

RAW WATER GENERATOR

DESIGN TEAM

OWNER

CITY OF ALBANY
 310 WAVERLY DRIVE NE
 ALBANY, OR 97321

CIVIL:

WESTECH
 CHRIS BRUGATO
 3841 FAIRVIEW INDUSTRIAL DR S#100
 SALEM, OR 97302
 503-585-2474

ELECTRICAL:

LANDIS CONSULTING
 6446 FAIRWAY AVE SE, SUITE 220
 SALEM, OR 97306
 503-584-1576

SHEET INDEX

G001 - COVER SHEET & SHEET INDEX

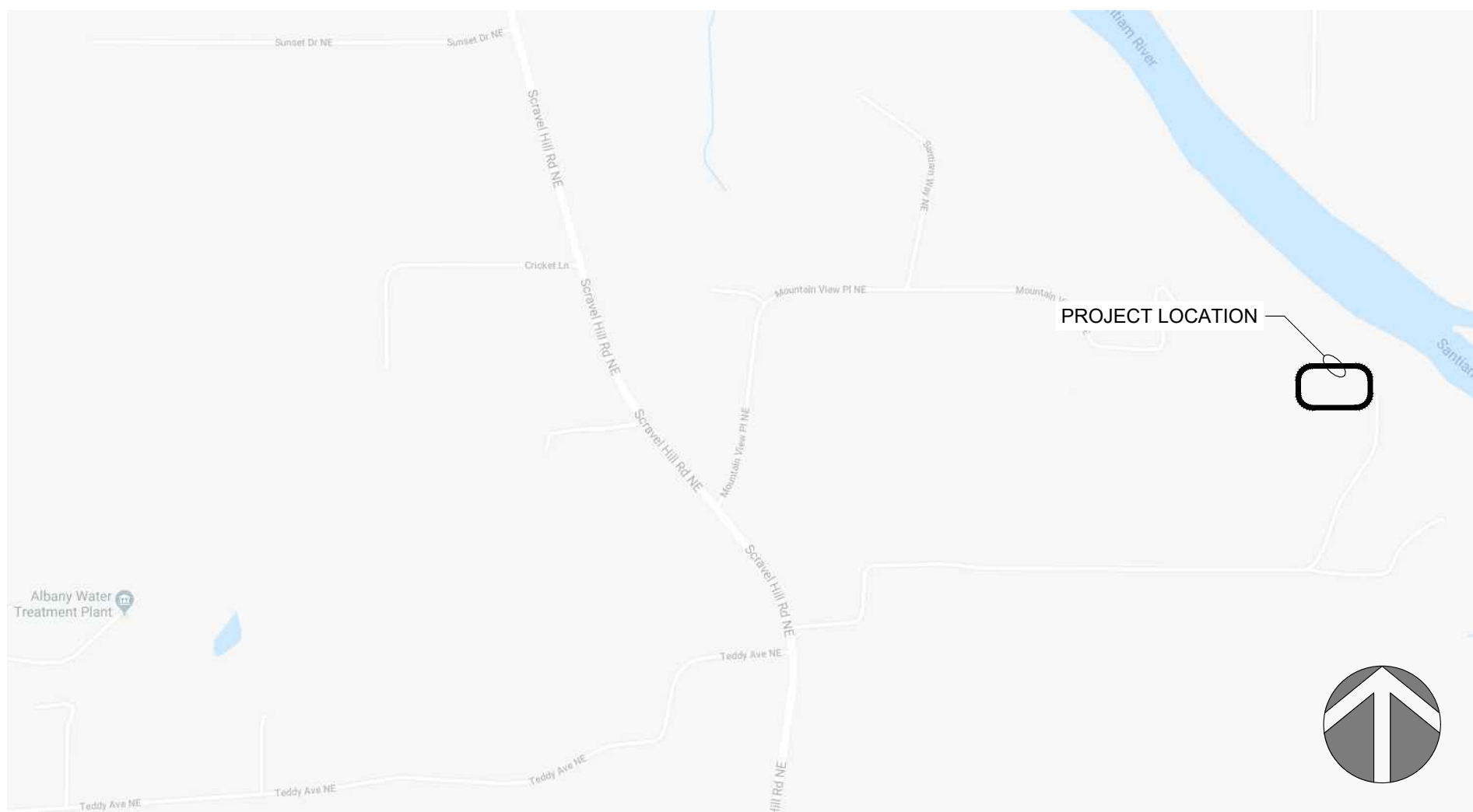
CIVIL

C100 - GRADING & SURFACING PLANS
 C101 - CIVIL DETAILS

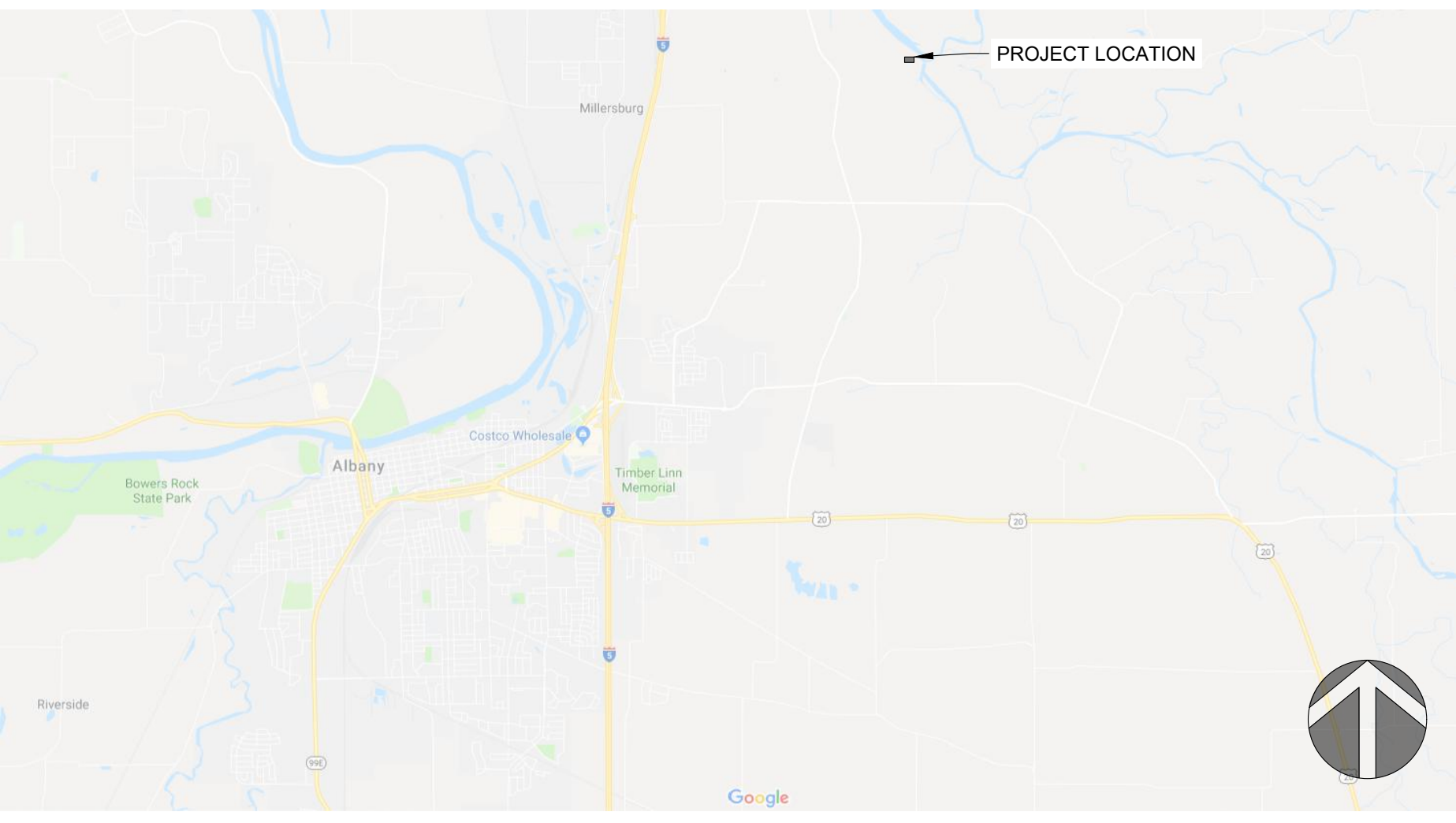
ELECTRICAL

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AREA MAP



VICINITY MAP



GENERAL NOTES:

- ATTENTION: OREGON LAW REQUIRES THE CONTRACTOR TO FOLLOW RULES ADOPTED BY THE OREGON UTILITY NOTIFICATION CENTER. THOSE RULES ARE SET FORTH ON OAR 952-001-0001 THROUGH OAR 952-001-0090. CONTRACTOR MAY OBTAIN COPIES OF THE RULES BY CALLING THE CENTER. (NOTE: THE TELEPHONE FOR THE OREGON UTILITY NOTIFICATION CENTER IS (503) 232-1987).
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING AND AND ALL EXISTING UTILITIES AND OBTAINING UTILITY LOCATIONS PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT OREGON UTILITY NOTIFICATION CENTER 811 OR 1-800-332-2344, A MINIMUM OF 48 HOURS PRIOR TO START OF CONSTRUCTION.
- ALL EXCAVATED MATERIAL SHALL BE HAULED AND DISPOSED OF OFF SITE, UNLESS OTHERWISE NOTED.
- ANY INSPECTION BY THE CITY, COUNTY, STATE, FEDERAL AGENCY, OR ENGINEER SHALL NOT, IN ANY WAY, RELIEVE THE CONTRACTOR FOR ANY OBLIGATION TO PERFORM THE WORK IN COMPLIANCE WITH THE APPLICABLE CODES, REGULATIONS, CITY STANDARDS, AND PROJECT CONTRACT DOCUMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR POTHOLING TO VERIFY EXISTING UTILITY LOCATIONS AND ENSURE NO CONFLICTS EXIST PRIOR TO CONSTRUCTION.
- NOT ALL TREES, SHRUBS, AND HARDSCAPES ARE SHOWN ON THE PLANS, CONTRACTOR SHALL VISIT EACH LOCATION TO DETERMINE EXTEND OF REQUIRED CLEARING, GRUBBING AND RESTORATION.

Landis Consulting
 ENGINEERING SERVICES
 Salem | Lake Oswego
 503-584-1576
 www.landisconsulting.com



CITY OF ALBANY
WTP Intake Generator
 Albany-Millersburg Joint Water Treatment Facility -
 Raw Water Pump Station
 38179 Scrael Hill Rd
 Albany, OR 97322

Rev	Description

COVER SHEET & SHEET INDEX

Design: BEP
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G001

Electrical Abbreviations, General Notes, & Symbol Legend

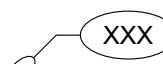
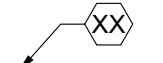
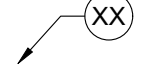
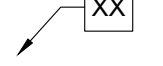






Abbreviations

A	AMPERE	MCA	MINIMUM CIRCUIT AMPACITY
AC	ALTERNATING CURRENT, AIR CONDITIONING UNIT	MCC	MOTOR CONTROL CENTER
AHJ	AUTHORITY HAVING JURISDICTION	MCP	MOTOR CIRCUIT PROTECTOR
AI	ANALOG INPUT	MDF	MAIN DISTRIBUTION FRAME
AIC	AVAILABLE INTERRUPTING CAPACITY	MHz	MEGAHERTZ
AF	AMPERE FRAME / AMPERE FUSED	MISC	MISCELLANEOUS
AFC	ABOVE FINISHED CEILING	MLO	MAIN LUGS ONLY
AFF	ABOVE FINISHED FLOOR	MOCP	MAXIMUM OVERCURRENT PROTECTION
AFG	ABOVE FINISHED GRADE		
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	N	NEUTRAL
AO	ANALOG OUTPUT	NAC	NOTIFICATION APPLIANCE CIRCUIT
ARMS	ARC FLASH REDUCTION MAINTENANCE SYSTEM	N/A	NOT APPLICABLE
AT	AMPERE TRIP	NC	NORMALLY CLOSED
AV	AUDIO / VIDEO	NEC	NATIONAL ELECTRICAL CODE
AWG	AMERICAN WIRE GAUGE	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
		NEX	REPLACE EXISTING WIRING DEVICE AND FACEPLATE WITH NEW. BACK BOX AND CONDUIT SHALL REMAIN.
BAS	BUILDING AUTOMATION SYSTEM	NL	NIGHT LIGHT
BFG	BELOW FINISHED GRADE	NO	NORMALLY OPEN
BLDG	BUILDING	NTS	NOT TO SCALE
		OC	ON CENTER
C	CONDUIT	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
CAT	CATEGORY	OFOI	OWNER FURNISHED, OWNER INSTALLED
CB	CIRCUIT BREAKER		
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED	Ø	PHASE
CFOI	CONTRACTOR FURNISHED, OWNER INSTALLED		
CKT	CIRCUIT	PB	PULL BOX, PANIC BUTTON, PUSH BUTTON
CPT	CONTROL POWER TRANSFORMER	PE	PHOTE EYE
CR	CONTROL RELAY	PNL	PANEL
CU	COPPER	POE	POWER OVER ETHERNET
		PTZ	PAN, TILT, ZOOM
dB	DECIBAL		
DC	DIRECT CURRENT	RD	LOCATION OF RELOCATED DEVICE / EQUIPMENT
DI	DIGITAL INPUT	REX	REMOVE EXISTING DEVICE / EQUIPMENT
DIM	DIMENSION	RF	RADIO FREQUENCY
DIV	DIVISION	RFI	REQUEST FOR INFORMATION
DO	DIGITAL OUTPUT	RR	REMOVE AND RELOCATE EXISTING DEVICE / EQUIPMENT
DTL	DETAIL		
DWG	DRAWING	SLC	SIGNALING LINE CIRCUIT
		SPD	SURGE PROTECTION DEVICE
EIP	ETHERNET IP	STD	STANDARD
EL	ELEVATION	SW	SWITCH
EMT	ELECTRICAL METALLIC TUBING		
EOLR	END OF LINE RESISTOR	T/M	THERMAL MAGNETIC CIRCUIT BREAKER
ETR	EXISTING DEVICE SHALL REMAIN	TBD	TO BE DETERMINED
		TV	TELEVISION / MONITOR OUTLET
FACP	FIRE ALARM CONTROL PANEL	TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
FF	FINISH FLOOR	TYP	TYPICAL
FLA	FULL LOAD AMPERES		
FT	FOOT, FEET	UH	UNIT HEATER
FBO	FURNISHED BY OTHERS	UG	UNDERGROUND
		UL	UNDERWRITERS LABORATORIES
G, GND	GROUND	UPS	UNINTERRUPTIBLE POWER SUPPLY
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	UON	UNLESS OTHERWISE NOTED
		USB	UNIVERSAL SERIAL BUS
HH	HAND HOLE		
HP	HORSEPOWER	V	VOLTS, VOLTAGE
		VA	VOLT-AMPERE
ID	IDENTIFICATION	VFD	VARIABLE FREQUENCY DRIVE
IDC	INITIATING DEVICE CIRCUIT		
IDF	INTERMEDIATE DISTRIBUTION FRAME	W	WATT, WIRE
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS	WAN	WIDE AREA NETWORK
IG	ISOLATED GROUND	WAP	WIRELESS ACCESS POINT
IT	INFORMATION TECHNOLOGY	WI-FI	WIRELESS FIDELITY
		W/	WITH
JB	JUNCTION BOX	W/O	WITHOUT
		WP	WEATHERPROOF
KAIC	THOUSAND AMPS INTERRUPTING CURRENT		
KCMIL	THOUSAND CIRCULAR MILS	XFMR	TRANSFORMER
KVA	KILOVOLT-AMPERE		
KW	KILOWATT	Y	WYE
LAN	LOCAL AREA NETWORK	+72	MOUNTING UNITS EXPRESSED IN INCHES TO CENTERLINE ABOVE FINISHED FLOOR OR GRADE.
LED	LIGHT EMITTING DIODE		
LS	LIMIT SWITCH	1P	ONE POLE
LSI	ELECTRONIC TRIP UNIT ADJUSTABLE LONG TIME DELAY, SHORT TIME DELAY, INSTANTANEOUS TRIP	2P	TWO POLE
LSIG	ELECTRONIC TRIP UNIT WITH ADJUSTABLE LONG TIME DELAY, SHORT TIME DELAY, INSTANTANEOUS TRIP, AND GROUND FAULT	3P	THREE POLE
		4P	FOUR POLE
LV	LOW VOLTAGE		

General Electrical Notes

- ALL LIGHTING BRANCH CIRCUITS SHALL BE 2#10, 1#10G IN 3/4" CONDUIT, UON.
- ALL 20-AMP RECEPTACLE AND HARDWIRED BRANCH CIRCUITS SHALL BE 2#12, 1#12G IN 3/4" CONDUIT, UON.
- ALL EXIT SIGNS SHALL BE WIRED TO THE LOCAL LIGHTING BRANCH CIRCUIT AHEAD OF ALL SWITCHING.
- PROVIDE 0-10V DIMMING CONDUCTORS TO ALL LUMINAIRES WHICH ARE CONTROLLED BY 0-10V DIMMERS SHOWN ON THE DRAWINGS.

Annotation

- (N) INDICATES NEW EQUIPMENT.
- (E) INDICATES EXISTING EQUIPMENT TO REMAIN.
- (D) INDICATES EXISTING EQUIPMENT TO BE DEMOLISHED.
- (RR)/(RD) INDICATED EXISTING EQUIPMENT OR DEVICE TO BE REMOVED AND REINSTALLED.
-  CONDUIT & CONDUCTOR CALLOUT. REFER TO CONDUIT & CONDUCTOR SCHEDULE.
-  KEYED NOTE CALLOUT. REFER TO CORRESPONDING SHEET KEYNOTES.
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-  MECHANICAL EQUIPMENT CALLOUT. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE.
-  DETAIL CALLOUT. REFER TO DETAIL AND SHEET AS INDICATED ON CALLOUT.
-  FIXTURE MOUNTING CALLOUT. HEIGHT ABOVE FINISHED FLOOR (A.F.F.)
-  EQUIPMENT CALLOUT. REFER TO NEMA CONNECTION SCHEDULE.
-  SECTION CALLOUT. REFER TO SECTION AND SHEET AS INDICATED ON CALLOUT.
-  ELEVATION CALLOUT. REFER TO ELEVATION AND SHEET AS INDICATED ON CALLOUT.



Rev	Description

ELECTRICAL ABBREVIATIONS

Design **BEP**

Drawn **EJC**

Checked **BEP**

Date **Dec. 2022**

Proj. No. **7021802**

Drawing No.

E001

Electrical Symbol Legend

Power Distribution

	DUPLEX RECEPTACLE, MOUNTED AT 18" AFF, UON.
	SIMPLEX RECEPTACLE, MOUNTED AT 18" AFF, UON.
	QUADPLEX RECEPTACLE, MOUNTED AT 18" AFF, UON.
	GFCI DUPLEX RECEPTACLE, MOUNTED AT 18" AFF, UON.
	GFCI QUADPLEX RECEPTACLE, MOUNTED AT 18" AFF, UON.
	TAMPER RESISTANT DUPLEX RECEPTACLE, MOUNTED AT 18" AFF, UON.
	TAMPER RESISTANT QUADPLEX RECEPTACLE, MOUNTED AT 18" AFF, UON.
	SWITCHED DUPLEX RECEPTACLE, MOUNTED AT 18" AFF, UON.
	NEMA SPECIAL RECEPTACLE, MOUNTED AT 18" AFF, UON. NEMA CONFIGURATION AS INDICATED.
	CENTER HATCHED RECEPTACLE TO BE WIRED TO EMERGENCY CIRCUIT.
	RECEPTACLE MOUNTED ON CEILING.
	RECEPTACLE MOUNTED IN-COUNTER.
	DISCONNECT SWITCH.
	FUSED DISCONNECT SWITCH.
	COMBINATION STARTER.
	FLOORBOX COMBINATION POWER & DATA.
	FLOORBOX POWER.
	POKETHRU COMBINATION POWER & DATA.
	POKETHRU POWER.
	POWER/DATA POLE.
	PANELBOARD SURFACE MOUNT.
	PANELBOARD FLUSH MOUNT.
	MAIN DISTRIBUTION PANEL.
	UTILITY CT METER.
	UTILITY TRANSFORMER.

Drawing Symbol Variables

3	THREE WAY SWITCH.
4	FOUR WAY SWITCH.
#J	QUANTITY OF JACKS AND HORIZONTAL CABLES. J = CAT6, JA = CAT6A, JE = CAT5E
+XX	MOUNTING UNITS EXPRESSED IN INCHES TO CENTERLINE ABOVE FINISHED FLOOR OR GRADE. MOUNTED HORIZONTALLY AT 4" ABOVE COUNTERTOP.
C	CLOCK.
CL	DUAL RELAY.
DR	RED EMERGENCY SWITCH.
E	ELEVATOR RECALL.
EL	EXISTING DEVICE SHALL REMAIN.
ETR	GLASS BREAK SENSOR.
G	KEYED SWITCH.
K	LOW FREQUENCY.
LF	LOW VOLTAGE SWITCH.
LV	MOTOR RATED TOGGLE SWITCH.
M	REPLACE EXISTING WIRING DEVICE AND FACEPLATE WITH NEW. BACK BOX AND CONDUIT SHALL REMAIN.
NEX	INTEGRAL OCCUPANCY SENSOR.
O	ADA PHONE, VERIFY HEIGHT WITH ARCHITECT / OWNER.
P	REMOVE EXISTING DEVICE / EQUIPMENT.
REX	MOUNTED IN TOE KICK OF CASEWORK.
TK	MOUNTED ADJACENT TO TV AT 60" AFF, UON.
TV	VANDAL RESISTANT.
V	WIREGUARD.
WG	WEATHERPROOF.
WP	

Lighting

	TROFFER LUMINAIRE, SURFACE OR RECESS MOUNTED AS INDICATED ON THE DRAWINGS.
	DOWNLIGHT LUMINAIRE, SURFACE, RECESS, OR PENDANT MOUNTED AS INDICATED ON THE DRAWINGS.
	UNDERCABINET LUMINAIRE.
	EMERGENCY BATTERY PACK LUMINAIRE, WALL OR CEILING MOUNTED.
	LINEAR PENDANT MOUNTED LUMINAIRE.
	LINEAR WALL MOUNTED LUMINAIRE.
	BOLLARD LUMINAIRE.
	SITE LUMINAIRE POLE MOUNTED. NUMBER OF HEADS AS SHOWN.
	TRACK LUMINAIRE.
	SPOT LUMINAIRE.
	WALL MOUNTED LUMINAIRE.
	EXIT SIGN, WALL OR CEILING MOUNTED, SINGLE FACE WITH DIRECTIONAL CHEVRONS AS INDICATED ON DRAWINGS.
	EXIT SIGN, WALL OR CEILING MOUNTED, DOUBLE FACE WITH DIRECTIONAL CHEVRONS AS INDICATED ON DRAWINGS.
	HALF HATCHED LUMINAIRE TO BE WIRED TO EMERGENCY CIRCUIT.
	FULL HATCHED LUMINAIRE TO BE WIRED TO NIGHTLIGHT CIRCUIT.
	WALL WASH LUMINAIRE POINTED IN DIRECTION AS SHOWN

Raceways

	CONDUIT AND/OR CONDUCTORS INSTALLED ABOVE GRADE, CONCEALED IN WALL OR CEILING SPACE.
	CONDUIT AND/OR CONDUCTORS INSTALLED BELOW GRADE, BELOW SLAB.
	CONDUIT TURNED DOWN.
	CONDUIT TURNED UP.
	CONDUIT STUBBED AND CAPPED.
	CONDUIT DIRECT CONNECTION TO EQUIPMENT.
	FLEXIBLE CONNECTION TO EQUIPMENT.
	CONDUIT / WIRING CONTINUATION.
	HOMERUN TO PANELBOARD.
	CABLE TRAY. SIZE AND TYPE AS INDICATED ON DRAWINGS.

Switches

	SINGLE POLE SWITCH - MOUNTED AT 42" AFF, UON.
	LOW VOLTAGE 0-10 VOLT DIMMING SWITCH - MOUNTED AT 42" AFF, UON.
	OCCUPANCY SENSOR - CEILING OR WALL MOUNTED.
	OCCUPANCY SENSOR POWER PACK.
	PHOTOCELL - CEILING OR WALL MOUNTED.
	ADA DOOR PUSHPLATE.
	EMERGENCY STOP SWITCH, MUSHROOM HEAD.
	PUSHBUTTON, SINGLE OR DOUBLE.

One-Line Diagram

	CIRCUIT BREAKER.
	DRAWOUT CIRCUIT BREAKER.
	ENCLOSED CIRCUIT BREAKER.
	MOTOR STARTER CONTACT.
	DISCONNECT SWITCH.
	ENCLOSED DISCONNECT SWITCH.
	FUSED DISCONNECT SWITCH.
	ENCLOSED FUSED DISCONNECT SWITCH.
	CURRENT TRANSFORMER METER.
	FUSE, RATING AS SHOWN ON DRAWINGS.
	GROUND ROD.
	EQUIPMENT GROUND.
	MOTOR, RATED AS INDICATED ON DRAWINGS.
	NEMA CONNECTION.
	PANEL.
	MINI POWER CENTER.
	SHUNT TRIP.
	HEATER.
	REMOTE ANNUNCIATOR.
	BATTERY CHARGER.
	SURGE SUPPRESSION DEVICE.
	DIGITAL METER.
	VARIABLE FREQUENCY DRIVE.
	SOFT STARTER.
	TRANSFER SWITCH, WITH FUSES OR BREAKERS AS SHOWN ON DRAWINGS.
	TRANSFORMER.

Miscellaneous

	JUNCTION BOX (ROUND, SQUARE).
	THERMOSTAT.
	RELAY.
	CORD REEL.
	MOTOR / EXHAUST FAN.
	CEILING FAN.
	UTILITY POLE.
	WEATHERHEAD.
	GROUND ROD.
	GROUND ROD WITH TEST WELL.
	SURFACE RACEWAY / WIREMOLD.
	FIRE RATED BACKBOARD.
	GROUND BUS BAR.

Access Control & Security

	ACCESS CONTROL - DOOR CONTACT. PROVIDE 3/4" CONDUIT FROM DOOR FRAME TO ACCESSIBLE CEILING OR SECURITY JUNCTION BOX AS SHOWN ON THE DRAWINGS.
	ACCESS CONTROL - CARD READER. PROVIDE 3/4" CONDUIT FROM DOOR FRAME TO ACCESSIBLE CEILING OR SECURITY JUNCTION BOX AS SHOWN ON THE DRAWINGS.
	ACCESS CONTROL - ELECTRIC STRIKE. PROVIDE 3/4" CONDUIT FROM DOOR FRAME TO ACCESSIBLE CEILING OR SECURITY JUNCTION BOX AS SHOWN ON THE DRAWINGS.
	ACCESS CONTROL - KEY PAD. PROVIDE 3/4" CONDUIT FROM DOOR FRAME TO ACCESSIBLE CEILING OR SECURITY JUNCTION BOX AS SHOWN ON THE DRAWINGS.
	ACCESS CONTROL - MAGNETIC LOCK. PROVIDE 3/4" CONDUIT FROM DOOR FRAME TO ACCESSIBLE CEILING OR SECURITY JUNCTION BOX AS SHOWN ON THE DRAWINGS.
	ACCESS CONTROL - REQUEST TO EXIT. PROVIDE 3/4" CONDUIT FROM DOOR FRAME TO ACCESSIBLE CEILING OR SECURITY JUNCTION BOX AS SHOWN ON THE DRAWINGS.
	ACCESS CONTROL - ELECTRIFIED PANIC BAR. PROVIDE 3/4" CONDUIT FROM DOOR FRAME TO ACCESSIBLE CEILING OR SECURITY JUNCTION BOX AS SHOWN ON THE DRAWINGS.
	ACCESS CONTROL - SECURITY JUNCTION BOX. SIZED AS RECOMMENDED BY SECURITY SYSTEM MANUFACTURER.
	ACCESS CONTROL - CAMERA / INTERCOM.
	ACCESS CONTROL - PANIC BUTTON.
	SECURITY CAMERA - CEILING MOUNTED. PROVIDE ONE (1) CAT6.
	SECURITY CAMERA - WALL MOUNTED. PROVIDE ONE (1) CAT6.
	INTRUSION SENSOR - CEILING MOUNTED.
	INTRUSION SENSOR - WALL MOUNTED.
	INTRUSION KEYPAD.

Low Voltage

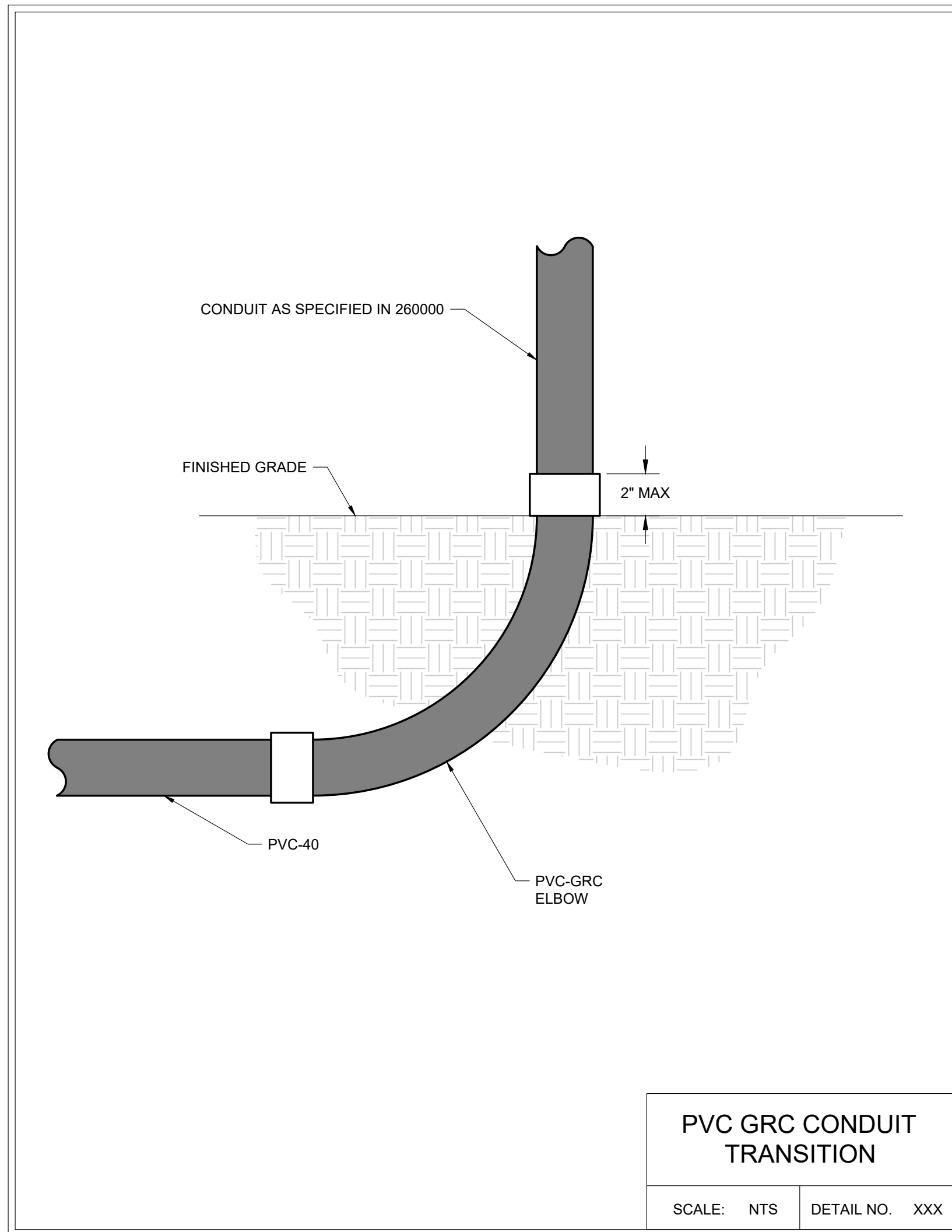
	ETHERNET OUTLET MOUNTED AT 18" AFF, UON.
	COAXIAL OUTLET MOUNTED AT 18" AFF, UON.
	PHONE OUTLET MOUNTED AT 18" AFF, UON.
	LOW VOLTAGE OUTLET CEILING MOUNTED.
	WIRELESS ACCESS POINT CEILING MOUNTED.
	WIRELESS ACCESS POINT WALL MOUNTED.
	DIGITAL CLOCK.
	FLOORBOX DATA.
	POKETHRU DATA.
	IT RACK.
	VERTICAL WIRE MANAGEMENT.



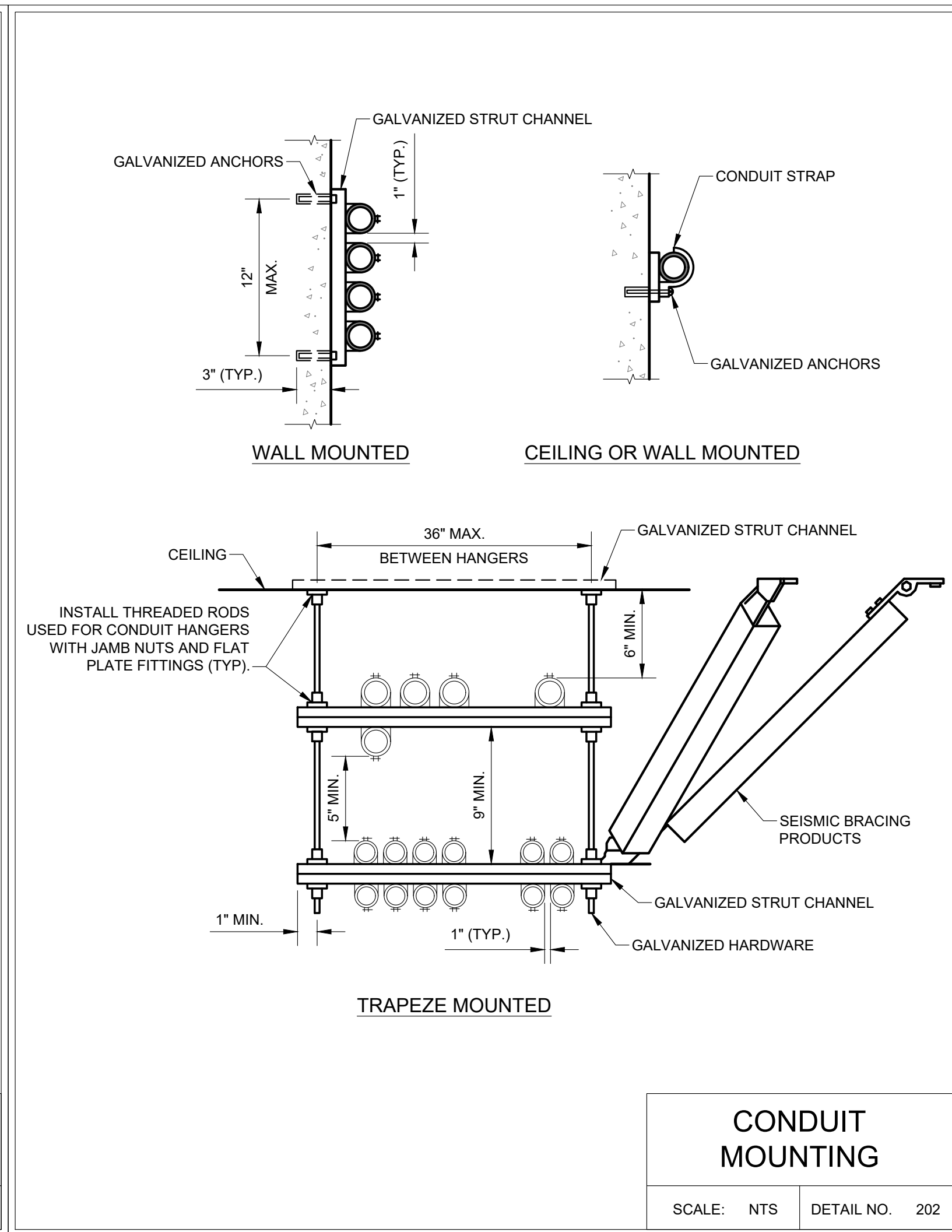
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ELECTRICAL SYMBOL LEGEND

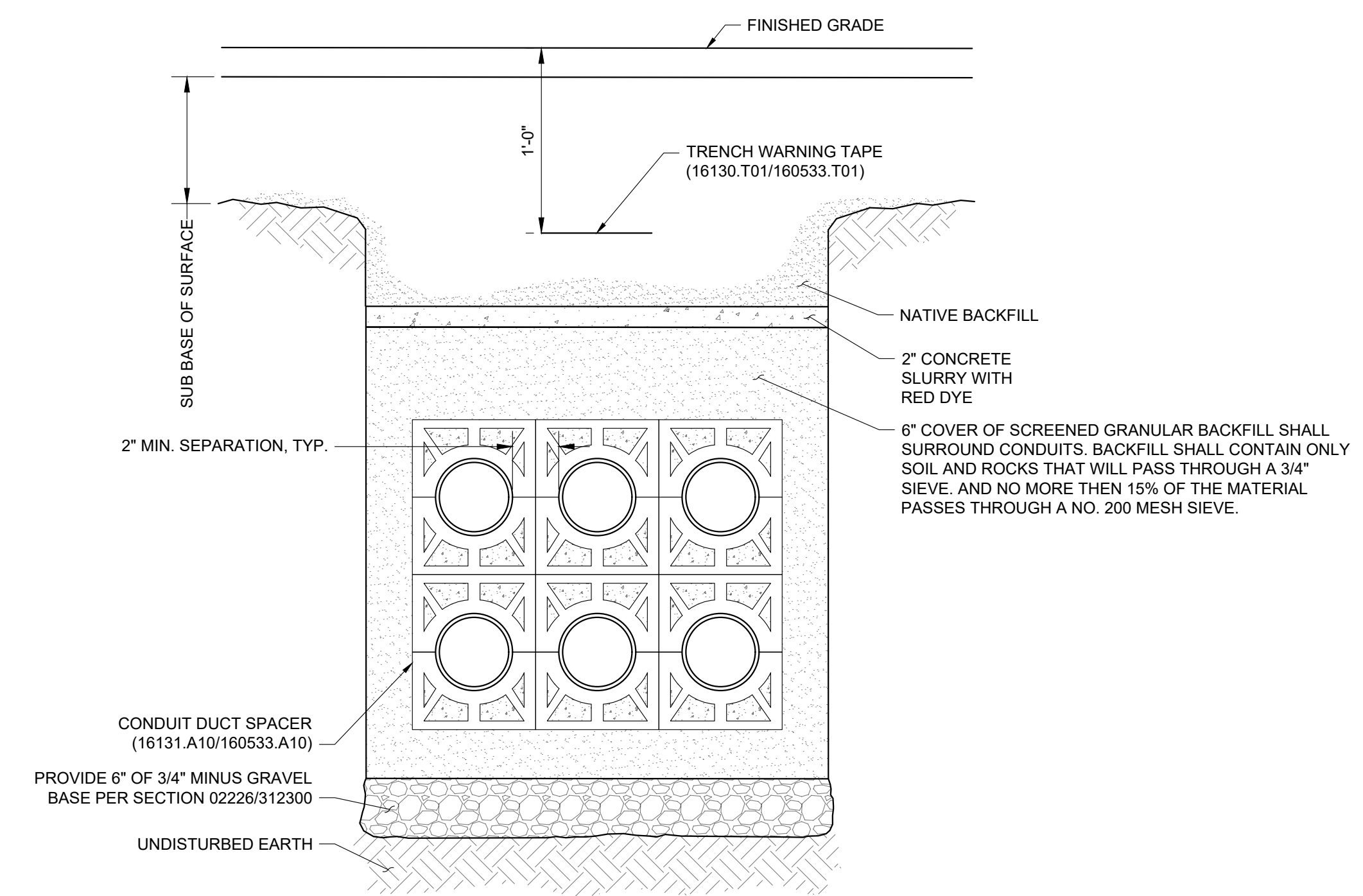
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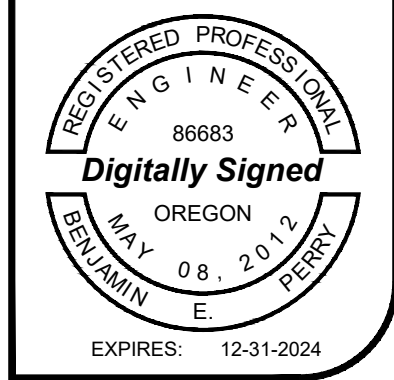
PVC GRC CONDUIT TRANSITION
 SCALE: NTS DETAIL NO. XXX



CONDUIT MOUNTING
 SCALE: NTS DETAIL NO. 202



1 DUCT BANK SECTION
 SCALE: NONE

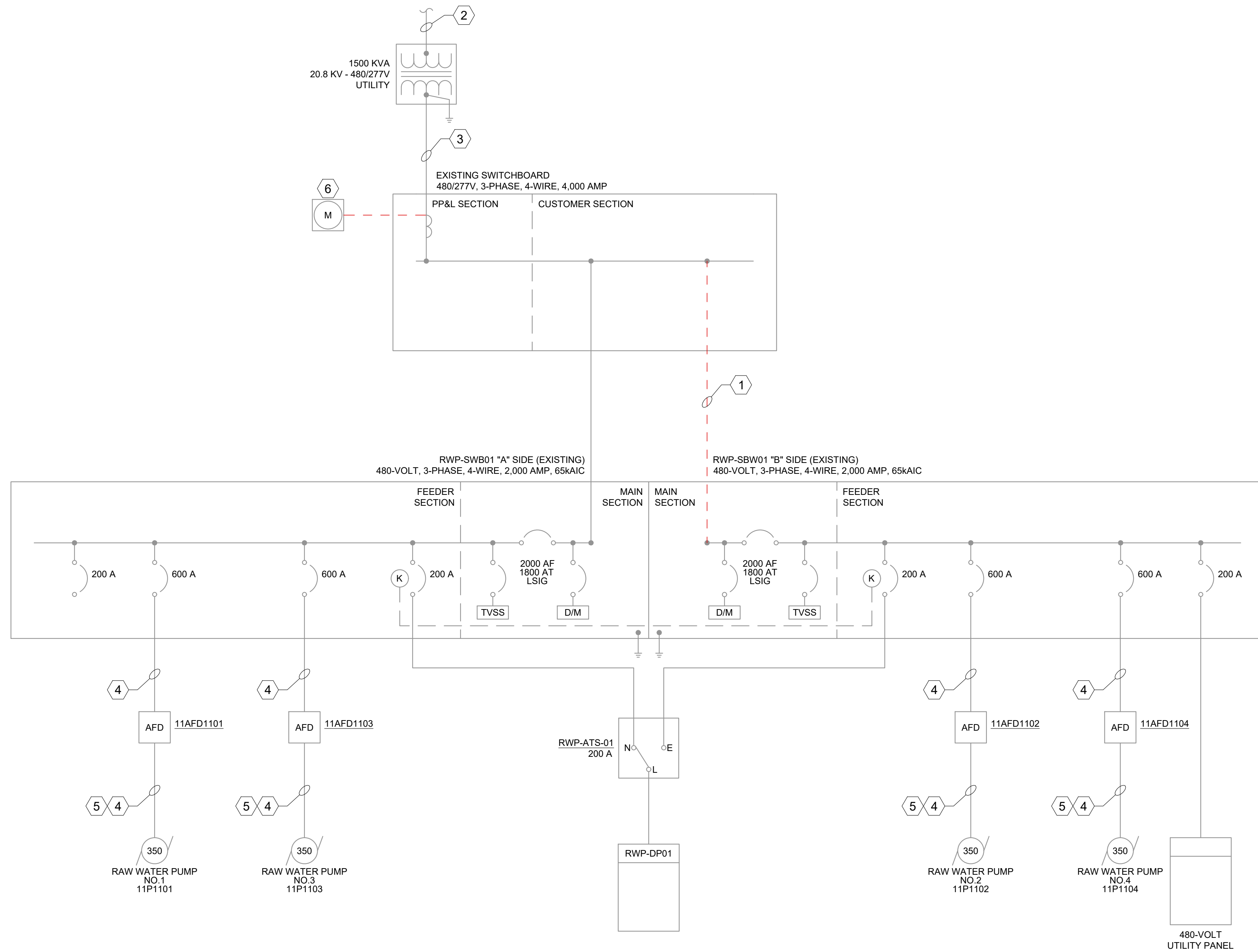


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1 DEMOLITION ONE-LINE DIAGRAM
SCALE: N/A

GENERAL SHEET NOTES

1. ALL WORK SHOWN WITH A DARK AND DASHED LINEWEIGHT ON THIS SHEET SHALL BE REMOVED COMPLETELY.

SHEET KEY NOTES

1. REMOVE CONDUCTORS, FIVE (5) SETS OF 3 - #500, 1 - #1/0 NEUTRAL IN 4" CONDUIT.
2. EXISTING PP&L PRIMARY, TWO (2) 4" CONDUITS.
3. EXISTING EIGHT SETS OF 750 KCMIL.
4. EXISTING TWO (2) SETS OF 3 - #300, 1 - #1G IN 2.5" CONDUIT.
5. EXISTING ONE (1) SET OF 3 - #14, 1 - #14G IN 3/4" CONDUIT.
6. METER SHALL BE RELOCATED.



Rev	Description

DEMOLITION ONE-LINE DIAGRAM

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POWER CONDUIT / CONDUCTOR SCHEDULE

CONDUIT ID NO.	CONDUIT		CONDUCTORS PER CONDUIT					FROM	TO	DESCRIPTION	NOTES
	QUANTITY	SIZE	UNGROUND	GROUND	GROUNDING	CABLE	SPARE				
P101	6	3.0 INCH	3 - #350	1 - #350	-	-	-	EXISTING EUSERC SWITCHBOARD	NEW ATS RWP-ATS-SWB01-B	-	-
P102	4	3.0 INCH	3 - #350	1 - #350	1 - #3/0	-	-	NEW EMERGENCY GENERATOR	NEW ATS RWP-ATS-SWB01-B	-	-
P103	6	3.0 INCH	3 - #350	1 - #350	1 - #250	-	-	NEW ATS RWP-ATS-SWB01-B	EXISTING SWITCHBOARD RWP-SBW01 "B" SIDE	-	-
P104	1	0.75 INCH	2 - #12	-	1 - #12	-	-	EXISTING 480V UTILITY PANEL	NEW EMERGENCY GENERATOR BLOCK HEATER	CKTS 8, 10	-
P105	1	0.75 INCH	1 - #10 1 - #10 1 - #10	1 - #10 1 - #10 1 - #10	1 - #10 1 - #10 1 - #10	-	-	EXISTING 120-V PANEL RWP-LP01 EXISTING 120-V PANEL RWP-LP01 EXISTING 120-V PANEL RWP-LP01	NEW GENERATOR BATTERY CHARGER NEW GENERATOR ALTERNATOR WINDING HEATER ATS SPACE HEATER	CKT 25 CKT 27 CKT 29 (VIA JB-03. SEE P105B)	-
P105B	1	.75 INCH	1 - #10	1 - #10	1 - #10	-	-	EXISTING 120-V PANEL RWP-LP01	ATS SPACE HEATER	CKT 29	-
P106	1	0.75 INCH	3 - #12	-	1 - #12	-	-	EXISTING RWP-DP01 PANEL	EXISTING SUPPLY FAN 92SP0202	CIRCUIT IS EXISTING. RE-USE EXISTING CIRCUIT BREAKER.	-
P107	1	1.25 INCH	-	-	-	-	-	EXISTING EUSERC SWITCHBOARD	RELOCATED METERBASE	INSTALL PER PP&L STANDARDS	-

NOTES:

GROUNDING CONDUIT / CONDUCTOR SCHEDULE

CONDUIT ID NO.	CONDUIT		CONDUCTORS PER CONDUIT					FROM	TO	DESCRIPTION	NOTES
	QUANTITY	SIZE	UNGROUND	GROUND	GROUNDING	CABLE	SPARE				
G101	1	1.0 INCH	-	-	1 - #4/0	-	-	NEW ATS RWP-ATS-SWB01-B	GROUNDING ELECTRODE SYSTEM	-	-
G102	1	1.0 INCH	-	-	1 - #4/0	-	-	NEW EMERGENCY GENERATOR	GROUNDING ELECTRODE SYSTEM	-	-
G103	-	-	-	-	-	-	-	-	-	-	-
G104	-	-	-	-	-	-	-	-	-	-	-
G105	-	-	-	-	-	-	-	-	-	-	-

NOTES:

CONTROL CONDUIT / CONDUCTOR SCHEDULE

CONDUIT ID NO.	CONDUIT		CONDUCTORS PER CONDUIT					FROM	TO	DESCRIPTION	NOTES
	QUANTITY	SIZE	UNGROUND	GROUND	GROUNDING	CABLE	SPARE				
C101	1	0.75 INCH	2 - #14	-	1 - #14	-	-	NEW EMERGENCY GENERATOR	NEW ATS RWP-ATS-SWB01-B	GENERATOR START COMMAND	-
C102	1	.75 INCH	2 - #14	-	1 - #14	-	-	JUNCTION BOX JB-GEN	E-STOP	GENERATOR E-STOP	-
C103A	1	1.0 INCH	2 - #14 2 - #14 2 - #14 2 - #14 2 - #14	-	1 - #14	-	-	NEW EMERGENCY GENERATOR	JUNCTION BOX JB-GEN	GENERATOR E-STOP GENERATOR ALARM GENERATOR RUNNING GENERATOR NOT IN AUTO GENERATOR LOW FUEL ALARM	1
C103B	1	1.0 INCH	2 - #14 2 - #14 2 - #14 2 - #14	-	1 - #14	-	-	EXISTING PLC CONTROL PANEL RWP-CP01	JUNCTION BOX JB-GEN	GENERATOR ALARM GENERATOR RUNNING GENERATOR NOT IN AUTO GENERATOR LOW FUEL ALARM	-
C104	1	0.75 INCH	2 - #14 2 - #14	-	1 - #14	-	-	NEW ATS RWP-ATS-SWB01-B	EXISTING PLC CONTROL PANEL RWP-CP01	ATS ON UTILITY POWER ATS ON GENERATOR POWER	-
C105	1	0.75 INCH	-	-	1 - #12	1 - TSP	-	EXISTING PLC CONTROL PANEL RWP-CP01	GENERATOR FUEL LEVEL SENSOR	-	-

NOTES:

[1] E-STOP CONDUCTORS INSTALLED BETWEEN E-STOP & GENERATOR ONLY.

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WTP Intake Generator
 Albany-Millersburg Joint Water Treatment Facility -
 Raw Water Pump Station
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 Albany, OR 97322

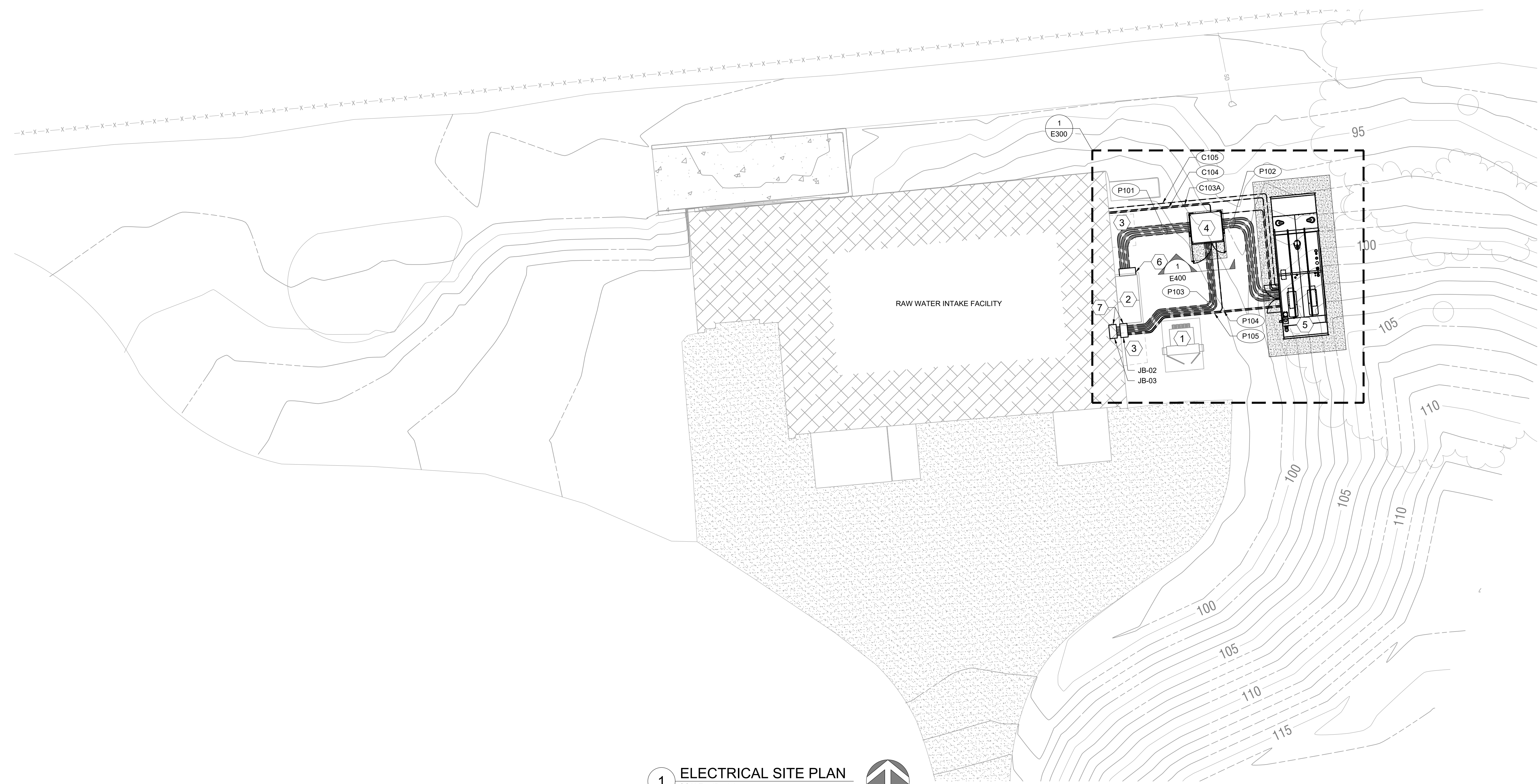
Rev	Description

CONDUIT AND CONDUCTOR SCHEDULE

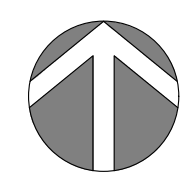
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 Drawn: **EJC**
 Checked: **BEP**
 Date: **Dec. 2022**
 Proj. No.: **7021802**
 Drawing No.:

E030

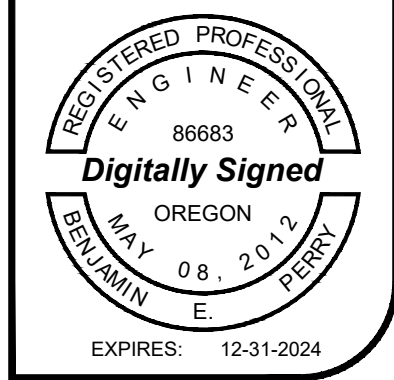
- SHEET KEY NOTES**
1. EXISTING PP&L TRANSFORMER.
 2. EXISTING EUSERC SWITCHBOARD.
 3. EXISTING FAN EXHAUST VENT.
 4. NEW AUTOMATIC TRANSFER SWITCH RWP-ATS-SWB01-B (OFCI).
 5. 600 KW DIESEL GENERATOR (OFCI).
 6. NEW JUNCTION BOX, JB-01.
 7. 30x30x12 JUNCTION BOX.



1 ELECTRICAL SITE PLAN
SCALE: 1" = 10'



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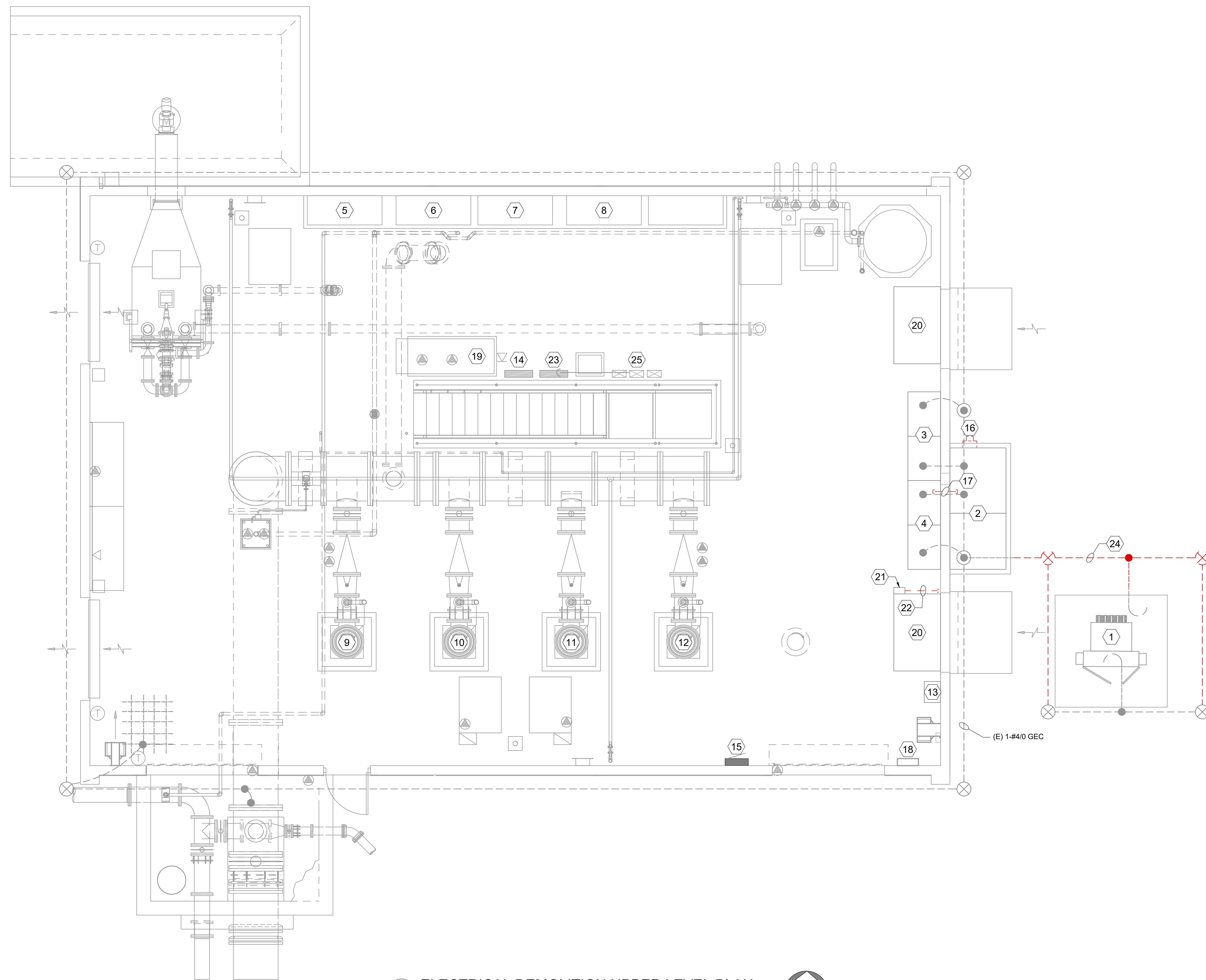


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Raw Water Pump Station
38179 Scravel Hill RD
Albany, OR 97322

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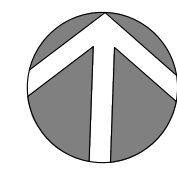
ELECTRICAL SITE PLAN

Design	BEP
Drawn	EJC
Checked	BEP
Date	Dec. 2022
Proj. No.	7021802
Drawing No.	E100



- GENERAL SHEET NOTES**
1. ALL WORK SHOWN WITH A DARK AND DASHED LINEWEIGHT ON THIS SHEET SHALL BE REMOVED COMPLETELY.
- SHEET KEY NOTES**
1. EXISTING PP&L TRANSFORMER.
 2. EXISTING EUSERC SWITCHBOARD.
 3. RWP-SWB01 A SIDE.
 4. RWP-SWB01 B SIDE.
 5. ADJUSTABLE FREQUENCY DRIVE 11AFD1101.
 6. ADJUSTABLE FREQUENCY DRIVE 11AFD1102.
 7. ADJUSTABLE FREQUENCY DRIVE 11AFD 1103.
 8. ADJUSTABLE FREQUENCY DRIVE 11AFD 1104.
 9. RAW WATER PUMP NO. 1 11P1101.
 10. RAW WATER PUMP NO. 2 11P1102.
 11. RAW WATER PUMP NO. 3 11P1103.
 12. RAW WATER PUMP NO. 4 11P1104.
 13. AUTOMATIC TRANSFER SWITCH RWP-ATS-01.
 14. PANEL RWP-LP01.
 15. 480-VOLT UTILITY PANEL.
 16. COORDINATE WITH UTILITY FOR METER RELOCATION. SEE E300 FOR NEW LOCATION. METER SHALL BE RELOCATED.
 17. SERVICE ENTRANCE CONDUCTORS SHALL BE REMOVED. SEE SHEET E010 FOR ADDITIONAL INFORMATION.
 18. HVAC CONTROL PANEL.
 19. EXISTING PLC CABINET RWP-CP01.
 20. EXISTING SUPPLY FAN.
 21. EXISTING SUPPLY FAN DISCONNECT. FAN DISCONNECT AND FAN SHALL REMAIN AND BE RE-USED.
 22. DEMOLISH SUPPLY FAN DISCONNECT CONDUIT AND CIRCUIT. PROTECT EXISTING SUPPLY FAN DISCONNECT. REMOVE CONDUIT TO FLOOR SLAB BENEATH FAN. REMOVE CONDUCTORS COMPLETELY TO SOURCE. CUT CONDUIT FLUSH WITH FLOOR AND GROUT FILL. FAN IS FED FROM PANEL RWP-DP01, CIRCUIT #8, 10, 12 AND MOTOR STARTER 92MS0202.
 23. PANEL RWP-DP01.
 24. GROUNDING ELECTRODE SYSTEM SHALL BE REPLACED TO MAKE ROOM FOR NEW CONDUIT DUCT BANKS.
 25. EXISTING MOTOR STARTER 92MS0202.

1 ELECTRICAL DEMOLITION UPPER LEVEL PLAN
SCALE: 1/4" = 1'-0"



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Digitally Signed
BENJAMIN E. MAY
OREGON
MAY 08, 2012
EXPIRES: 12-31-2024

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ELECTRICAL DEMOLITION UPPER LEVEL PLAN

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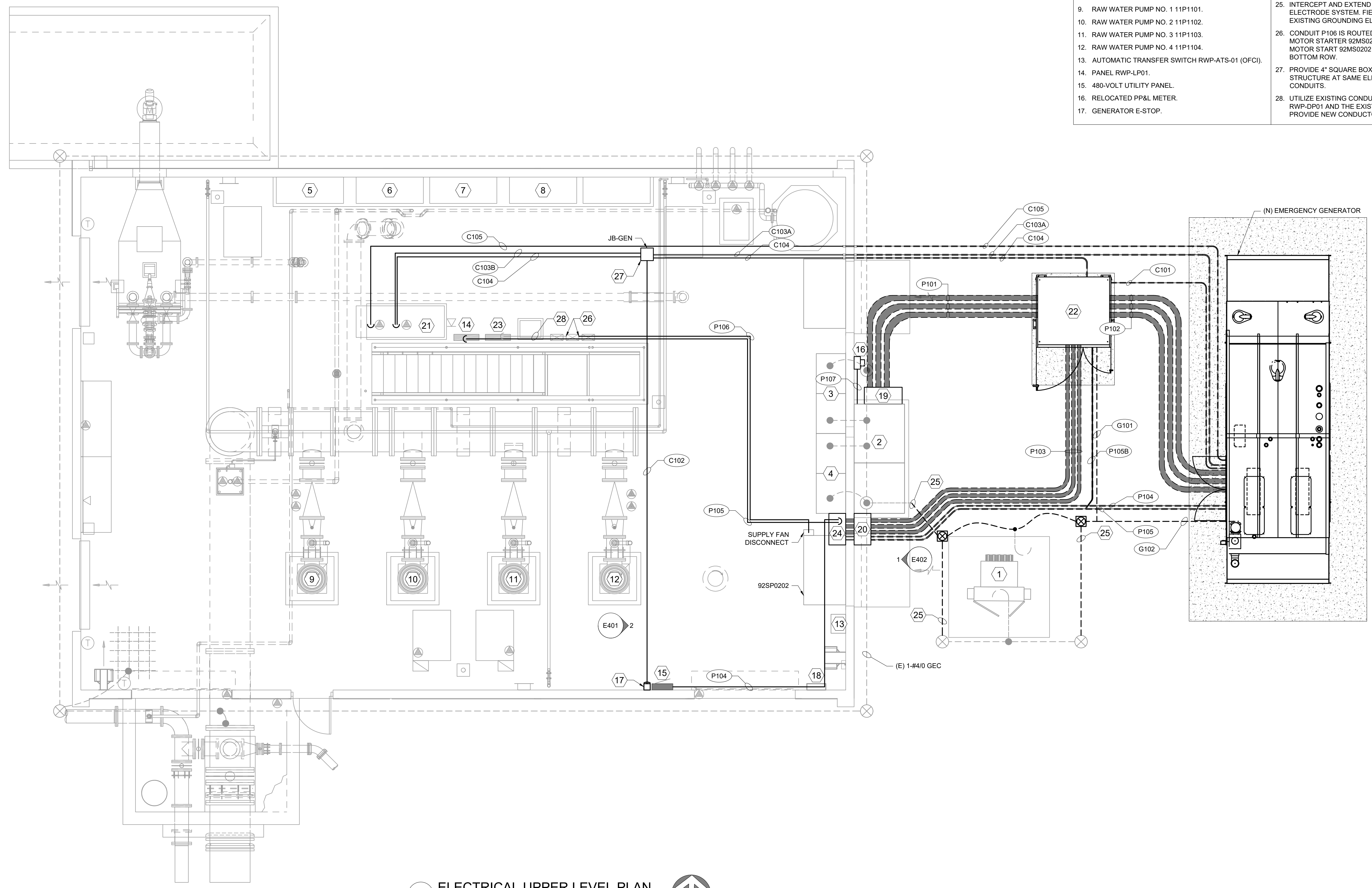
E200

SHEET KEY NOTES

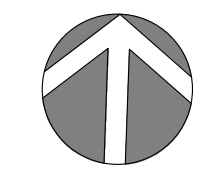
1. PP&L TRANSFORMER.
2. EXISTING EUSERC SWITCHBOARD.
3. RWP-SWB01 A SIDE.
4. RWP-SWB01 B SIDE.
5. ADJUSTABLE FREQUENCY DRIVE 11AFD1101.
6. ADJUSTABLE FREQUENCY DRIVE 11AFD1102.
7. ADJUSTABLE FREQUENCY DRIVE 11AFD 1103.
8. ADJUSTABLE FREQUENCY DRIVE 11AFD 1104.
9. RAW WATER PUMP NO. 1 11P1101.
10. RAW WATER PUMP NO. 2 11P1102.
11. RAW WATER PUMP NO. 3 11P1103.
12. RAW WATER PUMP NO. 4 11P1104.
13. AUTOMATIC TRANSFER SWITCH RWP-ATS-01 (OFCI).
14. PANEL RWP-LP01.
15. 480-VOLT UTILITY PANEL.
16. RELOCATED PP&L METER.
17. GENERATOR E-STOP.

SHEET KEY NOTES

18. HVAC CONTROL PANEL.
19. JUNCTION BOX, JB-01 (30" x 30" x 16").
20. JUNCTION BOX, JB-02 (30" x 30" x 16").
21. EXISTING PLC CABINET RWP-CP01.
22. NEW AUTOMATIC TRANSFER SWITCH RWP-ATS-SWB01-B (OFCI).
23. PANEL RWP-DP01.
24. JUNCTION BOX, JB-03 (30" x 30" x 16").
25. INTERCEPT AND EXTEND EXISTING GROUNDING ELECTRODE SYSTEM. FIELD VERIFY LOCATION OF EXISTING GROUNDING ELECTRODE SYSTEM.
26. CONDUIT P106 IS ROUTED THROUGH EXISTING MOTOR STARTER 92MS0202. FROM AS-BUILTS MOTOR START 92MS0202 IS IN THE MIDDLE ON THE BOTTOM ROW.
27. PROVIDE 4" SQUARE BOX. MOUNT TO BOTTOM OF STRUCTURE AT SAME ELEVATION AS EXISTING CONDUITS.
28. UTILIZE EXISTING CONDUIT BETWEEN PANEL RWP-DP01 AND THE EXISTING MOTOR STARTER. PROVIDE NEW CONDUCTORS.



1 ELECTRICAL UPPER LEVEL PLAN
SCALE: 1/4" = 1'-0"



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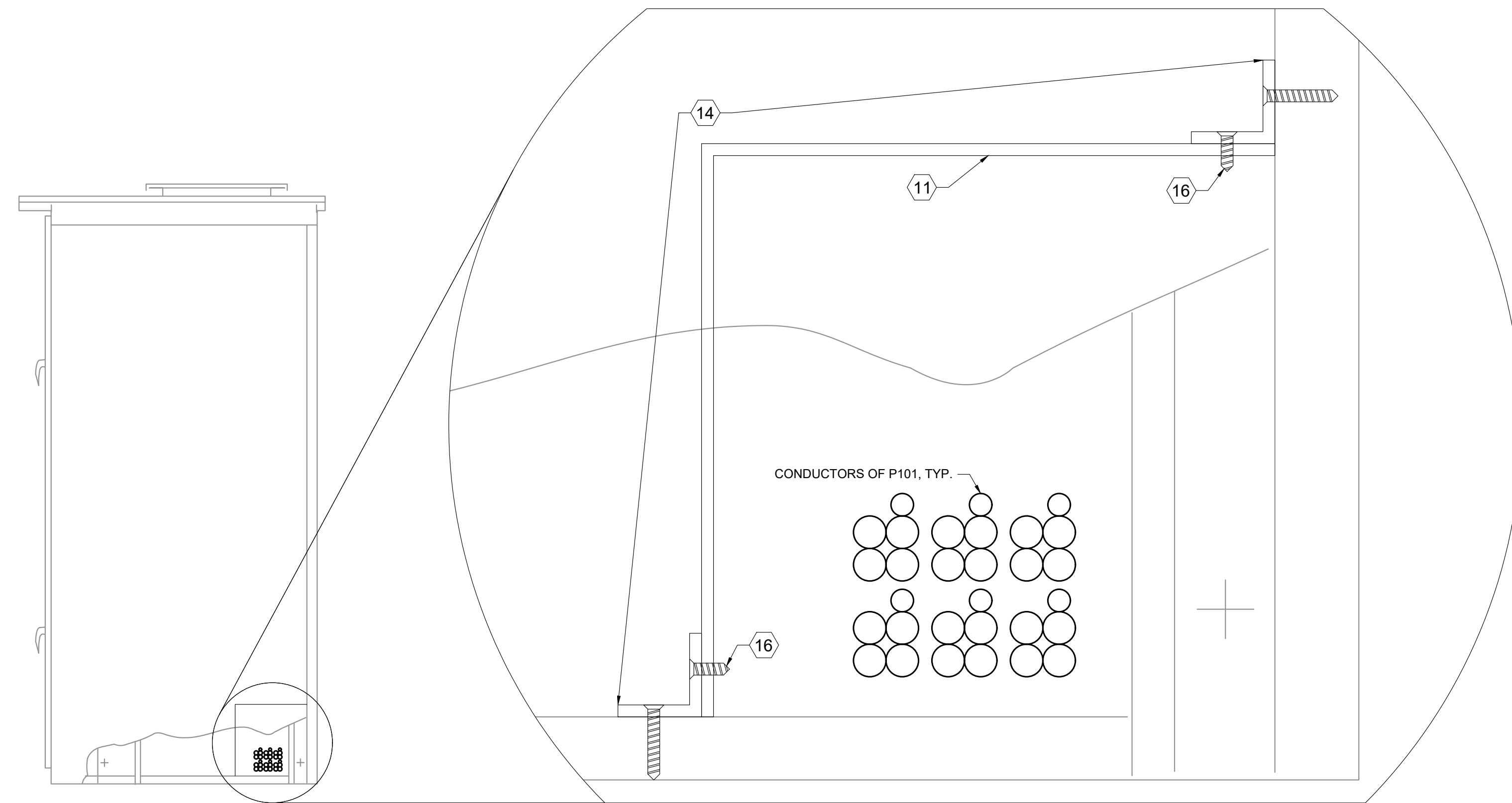
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86683
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MAY 08, 2012
BENJAMIN E. PERRY
EXPIRES: 12-31-2024

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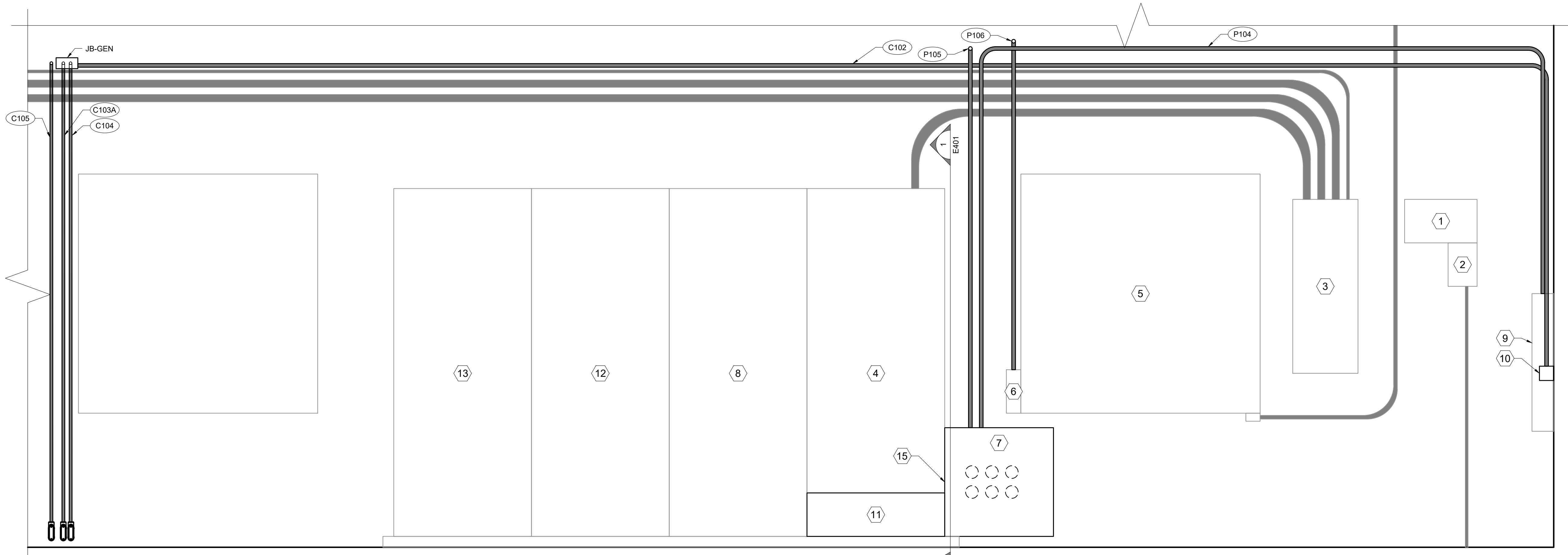
ELECTRICAL UPPER LEVEL PLAN

Design: **BEP**
Drawn: **EJC**
Checked: **BEP**
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Proj. No.: **7021802**
Drawing No.: **E300**



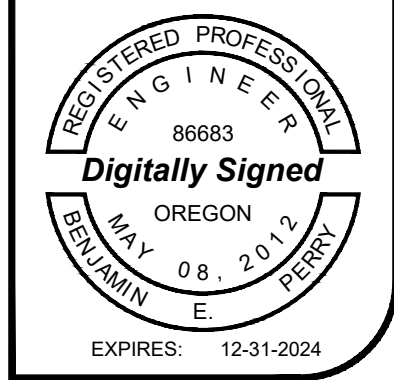
1 INTERIOR ELEVATION
SCALE: 3/4" = 1'-0"

- SHEET KEY NOTES**
- UNIT HEATER.
 - UNIT HEATER DISCONNECT.
 - AUTOMATIC TRANSFER SWITCH, RWP-ATS-01.
 - SWITCHBOARD, RWP-SWB01 B FEEDER SECTION.
 - SUPPLY FAN, 92SP0202.
 - SUPPLY FAN DISCONNECT.
 - NEW JUNCTION BOX, JB-03.
 - RWP-SWB01 B SIDE MAIN BREAKER..
 - 480-VOLT UTILITY PANEL.
 - NEW GENERATOR REMOTE E-STOP.
 - PROVIDE 1/4" THICK 12"x12" FIBERGLASS BARRIER BETWEEN THE SWITCHBOARD AND NEW CONDUCTORS. THE LENGTH OF THE BARRIER SHALL BE THE LENGTH OF THE SWITCHBOARD FEEDER SECTION. THE BARRIER SHALL PROVIDE PHYSICAL SEPARATION BETWEEN THE NEW SWITCHBOARD LINE CONDUCTORS AND THE EXISTING SWITCHBOARD FEEDER CONDUCTORS.
 - RWP-SWB01 A SIDE MAIN BREAKER.
 - RWP-SWB01 A SIDE FEEDER SECTION.
 - PROVIDE 1-1/2" GALVANIZED L BRACKETS AT 8" ON CENTER TO SECURE THE BARRIER TO THE SWITCHBOARD FRAMING AND TO THE GROUND.
 - CUT 12" X 12" SQUARE HOLE IN INTERIOR SHEET METAL. PROVIDE EPDM GROMMET EDGING MATERIAL ON THE HOLE. THE HOLE SHALL BE UTILIZED TO PASS CABLES THROUGH THE SWITCHBOARD TO THE JUNCTION BOX.
 - CONTRACTOR SHALL PROVIDE PROTECTIVE NON-METALLIC CAP FOR SCREW TO PREVENT DAMAGE OF CONDUCTORS.



2 INTERIOR ELEVATION
SCALE: 3/4" = 1'-0"

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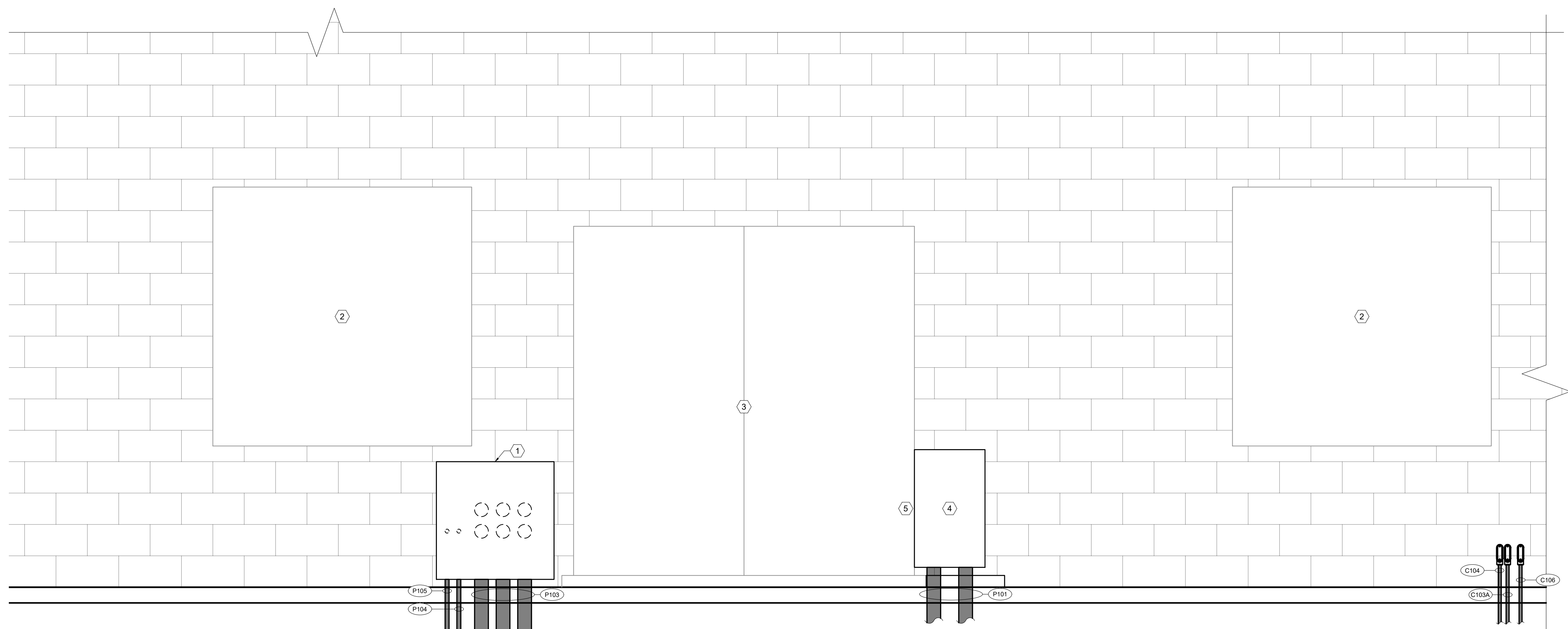
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INTERIOR ELEVATION

Design: BEP
Drawn: EJC
Checked: BEP
Date: Dec. 2022
Proj. No.: 7021802
Drawing No.:

E401

- SHEET KEY NOTES**
1. JUNCTION BOX, JB-02.
 2. SUPPLY FAN LOUVRE.
 3. EUSERC SWITCHBOARD.
 4. JUNCTION BOX, JB-01. SEE ELECTRICAL PHOTO DETAIL ON THIS SHEET.
 5. REMOVE STAINLESS STEEL COVER IN SWITCHBOARD. INSTALL JUNCTION BOX, JB-01 AGAINST THE SIDE OF THE SWITCHBOARD AND COVER THE OPENING.
 6. CUT 12" X 12" SQUARE HOLE IN INTERIOR SHEET METAL. PROVIDE EPDM GROMMET EDGING MATERIAL ON THE HOLE. THE HOLE SHALL BE UTILIZED TO PASS CABLES THROUGH THE SWITCHBOARD TO THE JUNCTION BOX.
 7. PROVIDE NEW STAINLESS STEEL UNISTRUT AND ANCHORS TO POSITIVELY SECURE THE BACK OF JUNCTION BOX JB-01.

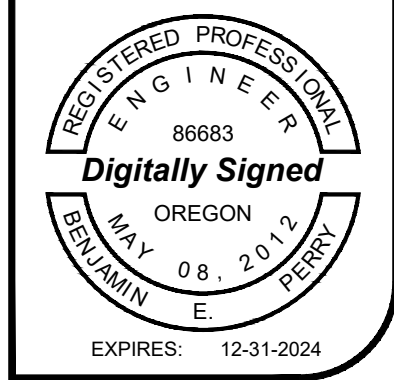


1 EXTERIOR ELEVATION
SCALE: 3/4" = 1'-0"



2 SWITCHBOARD PHOTO
SCALE: NTS

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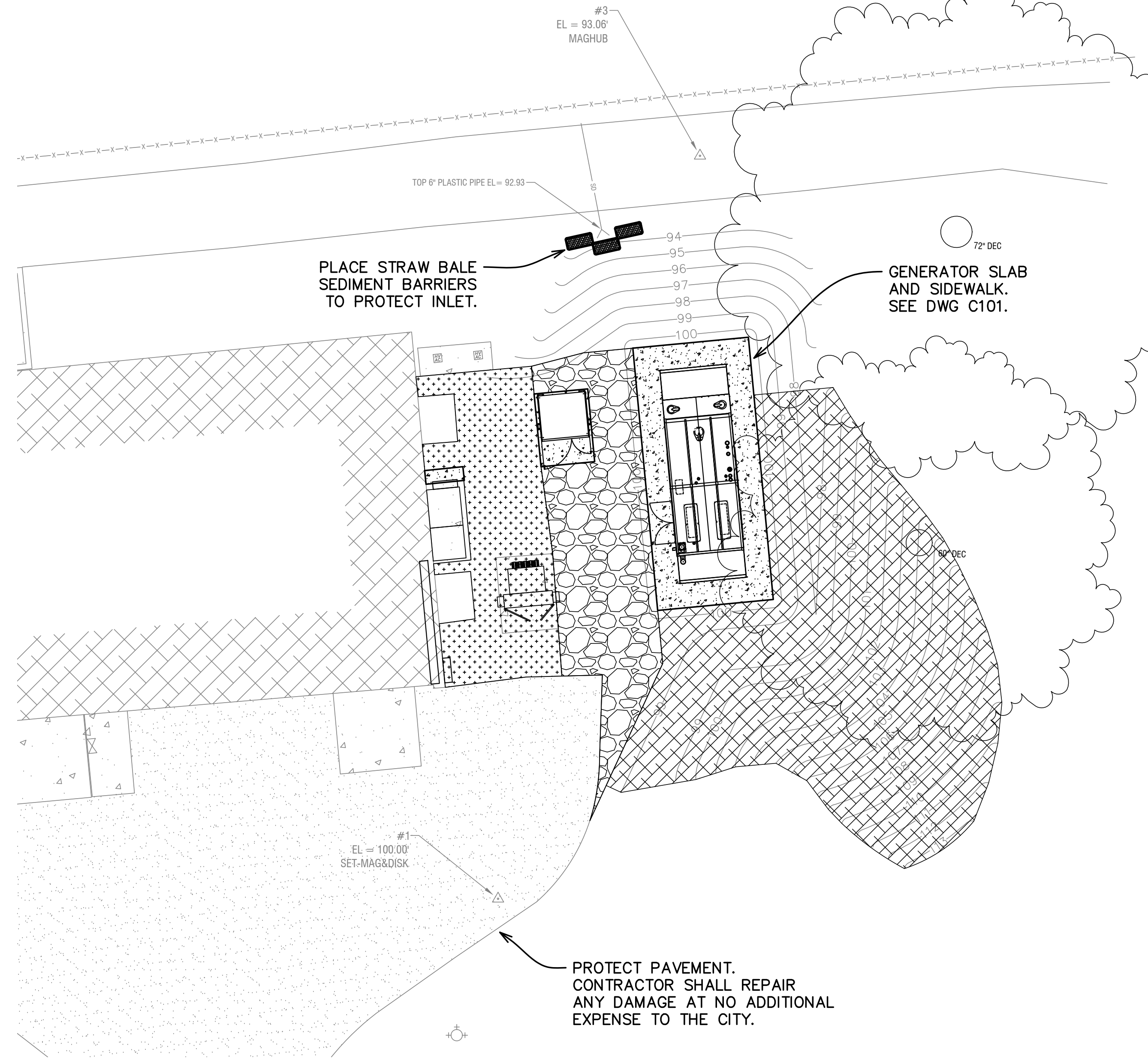
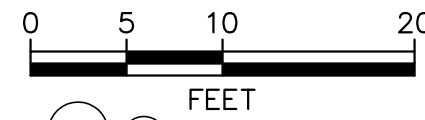
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EXTERIOR ELEVATION

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Date **Dec. 2022**
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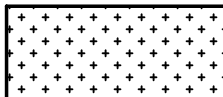
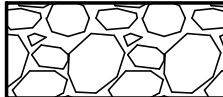
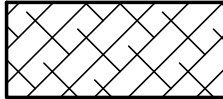
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NOTE:
ALL CRUSHED ROCK SHALL CONFORM TO THE REQUIREMENTS OF OSSC (ODOT/APWA) 02630.10 (DENSE GRADED BASE AGGREGATE) 3/4"-0. ALL CRUSHED ROCK SHALL BE QUARRY ROCK.



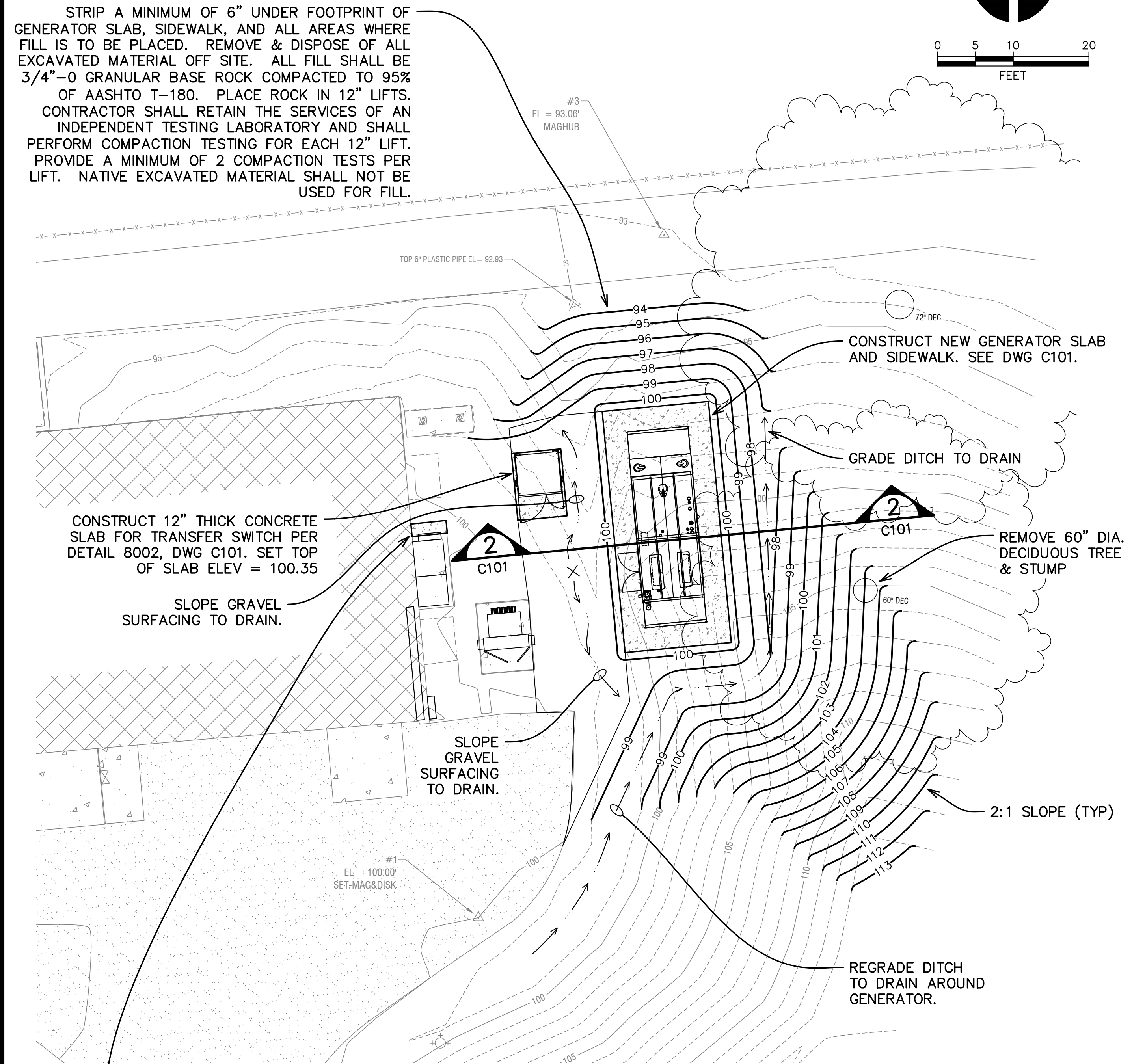
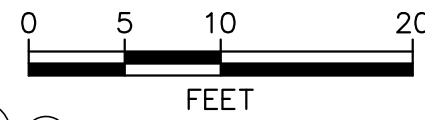
SURFACING PLAN
SCALE: 1" = 10'

SURFACING LEGEND

-  UNLESS DIRECTED OTHERWISE BY ELECTRICAL PLANS & SPECIFICATIONS, BACKFILL ALL TRENCHES, EXCAVATIONS, & DISTURBED AREAS WITH 3/4"-0 CRUSHED ROCK TO SURFACE GRADE TO PROVIDE SMOOTH, FREE-DRAINING SURFACE.
-  EXCAVATE AS NEEDED TO PLACE A MINIMUM OF 10" OF 3/4"-0 COMPACTED CRUSHED ROCK OVER COMPACTED SUBGRADE.
-  PLACE TENSAR/ NORTH AMERICAN GREEN TYPE SC150 EROSION CONTROL BLANKET AND HYDROSEED AT A RATE OF 2,000 POUNDS PER ACRE WITH A DWARF GRASS MIX CONSISTING OF 80% DWARF PERENNIAL RYEGRASS AND 20% CREEPING RED FESCUE. APPLICATION RATE SHALL BE 100 POUNDS PER ACRE MINIMUM.

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NOTE:
ALL CRUSHED ROCK SHALL CONFORM TO THE REQUIREMENTS OF OSSC (ODOT/APWA) 02630.10 (DENSE GRADED BASE AGGREGATE) 3/4"-0. ALL CRUSHED ROCK SHALL BE QUARRY ROCK.



GRADING PLAN
SCALE: 1" = 10'



REGISTERED PROFESSIONAL ENGINEER
No. 56473PE
OREGON
JAN 14, 2023
CHRISTOPHER J. BRIVATO
RENEWS: 12/31/2023

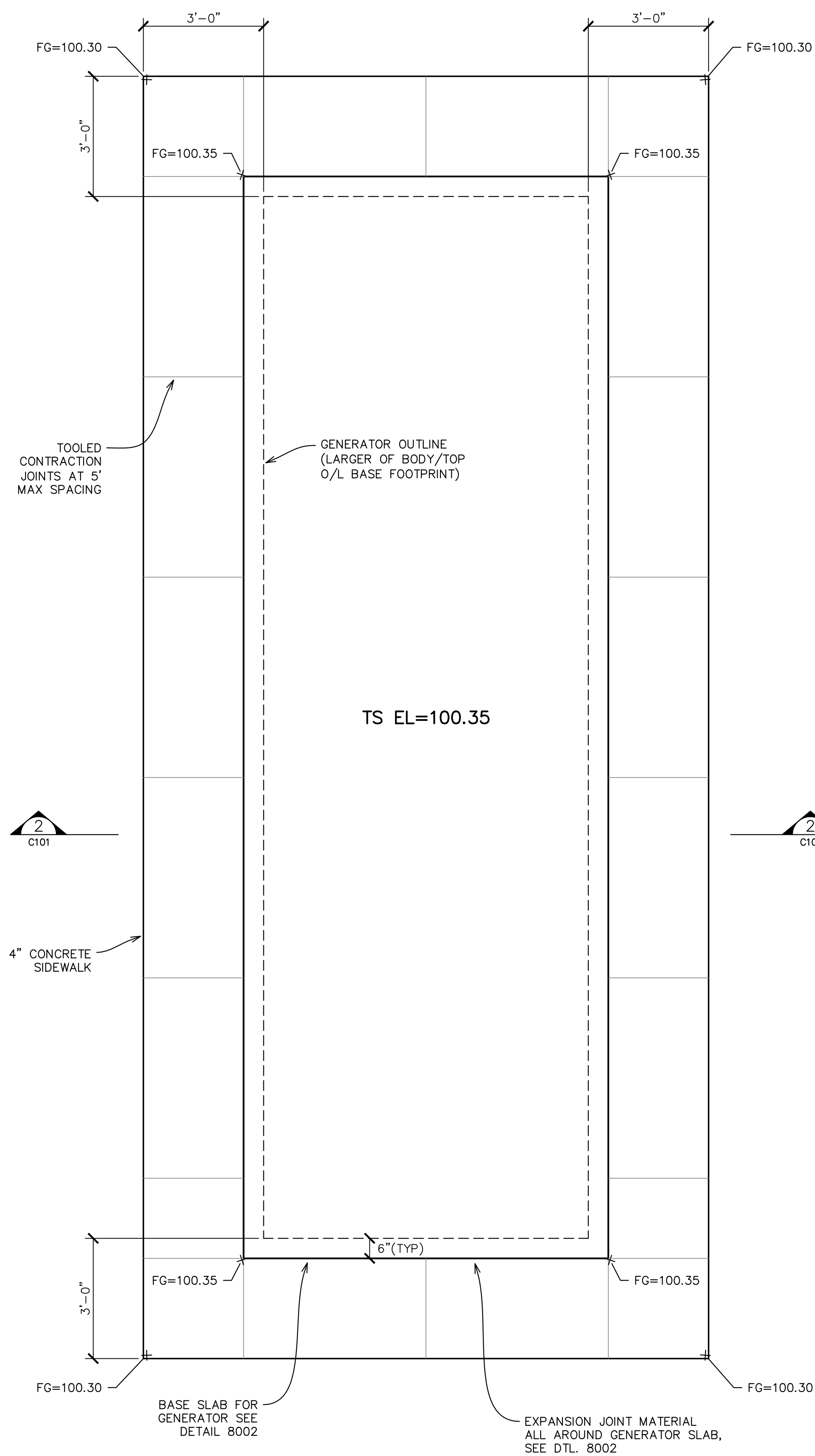
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GRADING & SURFACING PLANS

Design	CJB
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Date	Dec. 2022
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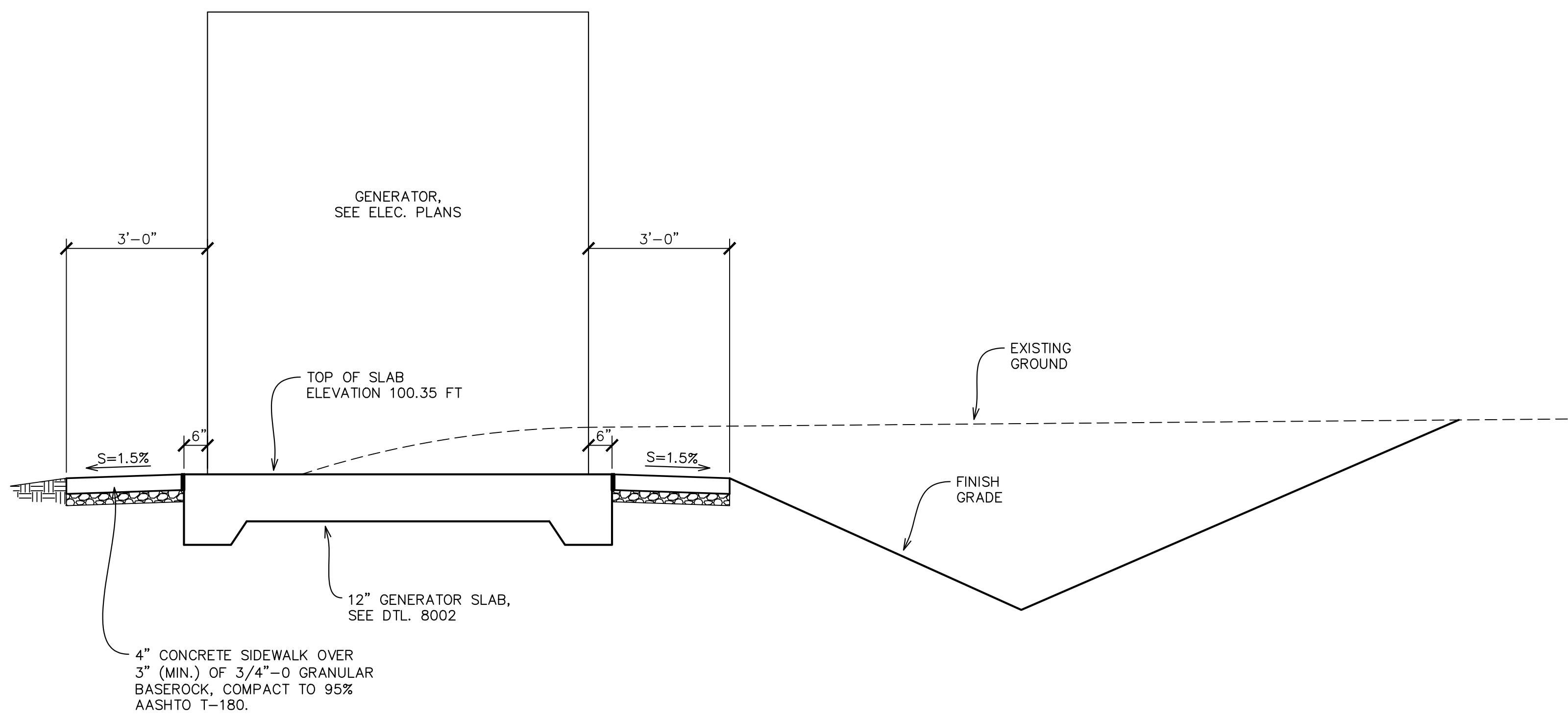
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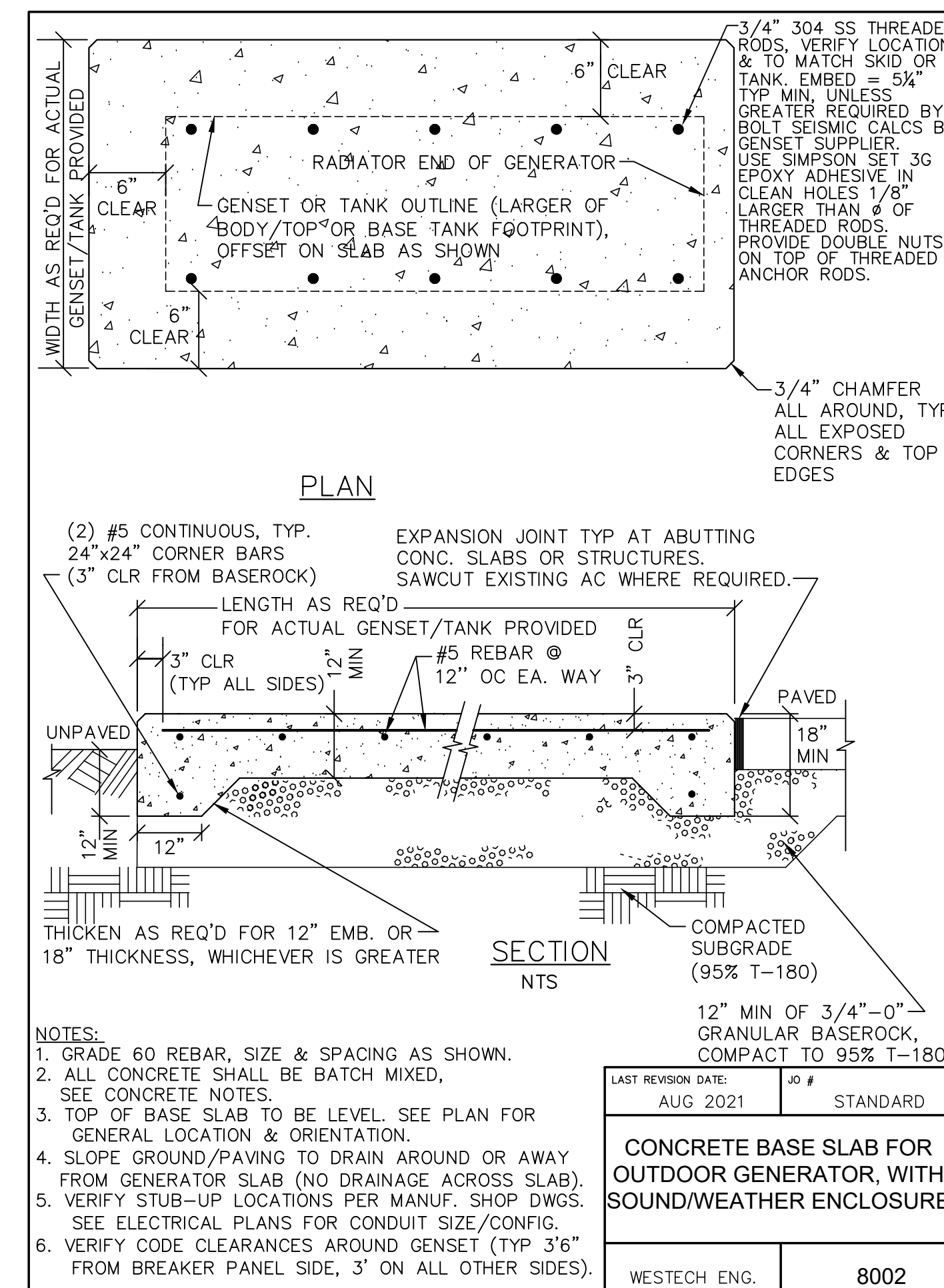
GENERATOR SLAB / SIDEWALK PLAN 1
1/2" = 1'-0" C101

CONCRETE NOTES

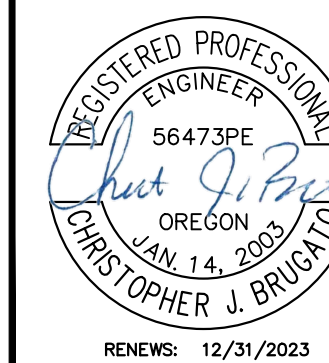
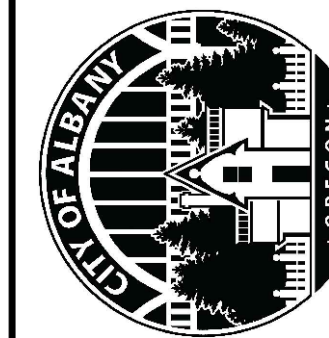
1. THE OWNER SHALL PROVIDE COMPACTION, CONCRETE, AND CONCRETE ANCHOR TESTING BY AN INDEPENDENT LABORATORY. COORDINATE THE REQUIREMENTS WITH THE OWNER AND THE TESTING LABORATORY.
2. THE MINIMUM CEMENT CONTENT SHALL BE 7 SACKS (658 POUNDS) PER CUBIC YARD. AT THE CONTRACTOR'S OPTION, HIGH EARLY STRENGTH CEMENT MAY BE USED. IF HIGH EARLY STRENGTH CEMENT IS USED, THE CEMENT MAY BE REDUCED TO 6 SACKS (564 POUNDS) PER CUBIC YARD.
3. THE MAXIMUM WATER/CEMENT RATIO OF THE CONCRETE AT THE TIME OF PLACEMENT SHALL BE 0.42. AIR CONTENT SHALL BE 4.5% ± 1.5%.
4. THE MINIMUM COMPRESSIVE DESIGN STRENGTH OF THE CONCRETE SHALL BE 2,500 PSI IN 72 HOURS AND NOT LESS THAN 3,500 PSI IN 7 DAYS.
5. THE USE OF SUPER-PLASTICIZER IS AT THE CONTRACTOR'S OPTION, BUT IS ENCOURAGED.
6. CONTRACTOR SHALL SUBMIT AN ESTABLISHED MIX DESIGN WITH A DEMONSTRATED TEST HISTORY OR LABORATORY TRIAL BATCHES WITH TEST RESULTS TO ENGINEER FOR APPROVAL PRIOR TO ANY CONCRETE PLACEMENT.
7. ALL REINFORCING STEEL SHALL BE GRADE 60 REBAR.
8. CONTRACTOR SHALL PROVIDE CERTIFIED SHOP DRAWINGS FOR TRANSFORMERS & OTHER ELECTRICAL EQUIPMENT FOR REVIEW & APPROVAL. CONTRACTOR SHALL PROVIDE ANCHOR BOLT DESIGN FOR ALL EQUIPMENT. DESIGNS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN OREGON. ALL ANCHOR BOLT DESIGNS SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT OF CONCRETE.



GENERATOR SLAB / SIDEWALK SECTION 2
1/2" = 1'-0" C101



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