

ROANE COUNTY LANDFILL MIDTOWN, TENNESSEE

LEACHATE COLLECTION & STORAGE IMPROVEMENTS MINOR MODIFICATION FEBRUARY 2020



LDA ENGINEERING

REV	DATE	REVISION DESCRIPTION

ROANE COUNTY LANDFILL
MIDTOWN, TENNESSEE
LEACHATE COLLECTION & STORAGE IMPROVEMENTS
MINOR MODIFICATION



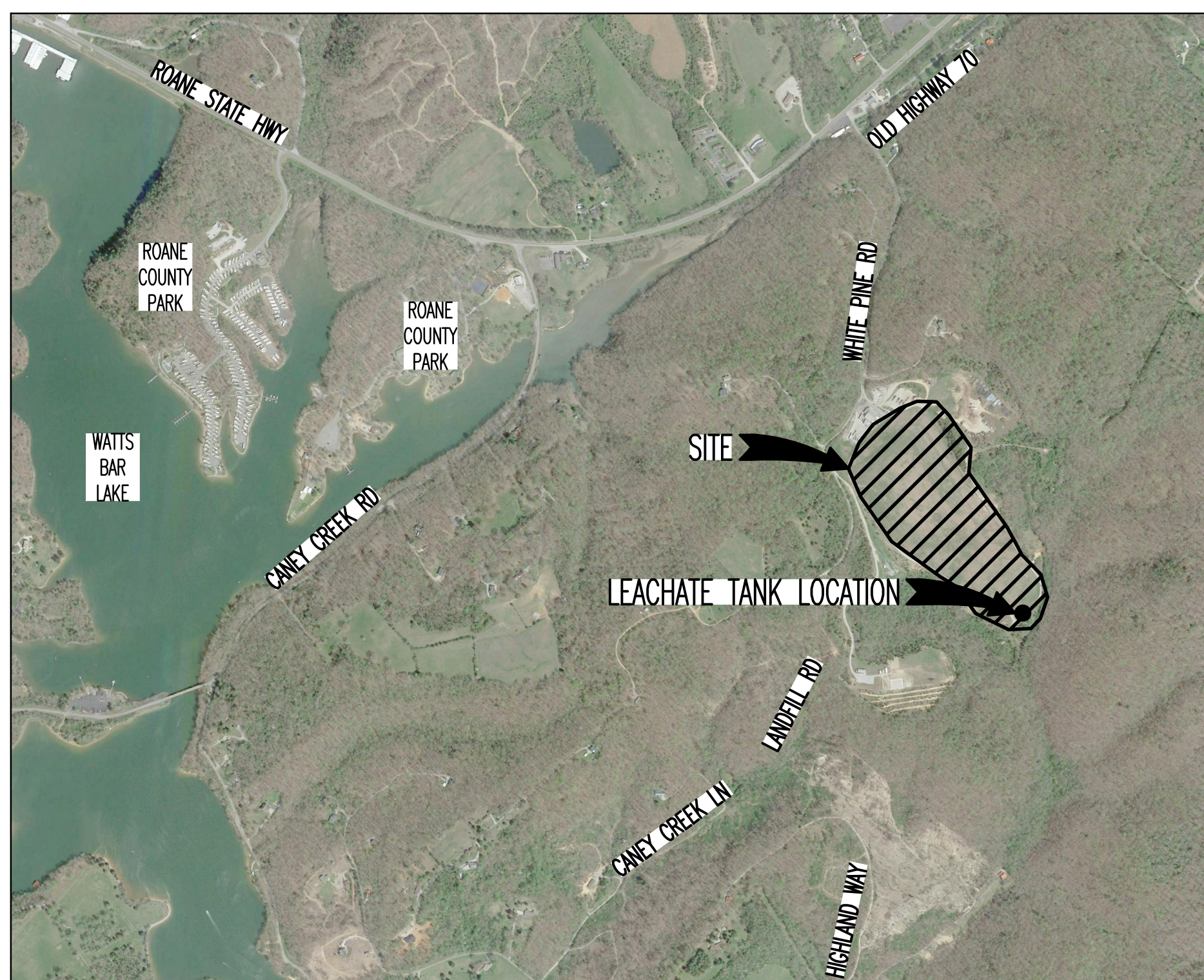
PROJECT NUMBER: RC0902	SCALE: AS SHOWN
DATE: 02/2020	DRAWN BY: CTN
DESIGNED BY: GSB	

SHEET TITLE:
COVER SHEET



DRAWING INDEX

1. COVER SHEET
2. SITE PLANS
3. TYPICAL DETAILS
4. ELECTRICAL SITE PLAN
5. ELECTRICAL NOTES, DETAILS, AND INTERCONNECTION DIAGRAM



LOCATION MAP:
SCALE: 1"=1000'

APPROVED BY: ROANE COUNTY

SIGNED: _____ DATE: _____



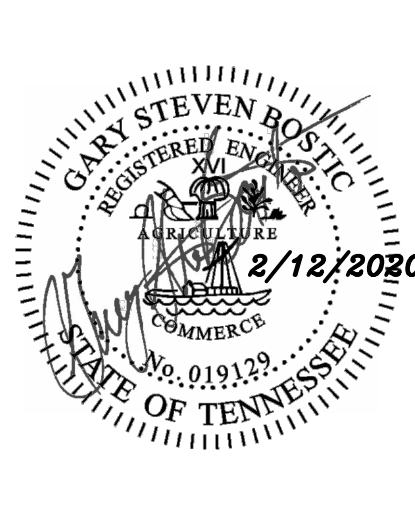
LDA ENGINEERING
110 TYSON BLVD SUITE 200
ALCOA, TENNESSEE 37701
TELEPHONE: 865-573-7672
FAX: 865-573-1352

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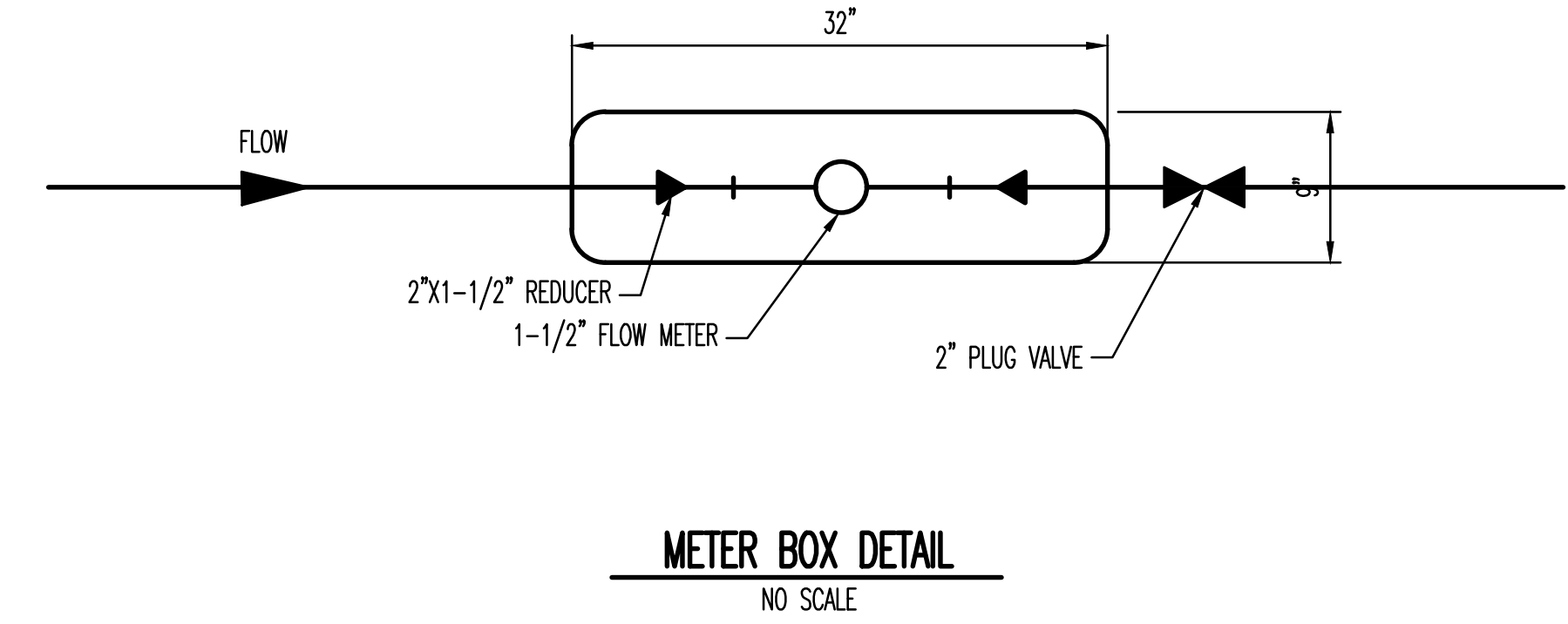
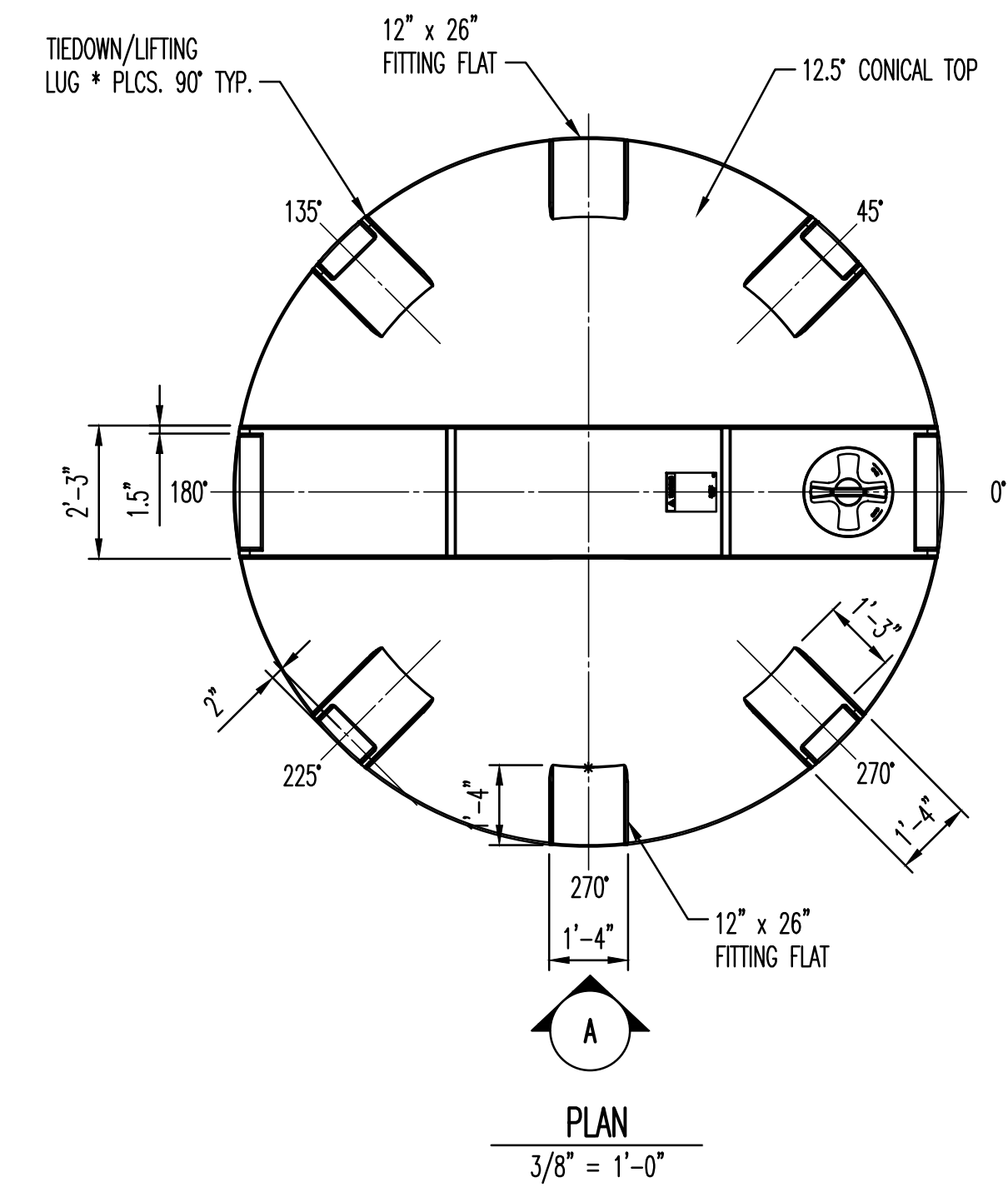
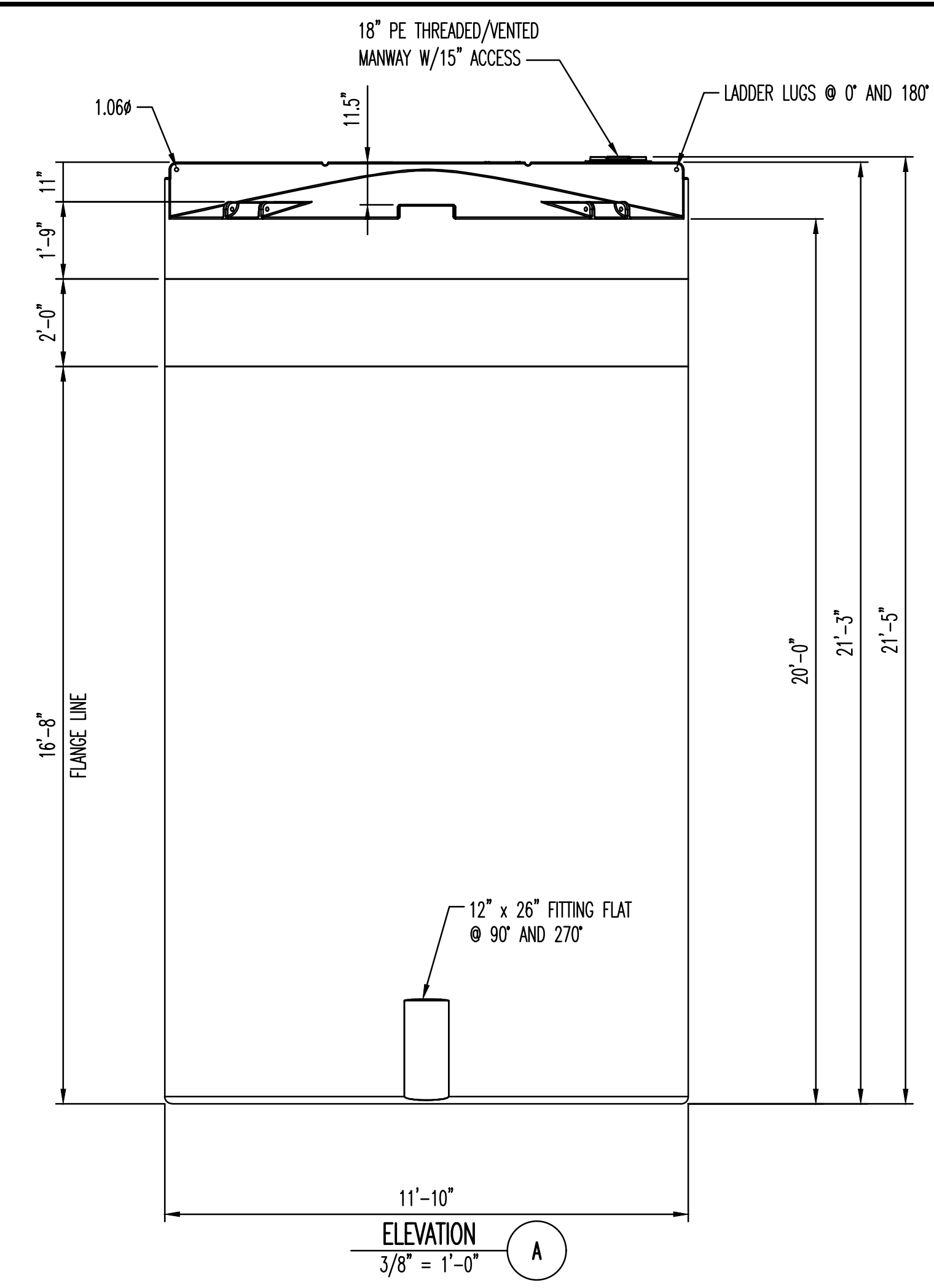
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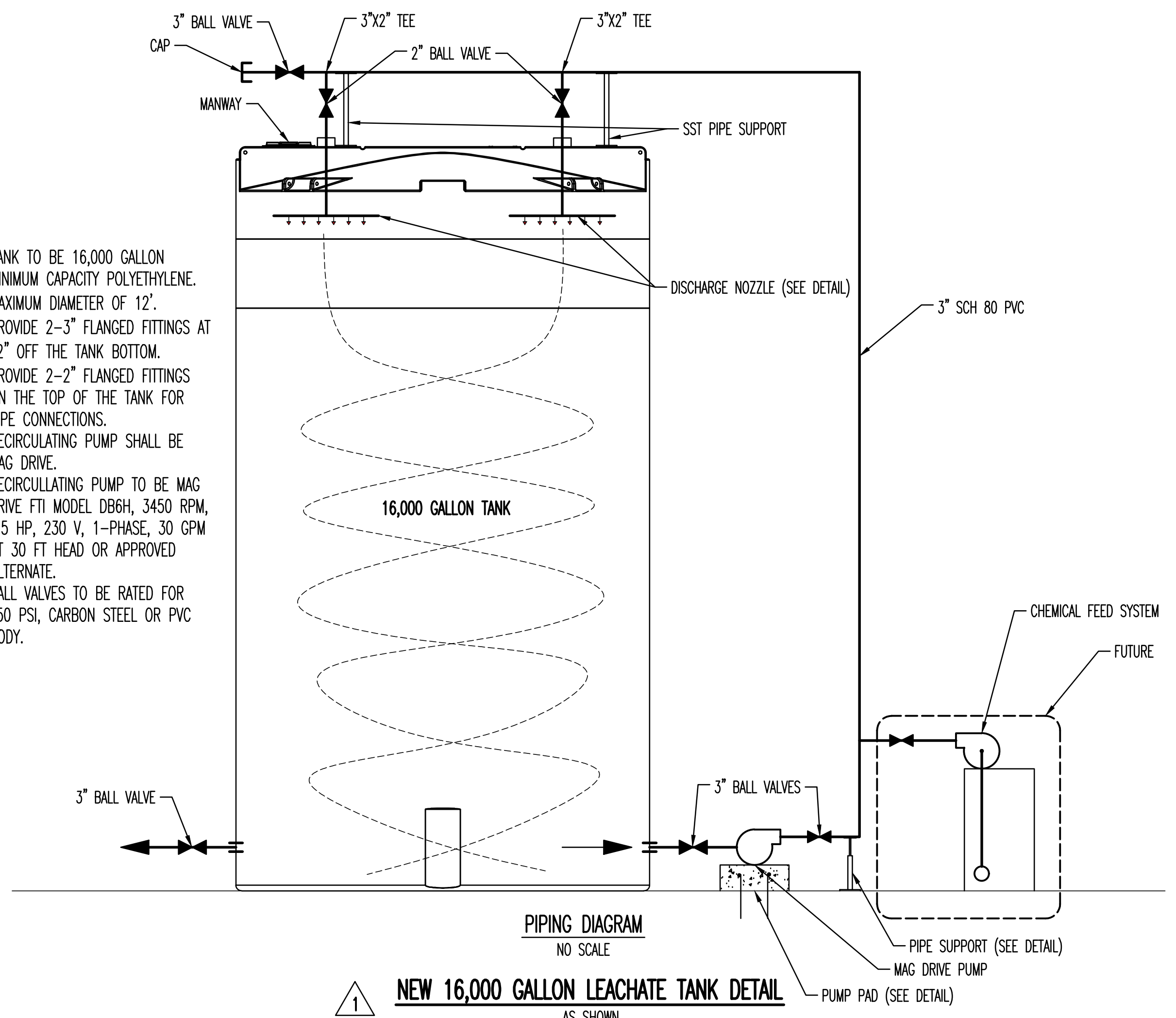
PROJECT NUMBER:	RC0902
DATE:	02/2020
SCALE:	AS SHOWN
DRAWN BY:	BAS
DESIGNED BY:	GSB

SHEET TITLE:
TYPICAL DETAILS

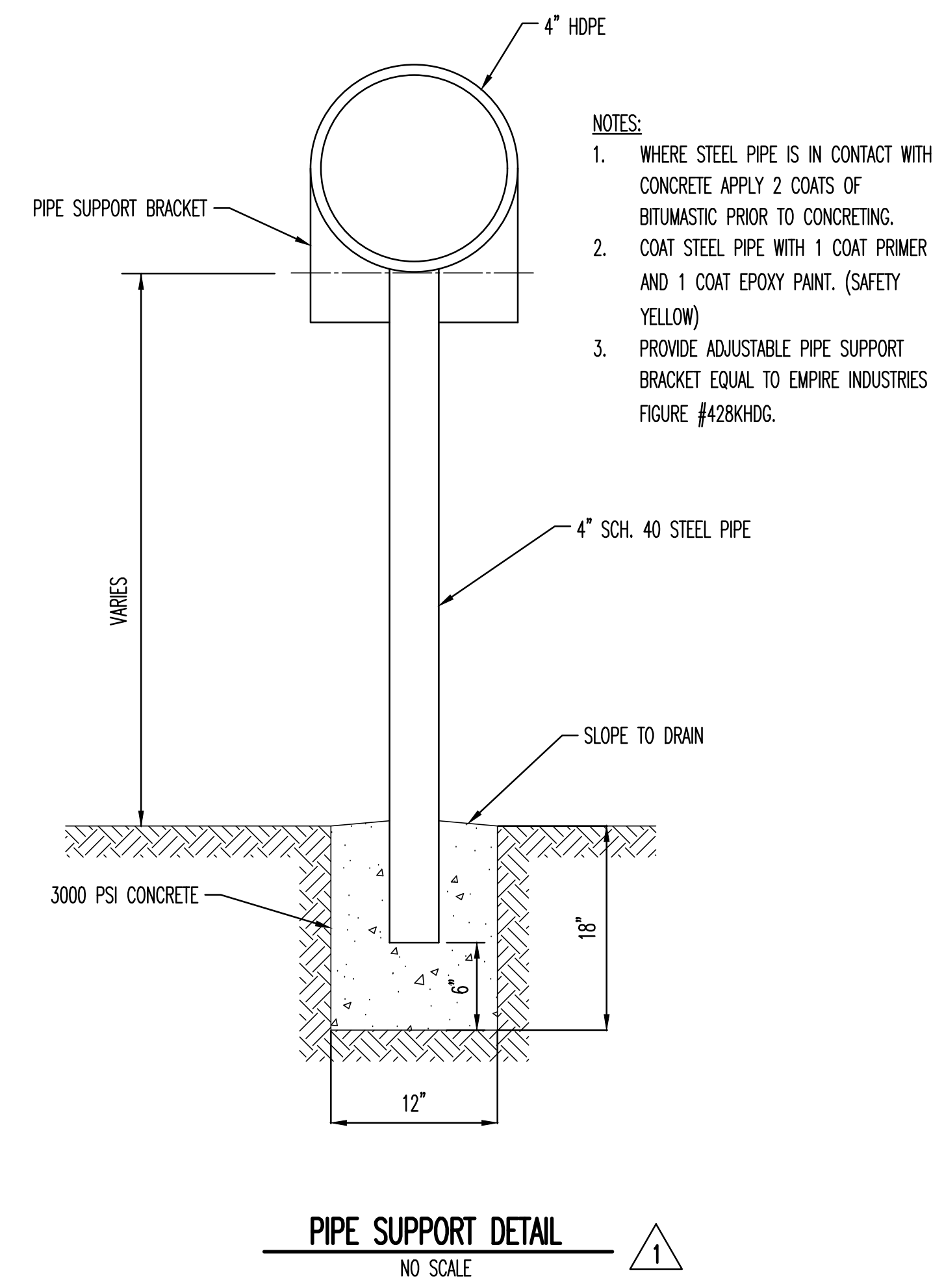
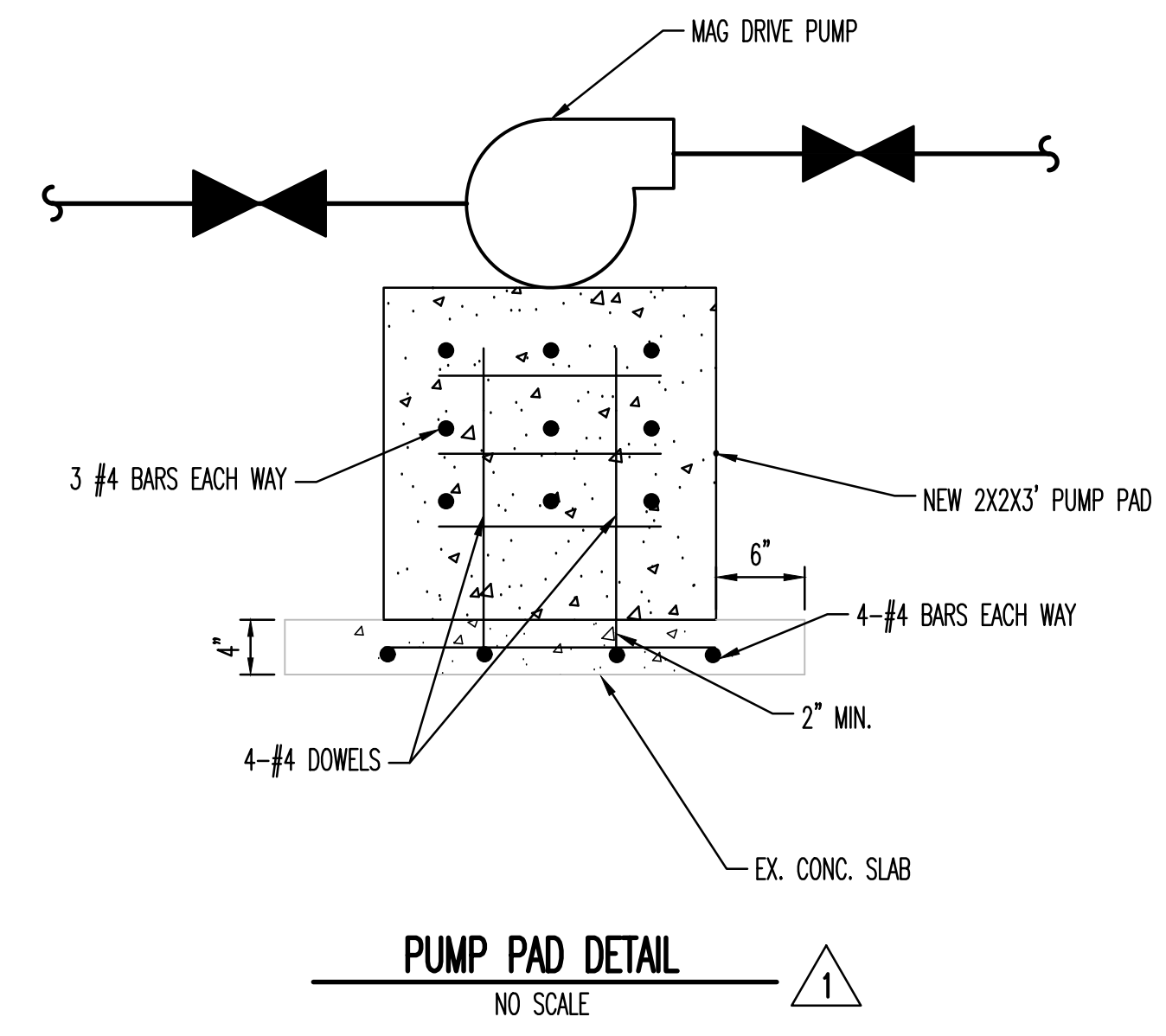
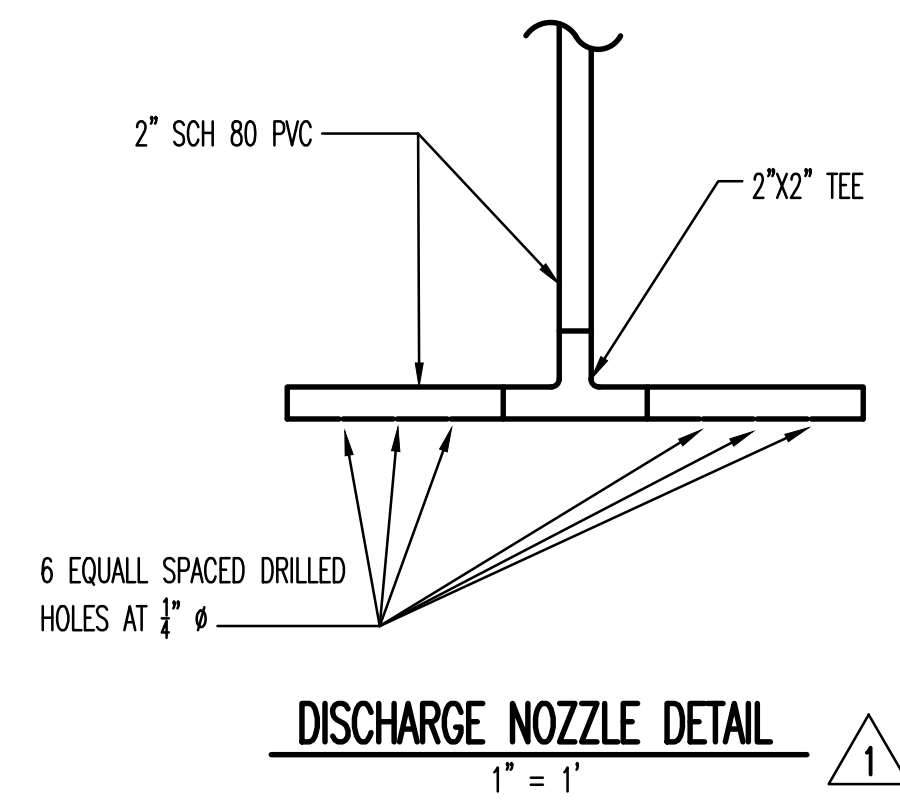


- NOTE:**
1. THE PHYSICAL LOCATION OF PENETRATIONS AND EQUIPMENT IN THE METER PIT IS STRICTLY SCHEMATIC AND DOES NOT REPRESENT ACTUAL LOCATIONS.
 2. CONTRACTOR SHOULD VERIFY LOCATIONS BEFORE INSTALLING ANY MATERIALS IN THE PIT.
 3. METER BOX TO BE QUAZITE BOX BY HUBBELL, LENOIR CITY TN DWG#PG1730BB30.

- NOTE:**
1. TANK TO BE 16,000 GALLON MINIMUM CAPACITY POLYETHYLENE. MAXIMUM DIAMETER OF 12'.
 2. PROVIDE 2-3" FLANGED FITTINGS AT 12" OFF THE TANK BOTTOM.
 3. PROVIDE 2-2" FLANGED FITTINGS ON THE TOP OF THE TANK FOR PIPE CONNECTIONS.
 4. RECIRCULATING PUMP SHALL BE MAG DRIVE.
 5. RECIRCULATING PUMP TO BE MAG DRIVE FTI MODEL DB6H, 3450 RPM, 0.5 HP, 230 V, 1-PHASE, 30 GPM AT 30 FT HEAD OR APPROVED ALTERNATE.
 6. BALL VALVES TO BE RATED FOR 150 PSI, CARBON STEEL OR PVC BODY.



NEW 16,000 GALLON LEACHATE TANK DETAIL
AS SHOWN



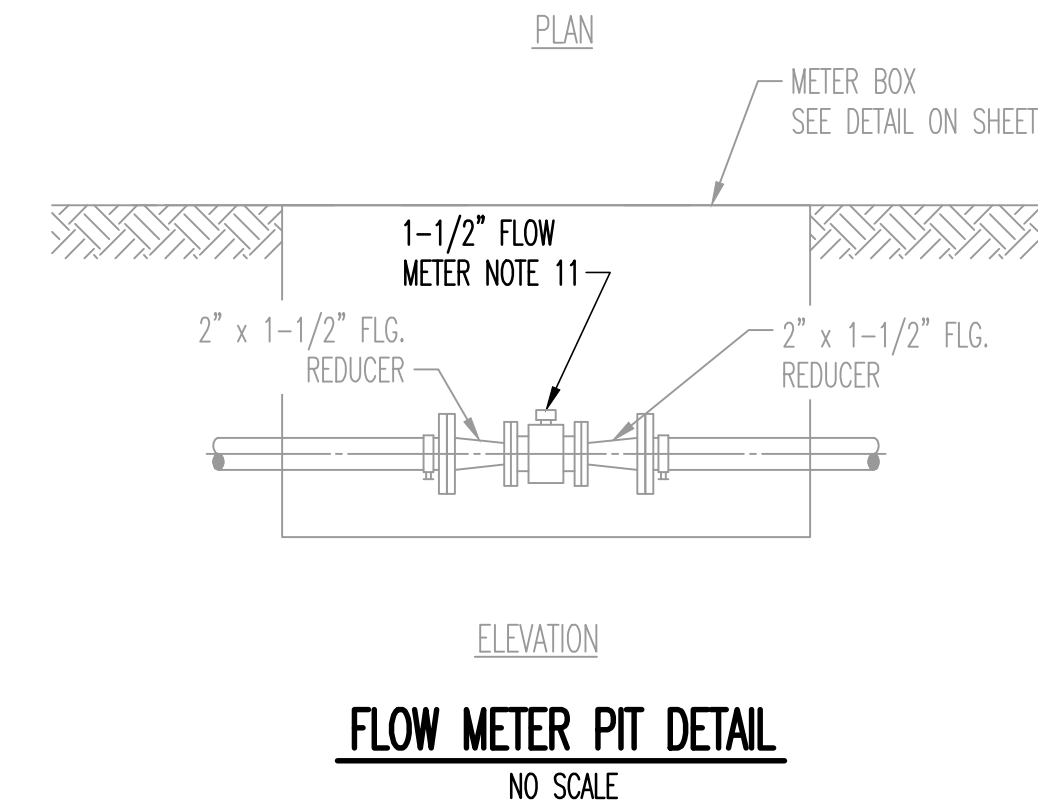
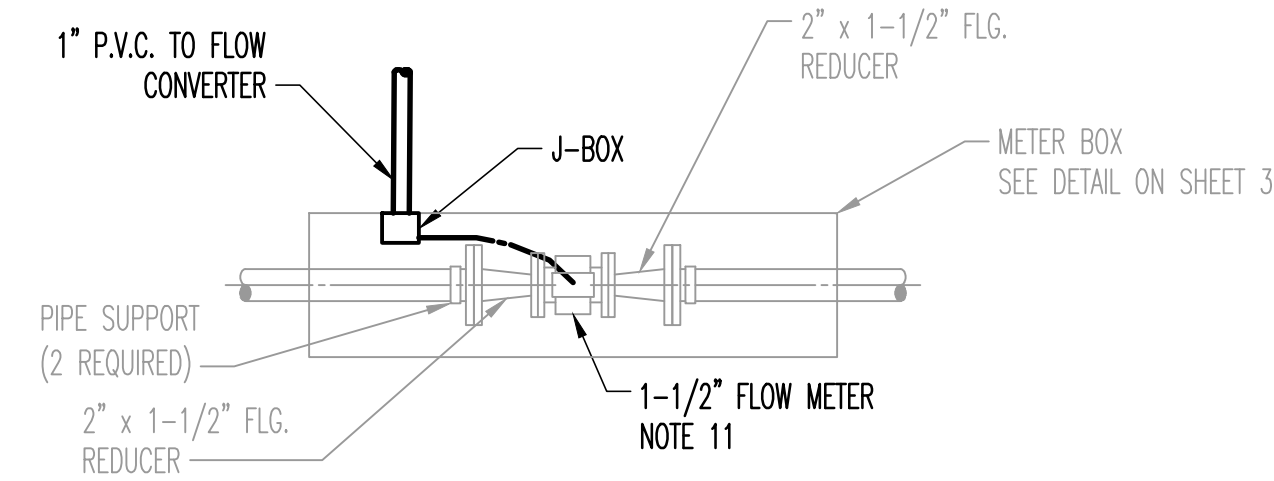
- NOTES:**
1. WHERE STEEL PIPE IS IN CONTACT WITH CONCRETE APPLY 2 COATS OF BITUMASTIC PRIOR TO CONCRETING.
 2. COAT STEEL PIPE WITH 1 COAT PRIMER AND 1 COAT EPOXY PAINT. (SAFETY YELLOW)
 3. PROVIDE ADJUSTABLE PIPE SUPPORT BRACKET EQUAL TO EMPIRE INDUSTRIES FIGURE #428KHDC.

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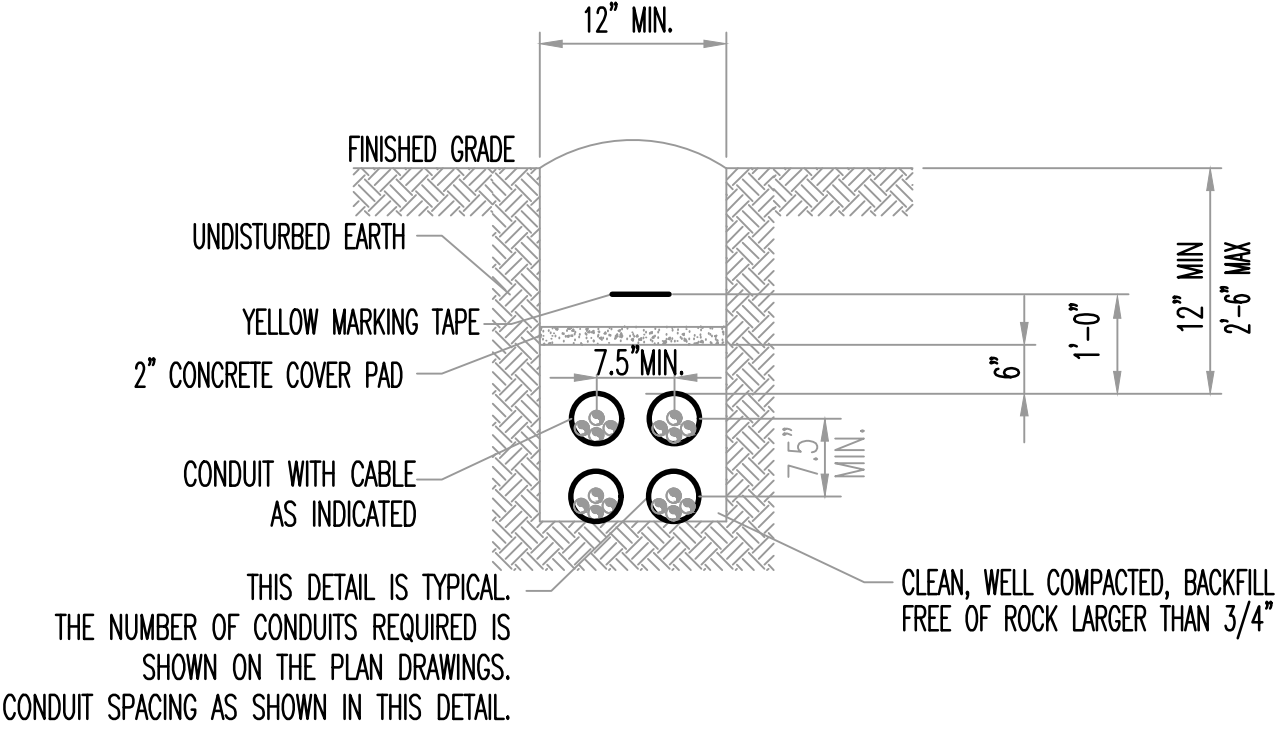
ELECTRICAL NOTES

- ALL CONDUCTORS SHALL BE #12 AWG XHHW/XHHW-2 COPPER MINIMUM UNLESS OTHERWISE SPECIFIED.
- ALL CONDUITS SHALL BE 1 INCH MINIMUM.
- ALL DUPLEX RECEPTACLE OUTLETS SHALL BE GFCI PROTECTED.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE NATIONAL ELECTRIC CODE, NFPA 70. SHOULD THE PLANS AND CODES CONFLICT, THE CODE TAKES PRECEDENCE. MAKE NO CHANGES EVEN IN THE CASE OF CONFLICT WITHOUT FIRST OBTAINING APPROVAL OF THE ENGINEER.
- MATERIAL SHALL BE LISTED AND LABELED BY UNDERWRITER'S LABORATORIES, INC. OR OTHER RECOGNIZED TEST FACILITY. EQUIPMENT SHALL BE IDENTIFIED FOR USE.
- INSTALL SPECIFIED EQUIPMENT AS NOTED ON THE DRAWINGS OR APPROVED ALTERNATE.
- USE RIGID METAL CONDUIT (RMC) OUTDOORS AND ABOVE GRADE OR IN CONCRETE SLABS. USE RIGID NON-METALLIC SCHEDULE 40 PVC WHEN RUN UNDERGROUND.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT EXISTING UTILITIES FROM DAMAGE. CONTRACTOR SHALL BEAR ALL EXPENSE FOR REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH THE COMPLETION OF THIS WORK.
- THIS ELECTRICAL STAND DETAIL IS TO REPRESENT GENERAL STAND CONSTRUCTION AND LAYOUT INFORMATION. IT IS NOT MEANT TO BE A COMPLETE REPRESENTATION OF EQUIPMENT OR SCOPE. THE CONTRACTOR SHALL VERIFY ACTUAL EQUIPMENT TO BE MOUNTED ON STAND FROM OTHER ENGINEERING DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL SUBMIT A DESIGN FOR EACH STAND, SHOWING THE SUPPLIED EQUIPMENT AND THE CORRECT ARRANGEMENT.
- CONTRACTOR TO FURNISH AND INSTALL SUITABLE SEALS ON ALL CONDUITS THAT ENTER AN ELECTRICAL PANEL THAT COME FROM THE WET WELL OR OTHER LOCATION THAT MAY CONTAIN CORROSIVE SEWER GAS OR MOISTURE. THIS SEAL SHALL PREVENT CORROSIVE GASES OR MOISTURE FROM ENTERING THE ELECTRICAL PANEL.
- MAGNETIC FLOW METER MANUFACTURED BY KROHNE. FLOW SENSOR IS OPTIFLUX 2000 AND SHALL BE IP68 SUBMERSIBLE PROTECTION WITH HARD-RUBBER LINER, HASTELLOY ELECTRODES AND 100 FT. SIGNAL CABLE AS MINIMUM LENGTH. FLOW TRANSMITTER (CONVERTER) IS KROHNE MODEL IFC100. VERIFY GROUNDING AND CONNECTION REQUIREMENTS WITH THE MANUFACTURER.
- CONTRACTOR TO FURNISH AND INSTALL THE ALARM RELAYS IN THE EXISTING CONTROL PANEL AS SHOWN. THE RELAYS SHALL BE IDEC RY2S-U-AC120V AND SOCKET SY2S-05 OR APPROVED ALTERNATE.
- CONTRACTOR TO FURNISH AND INSTALL ALARM MONITOR. THE ALARM MONITOR SHALL BE OMNIBEAICON - ALARM LIGHT WITH CELLULAR TRANSMITTER (120VAC VERSION) MANUFACTURED BY OMNISITE (www.Omnisite.com). THE UNIT SHALL BE INSTALLED IN A 10"x10"x8" NEMA 4 PVC ENCLOSURE AS SHOWN ON THE DRAWINGS. THE SUPPLIED BATTERY SHALL BE INSTALLED IN THIS ENCLOSURE. ALARM MONITOR SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- CONTRACTOR TO REPLACE EXISTING 40A 2-POLE WITH A NEW 80A 2-POLE CIRCUIT BREAKER.
- CONTRACTOR TO INSTALL A 10 FOOT EXTENSION TO THE TOP OF THE POWER DROP POLE (THE POLE WITH THE ELECTRIC METER). MOUNT THE ALARM MONITOR TO THE TOP OF THE POLE EXTENSION.

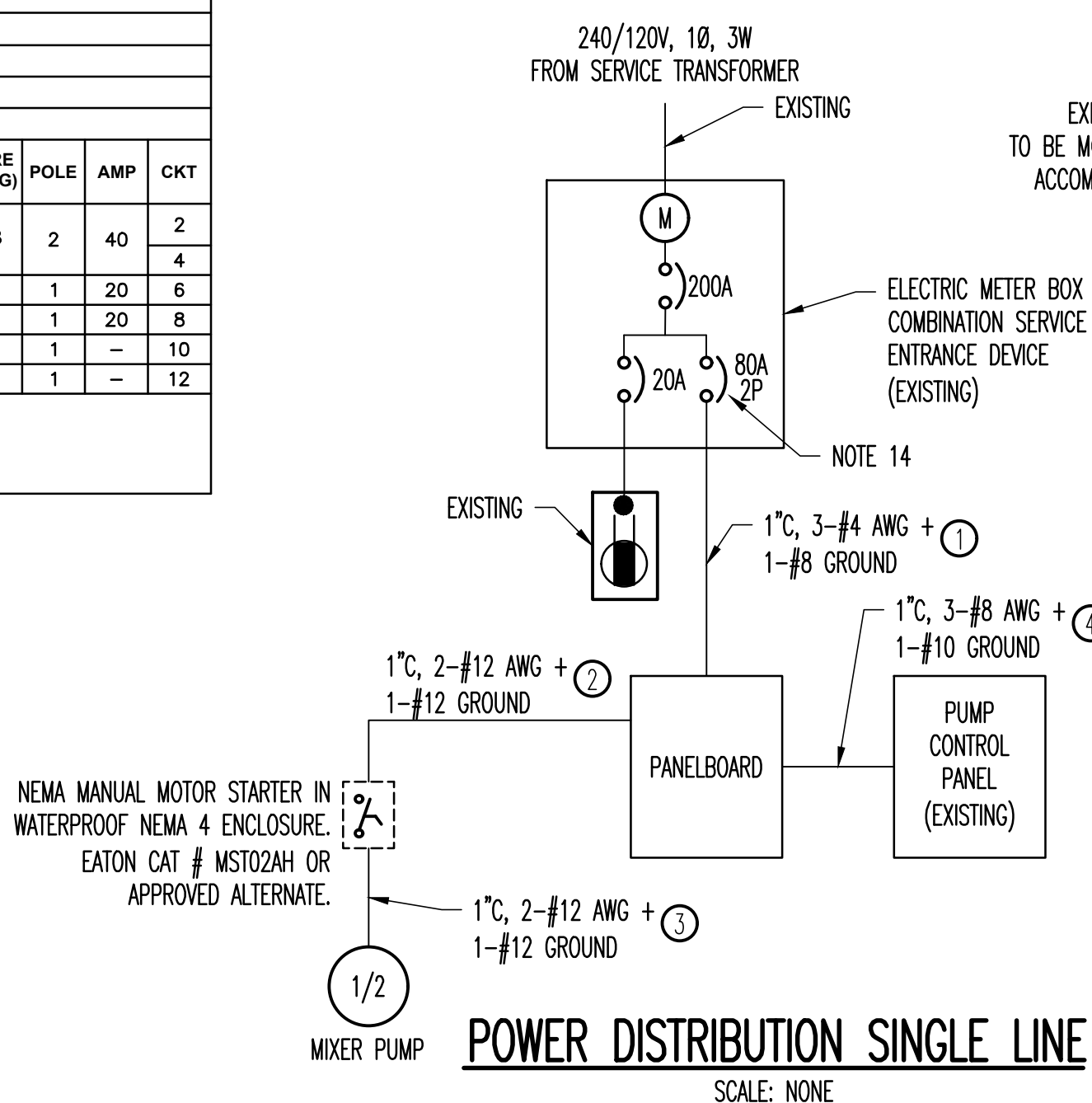
ROANE COUNTY LANDFILL PANEL SCHEDULE													
MAIN LUGS ONLY													
240/120 VOLT, SINGLE PHASE, THREE WIRE													
18,000 SYMMETRICAL AIC													
CKT	AMP	POLE	WIRE (AWG)	DESCRIPTION	LOAD	A	B	LOAD	DESCRIPTION	WIRE (AWG)	POLE	AMP	CKT
1	20	2	#12	MIXER PUMP	588	2838		2250	PUMP CONTROL PANEL	#8	2	40	2
3					588		2838	2250					4
5	20	1	#12	FLOW METER	500	500		0	CHEM FEED PUMP (FUTURE)		1	20	6
7	20	1	-	SPARE	0		0	0	SPARE		1	20	8
9	-	1	-	SPACE	0		0	0	SPACE		1	-	10
11	-	1	-	SPACE	0		0	0	SPACE		1	-	12
					3338	2838	WATTS						
							6176		WATTS				



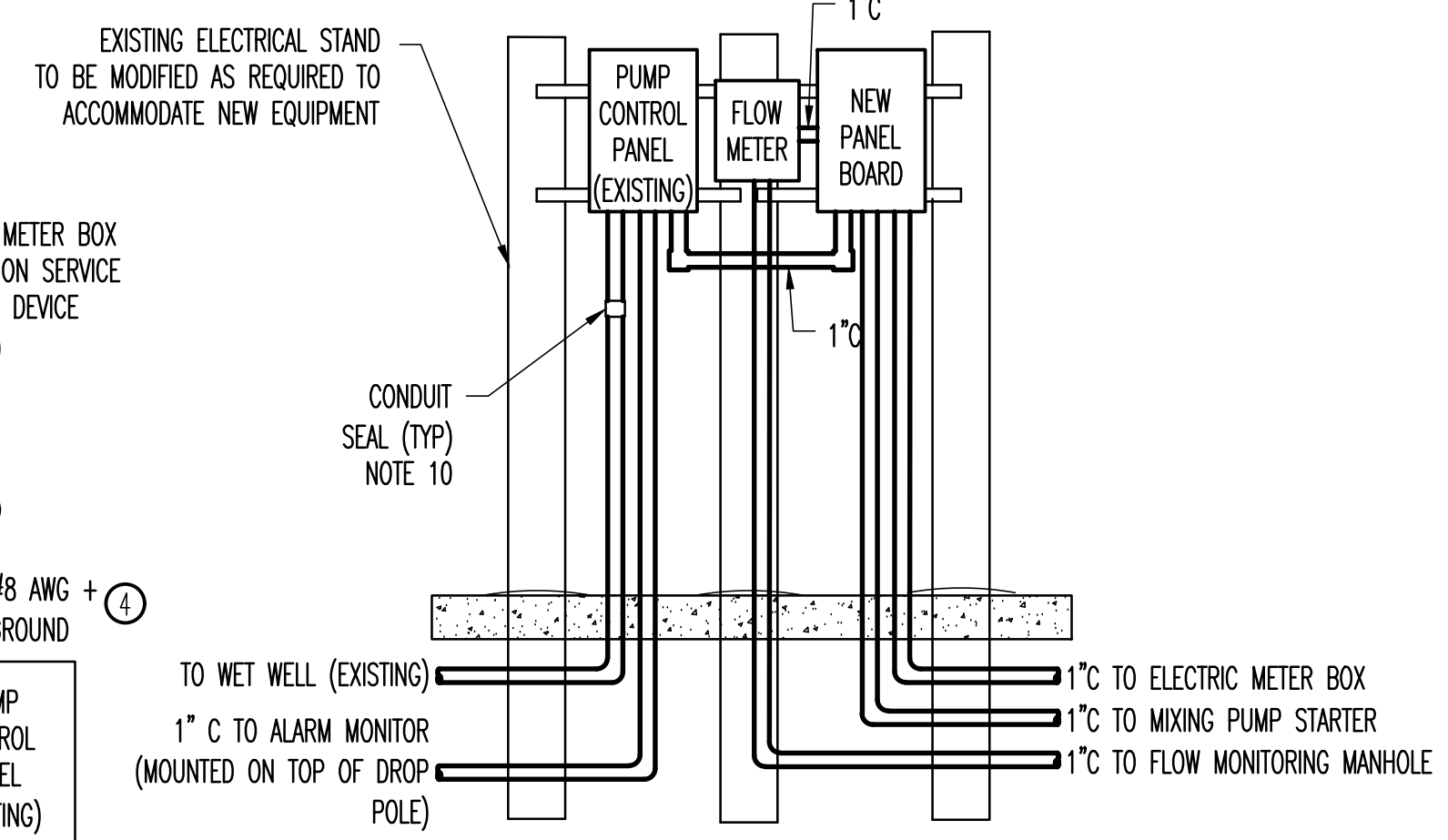
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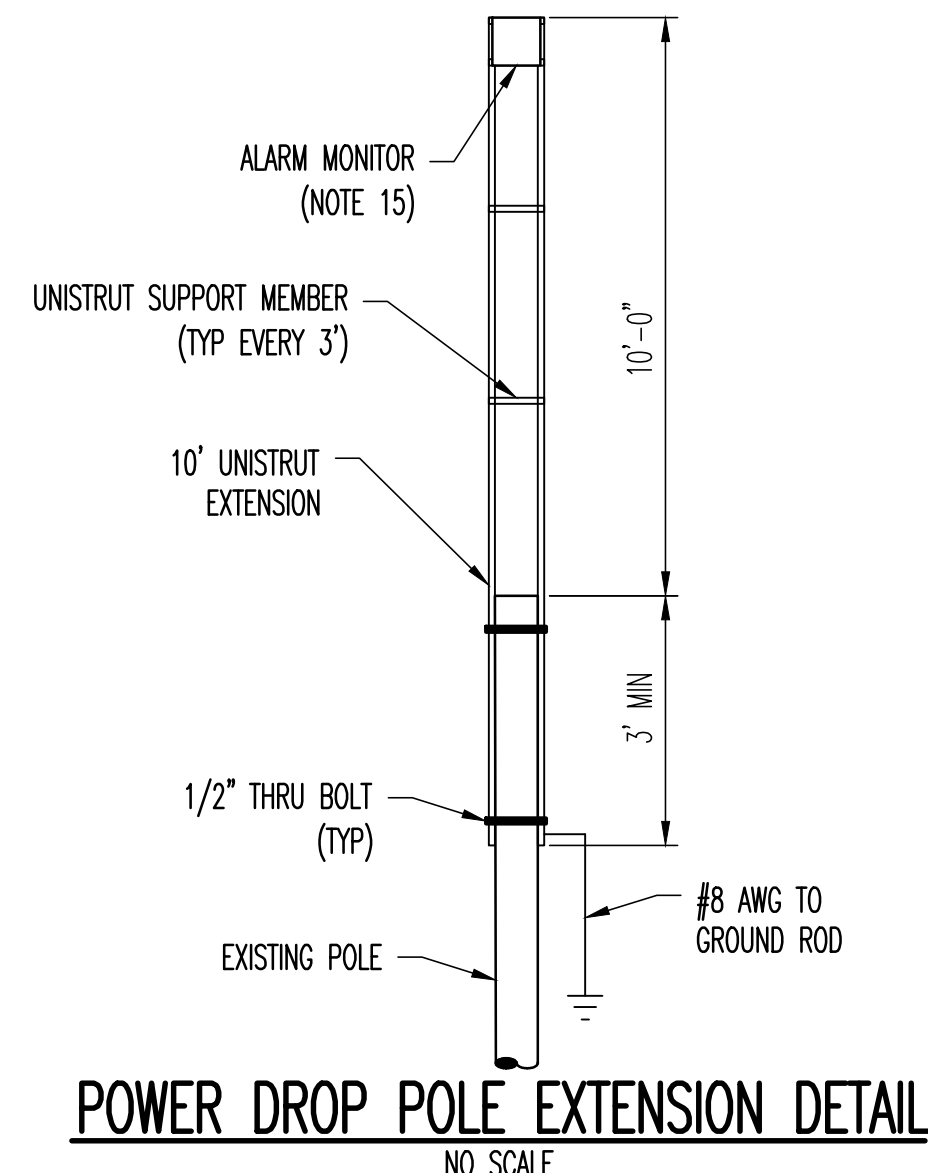
ELECTRICAL TRENCH DETAIL
NO SCALE



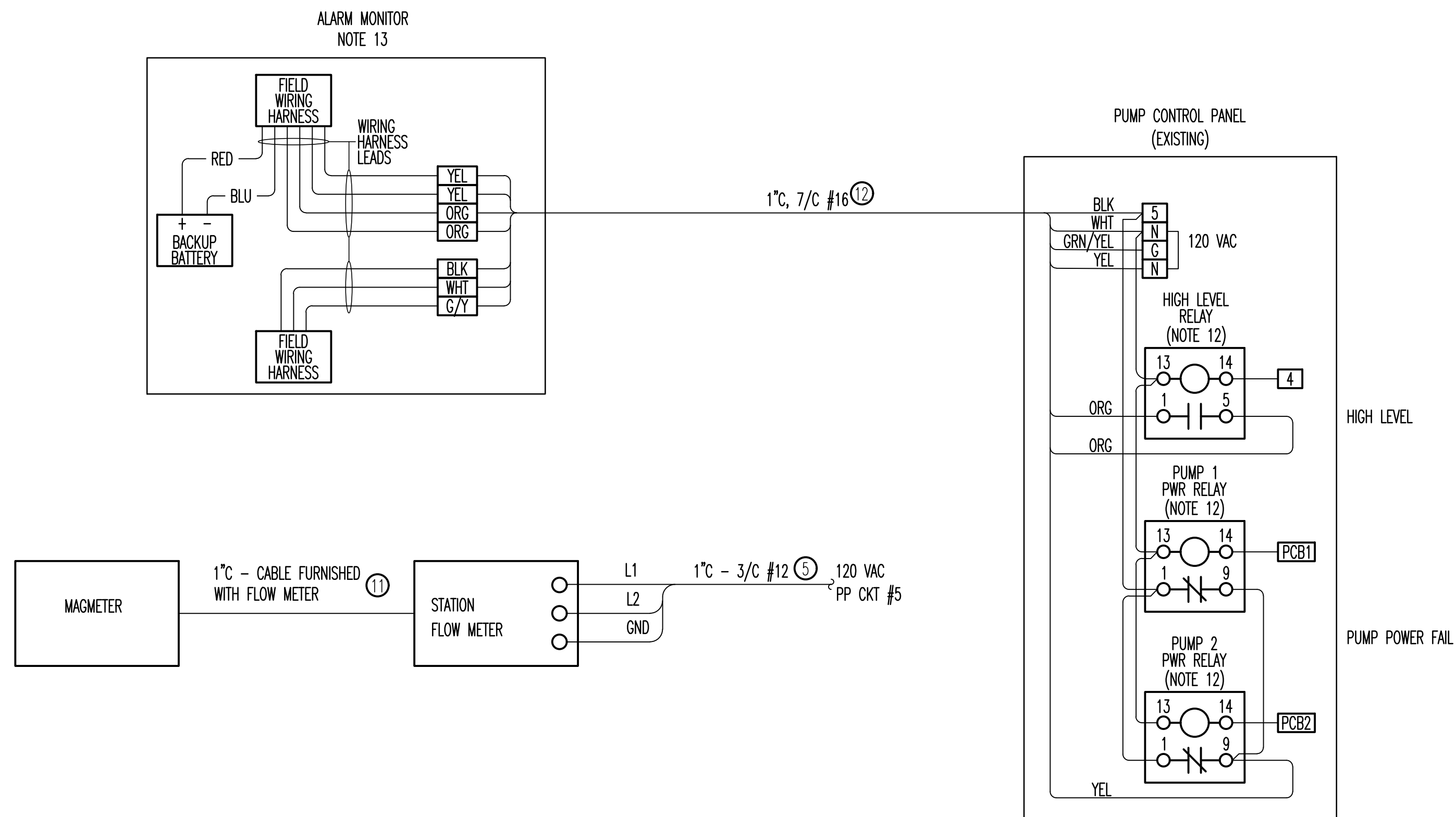
POWER DISTRIBUTION SINGLE LINE
SCALE: NONE



ELECTRICAL STAND DETAIL
SCALE: NONE
SEE NOTE 9



POWER DROP POLE EXTENSION DETAIL
NO SCALE



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ELECTRICAL NOTES, DETAILS,
&
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