

1

2

3

4

5

6

7

8

9

10

11

12

13

KEYED NOTES:

- 1 ELECTRICAL CONTRACTOR (EC) TO INSTALL FEEDER TO PAD MOUNTED UTILITY TRANSFORMER FURNISHED BY OTHERS. EC TO PROVIDE POWER FEED FROM LOAD SIDE OF UTILITY DISCONNECT TO LINE SIDE OF UTILITY TRANSFORMER. EC TO COORDINATE LOCATION AND TERMINATIONS WITH UTILITY.
- 2 EC TO PROVIDE POWER FEED AS SPECIFIED ON CABLE AND CONDUIT SCHEDULE, TERMINATING CONNECTIONS ON EQUIPMENT SPECIFIED. EC TO PROVIDE POWER FEED WITH 40' OF COILED LABELED CONDUCTOR IN SPECIFIED ELECTRICAL TRANSITION VAULT TO BE TERMINATED BY OTHERS TO SOURCE.
- 3 EC TO INSTALL POLE MOUNTED (NEAR VAULT) VFD FURNISHED BY OTHERS. VFD TO INSTALL AT HEIGHT OF 4'-0". EC TO COORDINATE LOCATION WITH CIVIL AND MECHANICAL CONTRACTOR. EC TO PROVIDE POWER FEED FROM VFD TO PUMP VAULT JUNCTION BOX AND MAKE FINAL TERMINATIONS OF POWER FEED AND FURNISHED PUMP LEADS. REFER TO DETAIL 1, SHEET E201.
- 4 EC TO PROVIDE POWER FEED TO PUMP VAULT JUNCTION BOX AND MAKE FINAL TERMINATIONS OF POWER FEED AND FURNISHED PUMP LEADS. REFER TO DETAIL 1, SHEET E201.

GENERAL NOTES:

- SEE DRAWING E103 THROUGH E105 FOR CABLE AND CONDUIT SIZES.
- CABLE AND CONDUIT BETWEEN XFMR WATF (LINE SIDE) AND SWBD-A SHALL BE PROVIDED BY VEOLIA DESIGN DRAWINGS.
- MATERIAL DEPICTED IN GRAYSCALE PROVIDED BY VEOLIA DESIGN DRAWINGS. REFERENCE VEOLIA DRAWINGS VFS-EPM-000-DWG-E-110 FOR CLARIFICATION AND VFS-EPM-000-DWG-E-130 FOR ELEVATIONS, LOCATED IN APPENDIX J2.
- CONFIRM PHYSICAL LOCATIONS OF DEVICES WITH CIVIL AND MECHANICAL CONTRACTORS. REFERENCE LOCATIONS CAN BE OBTAINED ON DRAWING C002 OF THE CIVIL SET.
- EC TO PROVIDE POWER FEED AS SPECIFIED ON CABLE AND CONDUIT SCHEDULE, TERMINATING CONNECTIONS ON EQUIPMENT SPECIFIED. EC TO PROVIDE POWER FEED WITH 40' OF COILED LABELED CONDUCTOR IN SPECIFIED ELECTRICAL TRANSITION VAULT. DETAILS BETWEEN TRANSITION VAULT AND SOURCE ARE DEPICTED ON THE VEOLIA DESIGN DRAWINGS.
- EC TO INSTALL VAULT WALL MOUNTED FLOW TRANSMITTER FURNISHED BY OTHERS. EC TO COORDINATE LOCATION WITH CIVIL AND MECHANICAL CONTRACTOR. REFER TO DETAIL 1, SHEET E201. EC TO PROVIDE NEMA 6P JUNCTION BOX FOR FLOW TRANSMITTER AND MAKE FINAL TERMINATIONS OF POWER FEED TO FLOW TRANSMITTER AND CONTROL LEADS TO METER AS SEEN ON DETAIL 2, SHEET E201.

no.	date	by	ckd	description
A	10/08/21	ACH	SJD	ISSUED FOR PRELIMINARY DESIGN

**PRELIMINARY - NOT
FOR CONSTRUCTION**

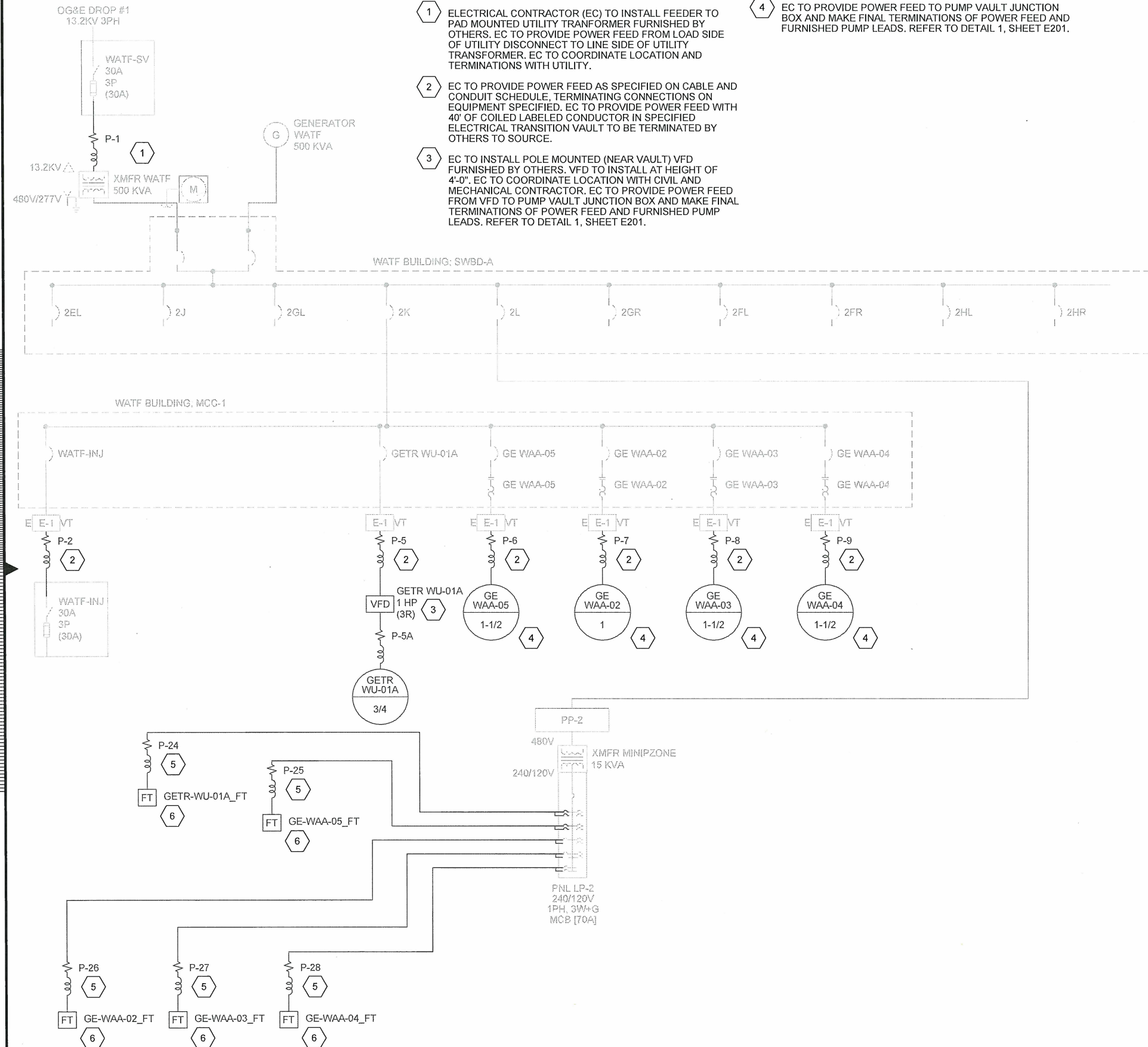


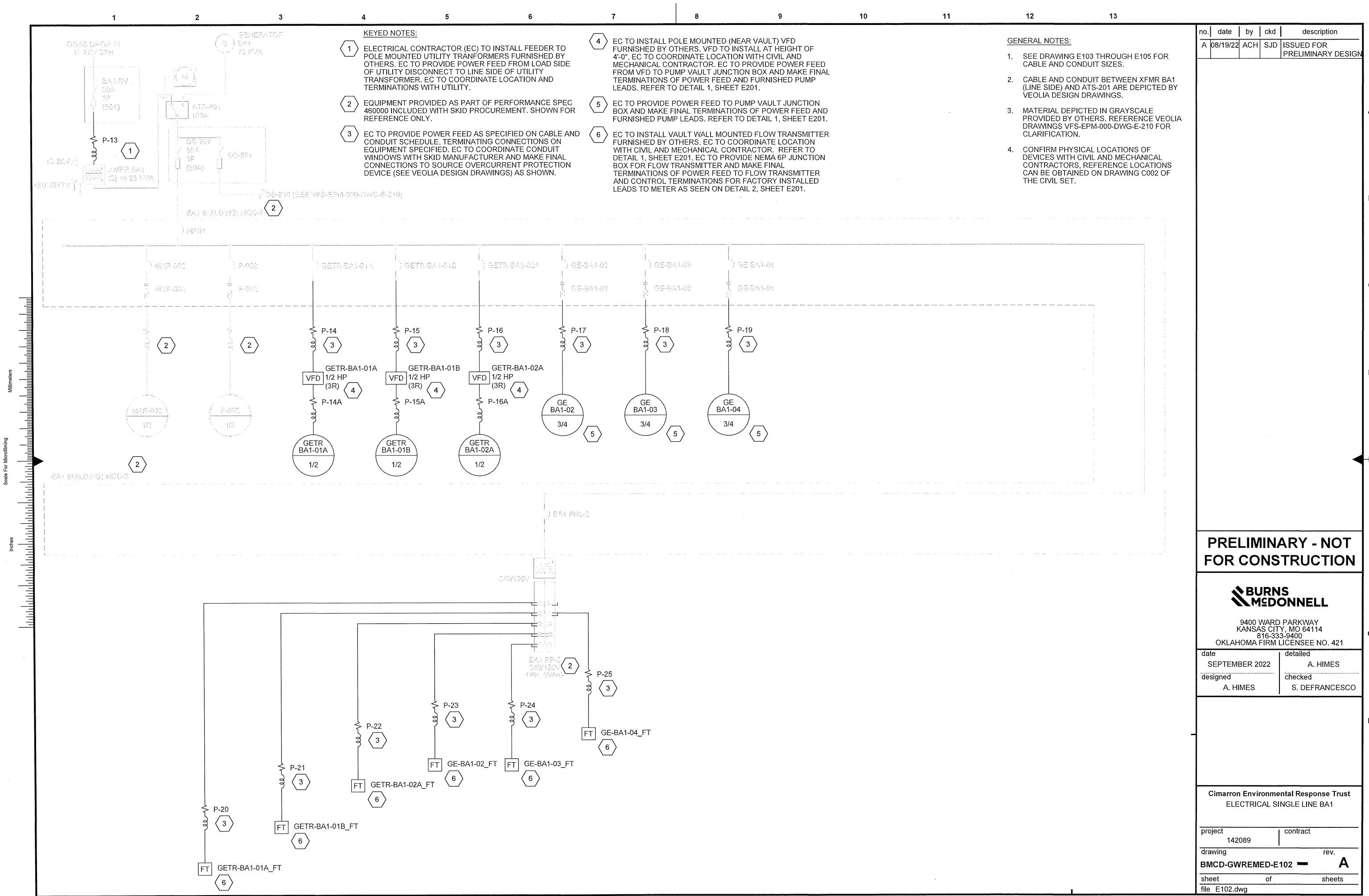
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
OKLAHOMA FIRM LICENSE NO. 421

date	SEPTEMBER 2022	detailed	A. HIMES
designed	A. HIMES	checked	S. DEFRANCESCO

Cimarron Environmental Response Trust
ELECTRICAL SINGLE LINE
WATF

project	142089	contract	
drawing	BMCD-GWREMED-E101	rev.	A
sheet	of	sheets	
file	E101.dwg		






KEYED NOTES:

- 1 ELECTRICAL CONTRACTOR (EC) TO INSTALL FEEDER TO POLE MOUNTED UTILITY TRANSFORMERS FURNISHED BY OTHERS. EC TO PROVIDE POWER FEED FROM LOAD SIDE OF UTILITY DISCONNECT TO LINE SIDE OF UTILITY TRANSFORMER. EC TO COORDINATE LOCATION AND TERMINATIONS WITH UTILITY.
- 2 EQUIPMENT PROVIDED AS PART OF PERFORMANCE SPEC 460000 INCLUDED WITH SKID PROCUREMENT. SHOWN FOR REFERENCE ONLY.
- 3 EC TO PROVIDE POWER FEED AS SPECIFIED ON CABLE AND CONDUIT SCHEDULE. TERMINATING CONNECTIONS ON EQUIPMENT SPECIFIED. EC TO COORDINATE CONDUIT WINDOWS WITH SKID MANUFACTURER AND MAKE FINAL CONNECTIONS TO SOURCE OVERCURRENT PROTECTION DEVICE (SEE VEOLIA DESIGN DRAWINGS) AS SHOWN.
- 4 EC TO INSTALL POLE MOUNTED (NEAR VAULT) VFD FURNISHED BY OTHERS. VFD TO INSTALL AT HEIGHT OF 4'-0". EC TO COORDINATE LOCATION WITH CIVIL AND MECHANICAL CONTRACTOR. EC TO PROVIDE POWER FEED FROM VFD TO PUMP VAULT JUNCTION BOX AND MAKE FINAL TERMINATIONS OF POWER FEED AND FURNISHED PUMP LEADS. REFER TO DETAIL 1, SHEET E201.
- 5 EC TO PROVIDE POWER FEED TO PUMP VAULT JUNCTION BOX AND MAKE FINAL TERMINATIONS OF POWER FEED AND FURNISHED PUMP LEADS. REFER TO DETAIL 1, SHEET E201.
- 6 EC TO INSTALL VAULT WALL MOUNTED FLOW TRANSMITTER FURNISHED BY OTHERS. EC TO COORDINATE LOCATION WITH CIVIL AND MECHANICAL CONTRACTOR. REFER TO DETAIL 1, SHEET E201. EC TO PROVIDE NEMA 6P JUNCTION BOX FOR FLOW TRANSMITTER AND MAKE FINAL TERMINATIONS OF POWER FEED TO FLOW TRANSMITTER AND CONTROL TERMINATIONS FOR FACTORY INSTALLED LEADS TO METER AS SEEN ON DETAIL 2, SHEET E201.

GENERAL NOTES:

1. SEE DRAWING E103 THROUGH E105 FOR CABLE AND CONDUIT SIZES.
2. CABLE AND CONDUIT BETWEEN XFMR BA1 (LINE SIDE) AND ATS-201 ARE DEPICTED BY VEOLIA DESIGN DRAWINGS.
3. MATERIAL DEPICTED IN GRAYSCALE PROVIDED BY OTHERS. REFERENCE VEOLIA DRAWINGS VFS-EPM-000-DWG-E-210 FOR CLARIFICATION.
4. CONFIRM PHYSICAL LOCATIONS OF DEVICES WITH CIVIL AND MECHANICAL CONTRACTORS. REFERENCE LOCATIONS CAN BE OBTAINED ON DRAWING C002 OF THE CIVIL SET.

no.	date	by	ckd	description
A	08/19/22	ACH	SJD	ISSUED FOR PRELIMINARY DESIGN
PRELIMINARY - NOT FOR CONSTRUCTION				
 9400 WARD PARKWAY KANSAS CITY, MO 64114 816-333-9400 OKLAHOMA FIRM LICENSEE NO. 421				
date	SEPTMBER 2022	detailed	A. HIMES	
designed	A. HIMES	checked	S. DEFRANCESCO	
Cimarron Environmental Response Trust ELECTRICAL SINGLE LINE BA1				
project	142089	contract		
drawing	BMCD-GWREMED-E102	rev.	A	
sheet	of	sheets		
file	E102.dwg			

1

2

3

4

5

6

7

8

9

10

11

12

13

CABLE AND CONDUIT SCHEDULE

CABLE NUMBER	SERVICE	LOAD VOLTS	CONDUCTORS						CONDUIT		
			POWER		CONTROL		INSTRUMENT & COMMS.				
			NUMBER AND SIZE	TYPE	NUMBER AND SIZE	TYPE	NUMBER OF CABLES & NO. PAIRS / CONDUCTORS	TYPE	FROM(SOURCE)	TO	SIZE
SHEET 1											
P-1	WATF BUILDING POWER DROP	13.2KVAC	(3) #2 AWG + #2 GND	I				WATF-SV	XFMR WATF	4	PVC
P-2	WATF INJECTION SKID POWER	480VAC	(3) #8 AWG + #8 GND	A				MCC-1	WATF-INJ	1	PVC/RGS
P-3	PUMP GETR-WU-01A POWER [VFD]	480VAC	(3) #10 AWG + #10 GND	A				MCC-1	VFD GETR-WU-01A	1	PVC
P-3A	PUMP GETR-WU-01A POWER [MOTOR]	480VAC	(3) #10 AWG + #10 GND	A				VFD GETR-WU-01A	GETR-WU-01A	1	PVC
P-4	PUMP GE-WAA-05 POWER	480VAC	(3) #8 AWG + #8 GND	A				MCC-1	GE-WAA-05	1	PVC
P-5	PUMP GE-WAA-02 POWER	480VAC	(3) #10 AWG + #10 GND	A				MCC-1	GE-WAA-02	1	PVC
P-6	PUMP GE-WAA-03 POWER	480VAC	(3) #8 AWG + #8 GND	A				MCC-1	GE-WAA-03	1	PVC
P-7	PUMP GE-WAA-04 POWER	480VAC	(3) #8 AWG + #8 GND	A				MCC-1	GE-WAA-04	1	PVC
P-8	PUMP GETR-WU-01A FLOW XMTR POWER	240VAC	(2) #10 AWG + #10 GND	A				MCC-1	GETR-WU-01A_FT	1	PVC/RGS
P-9	PUMP GE-WAA-05 FLOW XMTR POWER	240VAC	(2) #10 AWG + #10 GND	A				MCC-1	GE-WAA-05_FT	1	PVC/RGS
P-10	PUMP GE-WAA-02 FLOW XMTR POWER	240VAC	(2) #10 AWG + #10 GND	A				MCC-1	GE-WAA-02_FT	1	PVC/RGS
P-11	PUMP GE-WAA-03 FLOW XMTR POWER	240VAC	(2) #10 AWG + #10 GND	A				MCC-1	GE-WAA-03_FT	1	PVC/RGS
P-12	PUMP GE-WAA-04 FLOW XMTR POWER	240VAC	(2) #10 AWG + #10 GND	A				MCC-1	GE-WAA-04_FT	1	PVC/RGS
P-13	BA1 INJECTION SKID POWER DROP	13.2KVAC	(3) #2 AWG + #2 GND	I				BA1-SV	(3) 1Ø XMFR BA1	4	PVC
P-14	PUMP GETR-BA1-01A POWER [VFD]	480VAC	(3) #10 AWG + #10 GND	A				MCC-2	VFD GETR-BA1-01A	1	PVC
P-14A	PUMP GETR-BA1-01A POWER [MOTOR]	480VAC	(3) #10 AWG + #10 GND	A				VFD GETR-BA1-01A	GETR-BA1-01A	1	PVC
P-15	PUMP GETR-BA1-01B POWER [VFD]	480VAC	(3) #10 AWG + #10 GND	A				MCC-2	VFD GETR-BA1-01B	1	PVC
P-15A	PUMP GETR-BA1-01B POWER [MOTOR]	480VAC	(3) #10 AWG + #10 GND	A				VFD GETR-BA1-01B	GETR-BA1-01B	1	PVC
P-16	PUMP GETR-BA1-02A POWER [VFD]	480VAC	(3) #10 AWG + #10 GND	A				MCC-2	VFD GETR-BA1-02A	1	PVC
P-16A	PUMP GETR-BA1-02A POWER [MOTOR]	480VAC	(3) #10 AWG + #10 GND	A				VFD GETR-BA1-02A	GETR-BA1-02A	1	PVC
P-17	PUMP GE-BA1-02 POWER	480VAC	(3) #10 AWG + #10 GND	A				MCC-2	GE-BA1-02	1	PVC
P-18	PUMP GE-BA1-03 POWER	480VAC	(3) #10 AWG + #10 GND	A				MCC-2	GE-BA1-03	1	PVC
P-19	PUMP GE-BA1-04 POWER	480VAC	(3) #10 AWG + #10 GND	A				MCC-2	GE-BA1-04	1	PVC
P-20	PUMP GETR-BA1-01A FLOW XMTR POWER	240VAC	(2) #10 AWG + #10 GND	A				BA1 PP-2	GETR-BA1-01A_FT	1	PVC
P-21	PUMP GETR-BA1-01B FLOW XMTR POWER	240VAC	(2) #10 AWG + #10 GND	A				BA1 PP-2	GETR-BA1-01B_FT	1	PVC
P-22	PUMP GETR-BA1-02A FLOW XMTR POWER	240VAC	(2) #10 AWG + #10 GND	A				BA1 PP-2	GETR-BA1-02A_FT	1	PVC
P-23	PUMP GE-BA1-02 FLOW XMTR POWER	240VAC	(2) #10 AWG + #10 GND	A				BA1 PP-2	GE-BA1-02_FT	1	PVC
P-24	PUMP GE-BA1-03 FLOW XMTR POWER	240VAC	(2) #10 AWG + #10 GND	A				BA1 PP-2	GE-BA1-03_FT	1	PVC
P-25	PUMP GE-BA1-04 FLOW XMTR POWER	240VAC	(2) #10 AWG + #10 GND	A				BA1 PP-2	GE-BA1-04_FT	1	PVC

NOTES

NOTE 1

SEE ONE-LINE DRAWINGS OR PANEL SCHEDULES FOR POWER CIRCUIT SIZES.

CABLE TYPE

DESCRIPTION

A

120V/208V/240V/480V SYSTEMS & BELOW: SINGLE CONDUCTOR POWER AND CONTROL CABLE SHALL BE 600V COPPER STRANDED, UL LISTED, TYPE XHHW-2 (PVC-INSULATION)

B

120V/208V/240V/480V SYSTEMS & BELOW: MULTI-CONDUCTOR POWER AND CONTROL CABLE SHALL BE 600V COPPER STRANDED, UL LISTED, TYPE TC (PVC-NYLON INSULATION / PVC JACKET)

C

OKONITE TYPE SP-OS, TYPE ITC/PLTC INSTRUMENTATION CABLE (TRIAD - INDIVIDUAL & OVERALL SHIELD 300V - 105 °C RATING) OR APPROVED EQUAL

D

OKONITE TYPE P-OS, TYPE ITC/PLTC INSTRUMENTATION CABLE (PAIRS - INDIVIDUAL & OVERALL SHIELD 300V - 105 °C RATING) OR APPROVED EQUAL

E

INDOOR/OUTDOOR 62.5 MULTIMODE FIBER OPTIC CABLE, UL LISTED, FLAME RETARDANT, WATER-RESISTANT, UV-RESISTANT, FUNGUS-RESISTANT, TIGHT BUFFERED CONSTRUCTION (PVC JACKET)

F

OKONITE, OKOGUARD-OKOSEAL, MV-105, 5kV 133%, SINGLE CONDUCTOR

G

OKONITE C-L-X MV-105, 5kV 133%, FOR CABLE TRAY USE, MULTICONDUCTOR

H

BELDEN 7953A (CAT 6 - INDUSTRIAL GRADE SUNGLIGHT & OIL RESISTANT - OUTDOOR RATED - PVC JACKET) OR APPROVED EQUAL

I

15kV SYSTEM: SINGLE CONDUCTOR POWER SHALL BE 15 Kv COPPER STRANDED, UL LISTED, TYPE EPR (PVC JACKET)

J

COMMUNICATION/NETWORK CABLING

no.

date

by

ckd

description

A

08/19/22

ACH

SJD

ISSUED FOR PRELIMINARY DESIGN

PRELIMINARY - NOT FOR CONSTRUCTION

BURNS

McDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
OKLAHOMA FIRM LICENSEE NO. 421

date

SEPTMBER 2022

designed

A. HIMES

detailed

A. HIMES

checked

S. DEFRANCESCO

Cimarron Environmental Response Trust

CABLE AND CONDUIT SCHEDULE - SHEET 1

project

142089

contract

drawing

BMCD-GWREMED-E103

rev.

A

sheet

of

sheets

file

E103.dwg

Millimeters

Inches

Scale For Microfilming

Z:\CLIENTS\SIENSICERT\129852_CERT-DECOM2021\DESIGN\CADD\DWGS\ELECTRICAL\E103.DWG 8/18/2022 1:33 PM EAPULCHER

1

2

3

4

5

6

7

8

9

10

11

12

13

CABLE AND CONDUIT SCHEDULE

CABLE AND CONDUIT SCHEDULE														
CABLE NUMBER	SERVICE	LOAD VOLTS	CONDUCTORS						FROM (SOURCE)		TO		CONDUIT SIZE TYPE	
			POWER		CONTROL		INSTRUMENT & COMMS.							
			NUMBER AND SIZE	TYPE	NUMBER AND SIZE	TYPE	NUMBER OF CABLES & NO. PAIRS / CONDUCTORS	TYPE						
SHEET 2														
C-E1	CAT 6 ETHERNET CONNECTION FOR PLC NETWORK CONNECTION	-					CAT 6	J	WATF PLC ETHERNET SWITCH	WELL FIELD PLC CPP-1	-		CABLE TRAY	
C-E2	CAT 6 ETHERNET CONNECTION FOR PLC NETWORK CONNECTION	-					CAT 6	J	WATF PLC ETHERNET SWITCH	WA INJECTION SYSTEM SKID	1		PVC/RGS	
C-E3	CAT 6 ETHERNET CONNECTION FOR PLC NETWORK CONNECTION	-					CAT 6	J	WELL FIELD PLC CPP-1	WATF MCC-1	-		CABLE TRAY	
C-F1	FIBER OPTIC COMMUNICATIONS BETWEEN FACILITIES	-					(12 STRAND) 62.5µm MM	E	WATF FIBER-ETHERNET CONVERTER	RTU FIBER-ETHERNET CONVERTER	2		PVC	
C-F2	FIBER OPTIC COMMUNICATIONS BETWEEN FACILITIES	-					(12 STRAND) 62.5µm MM	E	WATF FIBER-ETHERNET CONVERTER	BA1 FIBER-ETHERNET CONVERTER	2		PVC	
C-3	GW1-WU-01A INJECTION TRENCH - PSI XMTR	24V DC					#14 TSP (4-20mA)	D	WELL FIELD PLC CPP-1	GW1-WU-01A - PSI XMTR	4 MAIN / 1 BRANCH		PVC	
C-4	GETR-WU-01A VFD SPEED CONTROL	24V DC					#14 TSP	D	WELL FIELD PLC CPP-1	GETR-WU-01A VFD	4 MAIN / 1 BRANCH		PVC	
C-5	GETR-WU-01A EXTRACTION TRENCH - FLOW XMTR	24V DC					#14 TSP (4-20mA)	D	WELL FIELD PLC CPP-1	GETR-WU-01A_FT	4 MAIN / 1 BRANCH		PVC	
C-6	GETR-WU-01A EXTRACTION TRENCH - PSI XMTR	24V DC					#14 TSP (4-20mA)	D	WELL FIELD PLC CPP-1	GETR-WU-01A - PSI XMTR	4 MAIN / 1 BRANCH		PVC	
C-7	GETR-WU-01A EXTRACTION TRENCH - LEVEL XMTR	24V DC					#14 TSP (4-20mA)	D	WELL FIELD PLC CPP-1	GETR-WU-01A - LEVEL XMTR	4 MAIN / 1 BRANCH		PVC	
C-8	GE-WAA-05 EXTRACTION WELL - FLOW XMTR	24V DC					#14 TSP (4-20mA)	D	WELL FIELD PLC CPP-1	GE-WAA-05_FT	4 MAIN / 1 BRANCH		PVC	
C-9	GE-WAA-05 EXTRACTION WELL - PSI XMTR	24V DC					#14 TSP (4-20mA)	D	WELL FIELD PLC CPP-1	GE-WAA-05 - PSI XMTR	4 MAIN / 1 BRANCH		PVC	
C-10	GE-WAA-05 EXTRACTION WELL - LEVEL XMTR	24V DC					#14 TSP (4-20mA)	D	WELL FIELD PLC CPP-1	GE-WAA-05 - LEVEL XMTR	4 MAIN / 1 BRANCH		PVC	
C-11	GE-WAA-02 EXTRACTION WELL - FLOW XMTR	24V DC					#14 TSP (4-20mA)	D	WELL FIELD PLC CPP-1	GE-WAA-02_FT	4 MAIN / 1 BRANCH		PVC	
C-12	GE-WAA-02 EXTRACTION WELL - PSI XMTR	24V DC					#14 TSP (4-20mA)	D	WELL FIELD PLC CPP-1	GE-WAA-02 - PSI XMTR	4 MAIN / 1 BRANCH		PVC	
C-13	GE-WAA-02 EXTRACTION WELL - LEVEL XMTR	24V DC					#14 TSP (4-20mA)	D	WELL FIELD PLC CPP-1	GE-WAA-02 - LEVEL XMTR	4 MAIN / 1 BRANCH		PVC	
C-14	GE-WAA-03 EXTRACTION WELL - FLOW XMTR	24V DC					#14 TSP (4-20mA)	D	WELL FIELD PLC CPP-1	GE-WAA-03_FT	4 MAIN / 1 BRANCH		PVC	
C-15	GE-WAA-03 EXTRACTION WELL - PSI XMTR	24V DC					#14 TSP (4-20mA)	D	WELL FIELD PLC CPP-1	GE-WAA-03 - PSI XMTR	4 MAIN / 1 BRANCH		PVC	
C-16	GE-WAA-03 EXTRACTION WELL - LEVEL XMTR	24V DC					#14 TSP (4-20mA)	D	WELL FIELD PLC CPP-1	GE-WAA-03 - LEVEL XMTR	4 MAIN / 1 BRANCH		PVC	
C-17	GE-WAA-04 EXTRACTION WELL - FLOW XMTR	24V DC					#14 TSP (4-20mA)	D	WELL FIELD PLC CPP-1	GE-WAA-04_FT	4 MAIN / 1 BRANCH		PVC	
C-18	GE-WAA-04 EXTRACTION WELL - PSI XMTR	24V DC					#14 TSP (4-20mA)	D	WELL FIELD PLC CPP-1	GE-WAA-04 - PSI XMTR	4 MAIN / 1 BRANCH		PVC	
C-19	GE-WAA-04 EXTRACTION WELL - LEVEL XMTR	24V DC					#14 TSP (4-20mA)	D	WELL FIELD PLC CPP-1	GE-WAA-04 - LEVEL XMTR	4 MAIN / 1 BRANCH		PVC	

no.	date	by	ckd	description
A	08/19/22	ACH	SJD	ISSUED FOR PRELIMINARY DESIGN

PRELIMINARY - NOT FOR CONSTRUCTION



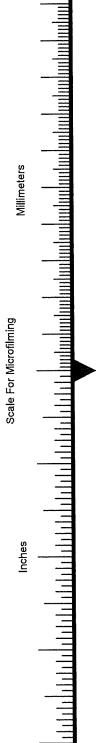
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
OKLAHOMA FIRM LICENSEE NO. 421

date	designed	detailed	checked
SEPTEMBER 2022	A. HIMES	A. HIMES	S. DEFRANCESCO

Cimarron Environmental Response Trust
CABLE AND CONDUIT
SCHEDULE -
SHEET 2

project	contract
142089	
drawing	rev.
BMCD-GWREMED-E104	A
sheet	of sheets
file E104.dwg	

NOTES	
NOTE 1	SEE ONE-LINE DRAWINGS OR PANEL SCHEDULES FOR POWER CIRCUIT SIZES.
CABLE TYPE	DESCRIPTION
A	120V/208V/240V/480V SYSTEMS & BELOW: SINGLE CONDUCTOR POWER AND CONTROL CABLE SHALL BE 600V COPPER STRANDED, UL LISTED, TYPE XHHW-2 (PVC-INSULATION)
B	120V/208V/240V/480V SYSTEMS & BELOW: MULTI-CONDUCTOR POWER AND CONTROL CABLE SHALL BE 600V COPPER STRANDED, UL LISTED, TYPE TC (PVC-NYLON INSULATION / PVC JACKET)
C	OKONITE TYPE SP-OS, TYPE ITC/PLTC INSTRUMENTATION CABLE (TRIAD - INDIVIDUAL & OVERALL SHIELD 300V - 105 °C RATING) OR APPROVED EQUAL
D	OKONITE TYPE P-OS, TYPE ITC/PLTC INSTRUMENTATION CABLE (PAIRS - INDIVIDUAL & OVERALL SHIELD 300V - 105 °C RATING) OR APPROVED EQUAL
E	INDOOR/OUTDOOR 62.5 MULTIMODE FIBER OPTIC CABLE, UL LISTED, FLAME RETARDANT, WATER-RESISTANT, UV-RESISTANT, FUNGUS-RESISTANT, TIGHT BUFFERED CONSTRUCTION (PVC JACKET)
F	OKONITE, OKOGUARD-OKOSEAL, MV-105, 5KV 133%, SINGLE CONDUCTOR
G	OKONITE C-L-X MV-105, 5KV 133%, FOR CABLE TRAY USE, MULTICONDUCTOR
H	BELDEN 7953A (CAT 6 - INDUSTRIAL GRADE SUNGLIGHT & OIL RESISTANT - OUTDOOR RATED - PVC JACKET) OR APPROVED EQUAL
I	15KV SYSTEM: SINGLE CONDUCTOR POWER SHALL BE 15 Kv COPPER STRANDED, UL LISTED, TYPE EPR (PVC JACKET)
J	COMMUNICATION/NETWORK CABLING




CABLE AND CONDUIT SCHEDULE												
CABLE NUMBER	SERVICE	LOAD VOLTS	CONDUCTORS							CONDUIT		
			POWER		CONTROL		INSTRUMENT & COMMS.					
			NUMBER AND SIZE	TYPE	NUMBER AND SIZE	TYPE		NUMBER OF CABLES & NO. PAIRS / CONDUCTORS	TYPE	FROM (SOURCE)	TO	SIZE
SHEET 3												
C-E4	CAT 6 ETHERNET CONNECTION FOR PLC NETWORK CONNECTION	-					CAT 6	J	BA1 FIBER-ETHERNET CONVERTER	BA1 PLC ETHERNET SWITCH	-	CABLE TRAY
C-E5	CAT 6 ETHERNET CONNECTION FOR PLC NETWORK CONNECTION	-					CAT 6	J	BA1 INJECTION SKID PLC CPP-4	BA1 PLC ETHERNET SWITCH	-	CABLE TRAY
C-E6	CAT 6 ETHERNET CONNECTION FOR PLC NETWORK CONNECTION	-					CAT 6	J	BA1 INJECTION SKID PLC CPP-4	BA1 INJECTION SKID MCC-2	-	CABLE TRAY
C-20	GETR-BA1-01A VFD SPEED CONTROL	24V DC					#14 TSP	D	BA1 INJECTION SKID PLC CPP-4	GETR-BA1-01A VFD	4 MAIN / 1 BRANCH	PVC
C-21	GETR-BA1-01B VFD SPEED CONTROL	24V DC					#14 TSP	D	BA1 INJECTION SKID PLC CPP-4	GETR-BA1-01A VFD	4 MAIN / 1 BRANCH	PVC
C-22	GETR-BA1-02A VFD SPEED CONTROL	24V DC					#14 TSP	D	BA1 INJECTION SKID PLC CPP-4	GETR-BA1-01A VFD	4 MAIN / 1 BRANCH	PVC
C-23	GWl-BA1-01A INJECTION TRENCH - PSI XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GWl-BA1-01A - PSI XMTR	4 MAIN / 1 BRANCH	PVC
C-24	GWl-BA1-02A INJECTION TRENCH - PSI XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GWl-BA1-02A - PSI XMTR	4 MAIN / 1 BRANCH	PVC
C-25	GWl-BA1-03A INJECTION TRENCH - PSI XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GWl-BA1-03A - PSI XMTR	4 MAIN / 1 BRANCH	PVC
C-26	GWl-BA1-04A INJECTION TRENCH - PSI XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GWl-BA1-04A - PSI XMTR	4 MAIN / 1 BRANCH	PVC
C-27	GETR-BA1-01A EXTRACTION TRENCH - FLOW XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GETR-BA1-01A_FT	4 MAIN / 1 BRANCH	PVC
C-28	GETR-BA1-01A EXTRACTION TRENCH - PSI XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GETR-BA1-01A - PSI XMTR	4 MAIN / 1 BRANCH	PVC
C-29	GETR-BA1-01A EXTRACTION TRENCH - LEVEL XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GETR-BA1-01A - LEVEL XMTR	4 MAIN / 1 BRANCH	PVC
C-30	GETR-BA1-01B EXTRACTION TRENCH - FLOW XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GETR-BA1-01B_FT	4 MAIN / 1 BRANCH	PVC
C-31	GETR-BA1-01B EXTRACTION TRENCH - PSI XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GETR-BA1-01B - PSI XMTR	4 MAIN / 1 BRANCH	PVC
C-32	GETR-BA1-01B EXTRACTION TRENCH - LEVEL XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GETR-BA1-01B - LEVEL XMTR	4 MAIN / 1 BRANCH	PVC
C-33	GETR-BA1-02A EXTRACTION TRENCH - FLOW XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GETR-BA1-02A_FT	4 MAIN / 1 BRANCH	PVC
C-34	GETR-BA1-02A EXTRACTION TRENCH - PSI XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GETR-BA1-02A - PSI XMTR	4 MAIN / 1 BRANCH	PVC
C-35	GETR-BA1-02A EXTRACTION TRENCH - LEVEL XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GETR-BA1-02A - LEVEL XMTR	4 MAIN / 1 BRANCH	PVC
C-36	GE-BA1-02 EXTRACTION WELL - FLOW XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GE-BA1-02_FT	4 MAIN / 1 BRANCH	PVC
C-37	GE-BA1-02 EXTRACTION WELL - PSI XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GE-BA1-02 - PSI XMTR	4 MAIN / 1 BRANCH	PVC
C-38	GE-BA1-02 EXTRACTION WELL - LEVEL XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GE-BA1-02 - LEVEL XMTR	4 MAIN / 1 BRANCH	PVC
C-39	GE-BA1-03 EXTRACTION WELL - FLOW XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GE-BA1-03_FT	4 MAIN / 1 BRANCH	PVC
C-40	GE-BA1-03 EXTRACTION WELL - PSI XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GE-BA1-03 - PSI XMTR	4 MAIN / 1 BRANCH	PVC
C-41	GE-BA1-03 EXTRACTION WELL - LEVEL XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GE-BA1-03 - LEVEL XMTR	4 MAIN / 1 BRANCH	PVC
C-42	GE-BA1-04 EXTRACTION WELL - FLOW XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GE-BA1-04_FT	4 MAIN / 1 BRANCH	PVC
C-43	GE-BA1-04 EXTRACTION WELL - PSI XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GE-BA1-04 - PSI XMTR	4 MAIN / 1 BRANCH	PVC
C-44	GE-BA1-04 EXTRACTION WELL - LEVEL XMTR	24V DC					#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GE-BA1-04 - LEVEL XMTR	4 MAIN / 1 BRANCH	PVC

NOTES	
NOTE 1	SEE ONE-LINE DRAWINGS OR PANEL SCHEDULES FOR POWER CIRCUIT SIZES.
CABLE TYPE	DESCRIPTION
A	120V/208V/240V/480V SYSTEMS & BELOW: SINGLE CONDUCTOR POWER AND CONTROL CABLE SHALL BE 600V COPPER STRANDED, UL LISTED, TYPE XHHW-2 (PVC-INSULATION)
B	120V/208V/240V/480V SYSTEMS & BELOW: MULTI-CONDUCTOR POWER AND CONTROL CABLE SHALL BE 600V COPPER STRANDED, UL LISTED, TYPE TC (PVC-NYLON INSULATION / PVC JACKET)
C	OKONITE TYPE SP-OS, TYPE ITC/PLTC INSTRUMENTATION CABLE (TRIAD - INDIVIDUAL & OVERALL SHIELD 300V - 105 °C RATING) OR APPROVED EQUAL
D	OKONITE TYPE P-OS, TYPE ITC/PLTC INSTRUMENTATION CABLE (PAIRS - INDIVIDUAL & OVERALL SHIELD 300V - 105 °C RATING) OR APPROVED EQUAL
E	INDOOR/OUTDOOR 62.5 MULTIMODE FIBER OPTIC CABLE, UL LISTED, FLAME RETARDANT, WATER-RESISTANT, UV-RESISTANT, FUNGUS-RESISTANT, TIGHT BUFFERED CONSTRUCTION (PVC JACKET)
F	OKONITE, OKOGUARD-OKOSEAL, MV-105, 5kV 133%, SINGLE CONDUCTOR
G	OKONITE C-L-X MV-105, 5kV 133%, FOR CABLE TRAY USE, MULTICONDUCTOR
H	BELDEN 7953A (CAT 6 - INDUSTRIAL GRADE SUNGLIGHT & OIL RESISTANT - OUTDOOR RATED - PVC JACKET) OR APPROVED EQUAL
I	15kV SYSTEM: SINGLE CONDUCTOR POWER SHALL BE 15 Kv COPPER STRANDED, UL LISTED, TYPE EPR (PVC JACKET)
J	COMMUNICATION/NETWORK CABLING

no. | date | by | ckd | description

A | 08/19/22 | ACH | SJD | ISSUED FOR PRELIMINARY DESIGN

PRELIMINARY - NOT FOR CONSTRUCTION



9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
OKLAHOMA FIRM LICENSEE NO. 421

date
SEPTEMBER 2022

designed
A. HIMES

detailed
A. HIMES

checked
S. DEFRANCESCO

Cimarron Environmental Response Trust
CABLE AND CONDUIT
SCHEDULE -
SHEET 3

project
142089

contract

drawing
BMCD-GWREMED-E105

rev.
A

sheet
file E105.dwg


of

sheets

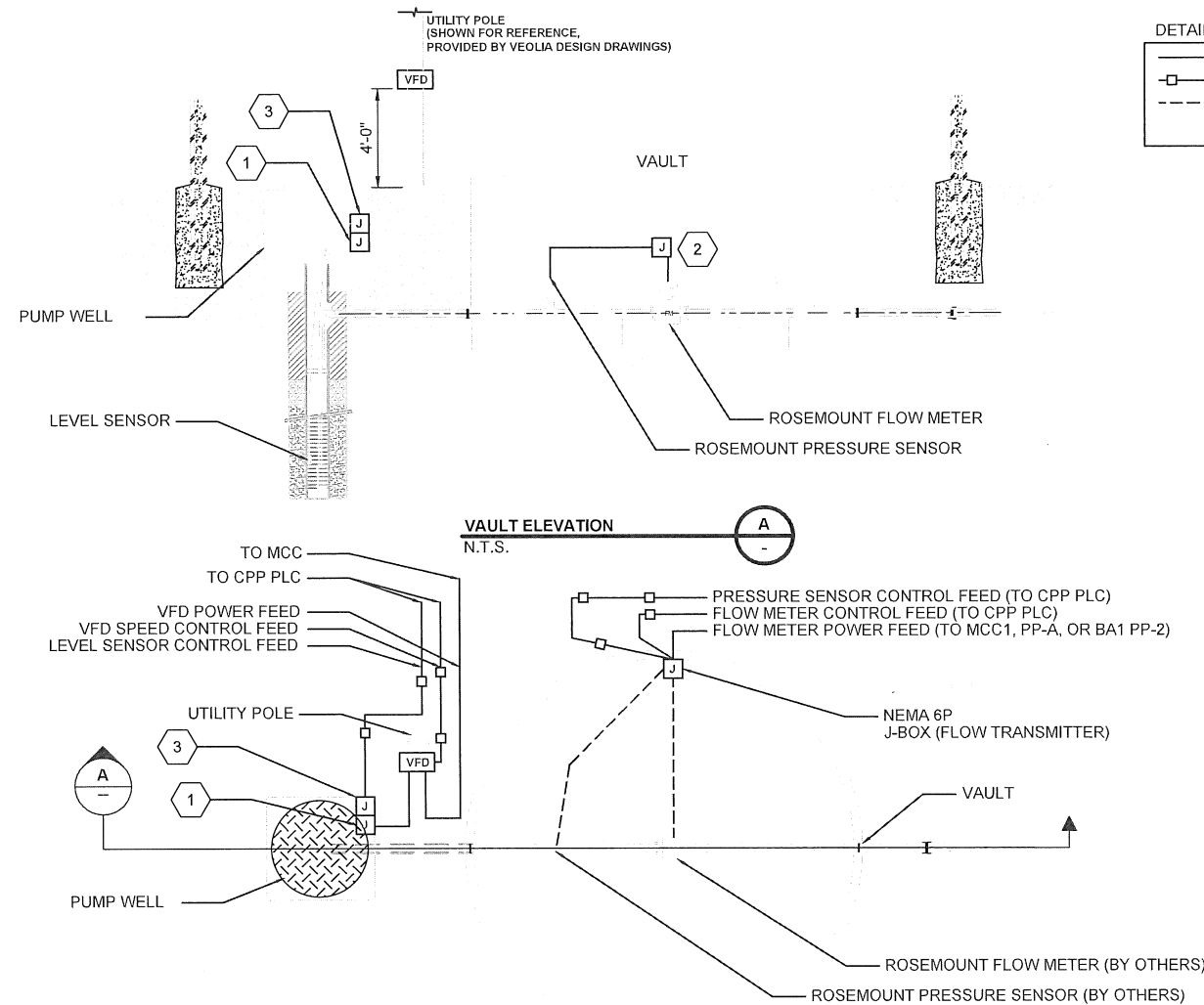
Z:\CLIENT\SIENSICERT\129852_CERT-DECOM2021\DESIGN\CADD\DWGS\ELECTRICAL\E105.DWG 8/18/2022 1:54 PM EAPULCHER

CERT - 142089	
PANELBOARD NAME: BA1 PP-2	
PANELBOARD TYPE: MLO	SURFACE MOUNTED, NEMA 1 ENCLOSURE
PANEL LOCATION: BA1 INJECTION SKID	120/240 VOLTS, 1 PHASE, 3 WIRE 100 AMP MAINS
SUPPLIED FROM: MCC-2 (BA1)	18 KAIC

CKT NO.	TRIP AMPS	NO. POLES	WIRE QTY / SIZE	LOAD SERVED	Ø	LOAD SERVED	WIRE QTY / SIZE	NO. POLES	TRIP AMPS	CKT NO.
1	15	1	(2) #12 + #12 G	BA1 CPP-4 Primary	A	BA1 CPP-4 Secondary	(2) #12 + #12 G	1	15	2
3				P-20	B	P-21				4
5	15	2	SEE E104	GETR-BA1-01A FLOW METER	A	GETR-BA1-01B FLOW METER	SEE E103	2	15	6
7				P-22	B	P-23				8
9	15	2	SEE E104	GETR-BA1-02A FLOW METER	A	GE-BA1-02 FLOW METER	SEE E103	2	15	10
11				P-24	B	P-25				12
13	15	2	SEE E104	BE-BA1-03 FLOW METER	A	GE-BA1-04 FLOW METER	SEE E103	2	15	14
15					B					16
17					A	SPARE	N/A	2	15	18
19					B					20
21					A	SPARE	N/A	2	15	22
23					B					24
25					A	SPARE	N/A	2	15	26
27					B	SPARE	N/A	1	15	28
29					A	SPARE	N/A	1	15	30

no.	date	by	ckd	description
A	08/19/22	ACH	SJD	ISSUED FOR PRELIMINARY DESIGN
<p>PRELIMINARY - NOT FOR CONSTRUCTION</p>				
<div style="text-align: center;">  BURNS MCDONNELL </div> <p style="text-align: center;"> 9400 WARD PARKWAY KANSAS CITY, MO 64114 816-333-9400 OKLAHOMA FIRM LICENSEE NO. 421 </p>				
date SEPTEMBER 2022		detailed A. HIMES		
designed A. HIMES		checked S. DEFRANCESCO		
<p>Cimarron Environmental Response Trust PANELBOARD SCHEDULES</p>				
project 142089		contract		
drawing BMCD-GWREMED-E106		rev. A		
sheet file E106.dwg		of sheets		

1 2 3 4 5 6 7 8 9 10 11 12 13



DETAIL 1 LINE LEGEND

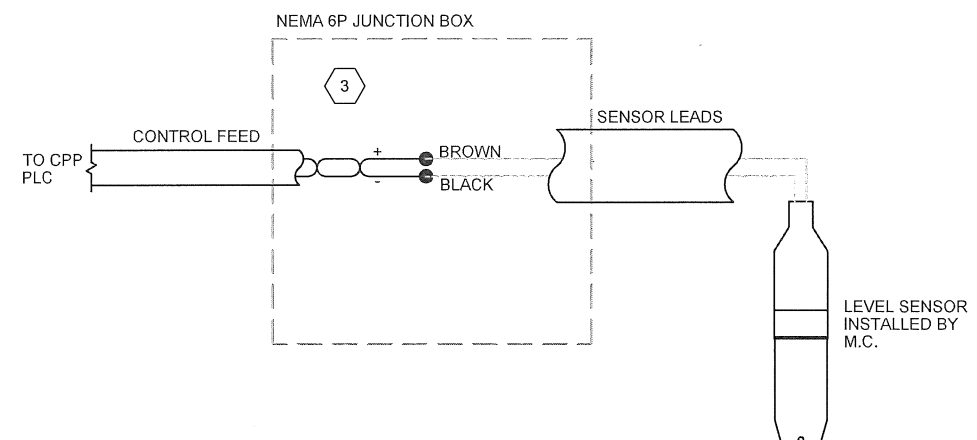
- EC PROVIDED POWER FEED AND TERMINATION
- EC PROVIDED CONTROL FEED AND TERMINATION
- VENDOR PROVIDED LEADS, EC TERMINATION ONLY

GENERAL NOTES:

- SEE DRAWING E103 THROUGH E104 FOR CABLE AND CONDUIT SIZES FOR POWER AND CONTROL FEEDS.
- CONFIRM PHYSICAL LOCATIONS OF DEVICES WITH CIVIL AND MECHANICAL CONTRACTORS. REFERENCE LOCATIONS CAN BE OBTAINED ON DRAWING C002 OF THE CIVIL SET.

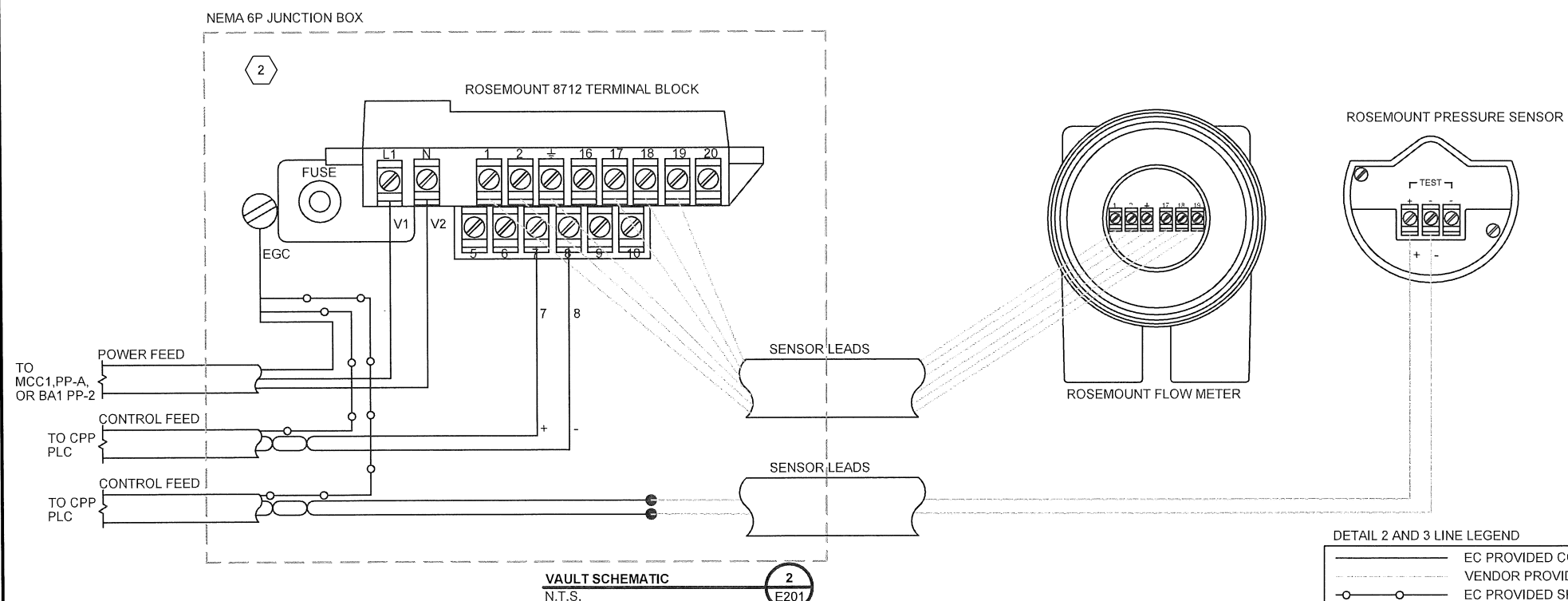
KEYED NOTES:

- EC TO PROVIDE POWER FEED TO PUMP VAULT JUNCTION BOX AND MAKE FINAL TERMINATIONS OF POWER FEED, EC TO PROVIDE NEMA 6P JUNCTION BOX FOR TRANSITION FROM FACTORY SUPPLIED PUMP LEADS TO PUMP POWER FEED.
- EC TO INSTALL VAULT WALL MOUNTED FLOW TRANSMITTER FURNISHED BY OTHERS. EC TO COORDINATE LOCATION WITH CIVIL AND MECHANICAL CONTRACTOR. REFER TO DETAIL 1, THIS SHEET. EC TO PROVIDE NEMA 6P JUNCTION BOX FOR FLOW TRANSMITTER AND MAKE FINAL TERMINATIONS OF POWER FEED AND CONTROL FEEDS TO METER, REMOTE TRANSMITTER AND PRESSURE SENSOR. FACTORY INSTALLED LEADS AS SEEN ON DETAIL 2, THIS SHEET.
- EC TO PROVIDE NEMA 6P JUNCTION BOX FOR LEVEL SENSOR AND MAKE FINAL TERMINATIONS OF CONTROL FEED TO SENSOR FACTORY INSTALLED LEADS TO METER AS SEEN ON DETAIL 3, THIS SHEET.



DETAIL
N.T.S.

3
E201



DETAIL 2 AND 3 LINE LEGEND

- EC PROVIDED CONDUCTOR AND TERMINATION
- VENDOR PROVIDED LEADS, EC TERMINATION ONLY
- EC PROVIDED SHIELD WIRE AND TERMINATION
- EC PROVIDED TERMINATION POINT

no.	date	by	ckd	description
A	08/19/22	ACH	SJD	ISSUED FOR PRELIMINARY DESIGN

PRELIMINARY - NOT
FOR CONSTRUCTION

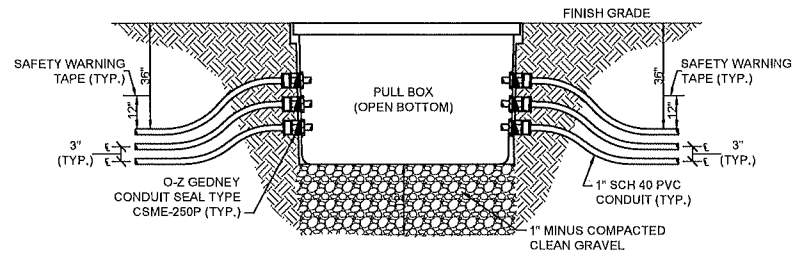
**BURNS
MCDONNELL**

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
OKLAHOMA FIRM LICENSEE NO. 421

date	SEPTEMBER 2022	detailed	A. HIMES
designed	A. HIMES	checked	S. DEFRANCESCO

Cimarron Environmental Response Trust
ELECTRICAL DETAIL I
(CONNECTION DETAILS) -
SHEET 1

project	142089	contract	
drawing	BMCD-GWREMED-E201	rev.	A
sheet	of	sheets	
file	E201.dwg		



PULLBOX CONDUIT DETAIL
N.T.S.

3

E202

- GENERAL NOTES:
- SEE DRAWING E103 THROUGH E105 FOR CABLE AND CONDUIT SIZES.
 - EC TO PROVIDE GROUNDING AND BONDING PER DETAIL 2 THIS SHEET.
 - GROUNDING SHALL BE IN ACCORDANCE WITH THE 2014 NATIONAL ELECTRICAL CODE.
 - SEE SINGLE LINE DRAWINGS E101 AND E102 FOR SIZING OF NEUTRAL CONDUCTORS AND EQUIPMENT GROUNDING CONDUCTORS (EGC).

no.	date	by	ckd	description
A	08/19/22	ACH	SJD	ISSUED FOR PRELIMINARY DESIGN

PRELIMINARY - NOT
FOR CONSTRUCTION

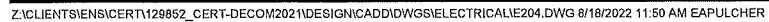


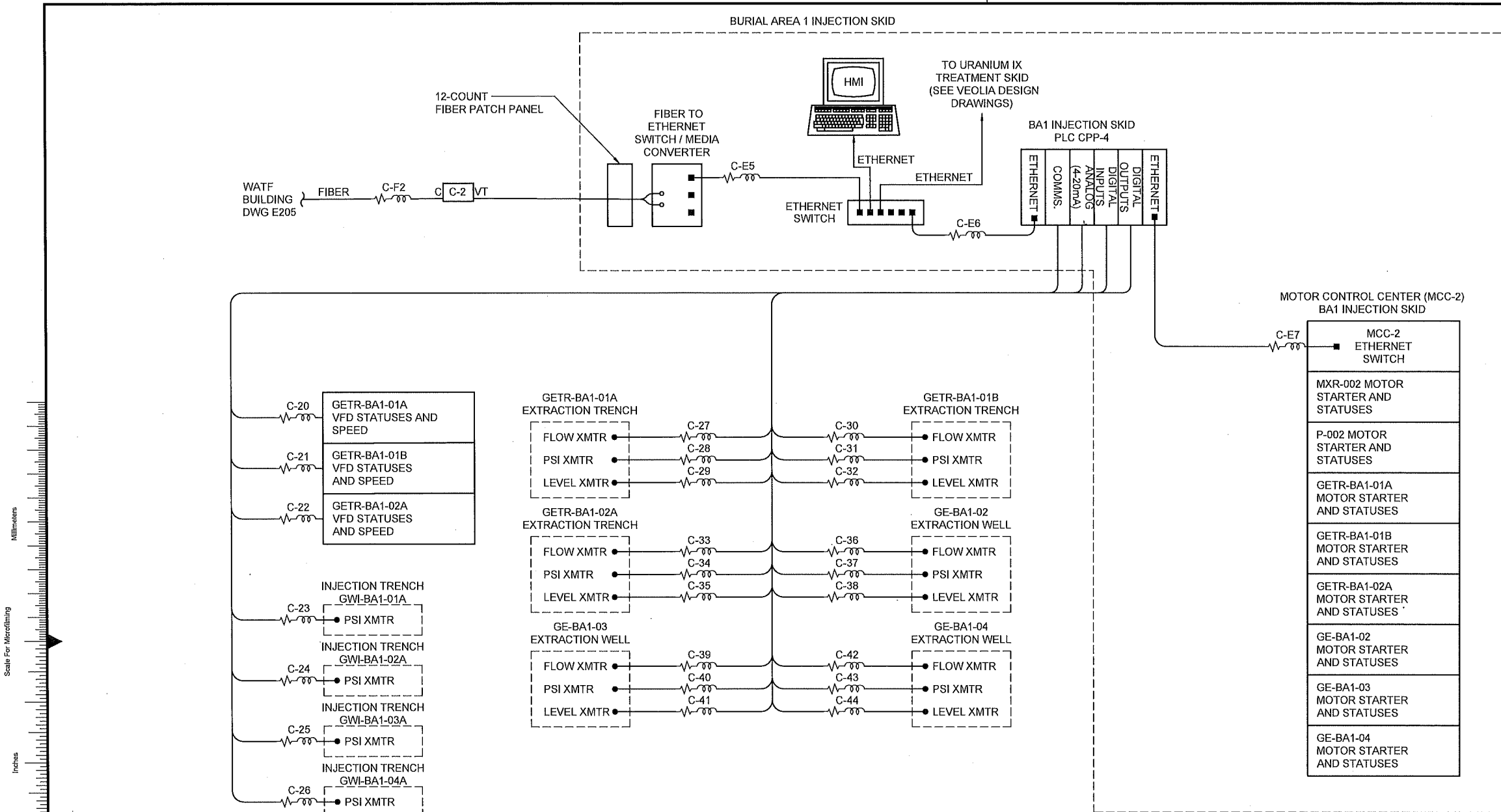
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
OKLAHOMA FIRM LICENSEE NO. 421

date	SEPTMBER 2022	detailed	A. HIMES
designed	A. HIMES	checked	S. DEFRANCESCO

Cimarron Environmental Response Trust
ELECTRICAL DETAIL III
(EQUIPMENT LOCATIONS) -
SHEET 3

project	142089	contract	
drawing	BMCD-GWREMED-E203	rev.	A
sheet	of	sheets	
file	E203.dwg		





no.	date	by	ckd	description
A	08/19/22	ACH	SJD	ISSUED FOR PRELIMINARY DESIGN

PRELIMINARY - NOT FOR CONSTRUCTION

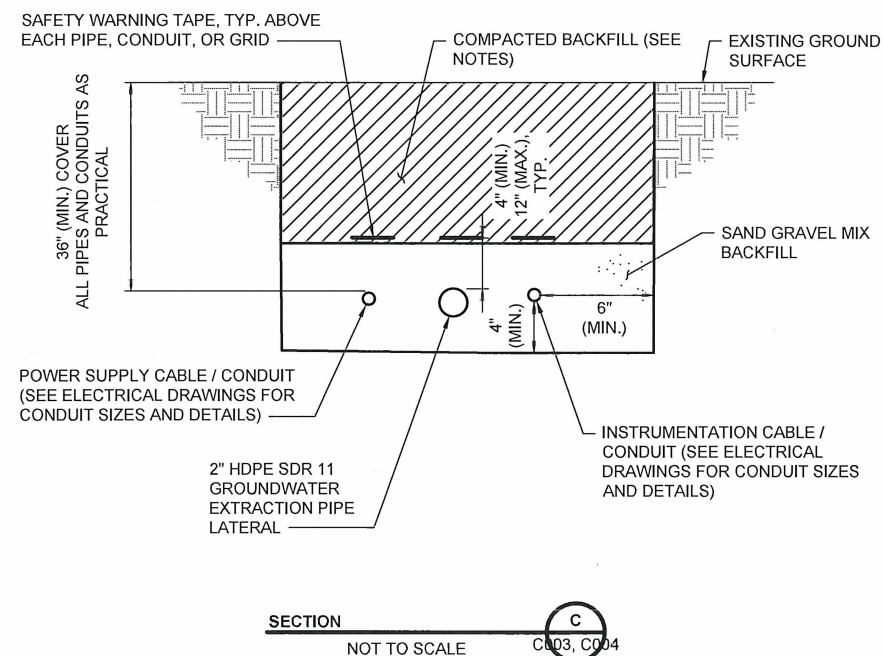
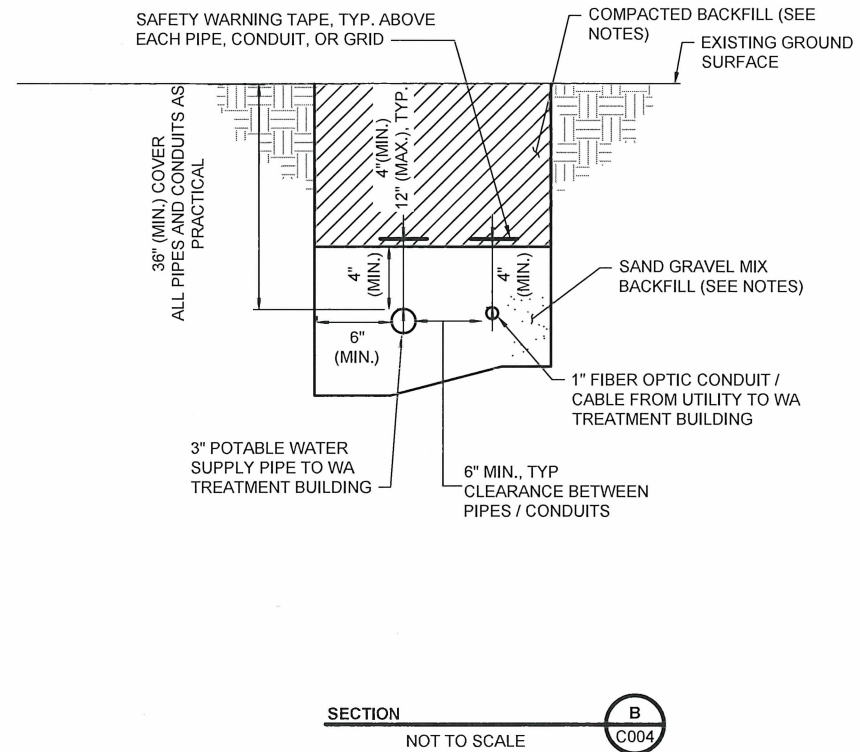
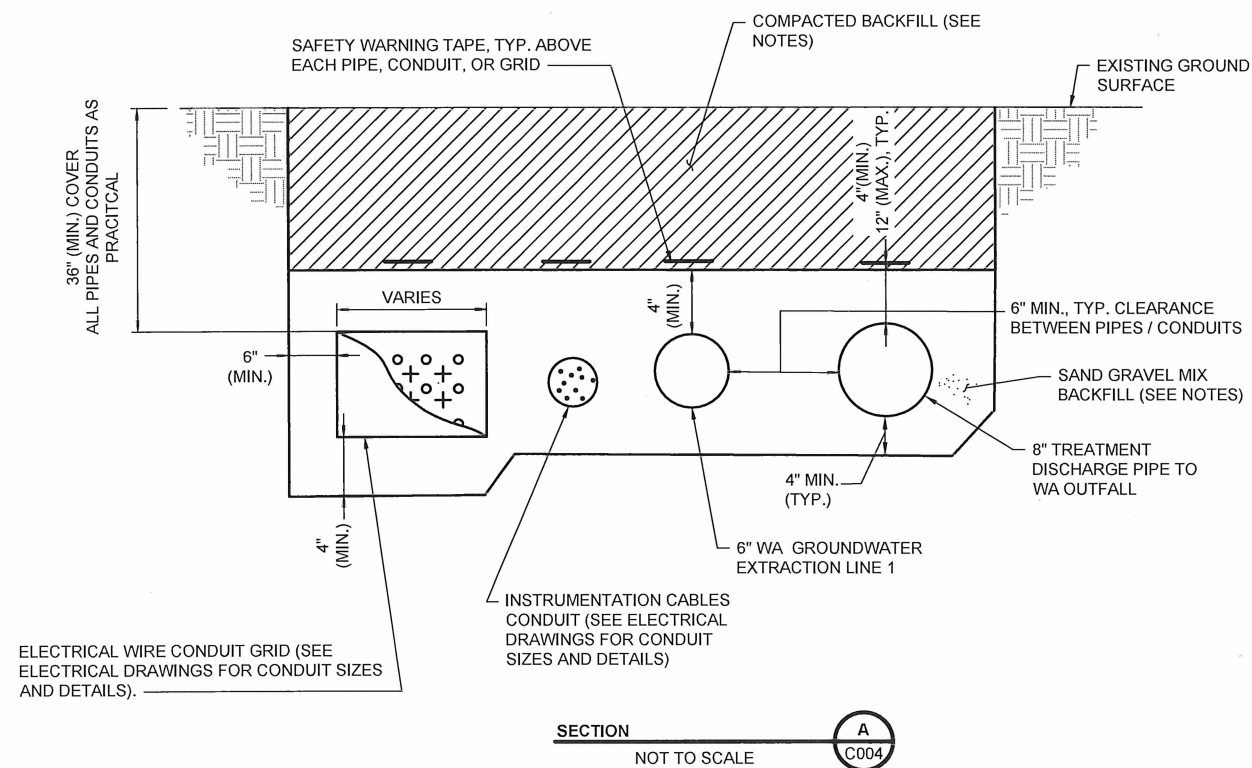


9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
OKLAHOMA FIRM LICENSE NO. 421

date	SEPTMBER 2022	detailed	A. HIMES
designed	A. HIMES	checked	S. DEFRANCESCO

Cimarron Environmental Response Trust
ELECTRICAL COMMUNICATION SYSTEM
ARCHITECTURE -
SHEET 2

project	142089	contract	
drawing	BMCD-GWREMED-E205	rev.	A
sheet	of	sheets	
file	E205.dwg		



- PIPE & CONDUIT TRENCH SECTIONS NOTES:**

1. TRENCHES SHALL BE EXCAVATED IN ACCORDANCE WITH OSHA STANDARDS.
2. NUMBER OF CABLES AND ARRANGEMENT IN ELECTRICAL WIRE CONDUIT GRID MAY VARY, SHOWN FOR VISUAL CONCEPT PURPOSES ONLY. SUBCONTRACTOR SHALL ORGANIZE CONDUITS / WIRING IN A LOGICAL ARRANGEMENT. SUBMIT PROPOSED ARRANGEMENT FOR APPROVAL AND PROVIDE AS BUILT CONDITIONS.
3. CLEARANCE AROUND PIPES / CONDUITS SHALL BE INCREASED IF NECESSARY TO ATTAIN GOOD COMPACTION IN HAUNCHES OF PIPES.
4. SAFETY WARNING TAPE COLOR AND TEXT SHALL BE SPECIFIC TO THE PIPE, CONDUIT, OR ELECTRICAL GRID IT IS INSTALLED TO PROTECT.
5. BACKFILL SHALL BE CLEAN, ACCEPTABLE EXCAVATED SOIL DURING TRENCHING OR FROM BORROW SOURCE.
6. PLACE BACKFILL IN LOOSE LIFTS NOT TO EXCEED 6 INCHES IN THICKNESS. 4" BEDDING BELOW PIPING OR CONDUIT TO BE COMPACTED TO A MINIMUM OF 90% OF MAXIMUM DRY DENSITY WITHIN THE MOISTURE RANGE OF +/- 3%. SUBSEQUENT BEDDING TO BE COMPACTED BY HAND OR MECHANICAL METHODS. SUITABLE CLEAN MATERIAL TO BE PROVIDED BY SUBCONTRACTOR.
7. DISCHARGE PIPING TRENCH BACKFILL (BEDDING AND SOIL) SHALL BE COMPACTION TESTED IN ACCORDANCE WITH ASTM D6938 AT A FREQUENCY OF ONCE EVERY 300 LINEAR FEET. BACKFILL FAILING TO MEET COMPACTION REQUIREMENTS SHALL BE RE-COMPACTED AND TESTED AT NO COST TO OWNER/ENGINEER.
8. ELECTRICAL WIRE CONDUIT GRID (DUCT BANK) SHALL CONTAIN PLASTIC SPACERS AND SHALL BE BACKFILLED WITH SAND. SEE ELECTRICAL DRAWINGS FOR DETAILS.
9. TRACER WIRE AND TEST STATIONS SHALL BE INSTALLED IN TRENCHES WITHOUT ELECTRICAL POWER OR INSTRUMENTATION CABLES. TEST STATIONS SHALL BE INSTALLED AT A MAXIMUM OF ONCE EVERY 1000 FEET.
10. SUBCONTRACTOR MAY ELECT TO CONSTRUCT A FLAT BOTTOM TRENCH IF IT IS DETERMINED TO BE A MORE ECONOMICAL APPROACH. MINIMUM CLEARANCES SHOWN MUST BE PROVIDED.
11. IF ROCK OR GROUNDWATER IS ENCOUNTERED AT SHALLOW DEPTHS ALONG TRENCH ALIGNMENT, MINIMUM PIPE / CONDUIT COVER DEPTH MAY BE REDUCED TO 12" BELOW EXISTING GROUND SURFACE IF 6" MOUND ABOVE EXISTING SURFACE IS PROVIDED TO MAINTAIN 18" TOTAL COVER. MOUNDING MAY NOT BE PERMISSIBLE IN DRAINAGE WAYS OR AREAS TO BE MOWED. ENGINEER SHALL APPROVE ALL AREAS WHERE MOUNDING IS PROPOSED, SUBMIT AREAS OF PROPOSED MOUNDING FOR APPROVAL PRIOR TO CONSTRUCTION.

no.	date	by	ckd	description
A	08/19/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN

PRELIMINARY - NOT FOR CONSTRUCTION



9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
OKLAHOMA FIRM LICENSEE NO. 421

date SEPTEMBER 2022	detailed M. CARLIN
designed B. WEIS	checked J. HESEMANN

Cimarron Environmental Response Trust
PIPE & CONDUIT TRENCH SECTIONS -
SHEET 1

project	142089	contract	-
drawing			rev.
BMCD-GWREMED-C104		—	A
sheet	of	sheets	
file C104 PIPE-CONDUIT 1.DWG			

1

2

3

4

5

6

7

8

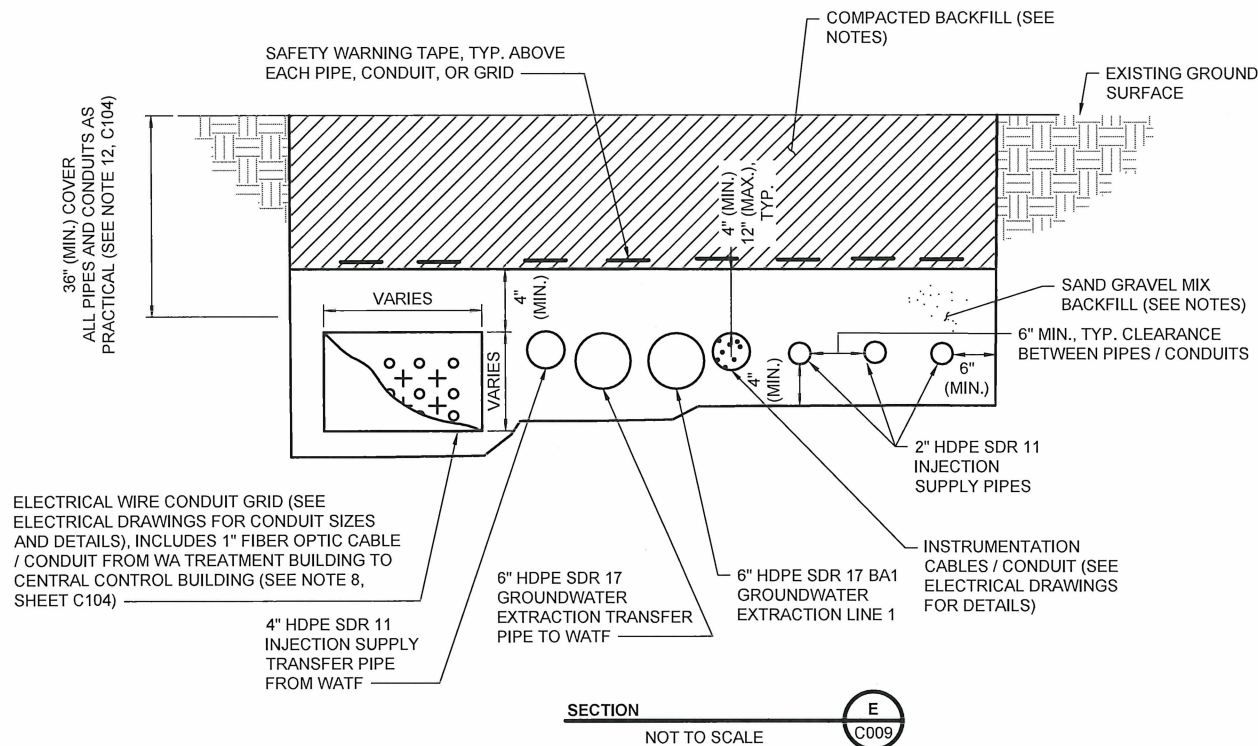
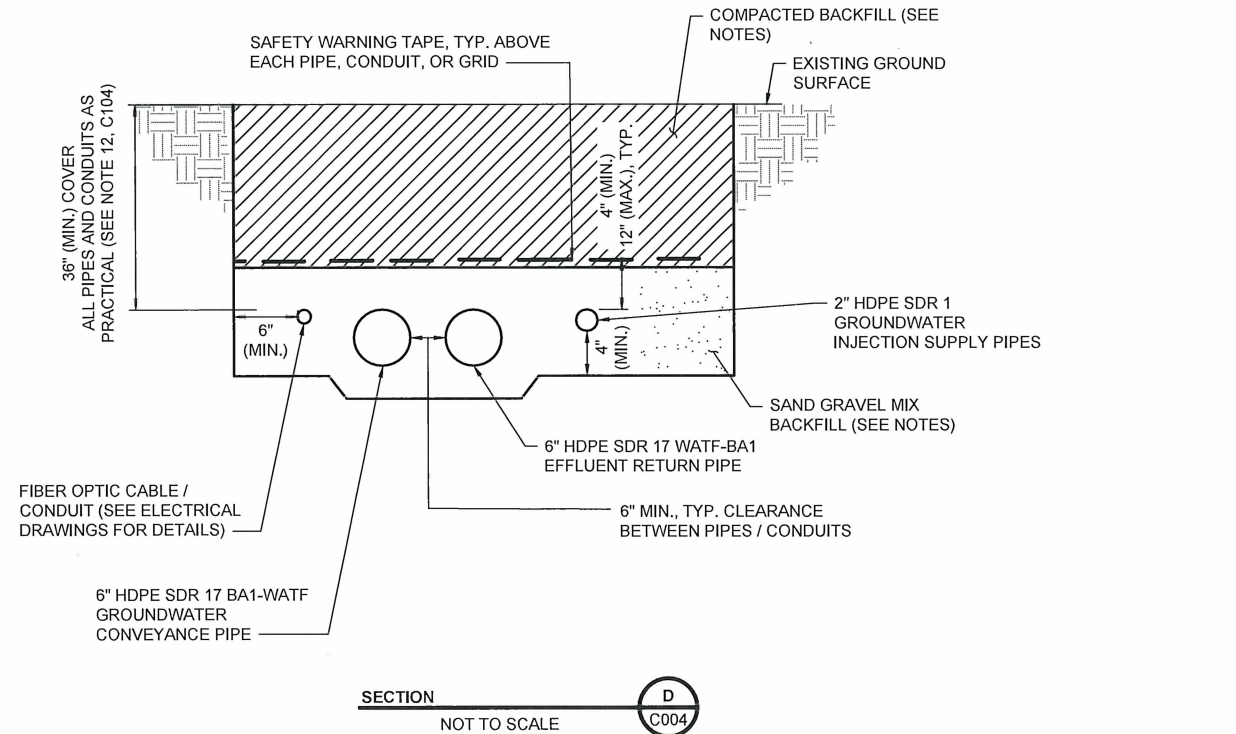
9

10

11

12

13



no.	date	by	ckd	description
A	08/19/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN

NOTE:

- SEE SHEET C104 FOR PIPE & CONDUIT
TRENCH SECTION NOTES.

**PRELIMINARY - NOT
FOR CONSTRUCTION**

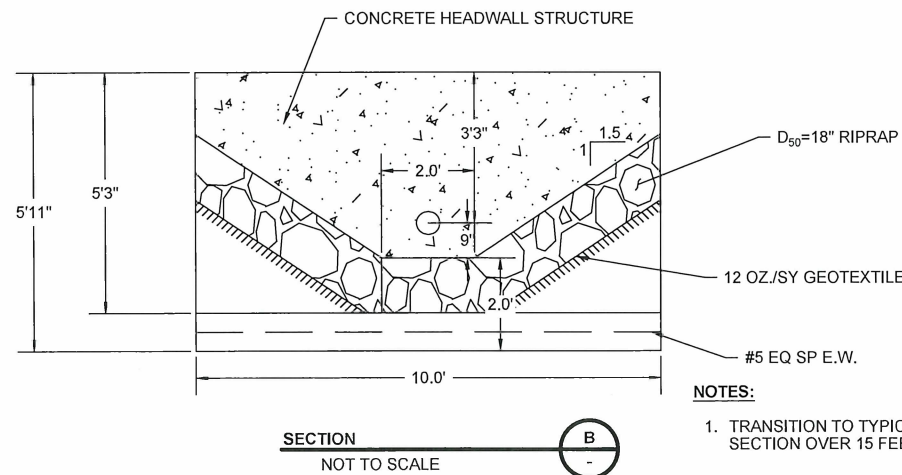
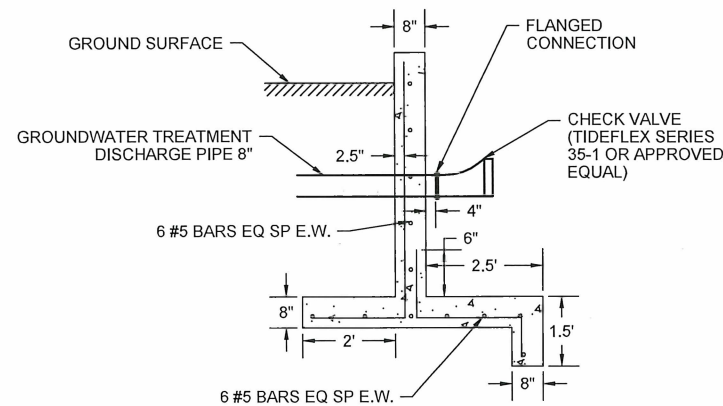
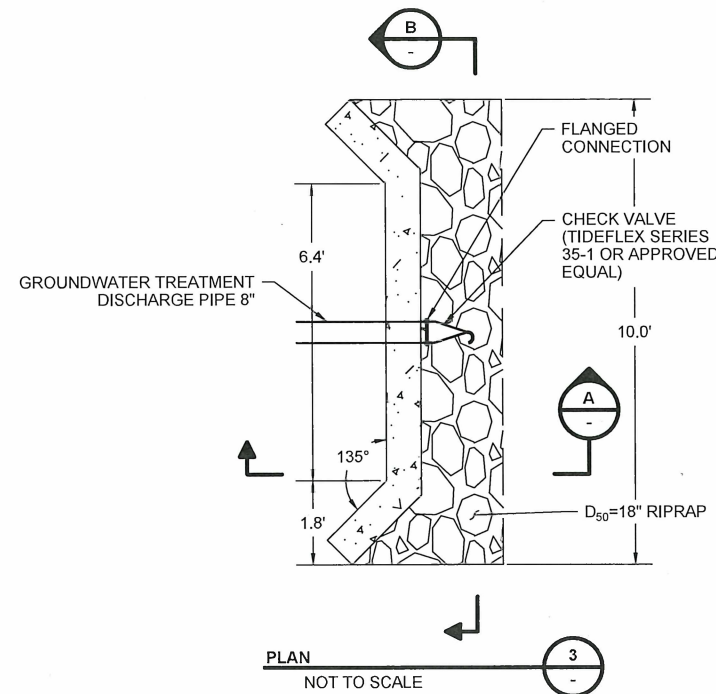


9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
OKLAHOMA FIRM LICENSE NO. 421

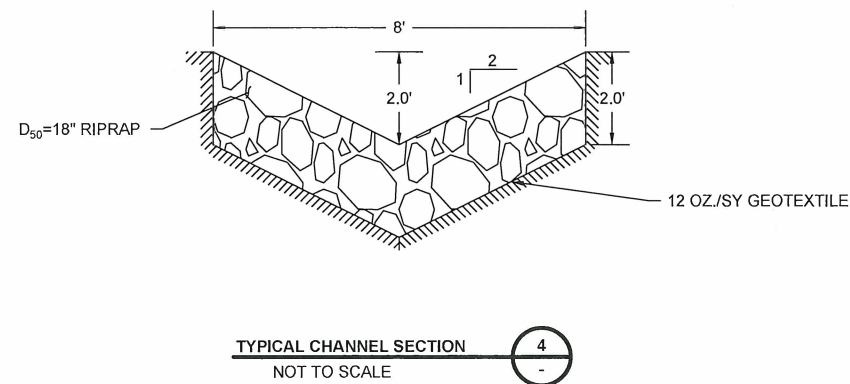
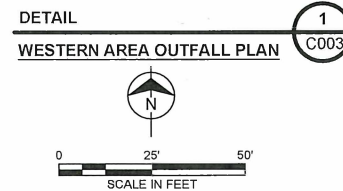
date	SEPTMBER 2022	detailed	M. CARLIN
designed	B. WEIS	checked	J. HESEMANN

Cimarron Environmental Response Trust
PIPE & CONDUIT TRENCH SECTIONS -
SHEET 2

project	142089	contract	-
drawing	BMCD-GWREMED-C105	rev.	A
sheet	of	sheets	
file	C105 PIPE-CONDUIT 2.DWG		



NOTES:
1. TRANSITION TO TYPICAL CHANNEL SECTION OVER 15 FEET.



no.	date	by	ckd	description
A	08/19/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN

PRELIMINARY - NOT FOR CONSTRUCTION

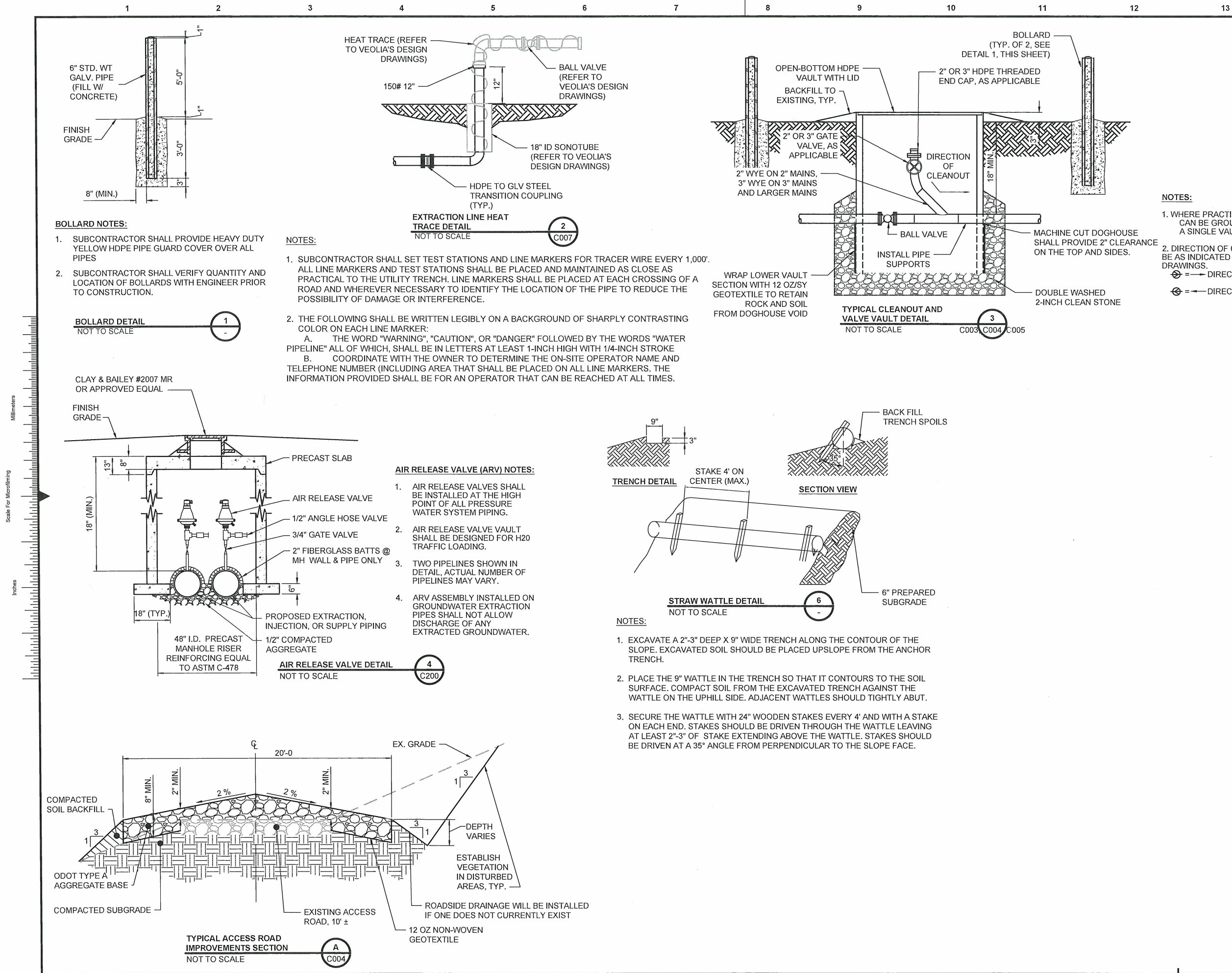
**BURNS
MCDONNELL**

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
OKLAHOMA FIRM LICENSEE NO. 421

date	SEPTMBER 2022	detailed	M. CARLIN
designed	B. WEIS	checked	J. HESEMANN

Cimarron Environmental Response Trust
OUTFALL DETAILS

project	142089	contract	-
drawing	BMCD-GWREMED-C106	rev.	A
sheet	of	sheets	
file	C106 OUTFALL DETAILS.DWG		



no.	date	by	ckd	description
A	08/19/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN

PRELIMINARY - NOT FOR CONSTRUCTION

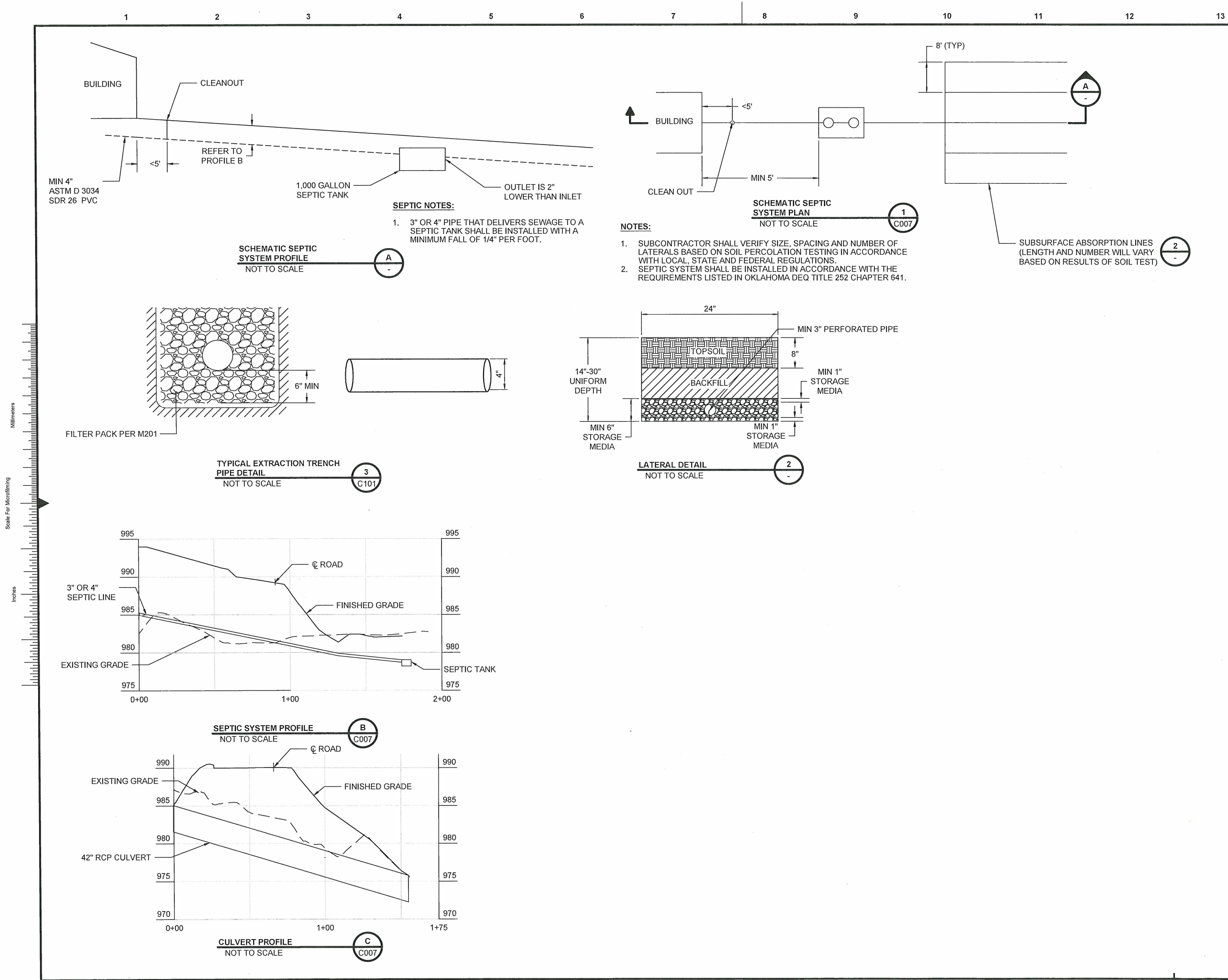


9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
OKLAHOMA FIRM LICENSEE NO. 421

date	designed	detailed
SEPTEMBER 2022	B. WEIS	M. CARLIN
	checked	
	J. HESEMANN	

Cimarron Environmental Response Trust
MISCELLANEOUS DETAILS- SHEET 1

project	contract
142089	-
drawing	rev.
BMCD-GWREMED-C107	A
sheet	of sheets
file C107 MISC DET 1.DWG	



no.	date	by	ckd	description
A	08/19/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN

PRELIMINARY - NOT FOR CONSTRUCTION

BURNS

MCDONNELL

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
OKLAHOMA FIRM LICENSEE NO. 421

date

SEPTEMBER 2022

designed

B. WEIS

detailed

M. CARLIN

checked

J. HESEMANN

Cimarron Environmental Response Trust
MISCELLANEOUS DETAILS - SHEET 2

project

142089

contract

-

drawing

BMCD-GWREMED-C108

rev.

A

sheet

of

sheets

file

C108 MISC DET 2.DWG

1

2

3

4

5

6

7

8

9

10

11

12

13

Millimeters

Inches

Scale For Microfilming

Scale For Microfilming

1

2

3

4

5

6

7

8

9

10

11

12

13

A

B

C

D

E

F

G

H

I

1

2

3

4

5

6

7

8

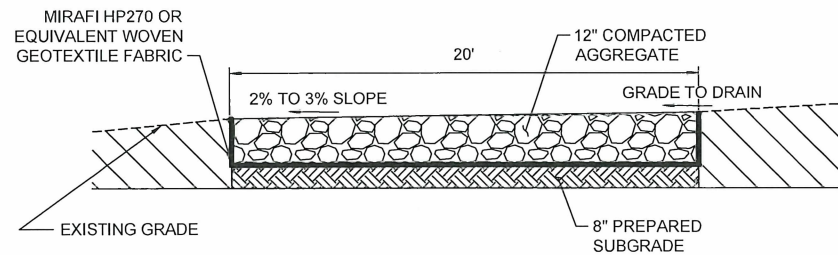
9

10

11

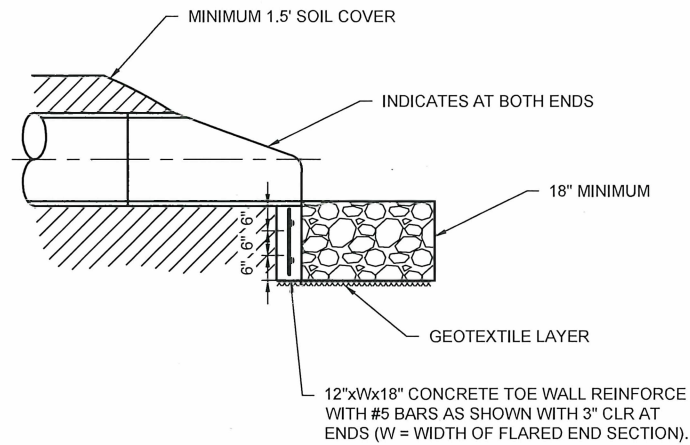
12

13



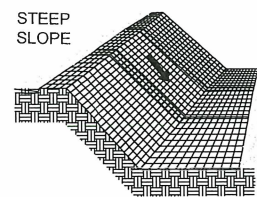
TYPICAL NEW ROAD
CONSTRUCTION SECTION
NOT TO SCALE

1
-

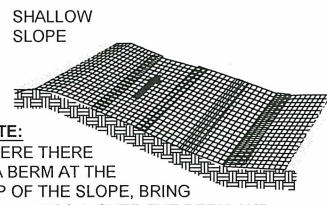


END DETAIL
NOT TO SCALE

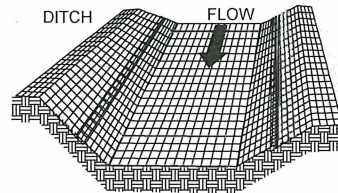
3
C007, C012



NOTE:
BRING MATERIAL DOWN TO A LEVEL
AREA BEFORE TERMINATING THE
INSTALLATION.



NOTE:
WHERE THERE
IS A BERM AT THE
TOP OF THE SLOPE, BRING
THE MATERIAL OVER THE BERM AND
ANCHOR IT BEHIND THE BERM.



EROSION CONTROL
BLANKET DETAIL

NOT TO SCALE

2
C006

EROSION CONTROL BLANKET NOTES:

A) SITE PREPARATION:

AFTER SITE HAS BEEN SHAPED AND GRADED, PREPARE A FRIABLE SEEDBED RELATIVELY FREE FROM CLODS AND ROCKS MORE THAN 1 1/2 INCHES IN DIAMETER AND ANY FOREIGN MATERIAL THAT WILL PREVENT UNIFORM CONTACT OF THE PROTECTIVE COVERING WITH THE SOIL SURFACE.

B) LAYING AND STAPLING:

SUBCONTRACTOR SHALL INSTALL EROSION CONTROL BLANKET PER MANUFACTURER'S SPECIFICATIONS.

1. START LAYING THE PROTECTIVE COVERING FROM THE TOP OF THE CHANNEL OR SLOPE AND UNROLL DOWN-GRADE.
2. ALLOW TO LAY LOOSELY ON SOIL; DO NOT STRETCH.
3. UPSLOPE ENDS OF THE BLANKET SHOULD BE BURIED IN AN ANCHOR SLOT NO LESS THAN 6-INCHES DEEP. TAMP EARTH FIRMLY OVER THE MATERIAL. WHEN TOP IS RELATIVELY FLAT, EXTEND BLANKET ABOUT 40 INCHES AWAY FROM SLOPE. STAPLE THE MATERIAL AT A MINIMUM OF EVERY 12 INCHES ACROSS THE TOP END.
4. EDGES OF THE MATERIAL SHALL BE STAPLED EVERY 3 FEET. WHERE MULTIPLE WIDTHS ARE LAID SIDE BY SIDE, THE ADJACENT EDGES SHALL BE OVERLAPPED A MINIMUM OF 6 INCHES AND STAPLED TOGETHER.
5. STAPLES SHALL BE PLACED DOWN THE CENTER, STAGGERED WITH THE EDGES AT 3-FOOT INTERVALS.

C) MAINTENANCE & INSPECTION:

INSPECT CONTROLS AFTER EACH RAIN EVENT OF 1/2 INCH OR GREATER, AND EVERY 7 DAYS UNTIL VEGETATION IS ESTABLISHED. FOR EROSION OR UNDERMINING BENEATH THE NETTING, BLANKETS, OR MATS. IF ANY AREA SHOWS EROSION, PULL BACK THAT PORTION OF THE MATERIAL, ADD SOIL, TAMP DOWN, AND RESEED; RESECURE THE MATERIAL IN PLACE. IF NETTING, BLANKETS OR MATS BECOME DISLOCATED OR DAMAGED, REPAIR OR REPLACE, RESEED AND RESECURE IMMEDIATELY.

1. EROSION CONTROL BLANKET (ECB) AND INSTALLATION STAPLES, WHERE SPECIFIED ON THE PLANS, SHALL BE NORTH AMERICAN GREEN C125 OR APPROVED EQUAL, A MACHINE-PRODUCED MAT OF 100% COCONUT FIBER MATRIX WITH A FUNCTIONAL LONGEVITY OF APPROXIMATELY 36 MONTHS. CONTRACTOR SHALL INSTALL AND STAPLE ECB PER MANUFACTURER'S SPECIFICATIONS.

no.	date	by	ckd	description
A	08/19/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN

PRELIMINARY - NOT
FOR CONSTRUCTION

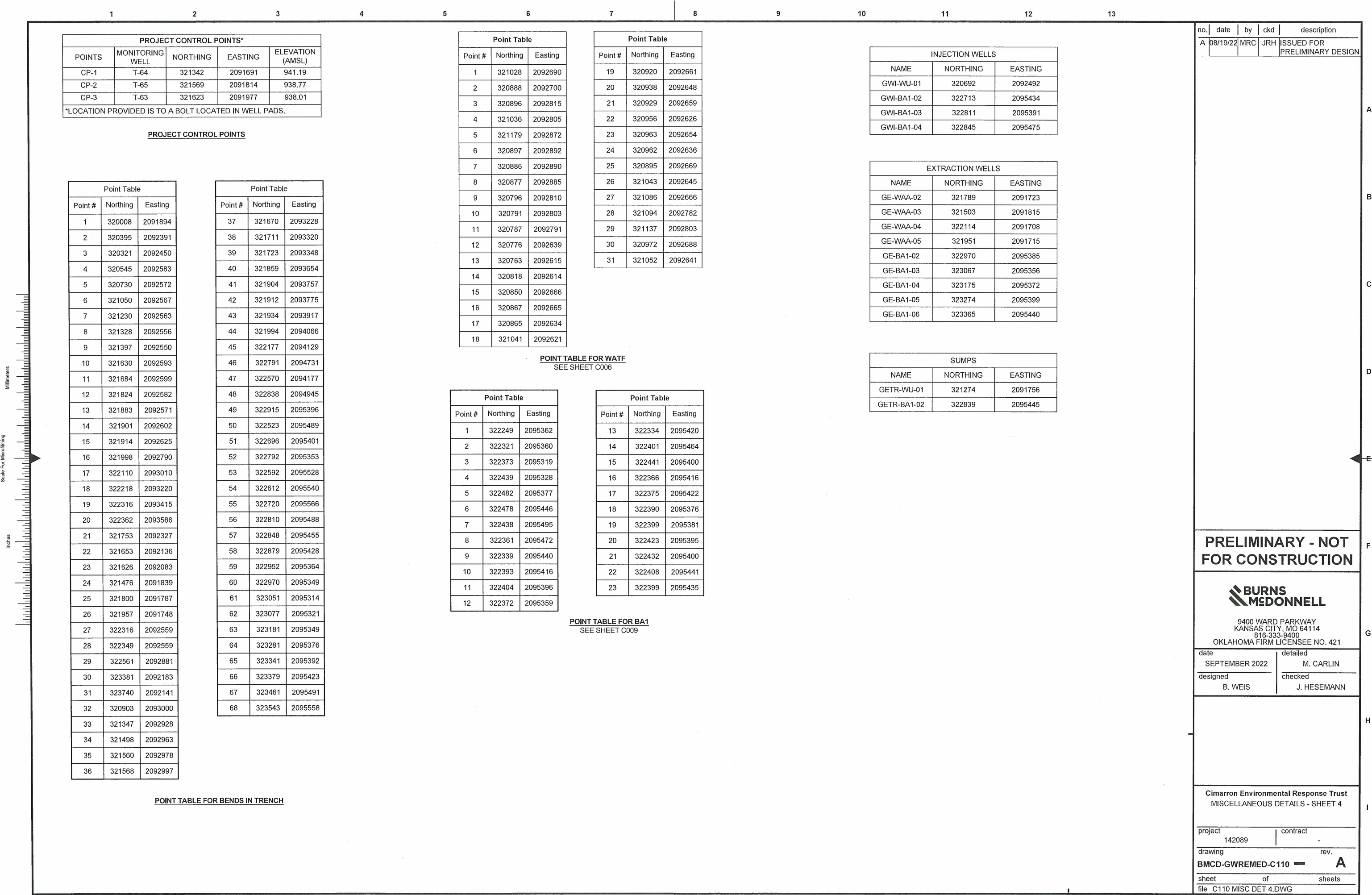
**BURNS
MCDONNELL**

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
OKLAHOMA FIRM LICENSEE NO. 421

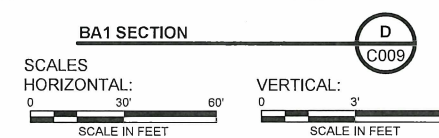
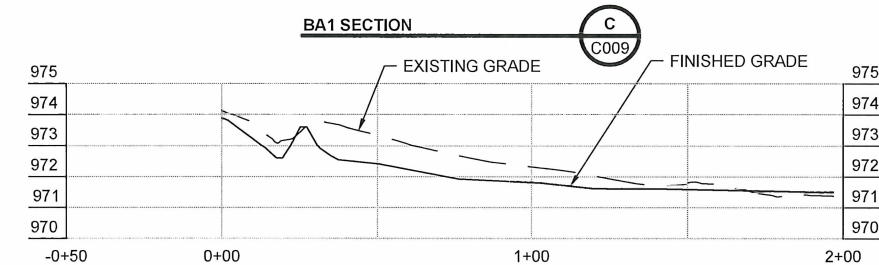
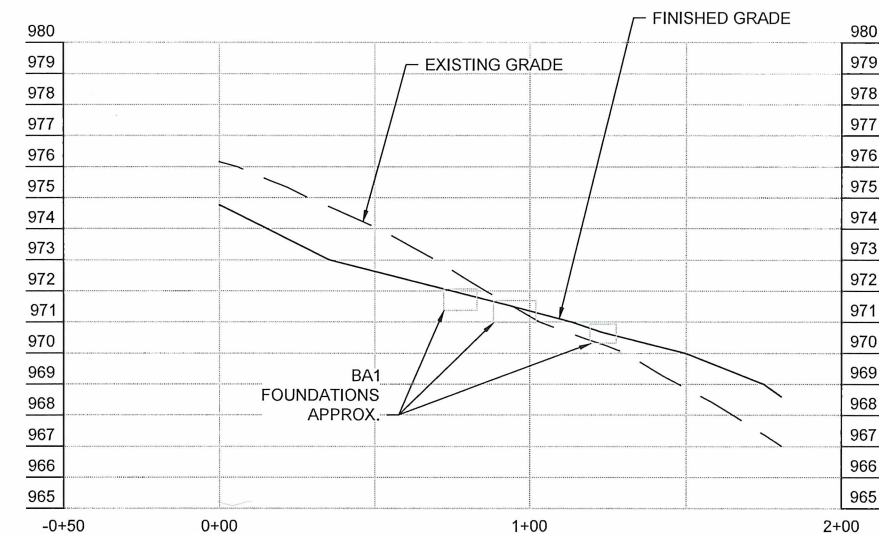
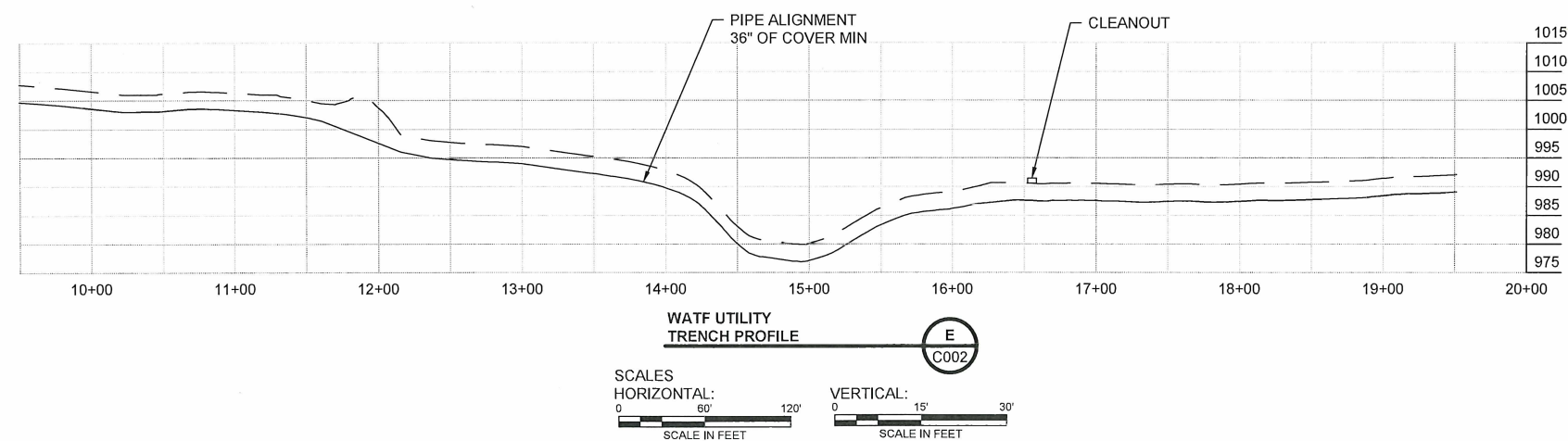
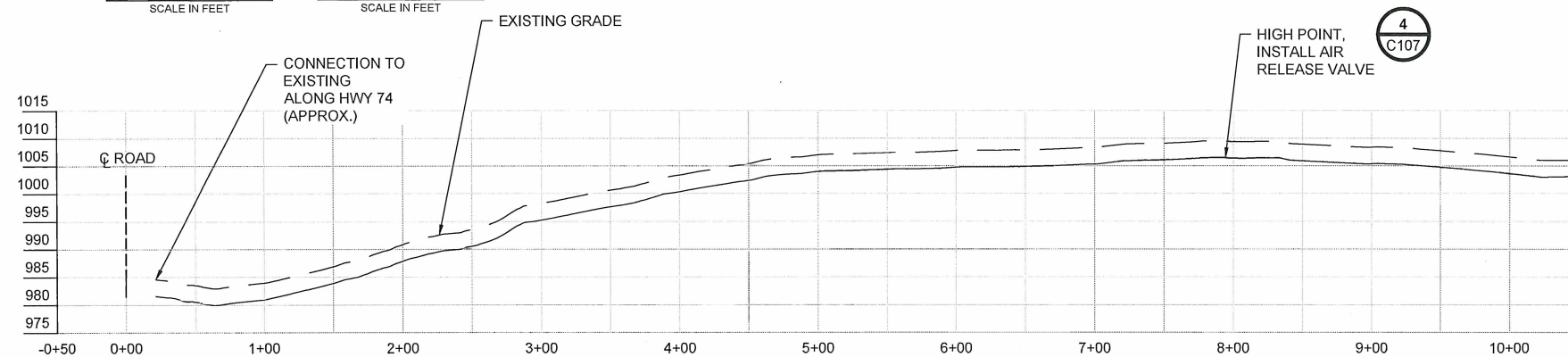
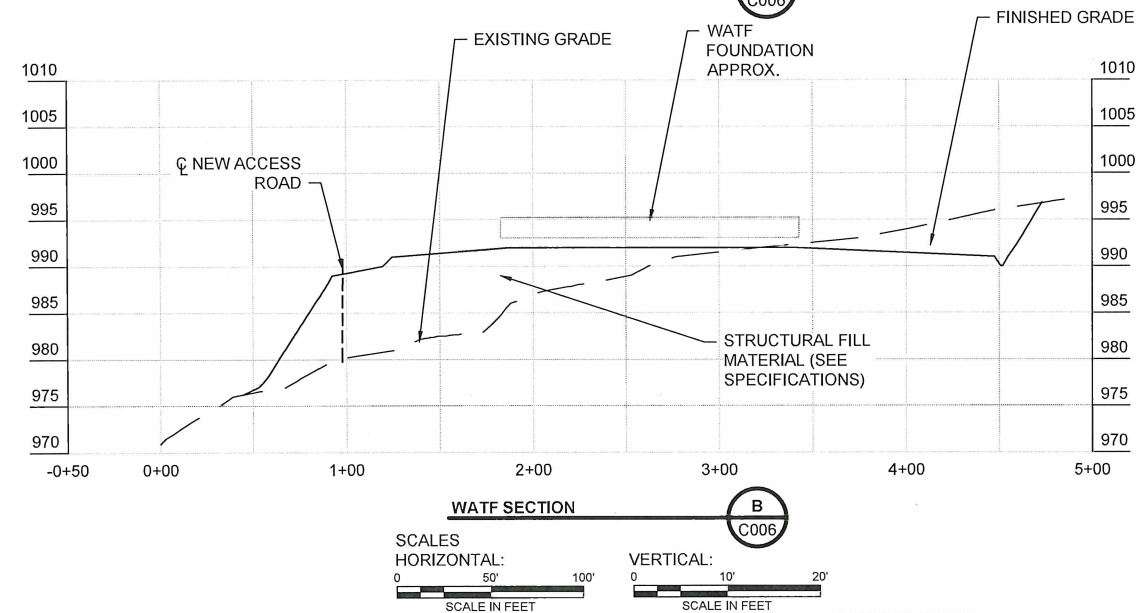
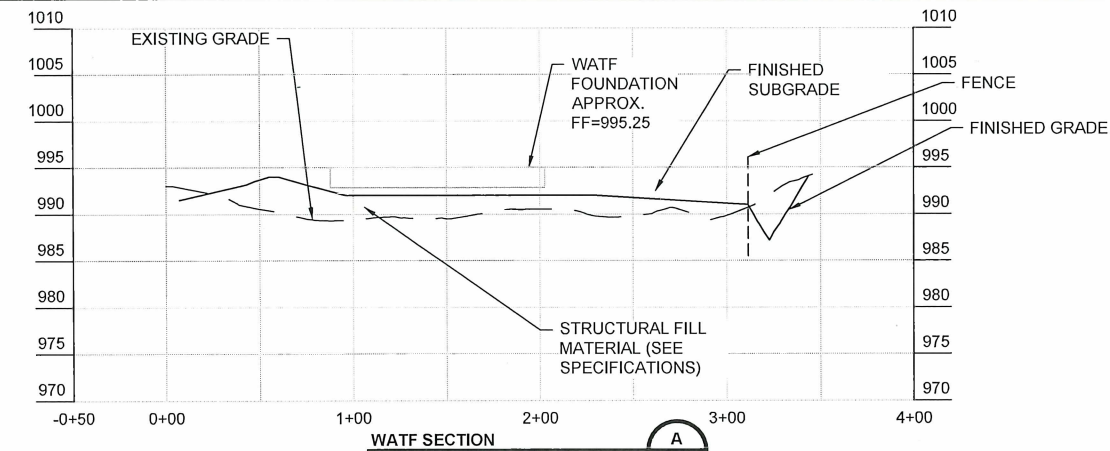
date	designed	detailed	checked
SEPTEMBER 2022	B. WEIS	M. CARLIN	J. HESEMANN

Cimarron Environmental Response Trust
MISCELLANEOUS DETAILS - SHEET 3

project	contract
142089	-
drawing	rev.
BMCD-GWREMED-C109	A
sheet	of sheets
file	C109 MISC DET 3.DWG



1 2 3 4 5 6 7 8 9 10 11 12 13



no.	date	by	ckd	description
A	08/25/22	MRC	JRH	ISSUED FOR PRELIMINARY DESIGN

PRELIMINARY - NOT FOR CONSTRUCTION

**BURNS
MCDONNELL**

9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
OKLAHOMA FIRM LICENSE NO. 421

date	SEPTEMBER 2022	detailed	M. CARLIN
designed	B. WEIS	checked	J. HESEMANN

Cimarron Environmental Response Trust
WESTERN AREA TREATMENT FACILITY AND
BURIAL AREA 1 SECTIONS, AND
WATF UTILITY TRENCH PROFILE

project	142089	contract	-
drawing	BMCD-GWREMED-C200	rev.	A
sheet	of	sheets	
file	C200 WATF SECTIONS.DWG		