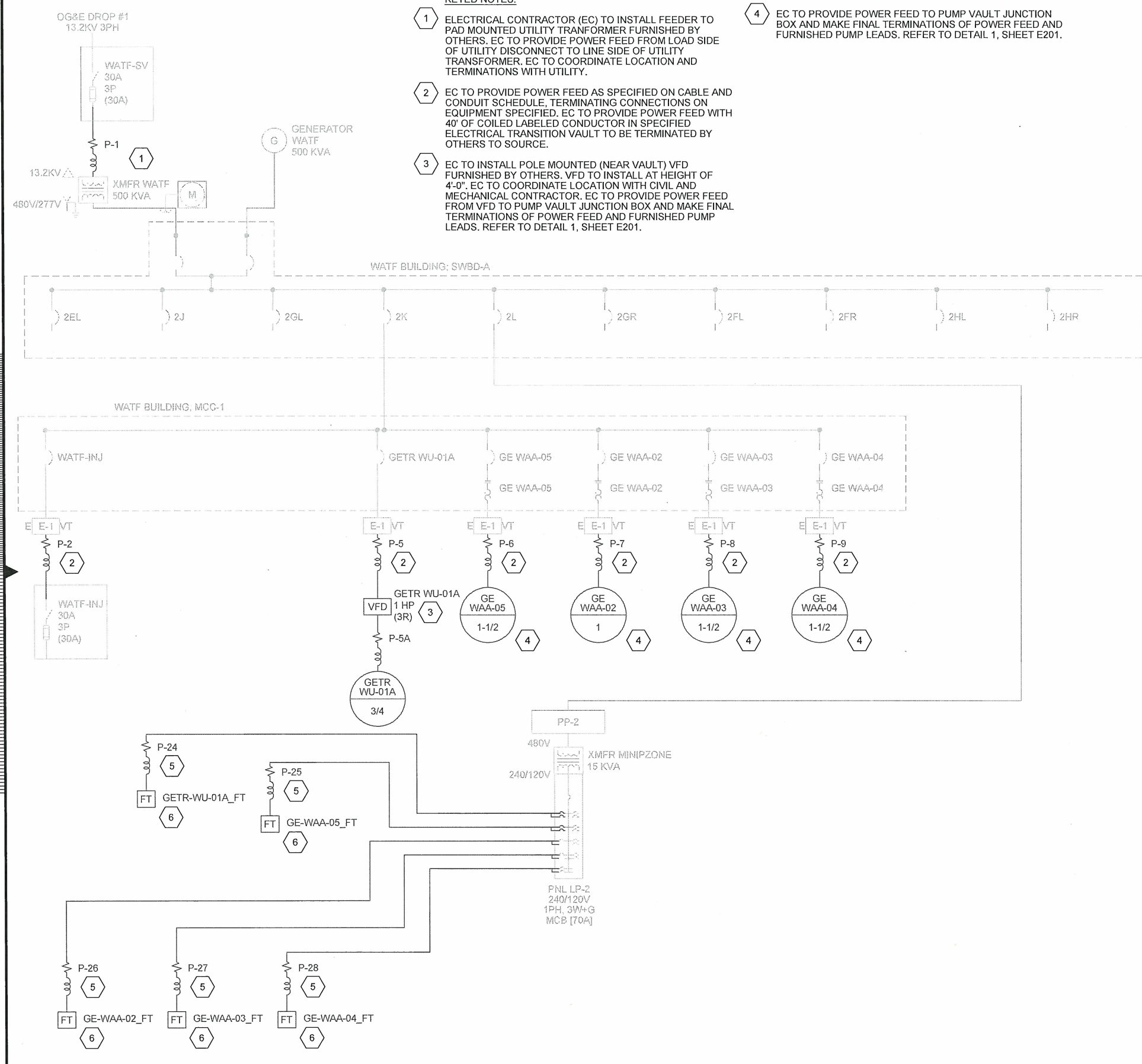


KEYED NOTES:

- 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:

- 1. SEE DRAWING E103 THROUGH E105 FOR CABLE AND CONDUIT SIZES.
- 2. CABLE AND CONDUIT BETWEEN XFMR WATF (LINE SIDE) AND SWBD-A SHALL BE PROVIDED BY VEOLIA DESIGN DRAWINGS.
- 3. 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.
- 4. CONFIRM PHYSICAL LOCATIONS OF DEVICES WITH CIVIL AND MECHANICAL CONTRACTORS, REFERENCE LOCATIONS CAN BE OBTAINED ON DRAWING C002 OF THE CIVIL SET.
- 5. 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.
- 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 LEADS TO METER AS SEEN ON DETAIL 2, SHEET E201.



Millimeters
 Scale For Microfilming
 Inches

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

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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
 WATF

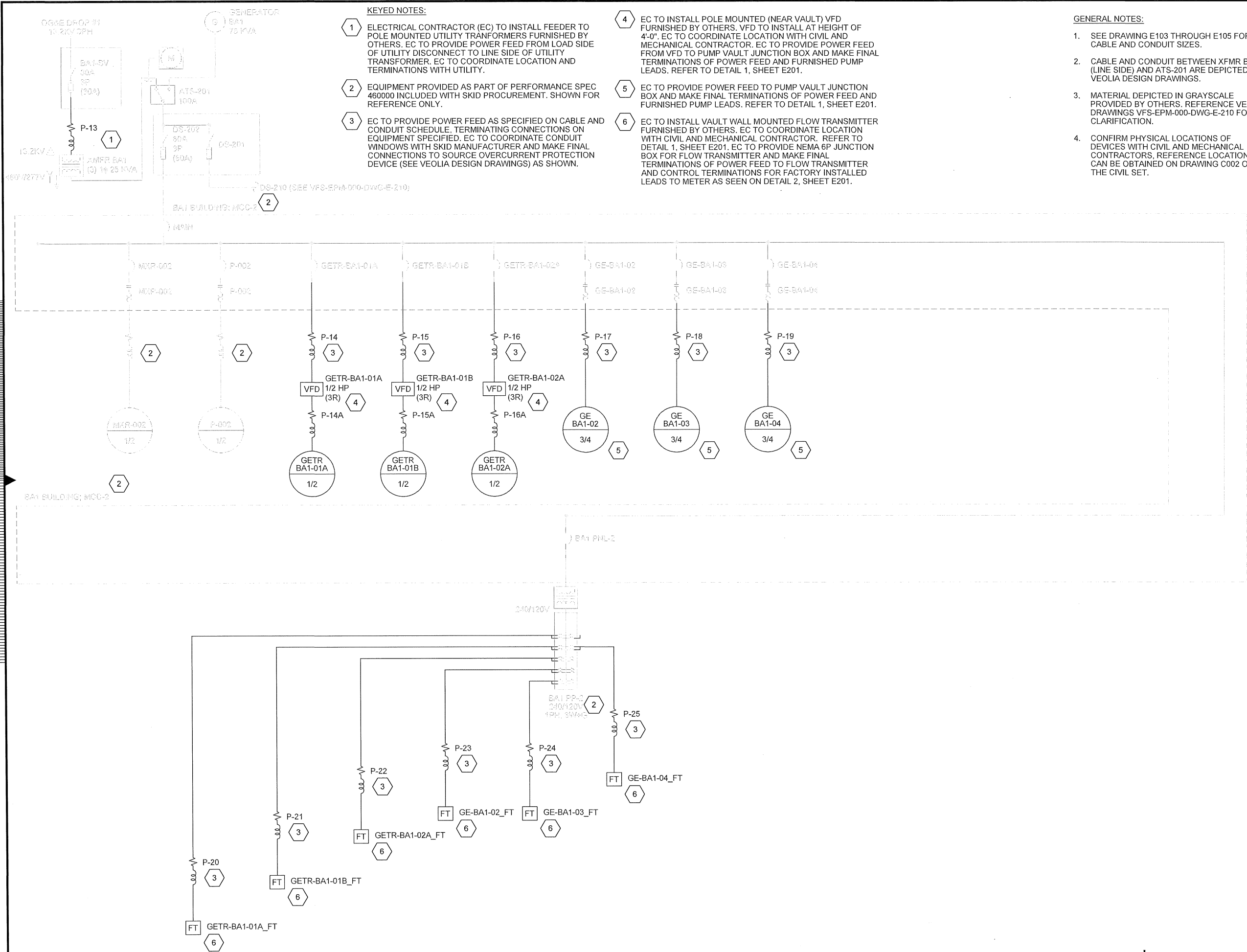
project	142089	contract	
drawing	BMCD-GWREMED-E101	rev.	A
sheet	of	sheets	
file	E101.dwg		

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.



Millimeters
Scale For Microfilming
Inches

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

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BURNS & MCDONNELL
 9400 WARD PARKWAY
 KANSAS CITY, MO 64114
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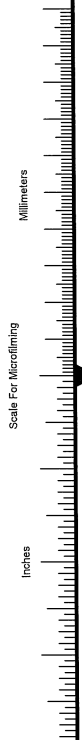
date	designed	detailed
SEPTEMBER 2022	A. HIMES	A. HIMES
checked		
S. DEFRANCESCO		

Cimarron Environmental Response Trust
 ELECTRICAL SINGLE LINE BA1

project	contract
142089	
drawing	rev.
BMCD-GWREMEDI-E102	A
sheet	of sheets
E102.dwg	

CABLE AND CONDUIT SCHEDULE

CABLE NUMBER	SERVICE	LOAD VOLTS	CONDUCTORS						CONDUIT			
			POWER		CONTROL		INSTRUMENT & COMMS.		FROM (SOURCE)	TO	SIZE	TYPE
			NUMBER AND SIZE	TYPE	NUMBER AND SIZE	TYPE	NUMBER OF CABLES & NO. PAIRS / CONDUCTORS	TYPE				
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 XFMR 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



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

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OKLAHOMA FIRM LICENSEE NO. 421

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

Cimarron Environmental Response Trust
CABLE AND CONDUIT SCHEDULE - SHEET 1

project	contract
142089	
drawing	rev.
BMCD-GWREMED-E103	A
sheet	of sheets
file E103.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				FROM (SOURCE)	TO	CONDUIT			
			POWER		CONTROL				NUMBER OF CABLES & NO. PAIRS / CONDUCTORS	TYPE	SIZE	TYPE
			NUMBER AND SIZE	TYPE	NUMBER AND SIZE	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	GWU-WU-01A INJECTION TRENCH - PSI XMTR	24V DC				#14 TSP (4-20mA)	D	WELL FIELD PLC CPP-1	GWU-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	



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

Cimarron Environmental Response Trust
CABLE AND CONDUIT SCHEDULE - SHEET 2

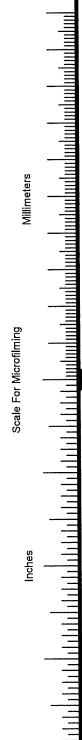
project	contract
142089	
drawing	rev.
BMCD-GWREMED-E104	A
sheet	of sheets
1	1
file	E104.dwg

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

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

CABLE AND CONDUIT SCHEDULE

CABLE NUMBER	SERVICE	LOAD VOLTS	CONDUCTORS				FROM (SOURCE)	TO	CONDUIT			
			POWER		CONTROL				NUMBER OF CABLES & NO. PAIRS / CONDUCTORS	TYPE	SIZE	TYPE
			NUMBER AND SIZE	TYPE	NUMBER AND SIZE	TYPE						
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	GW-BA1-01A INJECTION TRENCH - PSI XMTR	24V DC				#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GW-BA1-01A - PSI XMTR	4 MAIN / 1 BRANCH	PVC	
C-24	GW-BA1-02A INJECTION TRENCH - PSI XMTR	24V DC				#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GW-BA1-02A - PSI XMTR	4 MAIN / 1 BRANCH	PVC	
C-25	GW-BA1-03A INJECTION TRENCH - PSI XMTR	24V DC				#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GW-BA1-03A - PSI XMTR	4 MAIN / 1 BRANCH	PVC	
C-26	GW-BA1-04A INJECTION TRENCH - PSI XMTR	24V DC				#14 TSP (4-20mA)	D	BA1 INJECTION SKID PLC CPP-4	GW-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	



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designed	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	of	sheets	
file	E105.dwg		

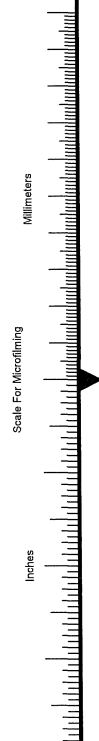
NOTES	
NOTE 1	SEE ONE-LINE DRAWINGS OR PANEL SCHEDULES FOR POWER CIRCUIT SIZES.
CABLE TYPE	DESCRIPTION
A	120V/208V/240V/480V SYSTEMS & BELOW: SINGLE CONDUCTOR POWER AND CONTROL CABLE SHALL BE 600V COPPER STRANDED, UL LISTED, TYPE XHHW-2 (PVC-INSULATION)
B	120V/208V/240V/480V SYSTEMS & BELOW: MULTI-CONDUCTOR 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

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

CERT - 142089

PANELBOARD NAME: BA1 PP-2 PANELBOARD TYPE: MLO PANEL LOCATION: BA1 INJECTION SKID SUPPLIED FROM: MCC-2 (BA1)	SURFACE MOUNTED, NEMA 1 ENCLOSURE 120/240 VOLTS, 1 PHASE, 3 WIRE 100 AMP MAINS 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	15	2	SEE E104	P-20	B	P-21	SEE E103	2	15	4
5				GETR-BA1-01A FLOW METER	A	GETR-BA1-01B FLOW METER				6
7	15	2	SEE E104	P-22	B	P-23	SEE E103	2	15	8
9				GETR-BA1-02A FLOW METER	A	GE-BA1-02 FLOW METER				10
11	15	2	SEE E104	P-24	B	P-25	SEE E103	2	15	12
13				BE-BA1-03 FLOW METER	A	GE-BA1-04 FLOW METER				14
15					B	SPARE	N/A	2	15	16
17					A					18
19					B	SPARE	N/A	2	15	20
21					A					22
23					B	SPARE	N/A	2	15	24
25					A					26
27					B	SPARE	N/A	1	15	28
29					A	SPARE	N/A	1	15	30



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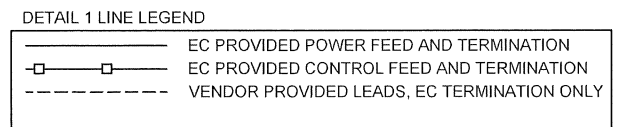
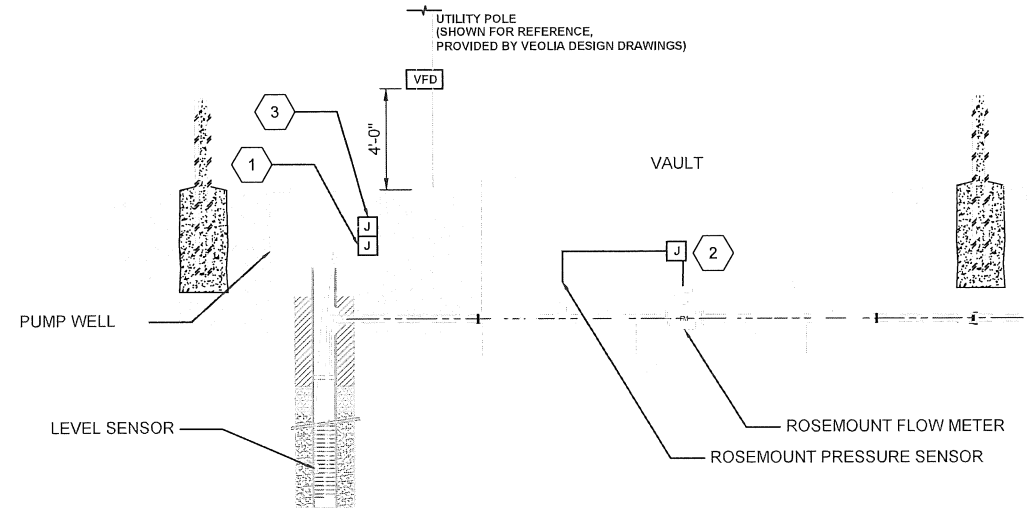


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Cimarron Environmental Response Trust
 PANELBOARD SCHEDULES

project	142089	contract	
drawing	BMCD-GWREMEDI-E106	rev.	A
sheet	of	sheets	
file	E106.dwg		

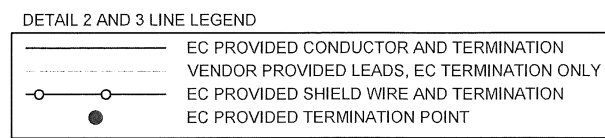
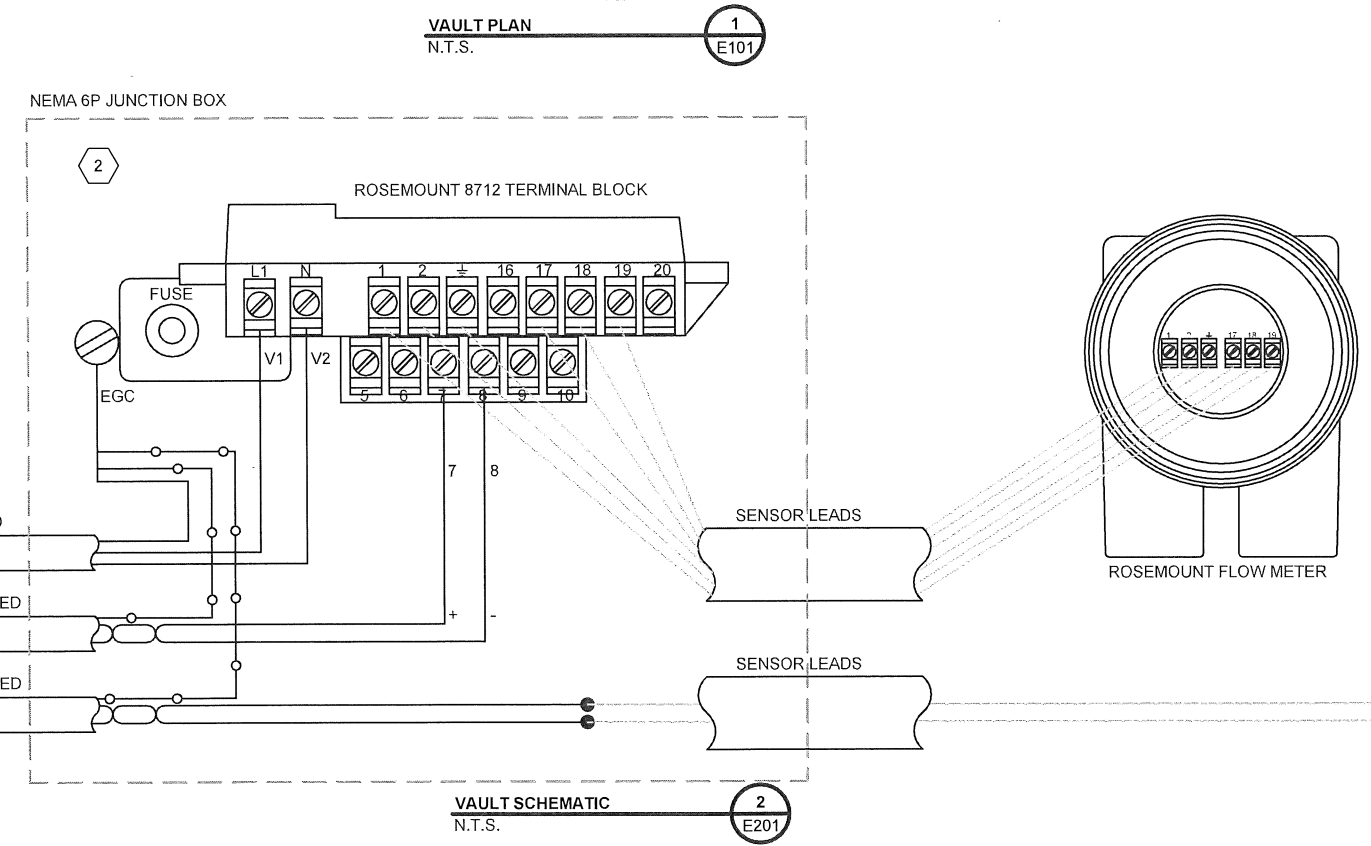
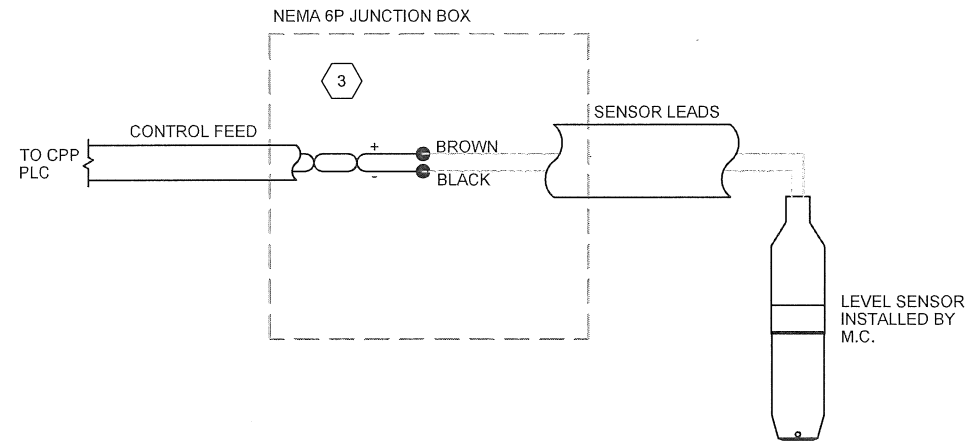
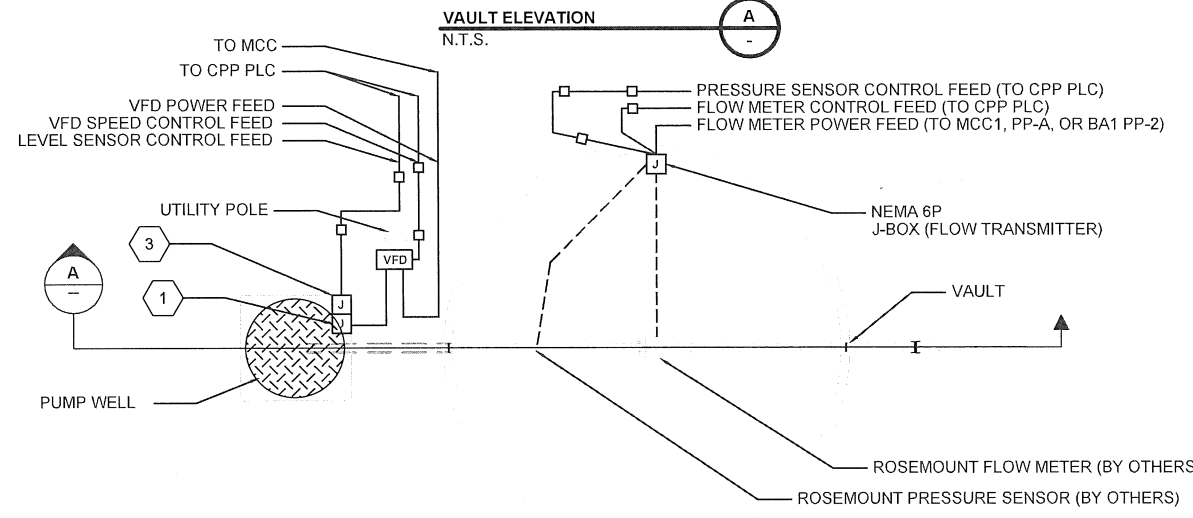


GENERAL NOTES:

- 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.



Millimeters

Scale For Microfitting

Inches

no.	date	by	ckd	description
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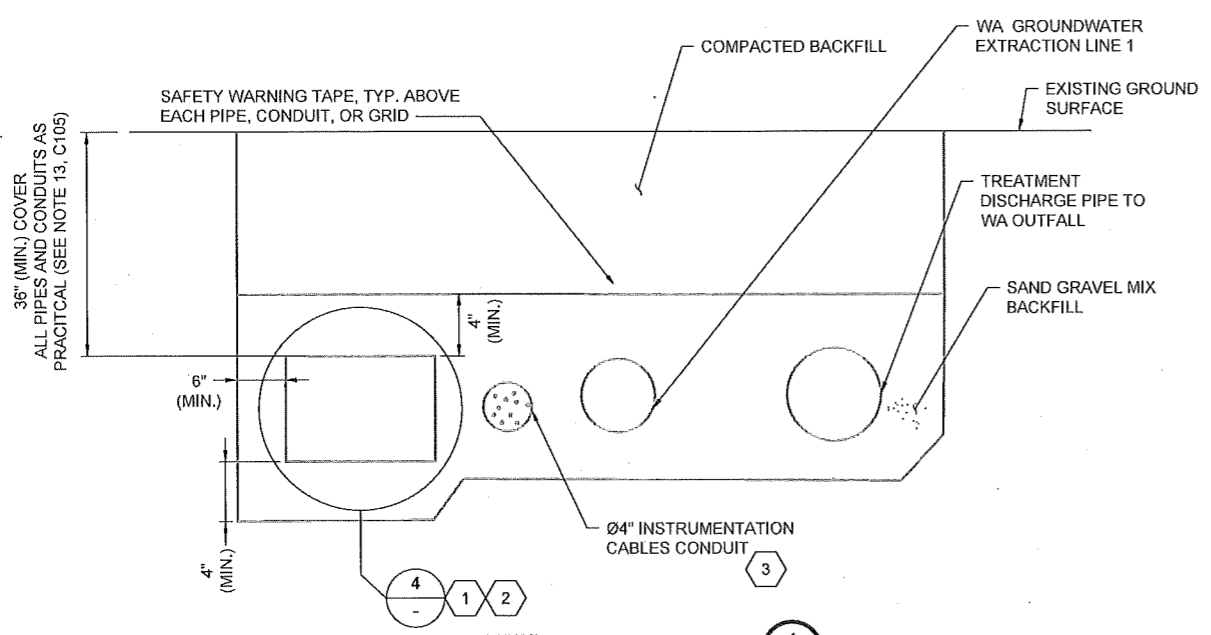
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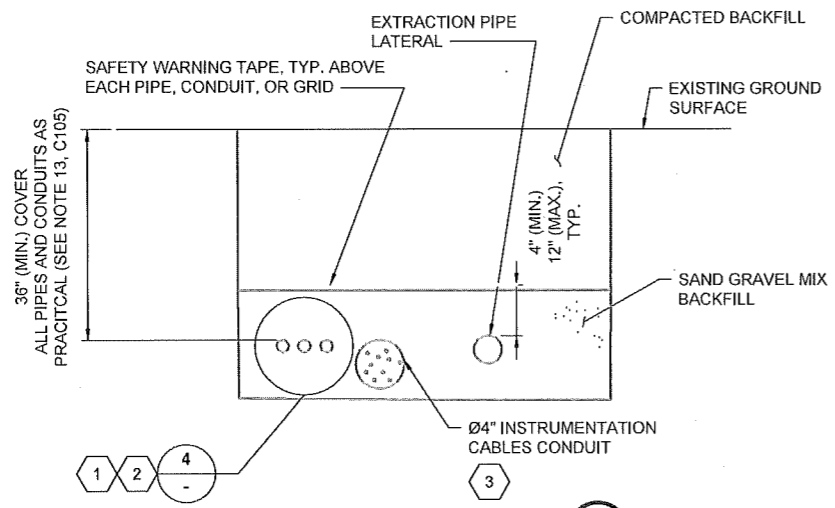
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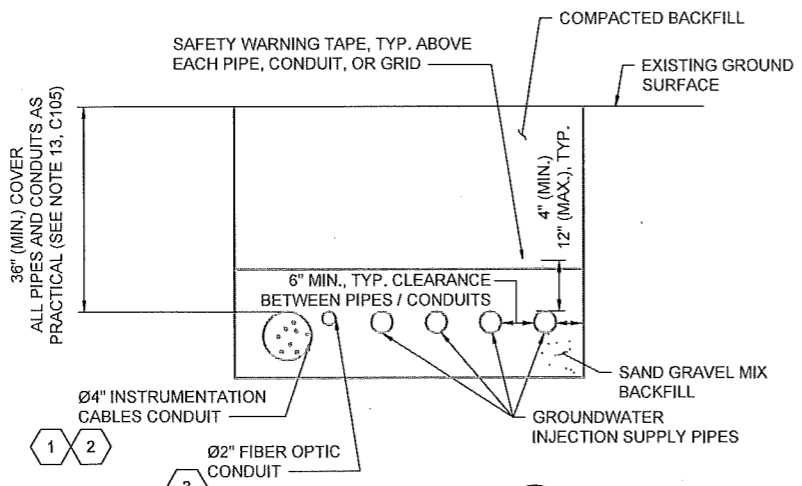
Cimarron Environmental Response Trust			
ELECTRICAL DETAIL I (CONNECTION DETAILS) - SHEET 1			
project	142089	contract	
drawing	BMCD-GWREMED-E201	rev.	A
sheet	of	sheets	
file	E201.dwg		



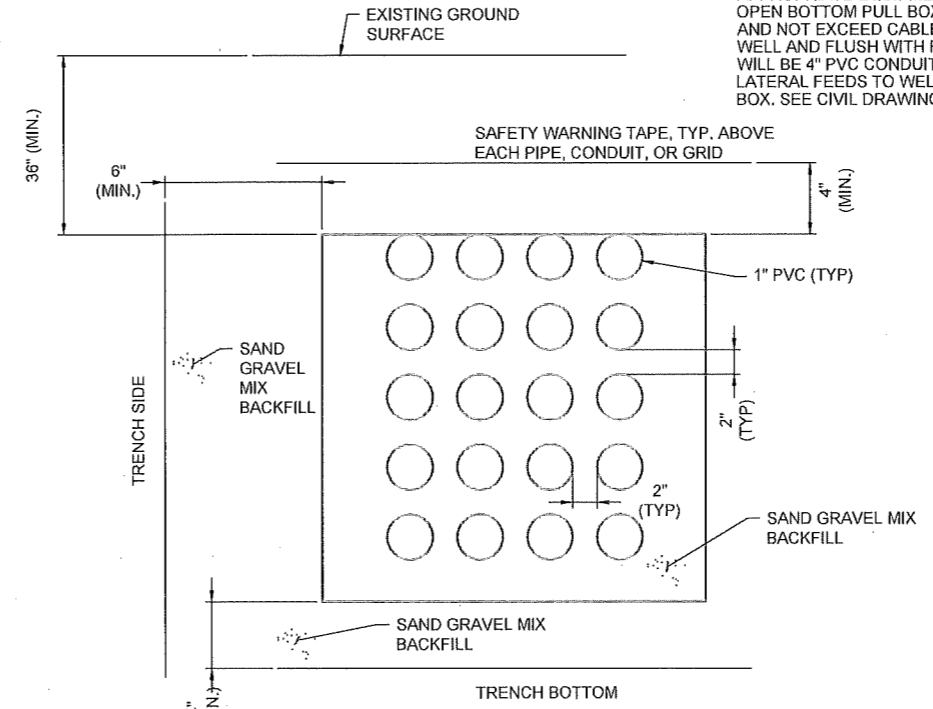
DETAIL 1
N.T.S.
SECTION A; C004, C105



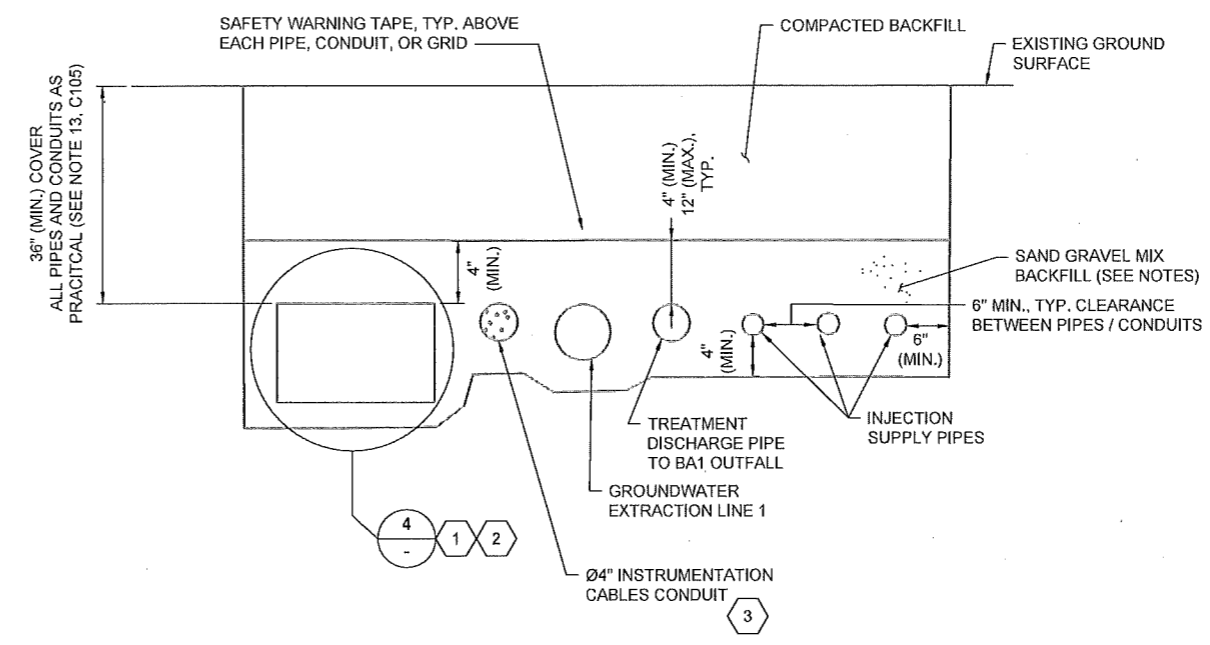
DETAIL 2
N.T.S.
SECTION C; C003, C105



DETAIL 3
N.T.S.
SECTION A; C004, C105



DETAIL 4
N.T.S.



DETAIL 5
N.T.S.
SECTION E; C009, C106

KEYED NOTES:

- 1 EC TO PROVIDE AND COORDINATE DUCT BANKS AND LATERALS WITH CIVIL AND MECHANICAL CONTRACTORS TO APPROPRIATE EQUIPMENT. EC TO PROVIDE MANUFACTURED OPEN BOTTOM PULL BOXES POSITIONED TO ALLOW LATERAL FEED AND NOT EXCEED CABLE PULLING TENSIONS TO EACH MECHANICAL WELL AND FLUSH WITH FINISH GRADE. REFER TO DETAIL 3, SHEET E203.
- 2 EC TO CONFIGURE DUCT BANKS IN ACCORDANCE TO DETAIL 4 THIS SHEET MAINTAINING DISTANCE FROM CONDUIT TO CONDUIT AND NOT EXCEEDING THE ROW OR COLUMN CAPACITY LISTED.
- 3 EC TO PROVIDE AND COORDINATE INSTRUMENTATION TRUNK AND LATERALS WITH CIVIL AND MECHANICAL CONTRACTORS TO APPROPRIATE EQUIPMENT. CIVIL TO PROVIDE MANUFACTURED OPEN BOTTOM PULL BOXES POSITIONED TO ALLOW LATERAL FEED AND NOT EXCEED CABLE PULLING TENSIONS TO EACH MECHANICAL WELL AND FLUSH WITH FINISH GRADE. INSTRUMENTATION TRUNK WILL BE 4" PVC CONDUIT UTILIZING INNERDUCT SYSTEM AND LATERAL FEEDS TO WELLS WILL BE 1" PVC ORIGINATING FROM PULL BOX. SEE CIVIL DRAWINGS. REFER TO DETAIL 3, SHEET E203.

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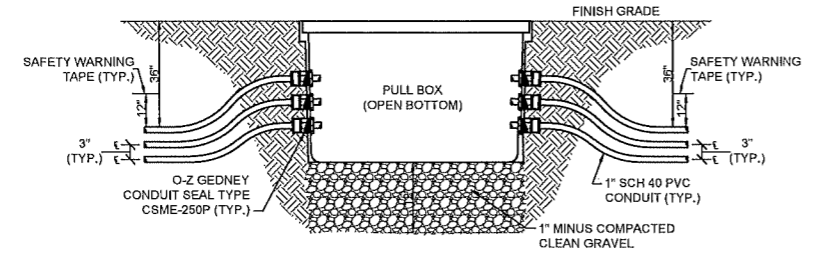


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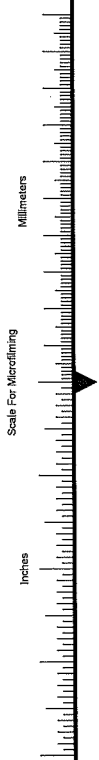
date	detailed
SEPTEMBER 2022	A. HIMES
designed	checked
A. HIMES	S. DEFRANCESCO

Cimarron Environmental Response Trust
ELECTRICAL DETAIL II
(DUCT BANK DETAILS) -
SHEET 2

project	contract
142089	
drawing	rev.
BMCD-GWREMEDIATION-E202	A
sheet	of sheets
file	E202.dwg



PULLBOX CONDUIT DETAIL
N.T.S. 3
E203



GENERAL NOTES:

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

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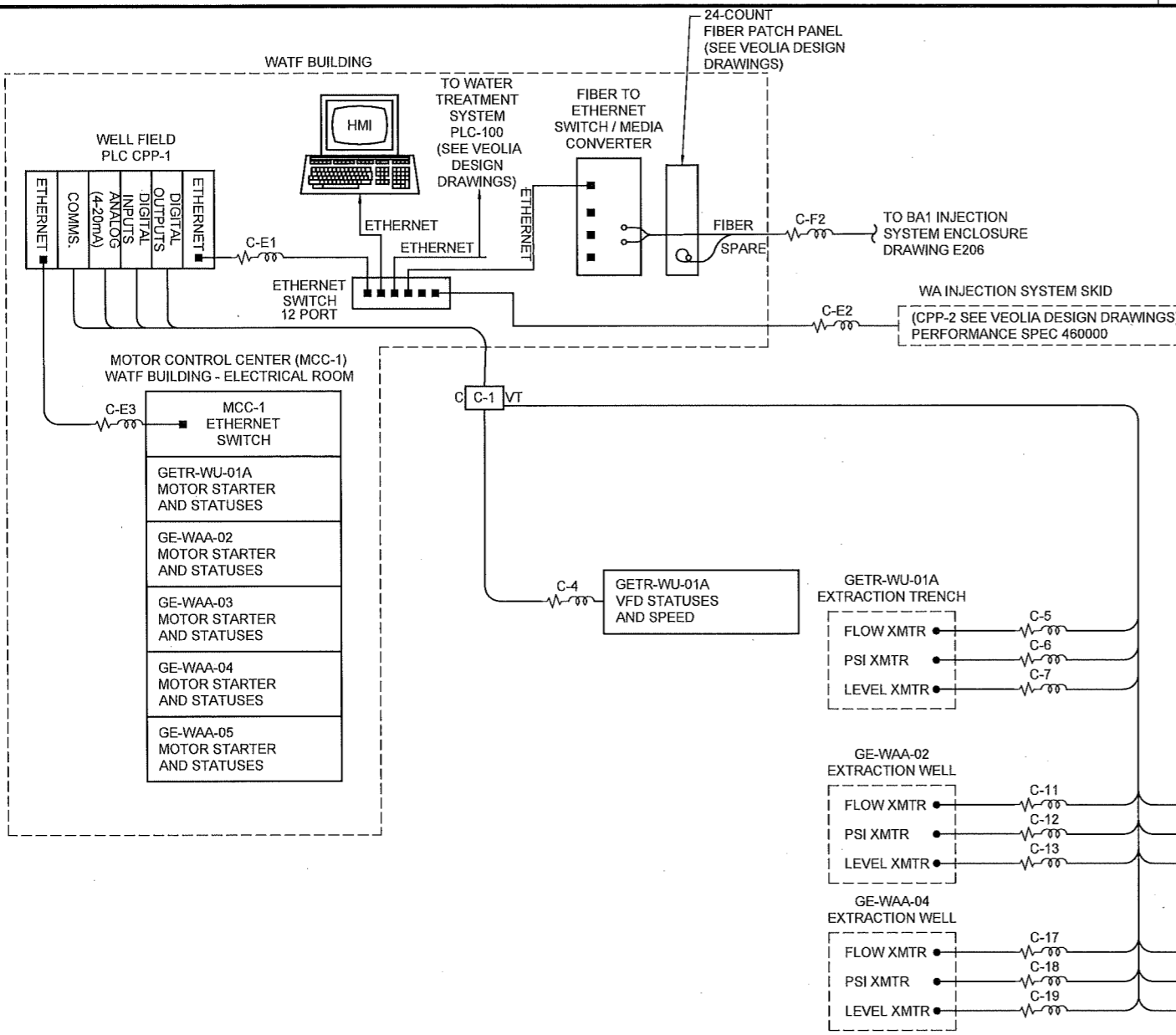
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ELECTRICAL DETAIL III
(EQUIPMENT LOCATIONS) -
SHEET 3

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

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Scale For Microfilming
Millimeters
Inches

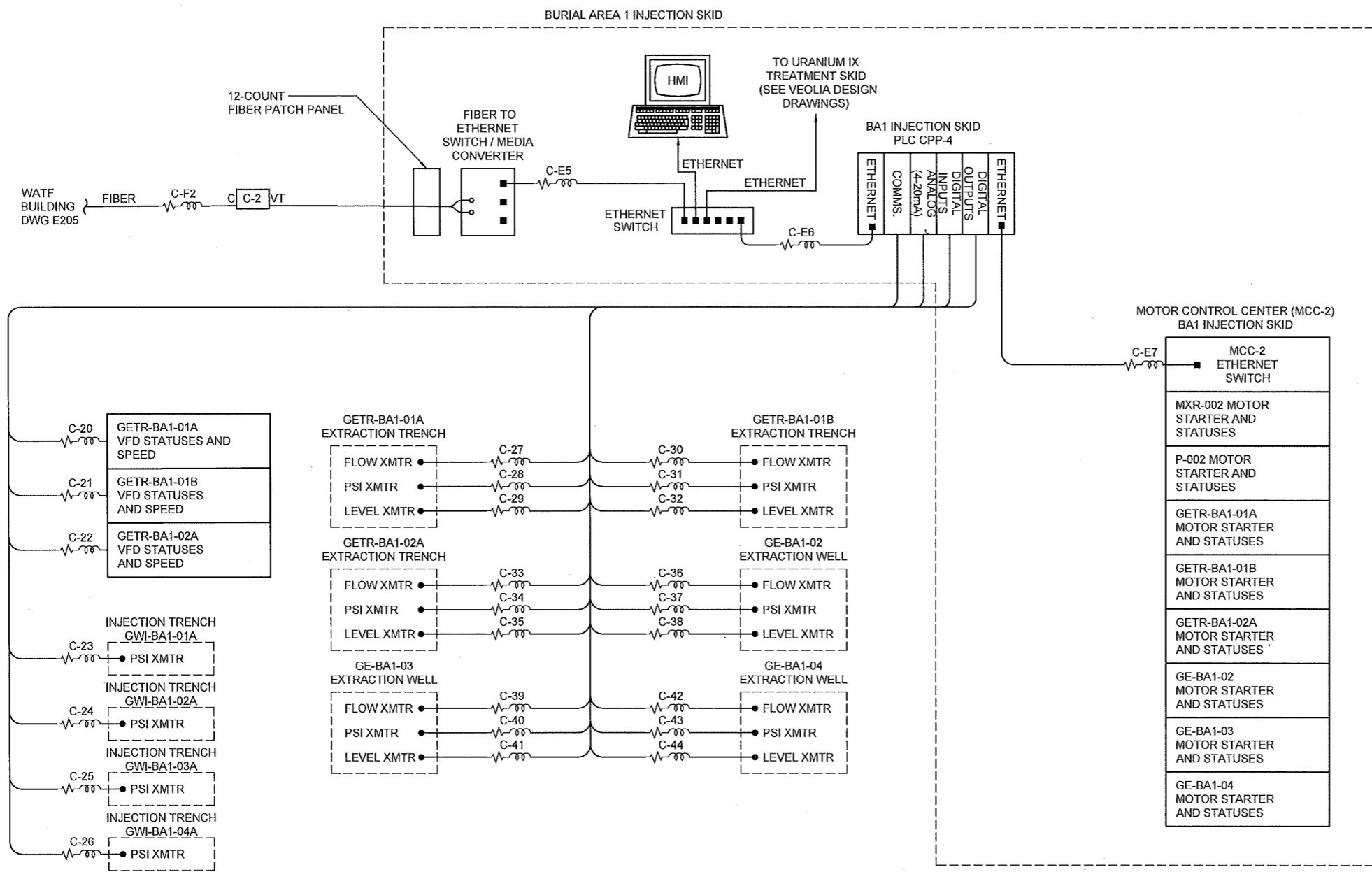
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designed	A. HIMES	checked	S. DEFRANCESCO

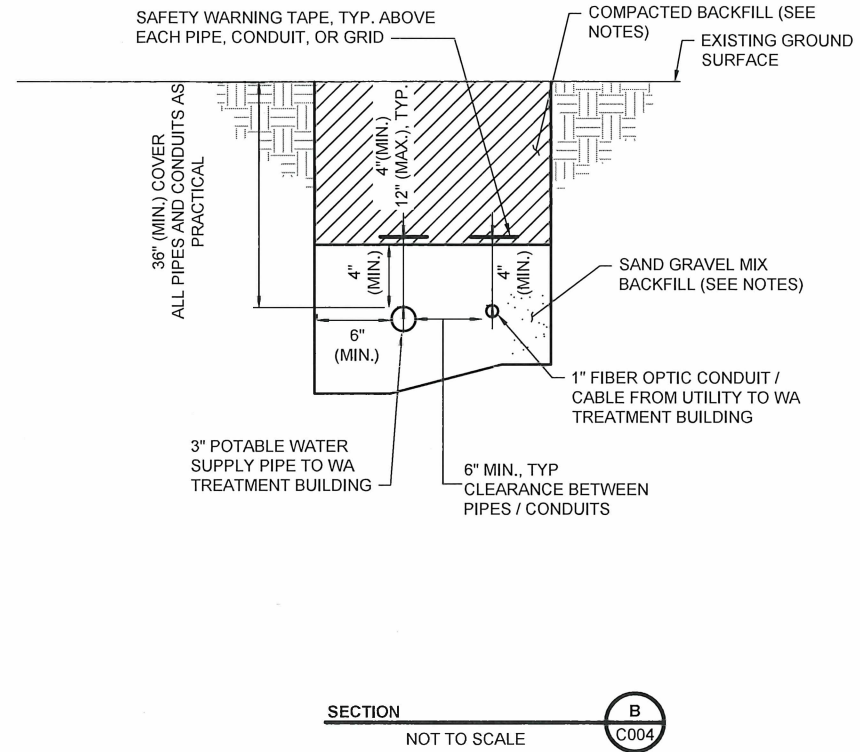
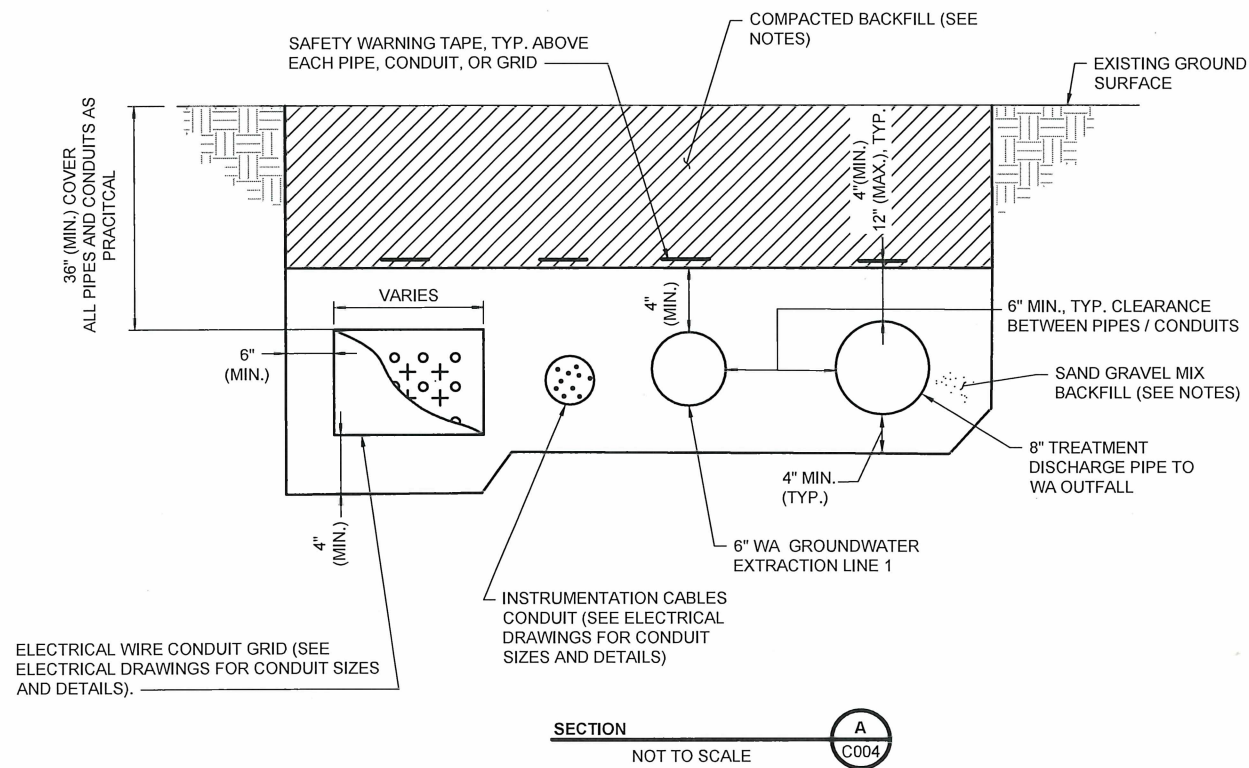
Cimarron Environmental Response Trust ELECTRICAL COMMUNICATION SYSTEM ARCHITECTURE - SHEET 1			
project	142089	contract	
drawing	BMCD-GWREMED-E204	rev.	A
sheet	of	sheets	
file	E204.dwg		



Millimeters
Scale For Microfilming
Inches

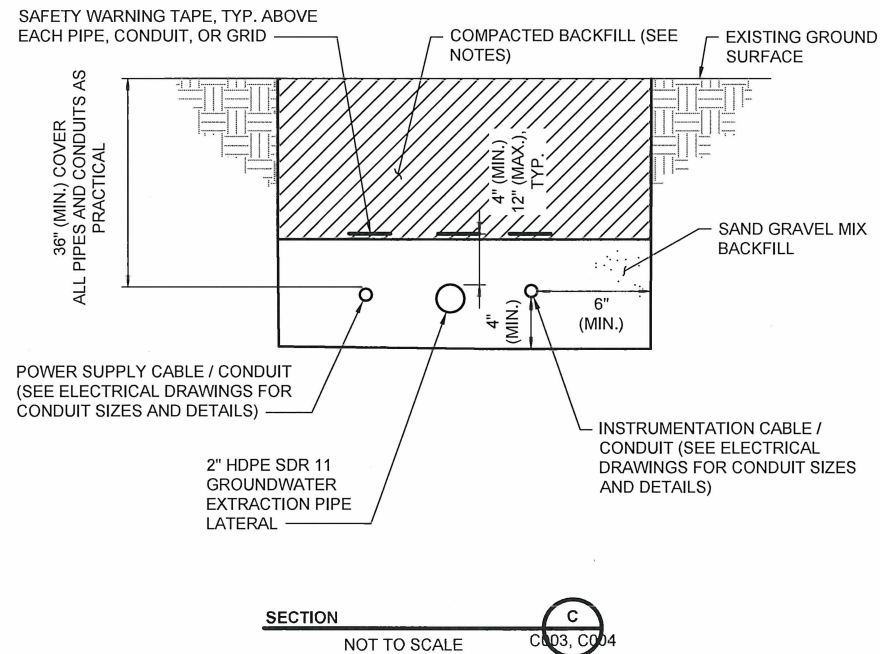
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date	detailed
SEPTEMBER 2022	A. HIMES
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A. HIMES	S. DEFRANCESCO
Cimarron Environmental Response Trust ELECTRICAL COMMUNICATION SYSTEM ARCHITECTURE - SHEET 2	
project	contract
142089	
drawing	rev.
BMCD-GWREMEDI-E205	A
sheet	of sheets
file E205.dwg	



PIPE & CONDUIT TRENCH SECTIONS NOTES:

- TRENCHES SHALL BE EXCAVATED IN ACCORDANCE WITH OSHA STANDARDS.
- 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.
- CLEARANCE AROUND PIPES / CONDUITS SHALL BE INCREASED IF NECESSARY TO ATTAIN GOOD COMPACTION IN HAUNCHES OF PIPES.
- SAFETY WARNING TAPE COLOR AND TEXT SHALL BE SPECIFIC TO THE PIPE, CONDUIT, OR ELECTRICAL GRID IT IS INSTALLED TO PROTECT.
- BACKFILL SHALL BE CLEAN, ACCEPTABLE EXCAVATED SOIL DURING TRENCHING OR FROM BORROW SOURCE.
- 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.
- 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.
- ELECTRICAL WIRE CONDUIT GRID (DUCT BANK) SHALL CONTAIN PLASTIC SPACERS AND SHALL BE BACKFILLED WITH SAND. SEE ELECTRICAL DRAWINGS FOR DETAILS.
- 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.
- 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.
- 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
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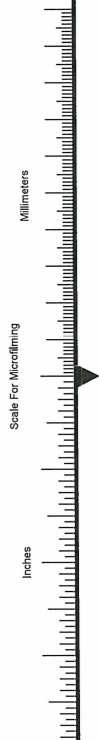
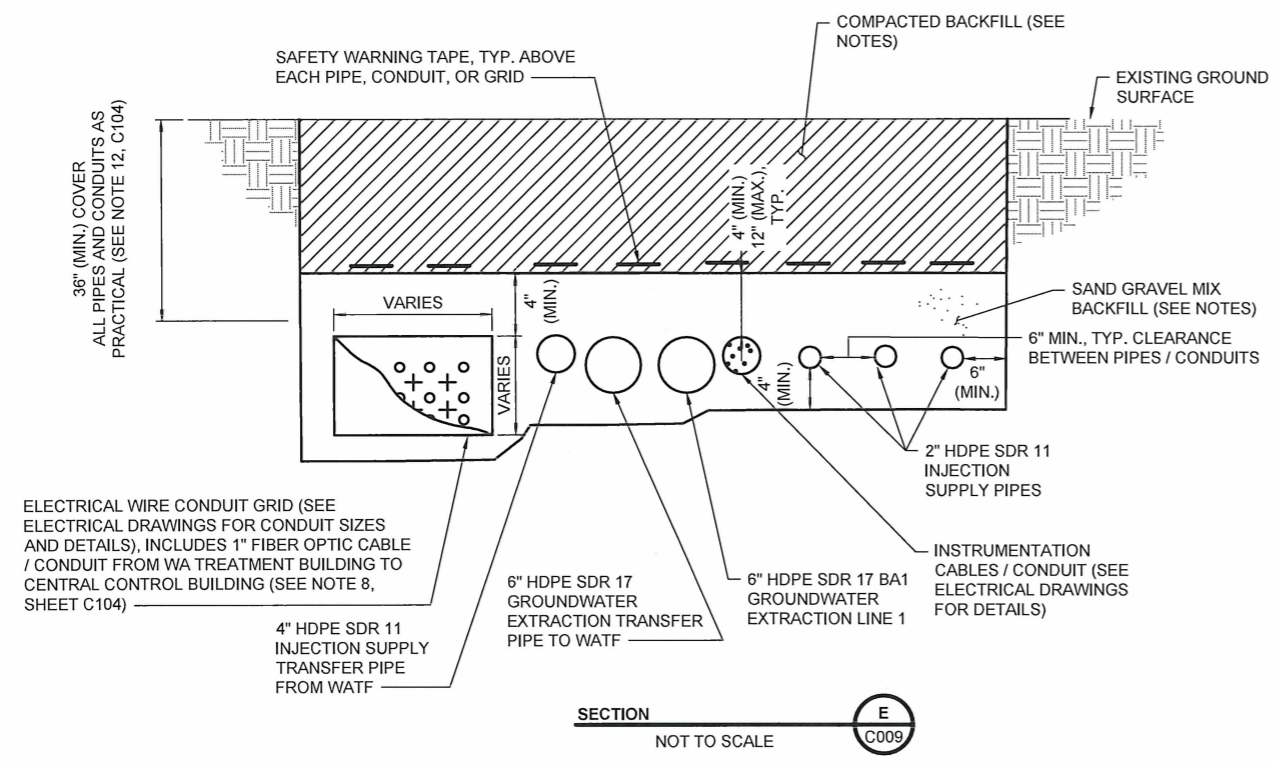
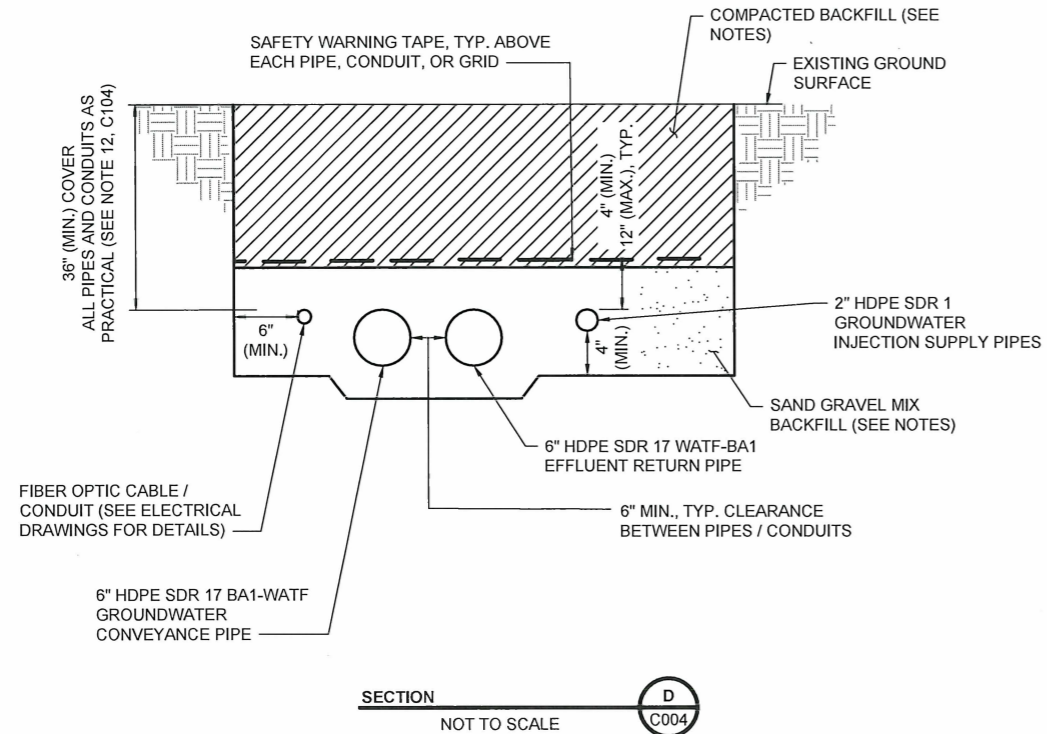


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		J. HESEMANN

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PIPE & CONDUIT TRENCH SECTIONS - SHEET 1

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



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

NOTE:
1. SEE SHEET C104 FOR PIPE & CONDUIT TRENCH SECTION NOTES.

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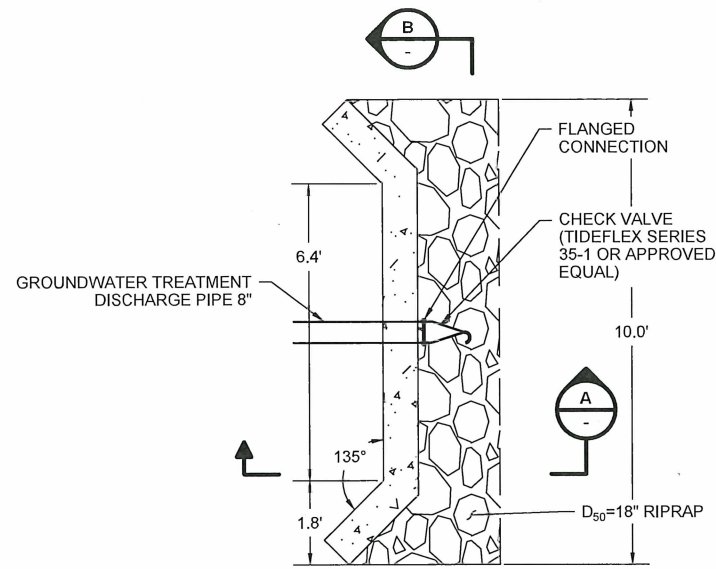


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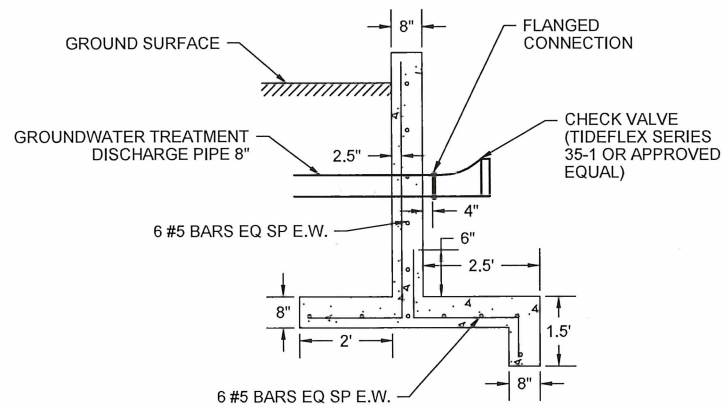
date	SEPTMBER 2022	detailed	M. CARLIN
designed	B. WEIS	checked	J. HESEMANN

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		



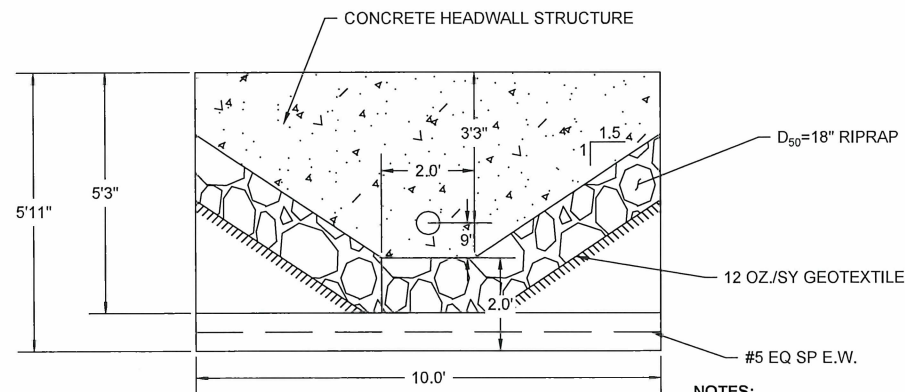
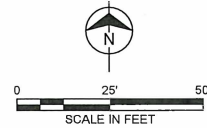
PLAN
NOT TO SCALE



SECTION
NOT TO SCALE

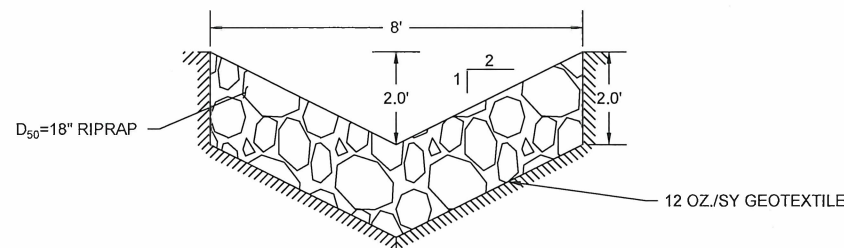


DETAIL
WESTERN AREA OUTFALL PLAN



SECTION
NOT TO SCALE

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



TYPICAL CHANNEL SECTION
NOT TO SCALE

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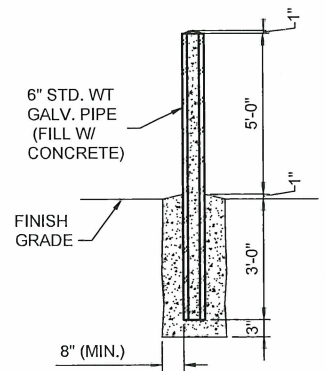
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OUTFALL DETAILS

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

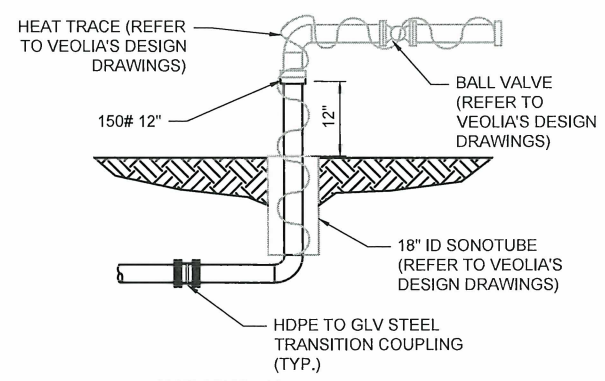
1 2 3 4 5 6 7 8 9 10 11 12 13



BOLLARD NOTES:

- SUBCONTRACTOR SHALL PROVIDE HEAVY DUTY YELLOW HDPE PIPE GUARD COVER OVER ALL PIPES
- SUBCONTRACTOR SHALL VERIFY QUANTITY AND LOCATION OF BOLLARDS WITH ENGINEER PRIOR TO CONSTRUCTION.

BOLLARD DETAIL
NOT TO SCALE



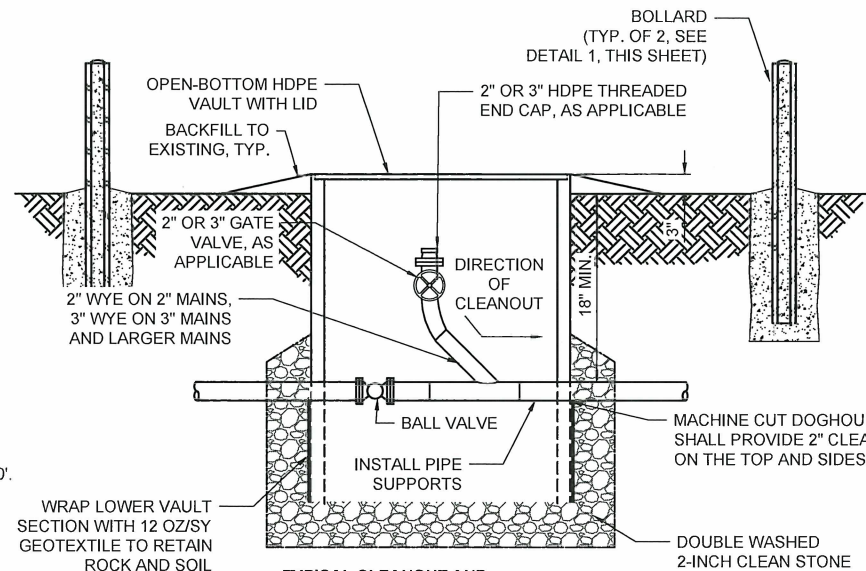
EXTRACTION LINE HEAT TRACE DETAIL
NOT TO SCALE



NOTES:

- SUBCONTRACTOR SHALL SET TEST STATIONS AND LINE MARKERS FOR TRACER WIRE EVERY 1,000'. ALL LINE MARKERS AND TEST STATIONS SHALL BE PLACED AND MAINTAINED AS CLOSE AS PRACTICAL TO THE UTILITY TRENCH. LINE MARKERS SHALL BE PLACED AT EACH CROSSING OF A ROAD AND WHEREVER NECESSARY TO IDENTIFY THE LOCATION OF THE PIPE TO REDUCE THE POSSIBILITY OF DAMAGE OR INTERFERENCE.

- THE FOLLOWING SHALL BE WRITTEN LEGIBLY ON A BACKGROUND OF SHARPLY CONTRASTING COLOR ON EACH LINE MARKER:
 - THE WORD "WARNING", "CAUTION", OR "DANGER" FOLLOWED BY THE WORDS "WATER PIPELINE" ALL OF WHICH, SHALL BE IN LETTERS AT LEAST 1-INCH HIGH WITH 1/4-INCH STROKE
 - COORDINATE WITH THE OWNER TO DETERMINE THE ON-SITE OPERATOR NAME AND TELEPHONE NUMBER (INCLUDING AREA THAT SHALL BE PLACED ON ALL LINE MARKERS. THE INFORMATION PROVIDED SHALL BE FOR AN OPERATOR THAT CAN BE REACHED AT ALL TIMES.



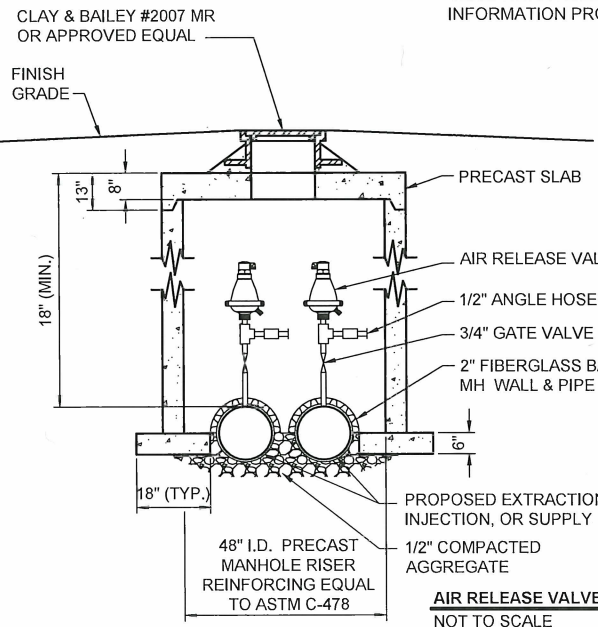
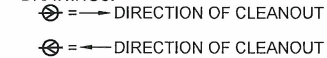
TYPICAL CLEANOUT AND VALVE VAULT DETAIL
NOT TO SCALE



NOTES:

- WHERE PRACTICAL CLEANOUTS CAN BE GROUPED TOGETHER IN A SINGLE VAULT.

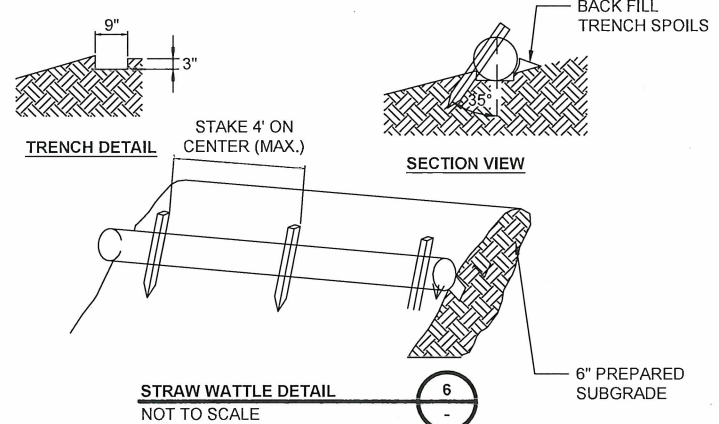
- DIRECTION OF CLEANOUT SHALL BE AS INDICATED BY SYMBOL ON DRAWINGS.



AIR RELEASE VALVE (ARV) NOTES:

- AIR RELEASE VALVES SHALL BE INSTALLED AT THE HIGH POINT OF ALL PRESSURE WATER SYSTEM PIPING.
- AIR RELEASE VALVE VAULT SHALL BE DESIGNED FOR H20 TRAFFIC LOADING.
- TWO PIPELINES SHOWN IN DETAIL, ACTUAL NUMBER OF PIPELINES MAY VARY.
- ARV ASSEMBLY INSTALLED ON GROUNDWATER EXTRACTION PIPES SHALL NOT ALLOW DISCHARGE OF ANY EXTRACTED GROUNDWATER.

AIR RELEASE VALVE DETAIL
NOT TO SCALE

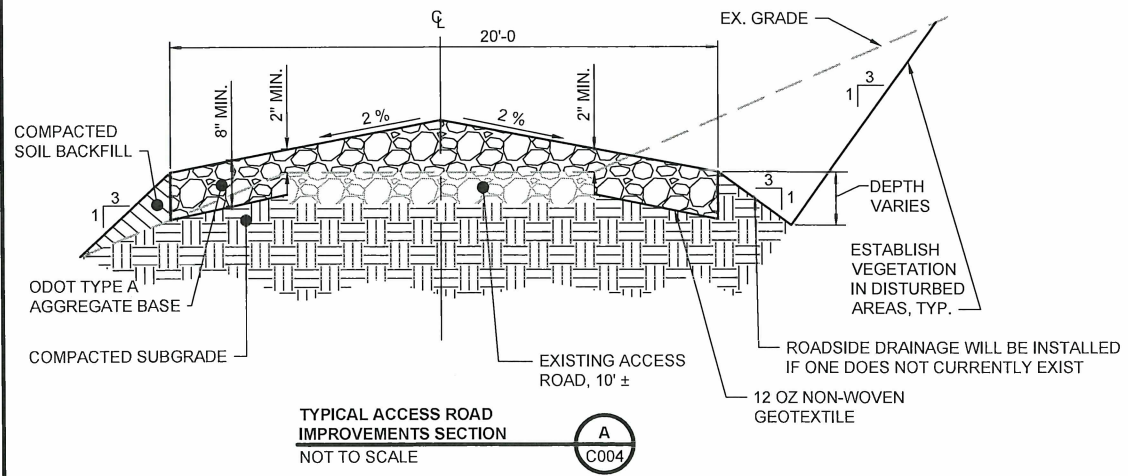


STRAW WATTLE DETAIL
NOT TO SCALE



NOTES:

- EXCAVATE A 2'-3" DEEP X 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UPSLOPE FROM THE ANCHOR TRENCH.
- PLACE THE 9" WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT.
- SECURE THE WATTLE WITH 24" WOODEN STAKES EVERY 4' AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE WATTLE LEAVING AT LEAST 2'-3" OF STAKE EXTENDING ABOVE THE WATTLE. STAKES SHOULD BE DRIVEN AT A 35° ANGLE FROM PERPENDICULAR TO THE SLOPE FACE.



TYPICAL ACCESS ROAD IMPROVEMENTS SECTION
NOT TO SCALE



no.	date	by	ckd	description
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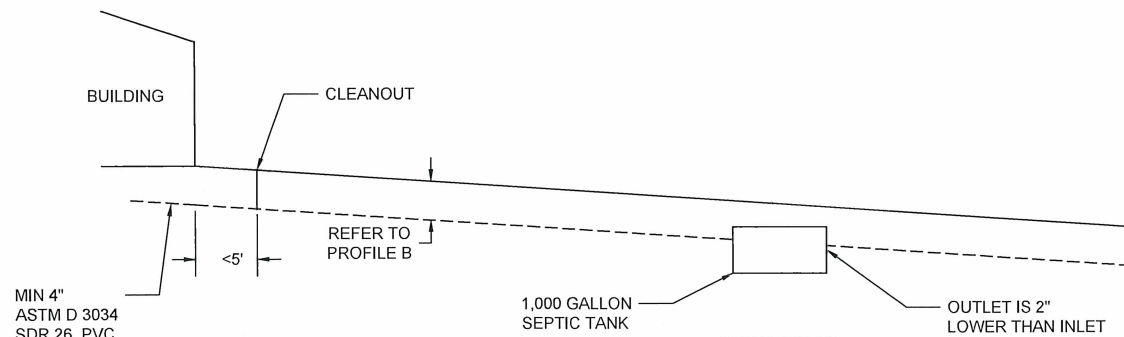


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date	detailed
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B. WEIS	J. HESEMANN

Cimarron Environmental Response Trust
MISCELLANEOUS DETAILS- SHEET 1

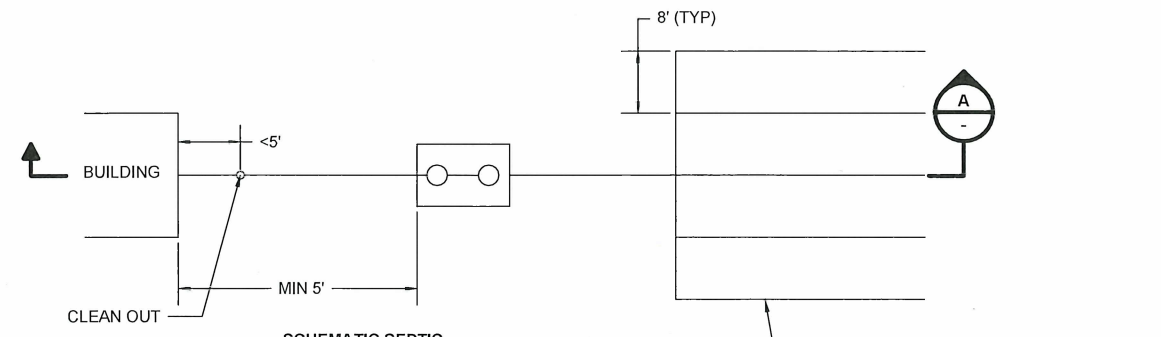
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142089	-	
drawing	rev.	
BMCD-GWREMEDI-C-107	A	
sheet	of	sheets
C107 MISC DET 1.DWG		



SCHEMATIC SEPTIC SYSTEM PROFILE
NOT TO SCALE

SEPTIC NOTES:

- 3" OR 4" PIPE THAT DELIVERS SEWAGE TO A SEPTIC TANK SHALL BE INSTALLED WITH A MINIMUM FALL OF 1/4" PER FOOT.

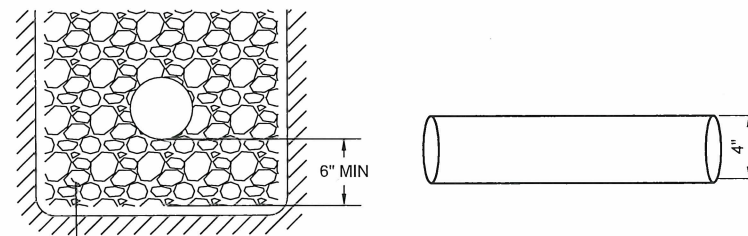


SCHEMATIC SEPTIC SYSTEM PLAN
NOT TO SCALE

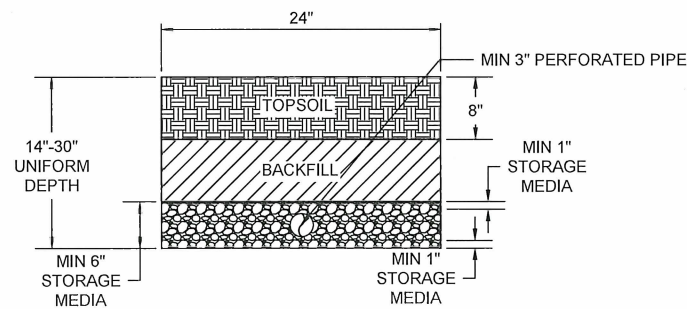
NOTES:

- SUBCONTRACTOR SHALL VERIFY SIZE, SPACING AND NUMBER OF LATERALS BASED ON SOIL PERCOLATION TESTING IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.
- SEPTIC SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS LISTED IN OKLAHOMA DEQ TITLE 252 CHAPTER 641.

SUBSURFACE ABSORPTION LINES (LENGTH AND NUMBER WILL VARY BASED ON RESULTS OF SOIL TEST)



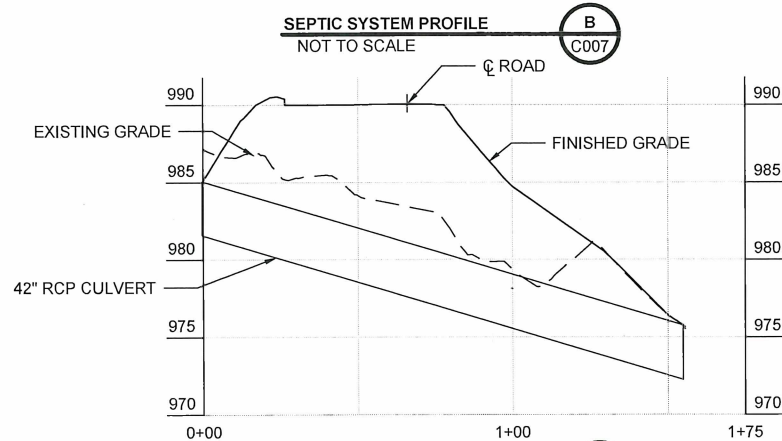
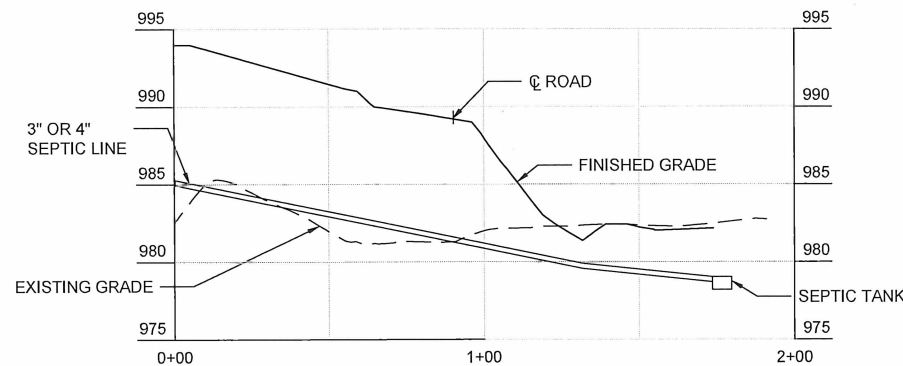
TYPICAL EXTRACTION TRENCH PIPE DETAIL
NOT TO SCALE



LATERAL DETAIL
NOT TO SCALE

Millimeters

Inches



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

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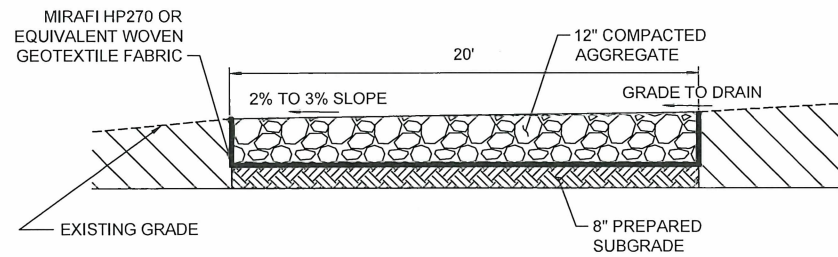


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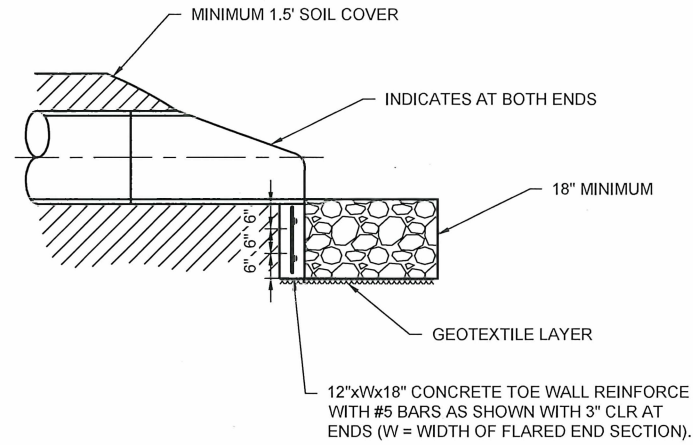
date	SEPTMBER 2022	detailed	M. CARLIN
designed	B. WEIS	checked	J. HESEMANN

Cimarron Environmental Response Trust
MISCELLANEOUS DETAILS - SHEET 2

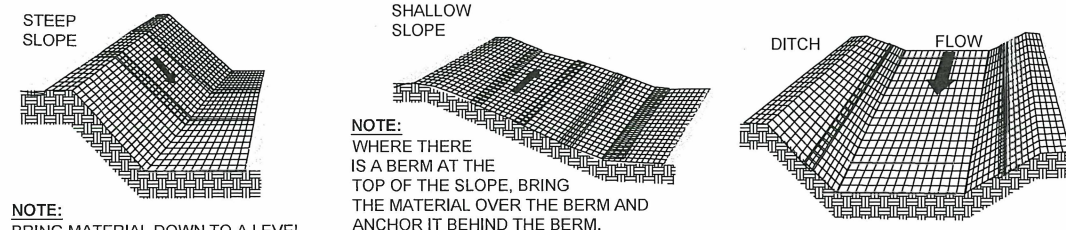
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drawing	BMCD-GWREMED-C108	rev.	A
sheet	of	sheets	
file	C108 MISC DET 2.DWG		



TYPICAL NEW ROAD CONSTRUCTION SECTION
NOT TO SCALE



END DETAIL
NOT TO SCALE



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



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
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Cimarron Environmental Response Trust
MISCELLANEOUS DETAILS - SHEET 3

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

PROJECT CONTROL POINTS*				
POINTS	MONITORING WELL	NORTHING	EASTING	ELEVATION (AMSL)
CP-1	T-64	321342	2091691	941.19
CP-2	T-65	321569	2091814	938.77
CP-3	T-63	321623	2091977	938.01

*LOCATION PROVIDED IS TO A BOLT LOCATED IN WELL PADS.

PROJECT CONTROL POINTS

Point Table		
Point #	Northing	Easting
1	320008	2091894
2	320395	2092391
3	320321	2092450
4	320545	2092583
5	320730	2092572
6	321050	2092567
7	321230	2092563
8	321328	2092556
9	321397	2092550
10	321630	2092593
11	321684	2092599
12	321824	2092582
13	321883	2092571
14	321901	2092602
15	321914	2092625
16	321998	2092790
17	322110	2093010
18	322218	2093220
19	322316	2093415
20	322362	2093586
21	321753	2092327
22	321653	2092136
23	321626	2092083
24	321476	2091839
25	321800	2091787
26	321957	2091748
27	322316	2092559
28	322349	2092559
29	322561	2092881
30	323381	2092183
31	323740	2092141
32	320903	2093000
33	321347	2092928
34	321498	2092963
35	321560	2092978
36	321568	2092997

Point Table		
Point #	Northing	Easting
37	321670	2093228
38	321711	2093320
39	321723	2093348
40	321859	2093654
41	321904	2093757
42	321912	2093775
43	321934	2093917
44	321994	2094066
45	322177	2094129
46	322791	2094731
47	322570	2094177
48	322838	2094945
49	322915	2095396
50	322523	2095489
51	322696	2095401
52	322792	2095353
53	322592	2095528
54	322612	2095540
55	322720	2095566
56	322810	2095488
57	322848	2095455
58	322879	2095428
59	322952	2095364
60	322970	2095349
61	323051	2095314
62	323077	2095321
63	323181	2095349
64	323281	2095376
65	323341	2095392
66	323379	2095423
67	323461	2095491
68	323543	2095558

POINT TABLE FOR BENDS IN TRENCH

Point Table		
Point #	Northing	Easting
1	321028	2092690
2	320888	2092700
3	320896	2092815
4	321036	2092805
5	321179	2092872
6	320897	2092892
7	320886	2092890
8	320877	2092885
9	320796	2092810
10	320791	2092803
11	320787	2092791
12	320776	2092639
13	320763	2092615
14	320818	2092614
15	320850	2092666
16	320867	2092665
17	320865	2092634
18	321041	2092621

POINT TABLE FOR WATF
SEE SHEET C006

Point Table		
Point #	Northing	Easting
1	322249	2095362
2	322321	2095360
3	322373	2095319
4	322439	2095328
5	322482	2095377
6	322478	2095446
7	322438	2095495
8	322361	2095472
9	322339	2095440
10	322393	2095416
11	322404	2095396
12	322372	2095359

POINT TABLE FOR BA1
SEE SHEET C009

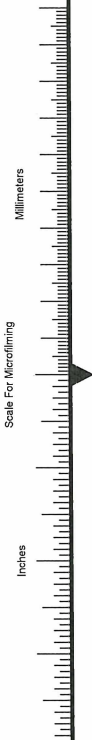
Point Table		
Point #	Northing	Easting
13	322334	2095420
14	322401	2095464
15	322441	2095400
16	322366	2095416
17	322375	2095422
18	322390	2095376
19	322399	2095381
20	322423	2095395
21	322432	2095400
22	322408	2095441
23	322399	2095435

Point Table		
Point #	Northing	Easting
19	320920	2092661
20	320938	2092648
21	320929	2092659
22	320956	2092626
23	320963	2092654
24	320962	2092636
25	320895	2092669
26	321043	2092645
27	321086	2092666
28	321094	2092782
29	321137	2092803
30	320972	2092688
31	321052	2092641

INJECTION WELLS		
NAME	NORTHING	EASTING
GWI-WU-01	320692	2092492
GWI-BA1-02	322713	2095434
GWI-BA1-03	322811	2095391
GWI-BA1-04	322845	2095475

EXTRACTION WELLS		
NAME	NORTHING	EASTING
GE-WAA-02	321789	2091723
GE-WAA-03	321503	2091815
GE-WAA-04	322114	2091708
GE-WAA-05	321951	2091715
GE-BA1-02	322970	2095385
GE-BA1-03	323067	2095356
GE-BA1-04	323175	2095372
GE-BA1-05	323274	2095399
GE-BA1-06	323365	2095440

SUMPS		
NAME	NORTHING	EASTING
GETR-WU-01	321274	2091756
GETR-BA1-02	322839	2095445



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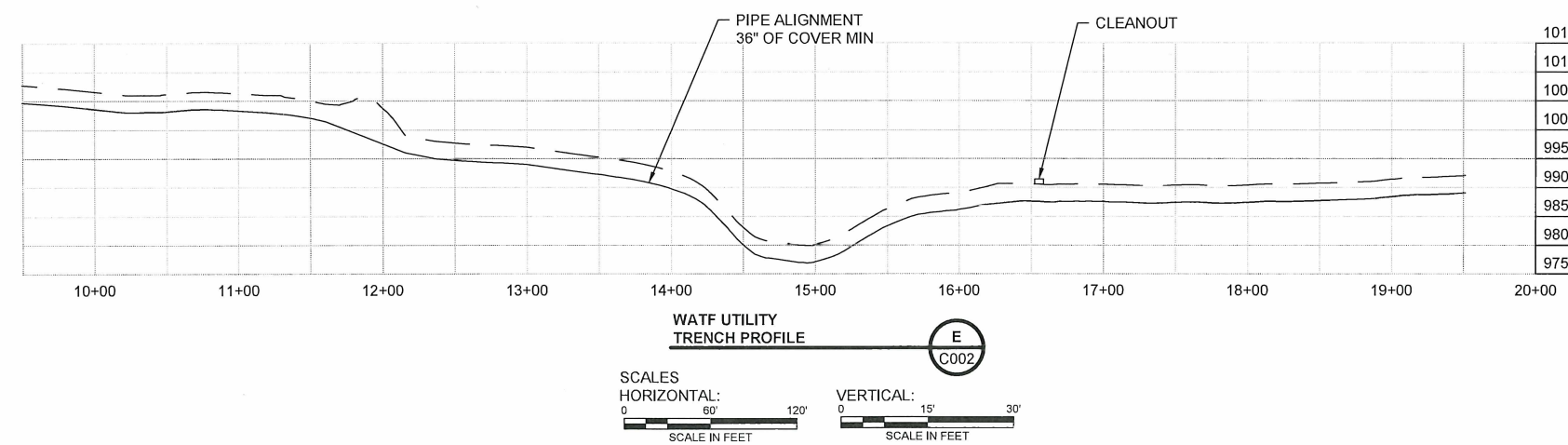
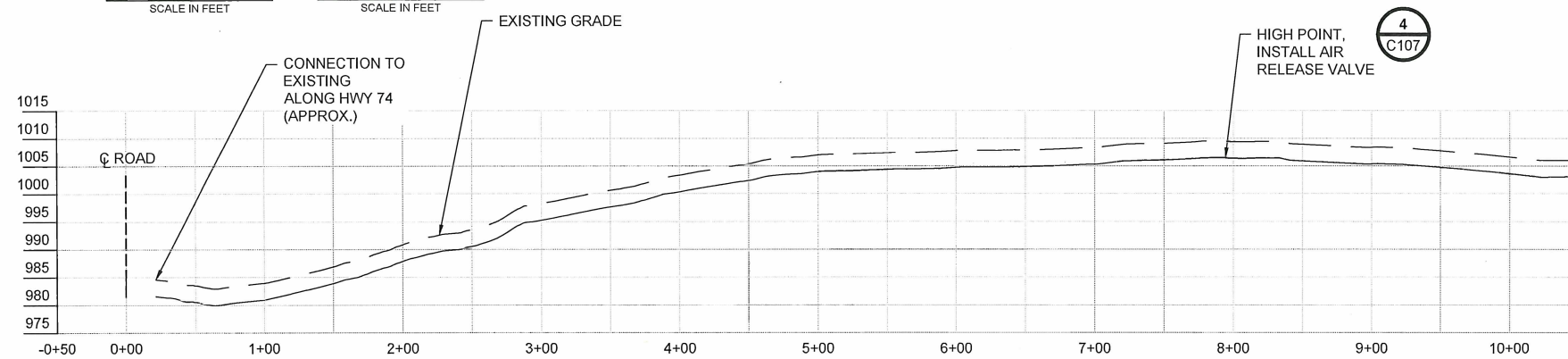
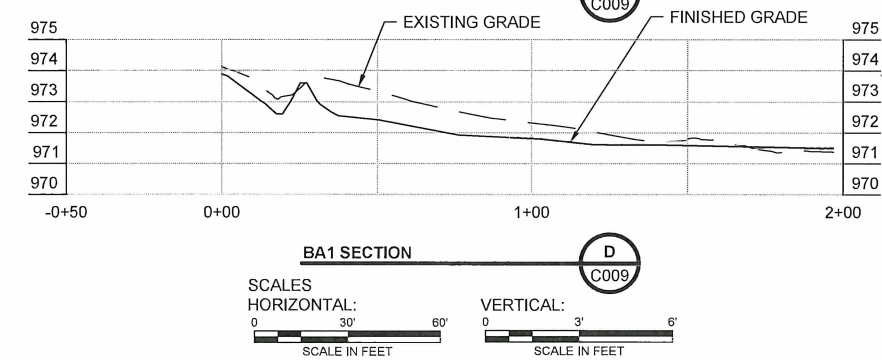
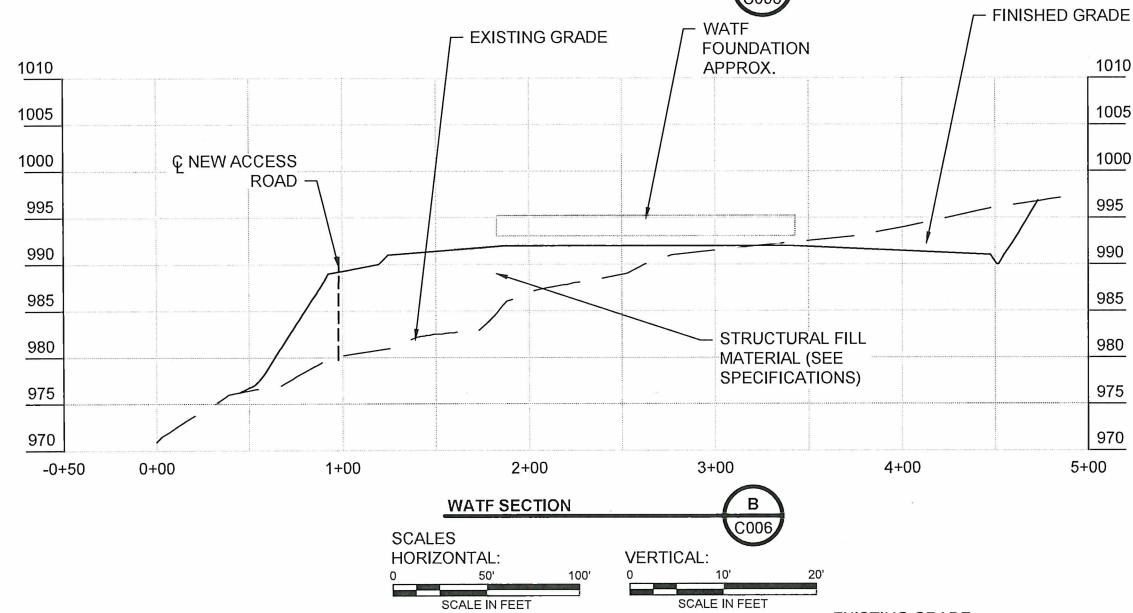
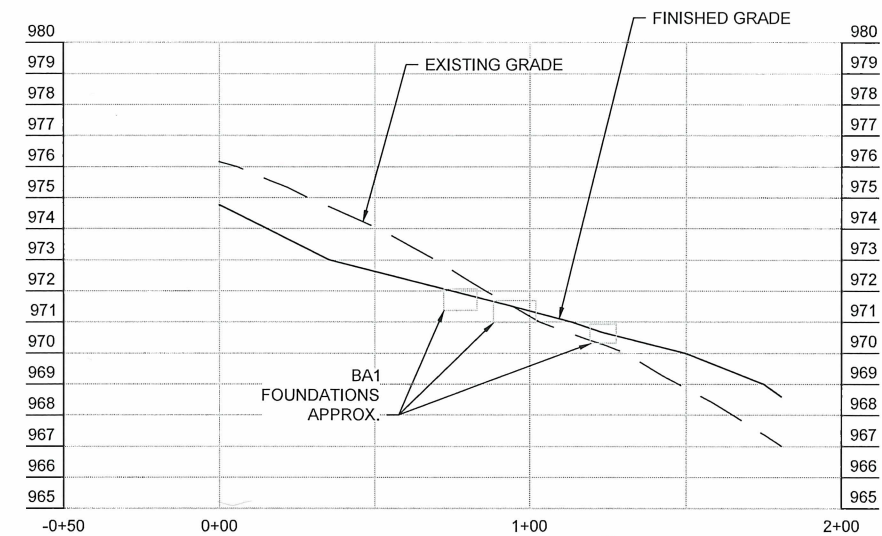
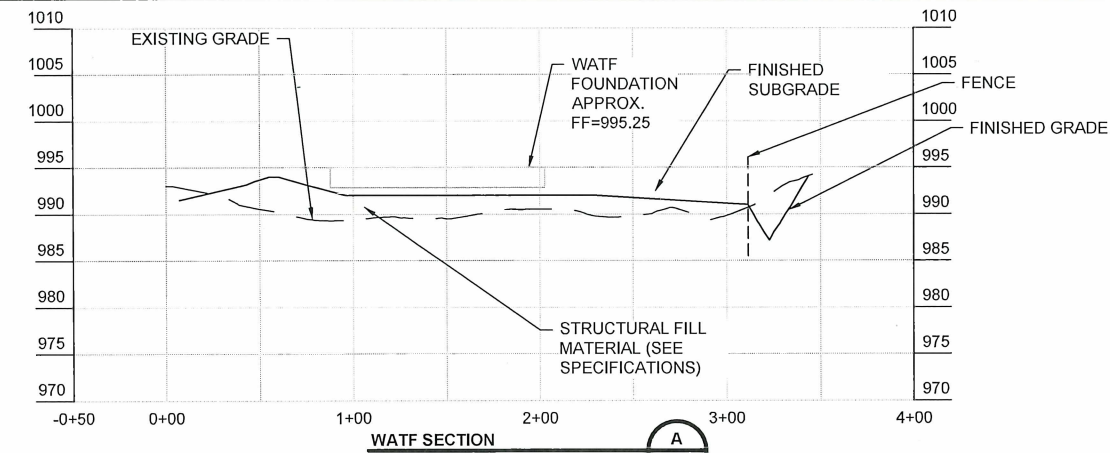
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date	SEPTMBER 2022	detailed	M. CARLIN
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MISCELLANEOUS DETAILS - SHEET 4

project	142089	contract	-
drawing	BMCD-GWREMEDI-C110	rev.	A
sheet	of	sheets	
file	C110 MISC DET 4.DWG		

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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		