D3	ANALOG SURGE SUPPRESSOR
T 1	CITEL	DLA-06D3	PROFIBUS SURGE PROTECTOR
U 3	FINDER	4CF190246099	RELAY, 24VDC, INDICATOR, SCREW
V 20	WAGO	2002-1401	TERMINAL, SINGLE, SCREW, BEIGE
W 3	WAGO	2002-1201	TERMINAL, DOUBLE, SCREW, BEIGE
X 6	WAGO	2002-1201	TERMINAL, GROUND, SCREW, GRN / YEL
Y 4	WAGO	249-116	TERMINAL, END RETAINER, BEIGE
Z 1	WEIDMULLER	DS14 50 0000	DR RAIL, GALVANIZED, SLOTTED
AA 1	PHUBBELL	GFWR202W	DUPLEX GFCI RECEPTACLE, 20 AMP
AB 1	PANDUIT	HDXL08 / H1 5X3L06	WIRE-WAY, HINGED COVER, WIDE FINGER
AC 1	PANDUIT	LAMA2-14-QY	GROUND LUG, DUAL RATED, #2-14 AWG
AD 1	PROCENTEC	101-0021A	PROFIBUS TERMINATOR RESISTOR
AE 1	WAGO	2002-1492	TERMINAL END / PARTITION PLATE
AF 1	WAGO	2002-2292	TERMINAL END / PARTITION PLATE
AG 3	SQUARE D	RUMC32B0	RELAY, 24VDC, INDICATOR, SCREW
AH 3	SQUARE D	RUZSC3M	RELAY BASE, PLUG-IN, 11 PIN
AI 3	SQUARE D	RUM241P7	RC CIRCUIT, 110-240VAC
AJ 1	PHOENIX CONTACT	2907571	CB, 1 POLE, 15A, BRANCH RATED, UL489

BACK PANEL LAYOUT



120 VAC VOLTAGE



24 VDC VOLTAGE

DESIGNER: JEA sm
 DRAWN BY: JEA sm
 CHECKED BY: JEA sm
 DATE: JEA sm

DESIGN ENGINEER: JEA sm
 FLORIDA REGISTRATION NO.: JEA sm

NO. SHEETS: 1
 SHEET NO.: 1
 DRAWING NO.: 1

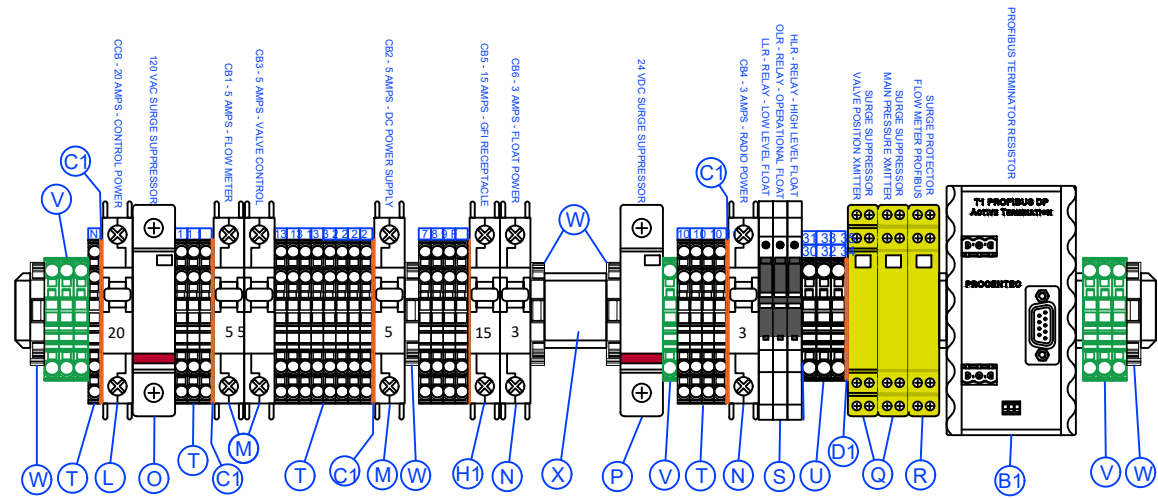
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 SCALE:

REVISIONS

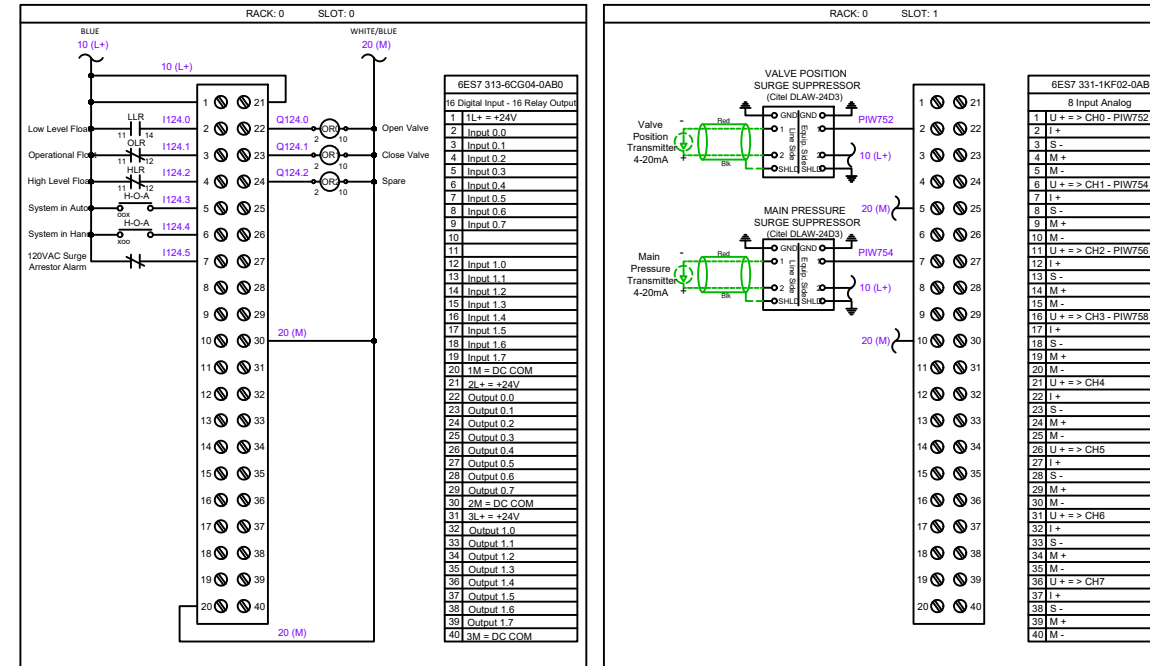
NO. BY DATE

RECLAIMED WATER DELIVERY STATION DETAILS
 ELECTRICAL SCHEMATIC

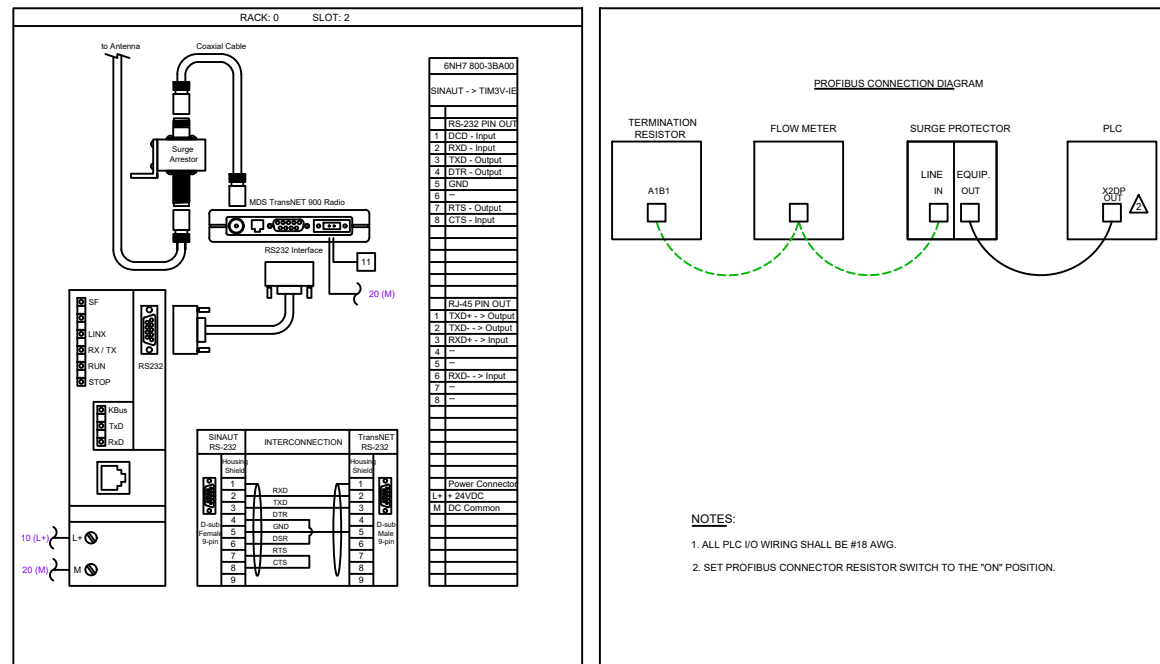
JEA sm
 Building Community



TERMINAL BLOCK LAYOUT



PLC INPUT - OUTPUT

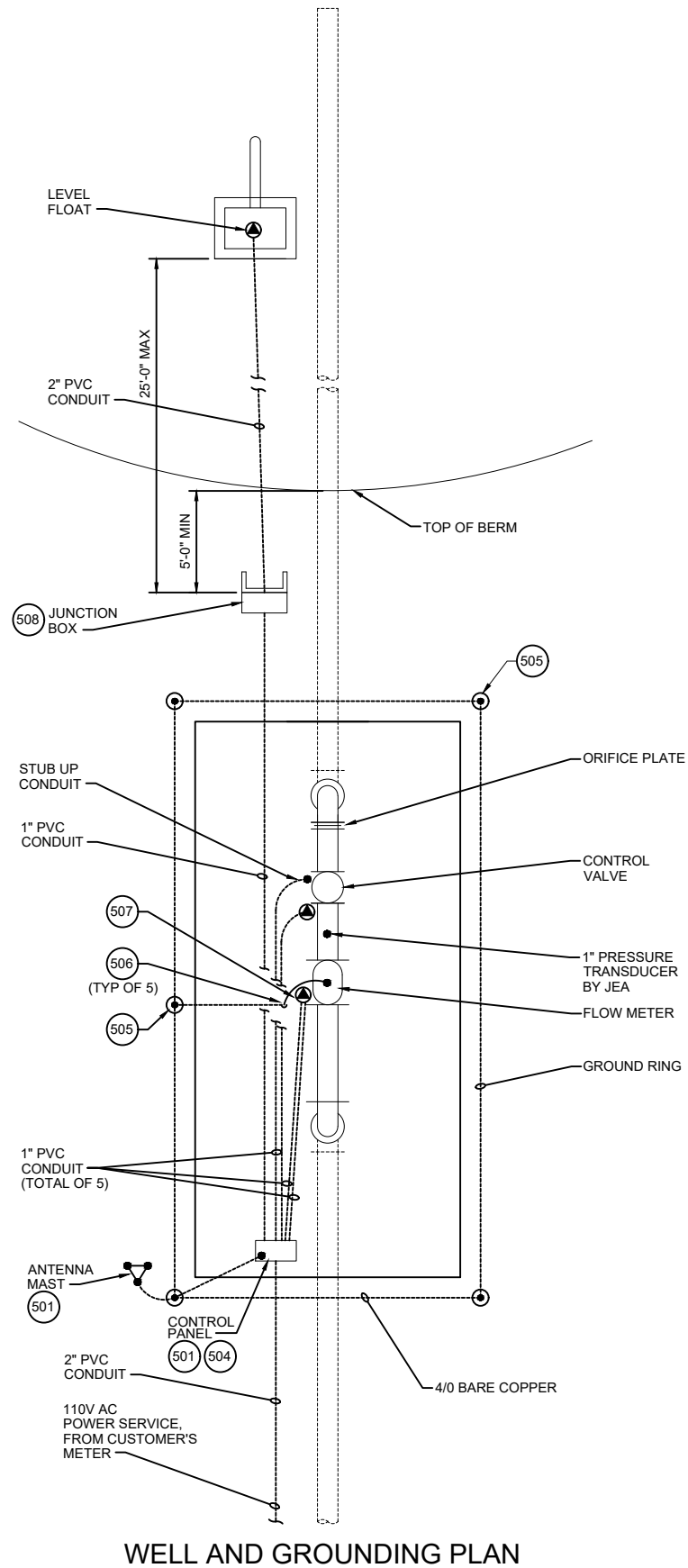


PLC LAYOUT & CONNECTION

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SHEET NO.	DATE:	DRAWN BY:	FLORIDA REGISTRATION NO.	4			
DRAWING NO.	SCALE:	CHECKED BY:		3			
		DATE:		2			
				1			



JEA STANDARD
RECLAIMED WATER DELIVERY STATION DETAILS
ELECTRICAL SCHEMATIC



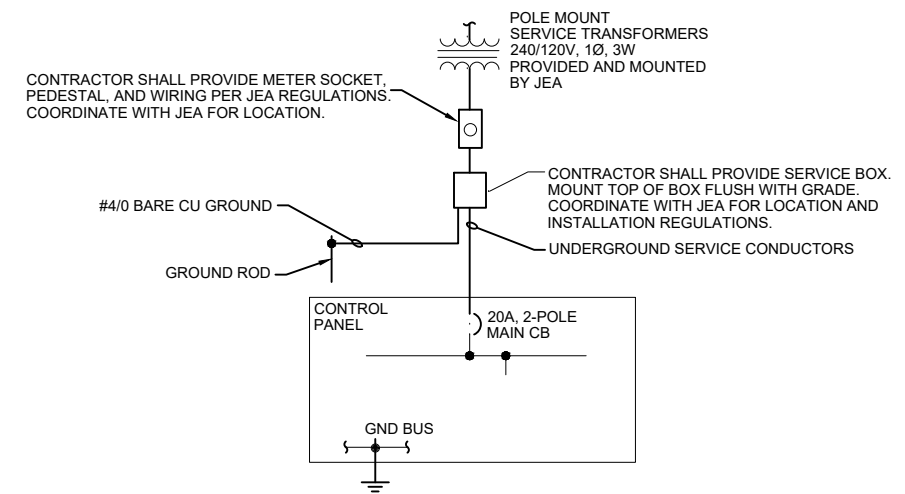
WELL AND GROUNDING PLAN

NOTES:

1. JEA TO FURNISH POLE MOUNTED SERVICE TRANSFORMERS. CONTRACTOR TO PROVIDE DIRECT BURIAL CONDUIT WITH CONDUCTORS FROM CONTROL PANEL TO SERVICE BOX. CONTRACTOR SHALL COORDINATE CONDUIT ROUTING, SERVICE TRANSFORMER LOCATION, AND SERVICE BOX LOCATION WITH JEA. (REVIEW JEA RULES AND REGULATIONS FOR ELECTRIC SERVICE). PROVIDE A MINIMUM OF 42" COVER FOR CONDUIT AND CONTACT JEA FOR INSPECTION 24 HOURS BEFORE BACKFILLING TRENCH.
2. CONTROL PANEL AND FLOW METER TO BE PURCHASED FROM JEA VENDOR AND INSTALLED BY CONTRACTOR.
3. ANTENNA, MAST, AND ANTENNA CABLES TO BE FURNISHED AND INSTALLED BY JEA. COORDINATE WITH JEA PRIOR TO SLAB CONSTRUCTION.
4. PROVIDE DEDICATED GROUND ROD FOR FLOW METER. FLOW TUBE TO BE GROUNDED TO SAME GROUND ROD.
5. ALL CONDUIT RUNS SHALL BE WITHIN OR BENEATH THE SLAB.
6. CONTRACTOR SHALL INSTALL ALL JEA PROVIDED INSTRUMENTATION/ EQUIPMENT IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL RELEVANT INSTALLATION DOCUMENTATION FROM JEA FOR ALL INSTRUMENTS/ EQUIPMENT AND IMPLEMENT MANUFACTURER'S RECOMMENDATIONS DURING INSTALLATION AND TESTING OF ALL INSTALLED INSTRUMENTS/EQUIPMENT.
7. PROVIDE SCHEDULE 80 PVC CONDUIT BELOW AND ABOVE THE SLAB. CONTRACTOR SHALL CONTACT JEA 24 HOURS PRIOR TO POURING OF CONCRETE SLAB FOR INSPECTION OF UNDER SLAB CONDUITS.
8. PROVIDE GROUND WELLS WITH TRAFFIC RATED ENCLOSURES AND LIDS LABELED "GROUNDING".
9. CONTRACTOR SHALL PROVIDE ALL WIRING REQUIRED TO CONNECT OWNER FURNISHED INSTRUMENTS. CONTRACTOR SHALL VERIFY WIRING REQUIREMENTS WITH THE OWNER'S INSTRUMENT SUPPLIER.

CONTROL CONDUIT SCHEDULE			
QUANTITY	SIZE	LOCATION	WIRES
1	1"	PANEL TO CONTROL VALVE (SOLENOID VALVE)	3 #16 (WHITE, BLUE, RED) + GROUND
1	1"	PANEL TO CONTROL VALVE (POSITION INDICATOR) & UPSTREAM PSI TRANSMITTER	CONDUIT TO BE TERMINATED WITH AN ACCESS TEE; PULL TWO (2) SEPARATE #18 TWISTED SHIELDED PAIR*
1	1"	PANEL TO FLOW METER	ONE(1) POWER CABLE + ONE(1) SIGNAL CABLE, FURNISHED WITH ENDRESS HAUSER MAGNETIC FLOWMETER.
1	1"	PANEL TO JUNCTION BOX	FOUR(4) #16 (WHITE, BLUE, RED, ORANGE)
1	2"	JUNCTION BOX TO TYPE "C" LAKE INLET BOX	CONTROL CABLES FROM 3 LEVEL FLOATS

*JEA WILL BE RESPONSIBLE FOR FINAL WIRING TO CONTROL VALVE POSITION TRANSMITTER AND TO JEA-FURNISHED UPSTREAM PRESSURE TRANSMITTER



NOTES:

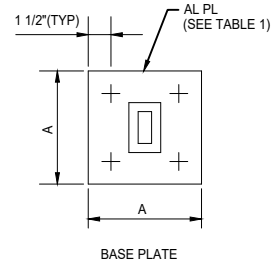
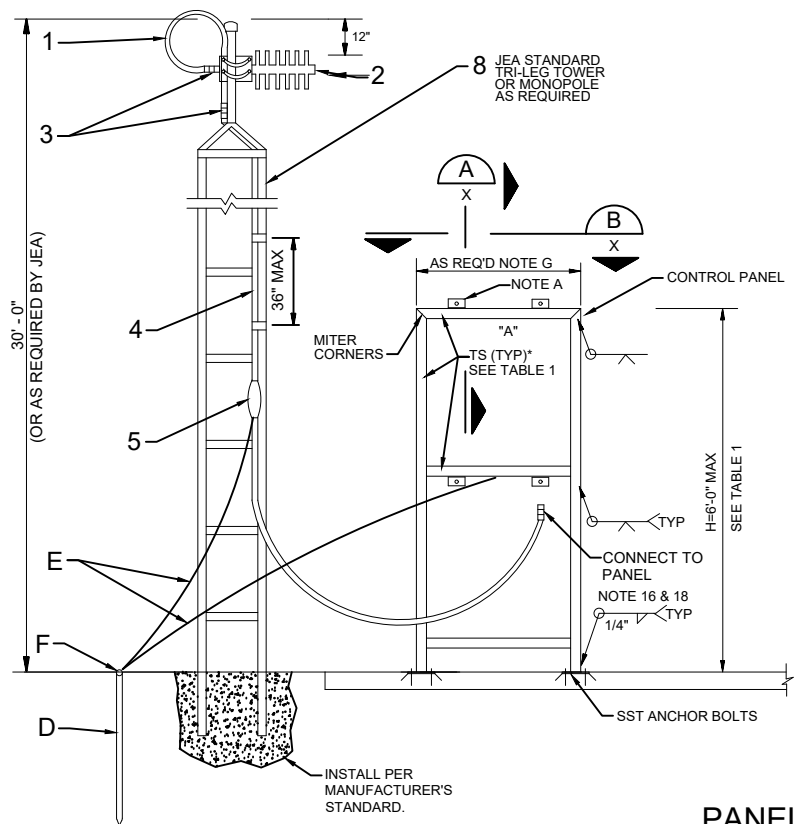
1. PROVIDE SERVICE ENTRANCE RATED MAIN BREAKER WITH TVSS.
2. PROVIDE (4) 20A-1 POLE CIRCUIT BREAKERS. (2-SPARE)
3. COORDINATE CIRCUIT BREAKER INTERRUPT RATINGS WITH UTILITY BEFORE INSTALLATION.

ONE LINE DIAGRAM

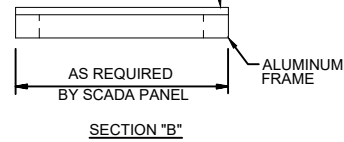
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SHEET NO.		DATE:	DRAWN BY:	
DRAWING NO.		SCALE:	CHECKED BY:	
			DATE:	
			FLORIDA REGISTRATION NO.	

JEA
Building Community

JEA STANDARD
RECLAIMED WATER DELIVERY STATION DETAILS
GROUNDING PLAN



22 GAGE ALUMINUM SHEET, SUNSHIELD. ATTACH WITH 3/8\"/>



HEIGHT "H"	ALUMINUM FRAME		
	TS (MIN SIZE)	BASE PLATE (IN)	
		A	t
6'-0" MAX.	TS 4 x 4 x .188	9	5/8

PANEL MOUNTING RACK & TYPICAL MAST POLE INSTALLATION
NTS

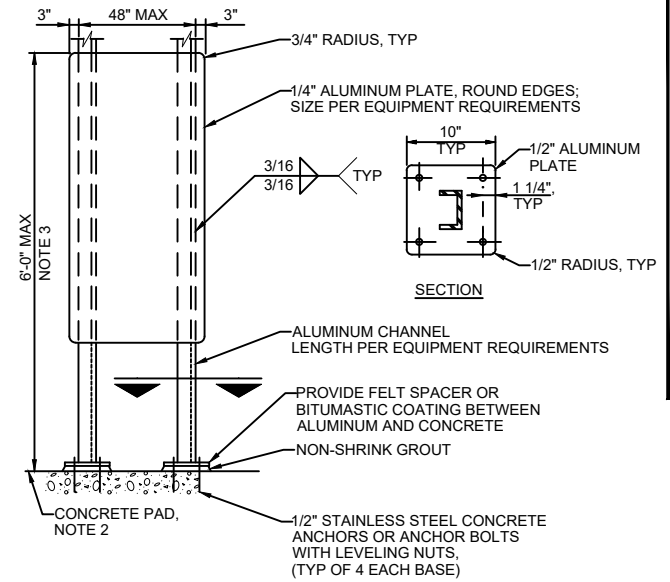
NOTES:
INSTALL THE FOLLOWING COMPONENTS AS PER MANUFACTURER INSTALLATION INSTRUCTIONS

- PROVIDE L 2 1/2"x 2 1/2"x 1/4"x 0'-3" WELD ALL AROUND TO TS: TYP AT EACH PANEL MOUNT.
- GRIND ALL WELDS AND SHARP CORNERS SMOOTH.
- PANEL OR INSTRUMENT FRONT FACES NORTH, UNLESS OTHERWISE NOTED.
- GROUND ROD, MANUFACTURER: APACHE MODEL NUMBER: GRS588, 20-FOOT LONG
- #4 SOLID COPPER GROUND WIRE, MANUFACTURER: COPPERWELD BIMETALLIC GROUP MODEL NUMBER: #4 COPPERWELD
- ACORN CLAMP, MANUFACTURER: RICHARDS MODEL NUMBER: ACRN-5/8
- DIMENSION AS REQUIRED BY SCADA PANEL PROVIDED BY JEA. DETERMINE LENGTH PRIOR TO FABRICATION.

JEA FURNISHES AND INSTALLS THE FOLLOWING:

- FLEX COAX JUMPER, MANUFACTURER: TESSCO MODEL NUMBER: SKU 45013
- YAGI ANTENNA, COMES W/ MOUNTING HARDWARE, MANUFACTURER: SCALA MODEL NUMBER: TY-900
- COAX CONNECTOR W/ BARREL ADAPTER, MANUFACTURER: RFS CABLEWAVE/AMPHENOL MODEL NUMBER: 738802/UG-29B
- 1/2" COAX CABLE, MANUFACTURER: WIRELESS SOLUTIONS MODEL NUMBER: W0500
- COAX GROUND, MANUFACTURER: WIRELESS SOLUTIONS MODEL NUMBER: WGK-S12
- COAX CABLE SHALL BE SECURED TO POLE VIA A STAINLESS STEEL BAND FASTENER AND A STAINLESS STEEL CABLE HARNESS.
- WHERE ANTENNA CABLE ENTERS PANEL INSTALL LIGHTNING ARRESTER (ANDREWS QUARTER WAVE SHORT STUB), JUMPER CABLE TO RADIO, AND CONNECTION TO GROUND
- JEA STANDARD TRI-LEG TOWER OR POLE MAST. POLE MAST SHALL BE CAST IN SLAB NEXT TO PANEL. POLE MAST REQUIRES 3-INCH SLEEVE IN SLAB. POLE SHALL BE FASTENED AND SUPPORTED BY PANEL STAND. COORDINATE WITH JEA PRIOR TO SLAB CONSTRUCTION.

501

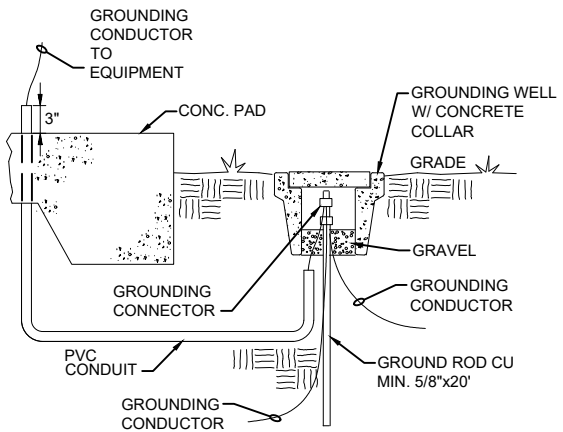


NOTES:

- USE STAINLESS STEEL MOUNTING HARDWARE. USE WASHER AND SPLIT LOCK WASHER UNDER ALL NUTS.
- PROVIDE A 4 INCH THICK CONCRETE PAD AT GRADE WITH WELDED WIRE FABRIC. THE PAD SHALL BE 12 INCHES LONGER THAN THE MOUNTING PLATE BY ONE HALF THE HEIGHT OF THE MOUNTING PLATE ABOVE FINISHED GRADE. MINIMUM WIDTH OF 24 INCHES.

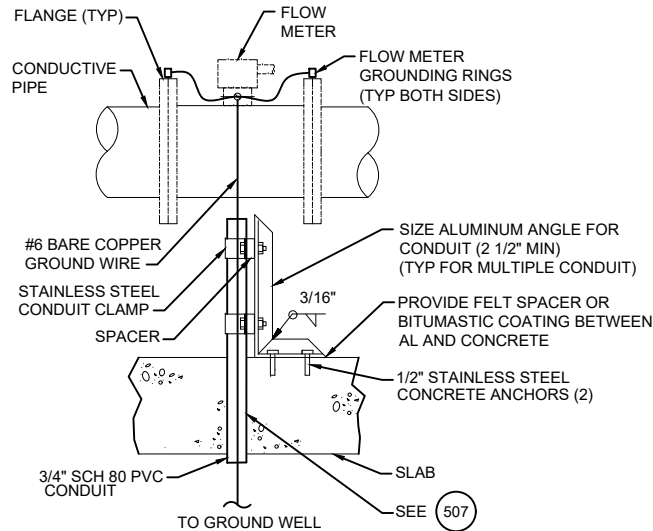
ELECTRICAL EQUIPMENT SUPPORT
NTS

504



GROUNDING CONNECTOR
NTS

505

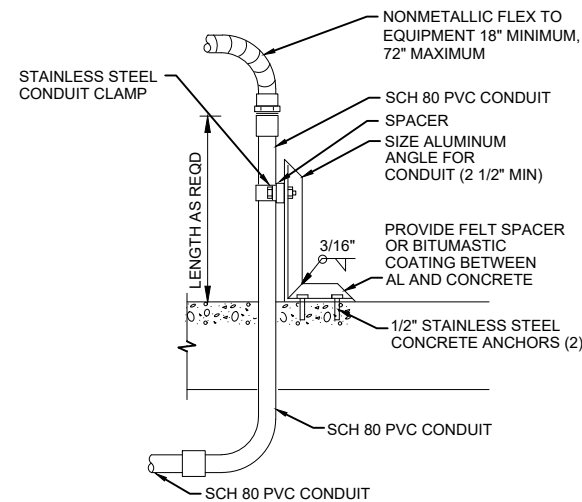


NOTES:

- GROUNDING SHALL COMPLY WITH NEC ARTICLE 250 AND ANY LOCAL APPLICABLE CODES.
- INSTALL GROUND WIRE CONTINUOUSLY THROUGH GROUND LUG. TIGHTEN LUG SCREW. GROUND WIRE SHALL EXTEND UP SUPPORT POST, AROUND SUNSHIELD TO BE TERMINATED ON GROUND WIRE TERMINAL STRIP WITHIN INSTRUMENT ENCLOSURE. SECURE GROUND WIRE TO SUPPORT POST VIA STAINLESS STEEL BAND FASTENERS WITH SCREW TYPE TIGHTENING MECHANISM.
- ALL GROUND FASTENERS, REGARDLESS OF TYPE (SECURING TO POST OR TO CONCRETE), SHALL BE STAINLESS STEEL.
- FOLLOW FLOW METER MANUFACTURER'S INSTRUCTIONS FOR EXTERNAL GROUNDING. FOR CONDUCTIVE PIPE, CONNECT BETWEEN THE GROUNDING TERMINAL AND BOTH ENDS OF THE GROUNDING RINGS WITH HEAVY COPPER BRAID OR WIRE.

TYPICAL GROUNDING DETAILS
NTS

506

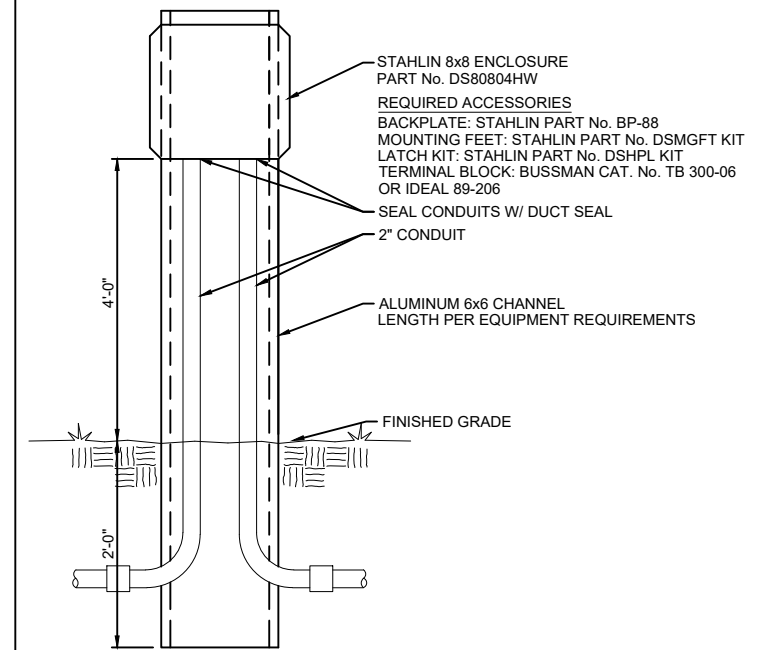


NOTES:

- PROVIDE SUPPORT FOR ALL PVC CONDUIT WITHIN 3 INCHES OF THE END OF THE CONDUIT.
- LOCATE CONDUITS IN CLOSE PROXIMITY TO TERMINATION POINT TO MINIMIZE LENGTH OF FLEXIBLE NON-METALLIC CONDUIT; MAXIMUM LENGTH OF 6' PER NEC.

CONDUIT TRANSITION AND SUPPORT DETAIL
NTS

507



NOTES:

- USE STAINLESS STEEL MOUNTING HARDWARE. USE WASHER AND SPLIT LOCK WASHER UNDER ALL NUTS.

FLOAT CONTROL JUNCTION BOX
NTS

508

		DESIGN ENGINEER	DATE	REVISIONS
		DRAWN BY	DATE	NO.
RECLAIMED WATER DELIVERY STATION DETAILS ELECTRICAL DETAIL		FLORIDA REGISTRATION NO.	DATE	NO.
		CHECKED BY	DATE	NO.
NO. SHEETS	PROJ. NO.	SCALE		
SHEET NO.	DATE			
DRAWING NO.				