

INDEX OF DRAWINGS		
SHEET NO.	DRAWING NO.	DRAWING TITLE
GENERAL		
1	G-01	COVER SHEET
2	G-02	NOTES, SEQUENCE, LEGEND, ABBREVIATIONS, TEST HOLE DATA
3	G-03	SURVEY CONTROL
CIVIL		
4	C-01	UTILITY COMPOSITE MAPPING
5 TO 22	C-02 TO C-19	WATER RELOCATION PLAN
23	C-20	STANDARD DETAILS
24	C-21	STANDARD DETAILS
25 TO 29	C-22 TO C-26	WATER MAIN PROFILES
30	C-27	STAKE-OUT DATA
31	C-28	EROSION AND SEDIMENT CONTROL DETAILS
32	C-29	EROSION AND SEDIMENT CONTROL DETAILS
33	C-30	EROSION AND SEDIMENT CONTROL NOTES
34	C-31	EROSION AND SEDIMENT CONTROL DETAILS
35	C-32	WELL HOUSE BUILDING SITE PLAN
STRUCTURAL		
36	S-01	GENERAL NOTES
37	S-02	WELL HOUSE BUILDING ELEVATIONS
38	S-03	WELL HOUSE BUILDING ROOF PLAN
39	S-04	WELL HOUSE BUILDING WALL SECTIONS & DETAILS

PROCESS MECHANICAL		
40	PM-01	PROCESS FLOW DIAGRAM
41	PM-02	PROPOSED WELL HOUSE
42	PM-03	WELL HOUSE BUILDING FLOOR PLAN
43	PM-04	WELL HOUSE BUILDING SECTIONS

ELECTRICAL		
44	E-01	ELECTRICAL SYMBOLS, ABBREVIATIONS AND GENERAL NOTES
45	E-02	WELL HOUSE ELECTRICAL SITE PLAN
46	E-03	DUCT BANK SECTIONS AND SCHEDULES
47	E-04	EXISTING MCC-7-2 ELEVATION AND MODIFICATIONS
48	E-05	EXISTING MCC-7-2 ONE-LINE MODIFICATIONS
49	E-06	CONTROL BUILDING ELECTRICAL PLAN
50	E-07	WELL HOUSE LIGHTING AND RECEPTACLE PLAN
51	E-08	WELL HOUSE ELECTRICAL PLAN
52	E-09	MCC-WH ELEVATION AND SCHEDULE
53	E-10	MCC-WH ONE-LINE DIAGRAM
54	E-11	MCC-WH WIRING DIAGRAMS
55	E-12	HIGH FLOW WELL PUMP VFD WIRING DIAGRAM
56	E-13	PANEL SCHEDULES

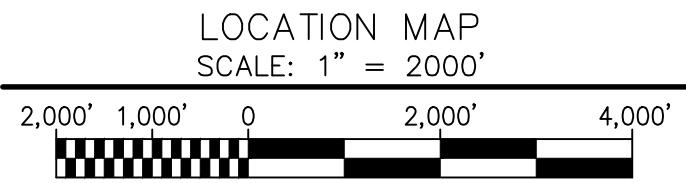
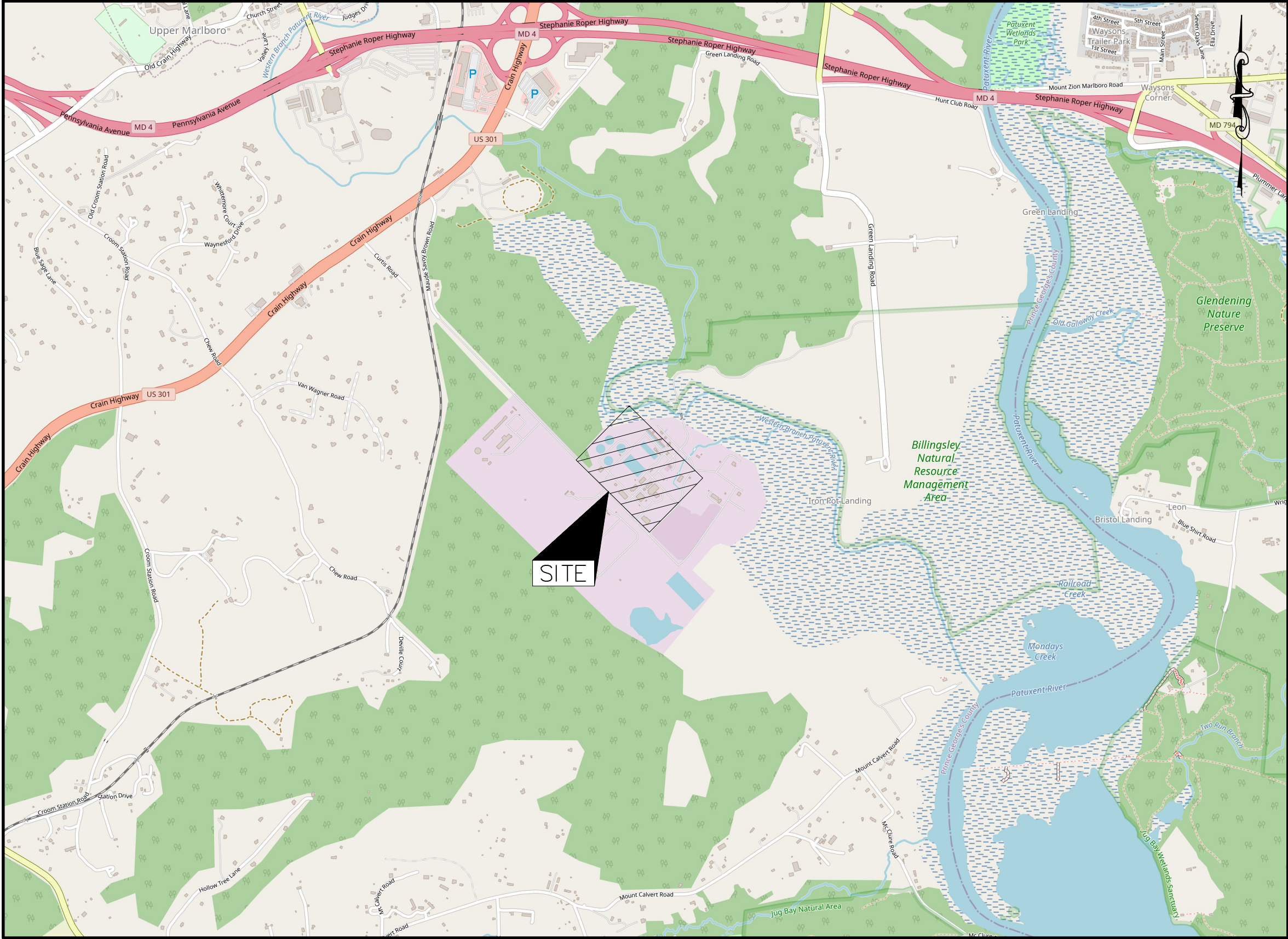
PROCESS CONTROL		
57	PCS-01	PROCESS CONTROL SYSTEM SYMBOLS, ABBREVIATIONS AND NOTES
58	PCS-02	WELL HOUSE PLC SYSTEM ARCHITECTURE
59	PCS-03	WELL HOUSE CONTROL PANEL
60	PCS-04	WELL HOUSE CONTROL PANEL WIRING
61	PCS-05	WELL HOUSE CONTROL PANEL WIRING
62	PCS-06	WELL HOUSE CONTROL PANEL WIRING

WASHINGTON SUBURBAN SANITARY COMMISSION

6600 CRAIN HWY, UPPER MARLBORO, MD 20772

WESTERN BRANCH WRRF

POTABLE WATER SYSTEM UPGRADES



63	PCS-07	WELL HOUSE CONTROL PANEL WIRING
64	PCS-08	WELL HOUSE CONTROL PANEL WIRING
65	PCS-09	WELL HOUSE CONTROL PANEL WIRING
66	PCS-10	WELL HOUSE CONTROL PANEL WIRING
67	PCS-11	WELL HOUSE CONTROL PANEL WIRING
68	PCS-12	WELL HOUSE CONTROL PANEL WIRING
69	PCS-13	WELL HOUSE CONTROL PANEL WIRING

WSSC Erosion and Sediment Control Approval Note

This plan has been approved per requirements in the:
Standard Procedures of the WSSC Regulations for Utility
Erosion and Sediment Control, Section V, Paragraph A.

DocuSigned by:
Jon Brantlinger
70776968DFAB96

Reviewed by: _____
Date: 2/4/2025 Plan No. CD6915B20

UTILITY CERTIFICATION I HEREBY CERTIFY THAT THE EXISTING AND/OR PROPOSED UNDERGROUND UTILITY INFORMATION SHOWN HEREON HAS BEEN CORRECTLY DUPLICATED FROM UTILITY COMPANY RECORDS, FURTHER, THAT THIS PROJECT HAS BEEN CAREFULLY COORDINATED WITH EACH INVOLVED UTILITY COMPANY, AND ALL AVAILABLE UNDERGROUND UTILITY INFORMATION RELATIVE TO THIS PLAN HAS BEEN SOLLICITED FROM THEM.

John C. Moore
JOHN C. MOORE, P.E.

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO.: 20566
EXPIRATION DATE: 09/06/2026



VICINITY MAP
SCALE 1" = 5,000'

WSSC 200' SHEET No.: 209SE14

FOR LOCATION OF UTILITIES CALL 8-1-1 OR 1-800-257-7777
OR LOG ON TO www.call811.com OR www.missutility.net 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY

PERMIT REQUIREMENTS

TREE	NOT REQUIRED
WETLANDS / WATERWAYS	NOT REQUIRED
M.N.C.P.&P.C.	NOT REQUIRED
FEDERAL AID	NOT REQUIRED
STATE HGWY. ADM.	NOT REQUIRED
STATE BD. HEALTH	NOT REQUIRED
P.G.CO. DPIE	NOT REQUIRED
SED. CONTROL	REQUIRED
P.G.CO.D.P.W.&T.	NOT REQUIRED
NPDES	NOT REQUIRED

*TO BE ACQUIRED BY APPLICANT

DATE	REVISIONS
07/13/2026	ADDENDUM NO. 4

FACILITY DESIGN & CONSTRUCTION DIVISION

DocuSigned by:
Paesha Majumdar
702713AB6110466

Feb 4, 2025 | 1:30 PM
DATE DIVISION MANAGER

CONTRACT: #CD6915B20

G-01

NO 01
OF 19

WASHINGTON SUBURBAN SANITARY COMMISSION



THESE DOCUMENTS CONTAIN PRIVILEGED AND CONFIDENTIAL INFORMATION WHICH SHALL NOT BE REDISTRIBUTED WITHOUT PRIOR WSSC APPROVAL



700 EAST PRATT STREET
SUITE 500
BALTIMORE, MD 21201
(P) 410 728-2900
(F) 410 728-2834

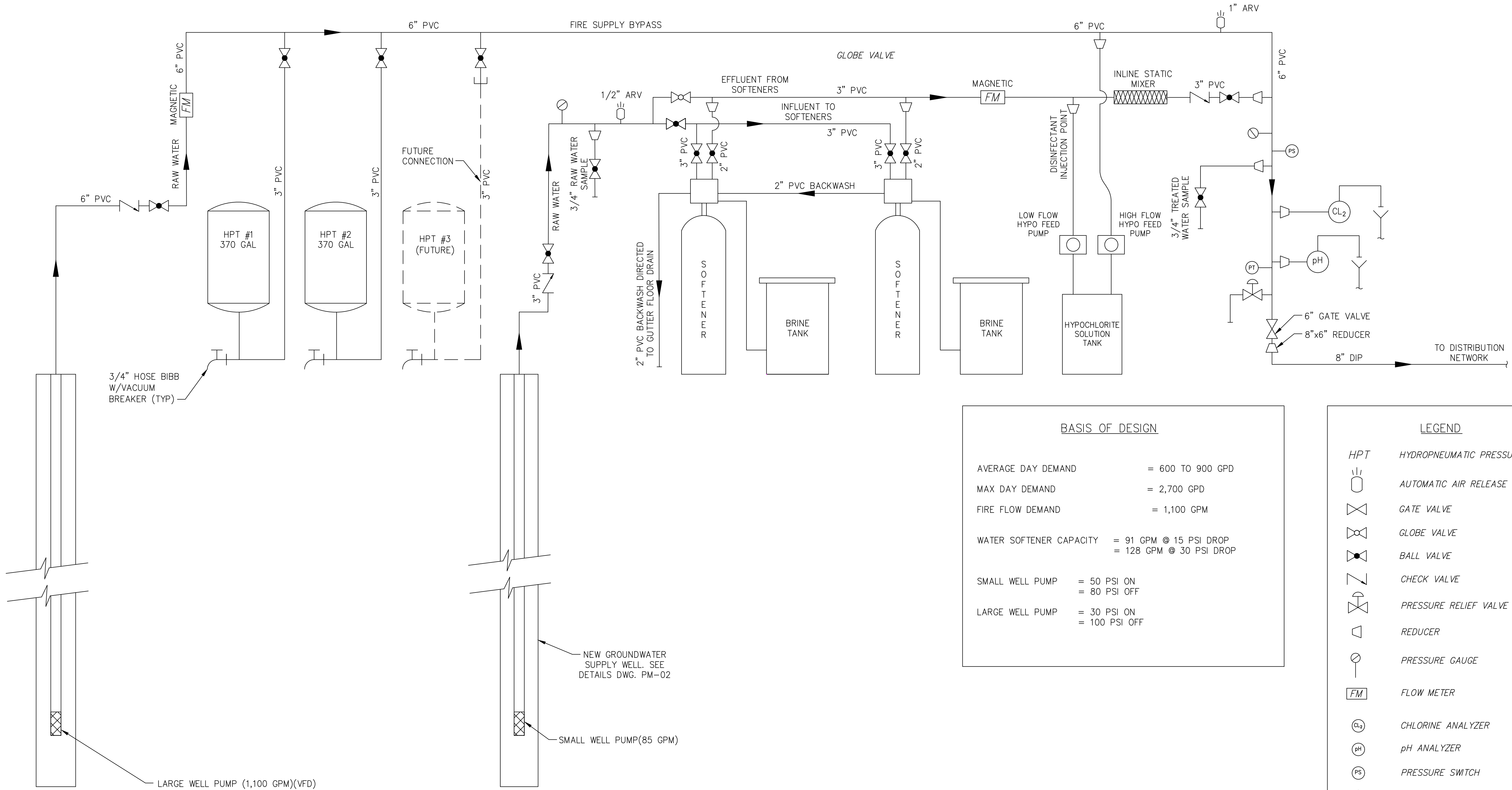
WESTERN BRANCH WRRF
POTABLE WATER SYSTEM
UPGRADES

GENERAL
COVER SHEET

G-01

NO 01
OF 19

\\od-rk.com\ra\Cloud\Projects\2021\21170_WSSCPWStru\Task 2 - WB Potable Water System Design\CAAD\Plans\PM-01_Process Flow Diagram.dwg Jul 13, 2026 - 4:37pm Plot By rdixon Tab:PM-01



BASIS OF DESIGN

AVERAGE DAY DEMAND = 600 TO 900 GPD
MAX DAY DEMAND = 2,700 GPD
FIRE FLOW DEMAND = 1,100 GPM
WATER SOFTENER CAPACITY = 91 GPM @ 15 PSI DROP
= 128 GPM @ 30 PSI DROP
SMALL WELL PUMP = 50 PSI ON
= 80 PSI OFF
LARGE WELL PUMP = 30 PSI ON
= 100 PSI OFF

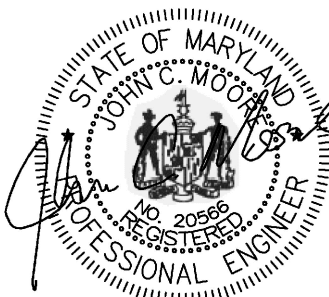
LEGEND

HPT HYDROPNUMATIC PRESSURE TANK
AUTOMATIC AIR RELEASE VALVE
GATE VALVE
GLOBE VALVE
BALL VALVE
CHECK VALVE
PRESSURE RELIEF VALVE
REDUCER
PRESSURE GAUGE
FLOW METER
CHLORINE ANALYZER
pH ANALYZER
PRESSURE SWITCH
PRESSURE TRANSMITTER
DRAIN
HOSE BIBB W/VACUUM BREAKER

1
PM-01
PROCESS FLOW DIAGRAM
N.T.S

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.



LICENSE NO.: 205566
EXPIRATION DATE: 09/06/2026

DATE REVISIONS

07/13/2026 4 ADDENDUM NO. 4

CONTRACT: #CD6915B20

WASHINGTON SUBURBAN SANITARY COMMISSION



THESE DOCUMENTS CONTAIN PRIVILEGED AND CONFIDENTIAL INFORMATION WHICH SHALL NOT BE REDISTRIBUTED WITHOUT PRIOR WSSC APPROVAL



700 EAST PRATT STREET
SUITE 500
BALTIMORE, MD 21201
(P) 410 728-2900
(F) 410 728-2834

WESTERN BRANCH WRRF
POTABLE WATER SYSTEM UPGRADES

PROCESS FLOW DIAGRAM

PM-01

NO 2
OF 19

\\ed-rk.com\fs\Cloud\Projects\2021\21170_WSSCPWStr\Task 2 - WB Potable Water System Design\CADD\Plans\PM-03 Floor Plan.dwg Jul 13, 2026 5:14pm Plot By: rdixon Tab:PM-03



PLAN HEX NOTES

- 6" S.S. FLG. 90° SS. FABRICATED ELBOW
- 6" PVC TRUE UNION CHECK VALVE
- 6" PVC TRUE UNION BALL VALVE
- 6" SCH. 80 PVC 90° ELBOW
- NOT USED
- 3" SCH. 80 PVC PIPE
- 3/4" HOSE BIBB W/VACUUM BREAKER
- 3" SCH. 80 PVC PIPE (HYDROPNEUMATIC TANK FILL LINE)
- 6"x3" SCH. 80 PVC TEE ROTATED 90° DOWNWARDS (TYP 3)
- 370 GAL. HYDROPNEUMATIC STORAGE TANK (TYP 2)
- 3" SCH. 80 PVC 90° ELBOW (TYP)
- 6"x3" SCH. 80 PVC TEE
- 3" SCH. 80 PVC PIPE (INFLUENT LINE TO SOFTENERS)
- 90 GPM TREATMENT CAPACITY SOFTENER (TYP 2)
- BRINE TANK (TYP 2)
- 2" SCH. 80 PVC PIPE (DRAIN LINE FROM SOFTENERS)
- 3" PVC TRUE UNION CHECK VALVE
- 3" PVC TRUE UNION BALL VALVE

* PIPING WILL BE SUPPORTED 5' OC USING METAL PIPE SUPPORTS.

ELECTRIC UNIT HEATER (UH) SCHEDULE

NO.	KW	MIN. HEATING CAPACITY (BTU/HR)	VOLTS/PHASE	CFM	HEIGHT (BOTOM OF UNIT)	MFGR/MODEL	REMARKS
UH-101	10	34	208 V/1PH	650	120" A.F.F.	QMARK MODEL MUH108	1

- UH THERMOSTATS SET TO 55°F ADJUSTABLE

EXHAUST FAN (EF) SCHEDULE

NO.	TYPE	AIR FLOW (CFM)	DRIVE	S.P. (WC)	FAN MOTOR			MFGR/MODEL	REMARKS
					HP	RPM	VOLTS/PHASE		
EF-101	CRNTRIFUGAL	1,000	DIRECT	0.2"	0.25	716	208V/1PH	GREENHECK MODEL CUE -40-VG	1

- COOLING THERMOSTATS FOR EF-101 SET TO 80°F ADJUSTABLE
- WALL MOUNT

LOUVER (L) DAMPER (D) SCHEDULE

NO.	DIMENSIONS		CFM	FREE AREA	MAX PRESS LOSS	STYLE	DUTY	MFGR/MODEL	REMARKS
	WIDTH	HEIGHT							
L-101	24"	24"	1,100	1.8 SF	0.6"	FIXED	INLET	GREENHECK MODEL ESD-635	1,2,3
D-101	24"	24"	1,100	1.7 SF	1.0"	MOTORIZED DAMPER	INLET	GREENHECK MODEL WD-210	1,2
D-102	16"	16"	1,000	1.5SF	2.0"	BACKDRAFT DAMPER	EXHAUST	GREENHECK MODEL WD-300	2

- SEE ELECTRICAL DRAWINGS FOR CONNECTION REQUIREMENTS
- PARALLEL BLADES
- INSECT SCREEN

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.



DATE

07/13/2026

REVISIONS

4 ADDENDUM NO. 4

CONTRACT: #CD6915B20

WASHINGTON SUBURBAN SANITARY COMMISSION



THESE DOCUMENTS CONTAIN PRIVILEGED AND CONFIDENTIAL INFORMATION WHICH SHALL NOT BE REDISTRIBUTED WITHOUT PRIOR WSSC APPROVAL



700 EAST PRATT STREET
SUITE 500
BALTIMORE, MD 21201
(P) 410 728-2900
(F) 410 728-2834

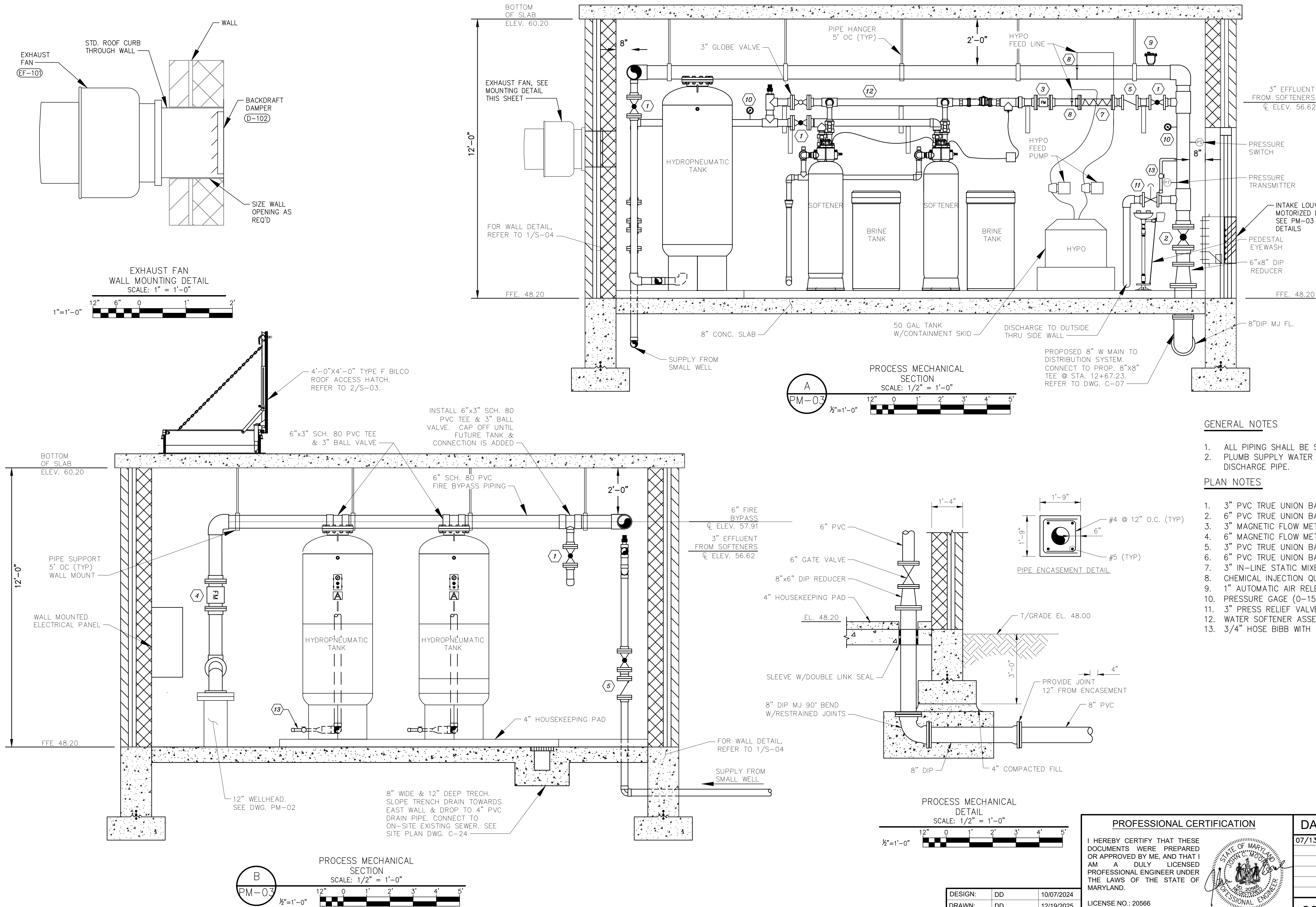
WESTERN BRANCH WRRF
POTABLE WATER SYSTEM UPGRADES

WELL HOUSE BUILDING
FLOOR PLAN

PM-03

NO 3
OF 19

\\ed-rk.com\ra\Cloud\Projects\2021\21170_WSSCPMStru\Task 2 - WB Potable Water System Design\CAAD\Plans\PM-04_Sections.dwg, Jul 13, 2026 - 4:33pm, Plot By: rdixon, Tab:PM-04



WASHINGTON SUBURBAN SANITARY COMMISSION



THESE DOCUMENTS CONTAIN
PRIVILEGED AND CONFIDENTIAL
INFORMATION WHICH SHALL NOT BE
REDISTRIBUTED WITHOUT PRIOR WSSC
APPROVAL



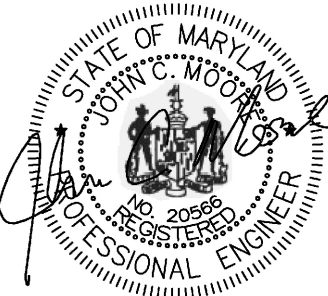
700 EAST PRATT STREET
SUITE 500
BALTIMORE, MD 21201
(P) 410 728-2900
(F) 410 728-2834

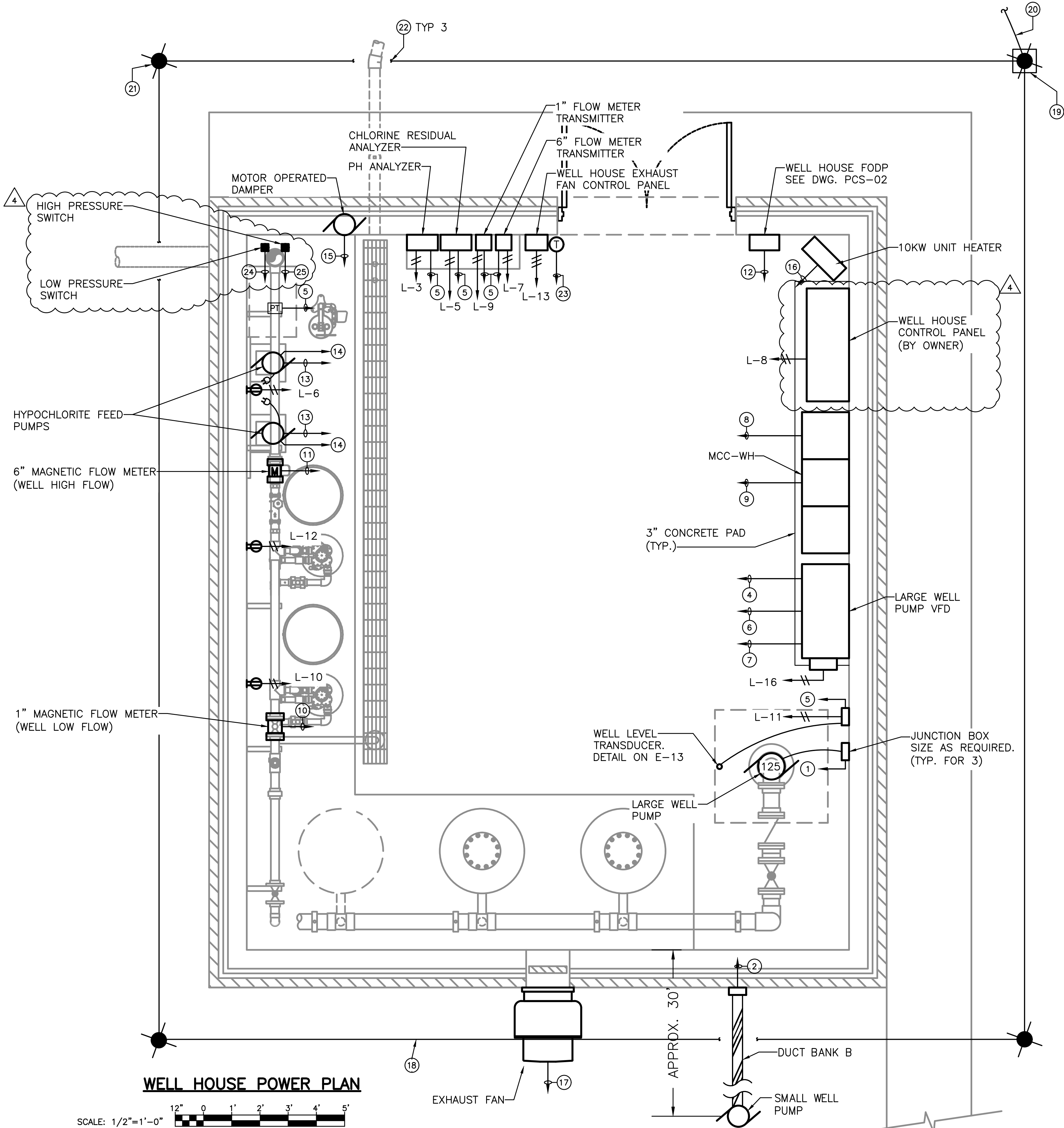
WESTERN BRANCH WRRF
POTABLE WATER SYSTEM UPGRADES

WELL HOUSE BUILDING
SECTIONS

PM-04

NO 4
OF 19

PROFESSIONAL CERTIFICATION		DATE	REVISIONS
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. 		07/13/2026	4 ADDENDUM NO. 4
DESIGN: DD		10/07/2024	
DRAWN: DD		12/19/2025	
CHECKED: JCM		12/19/2025	
LICENSE NO.: 20566 EXPIRATION DATE: 09/06/2026		CONTRACT: #CD6915B20	



WIRING LEGEND

- ① 3#3/0, #4 GRD.-2"C TO LARGE WELL PUMP VFD
- ② 3#12, #12 GRD.-3/4"C TO MCC-WH
- ③ NOT USED
- ④ 3#250, #4 GRD.-2"C TO MCC-WH
- ⑤ (1) PR. #18 SHLD.-3/4"C TO WELL HOUSE CONTROL PANEL
- ⑥ 12#14-1"C TO WELL HOUSE CONTROL PANEL
- ⑦ (2) PR. #18 SHLD.-3/4"C TO WELL HOUSE CONTROL PANEL
- ⑧ 16#14-1"C TO WELL HOUSE CONTROL PANEL
- ⑨ (3) 1 PR. #18 SHLD.-3/4"C TO WELL HOUSE CONTROL PANEL
- ⑩ MFG. SUPPLIED CABLE IN (2) 3/4"C TO RESPECTIVE TRANSMITTER
- ⑪ MFG. SUPPLIED CABLE IN (2) 3/4"C TO RESPECTIVE TRANSMITTER
- ⑫ 6-STRAND FIBER OPTIC CABLE TO WELL HOUSE CONTROL PANEL
- ⑬ (1) PR. #18 SHLD.-3/4"C TO WELL HOUSE CONTROL PANEL
- ⑭ 2#14-3/4"C TO WELL HOUSE CONTROL PANEL
- ⑮ 2#12, #12 GRD.-3/4"C TO WELL HOUSE EXHAUST FAN CONTROL PANEL
- ⑯ 3#12, #12 GRD.-3/4"C TO MCC-WH
- ⑰ 2#12, #12 GRD.-3/4"C TO WELL HOUSE EXHAUST FAN CONTROL PANEL
- ⑱ BARE COPPER GROUNDING CONDUCTOR, DIRECT BURIED 30" UG.
- ⑲ GROUNDING TEST WELL. REFER TO DRAWING E-02 FOR DETAILS.
- ⑳ #2 BARE COPPER GROUNDING CONDUCTOR TO MCC-WH
- ㉑ GROUND ROD
- ㉒ PLACE GROUND WIRE IN PVC CONDUIT WHERE GROUND WIRE CROSSES PIPING TO PREVENT CONTACT.
- ㉓ 2#14 TO WELL HOUSE EXHAUST FAN CONTROL PANEL
- ㉔ 2#14 TO LOW FLOW WELL PUMP MOTOR STARTER AND 2#14 TO WELL HOUSE CONTROL PANEL
- ㉕ 2#14 TO LOW FLOW WELL PUMP MOTOR STARTER, 2#14 TO WELL HOUSE CONTROL PANEL, AND 2#14 TO HIGH FLOW WELL PUMP VFD

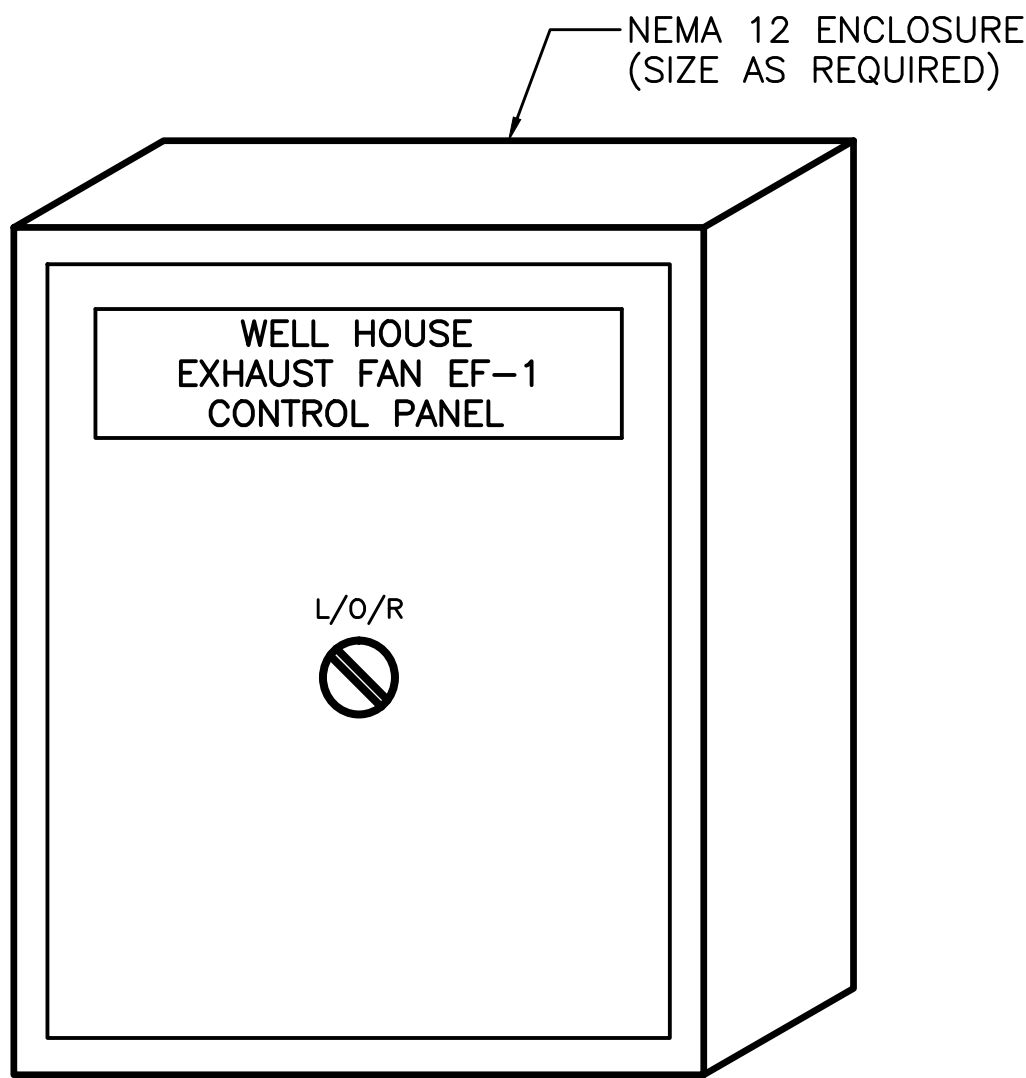
WELL HOUSE POWER PLAN

SCALE: 1/2"=1'-0" 12" 0 1' 2' 3' 4' 5'

DESIGN:	DLCF	12/19/2025
DRAWN:	CMB	12/19/2025
CHECKED:	KRG	12/19/2025

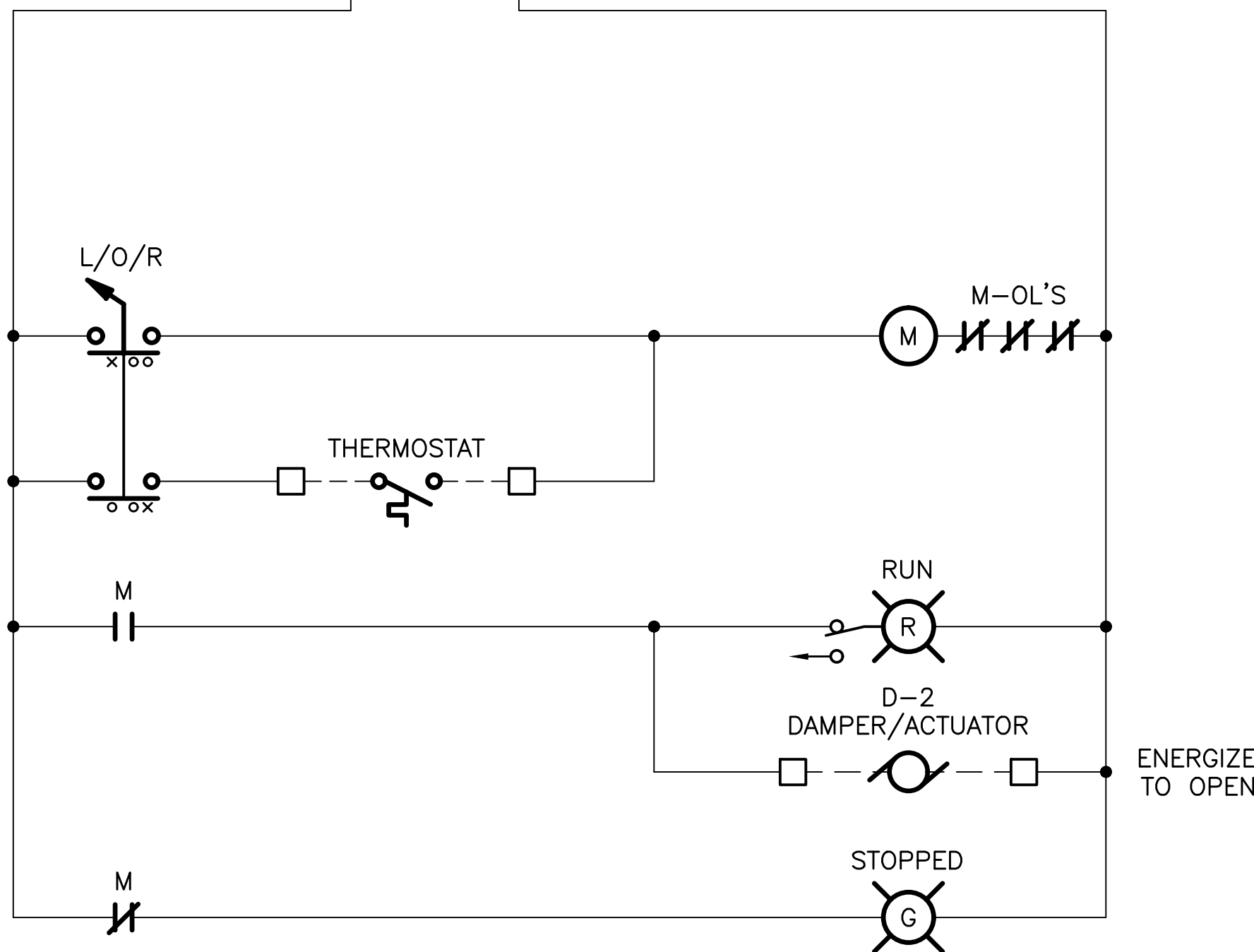
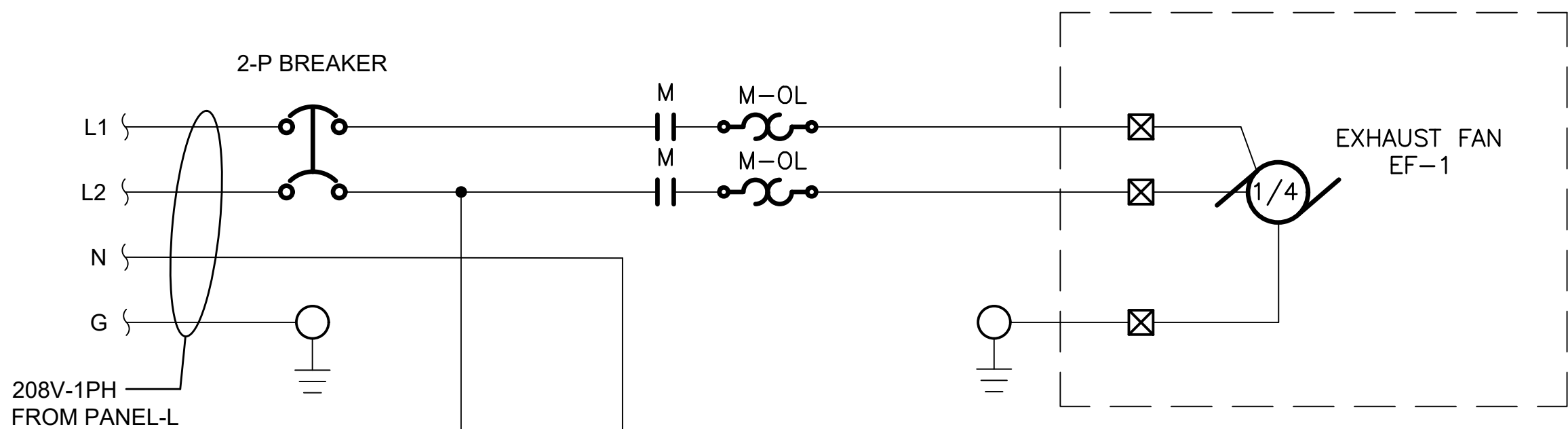
PROFESSIONAL CERTIFICATION		DATE	REVISIONS
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.		07/13/2026	4 ADDENDUM NO. 4
		CONTRACT: #CD6915B20	

PATH: I:\00 RK&K\COM\FS\GOLD\PROJECTS\2021\2170_WSSC\PLNTR\TASK2 - WB POTABLE WATER SYSTEM DESIGN\CADD\PLANS-E-11 MCC-WH WIRING DWG-E-11\Cloud Bookbox

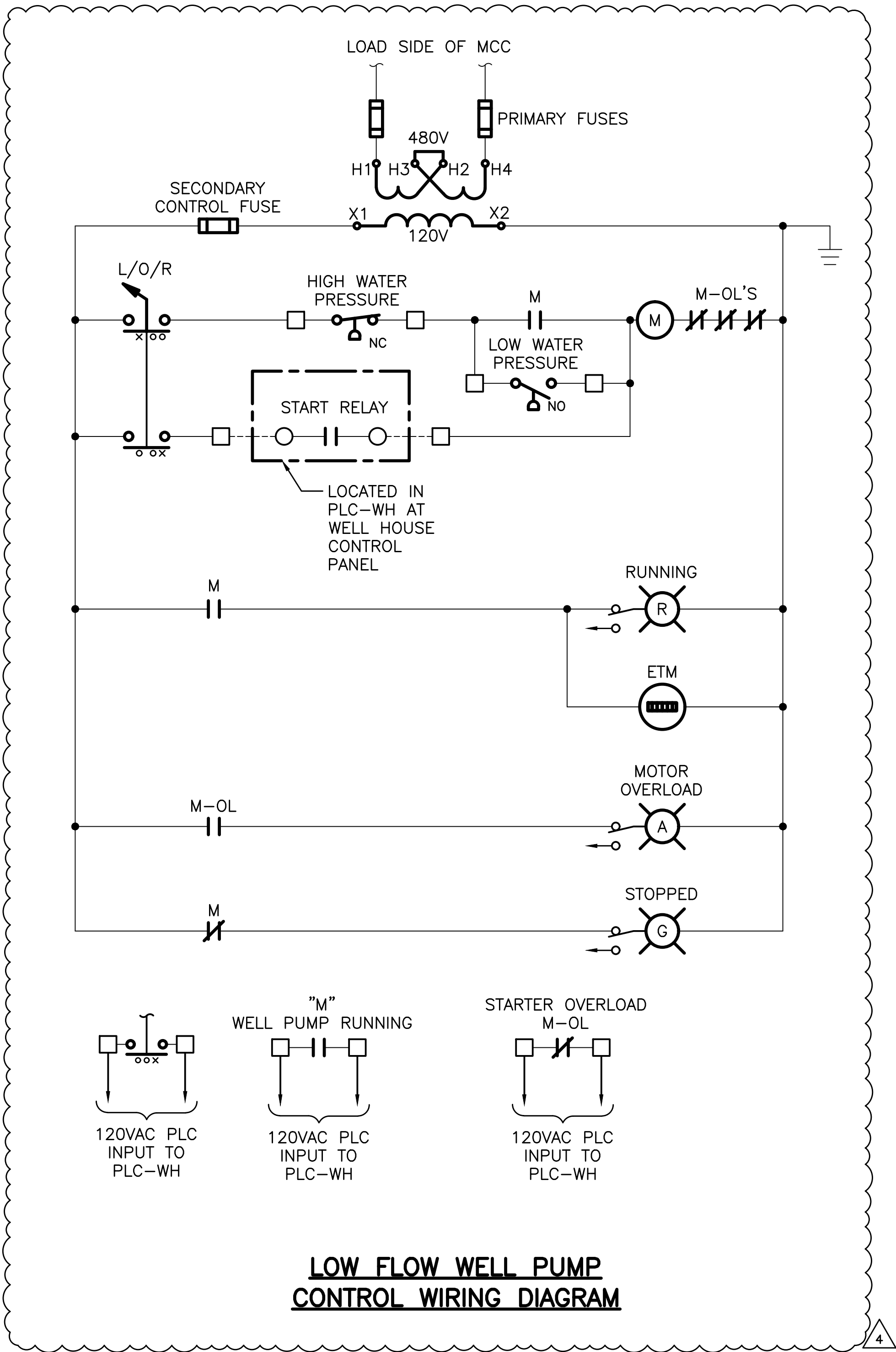


NOTES

1. CONTROL PANEL MAIN NAMEPLATE SHALL BE ENGRAVED WITH 1/2" HIGH LETTERS.



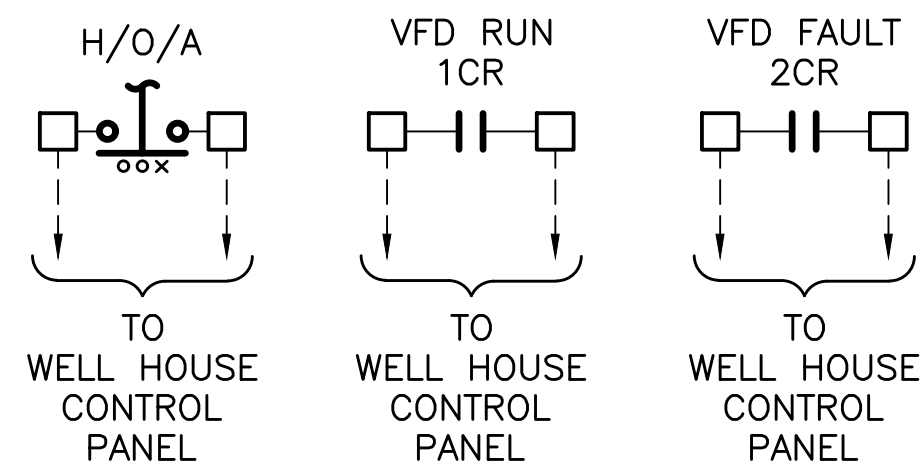
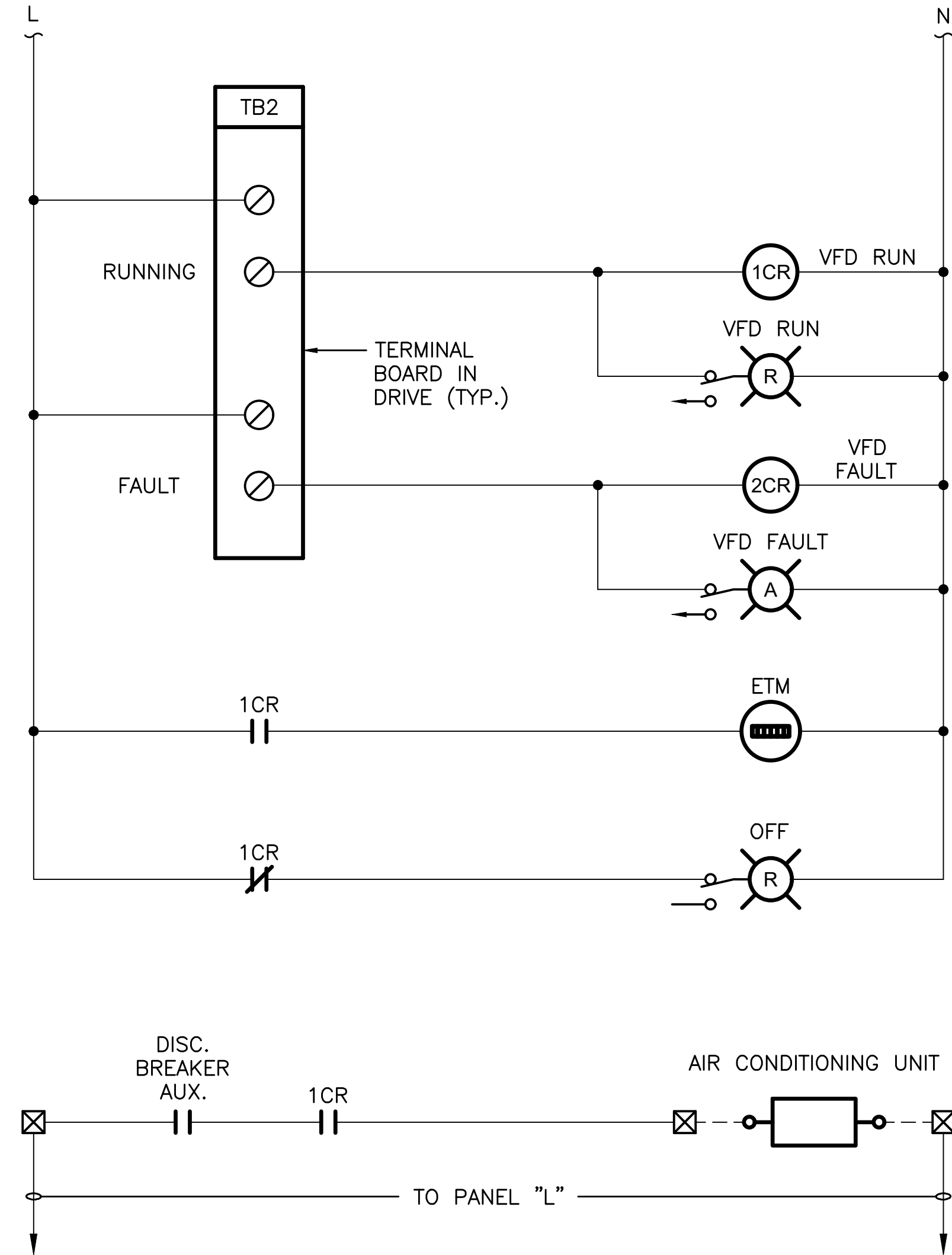
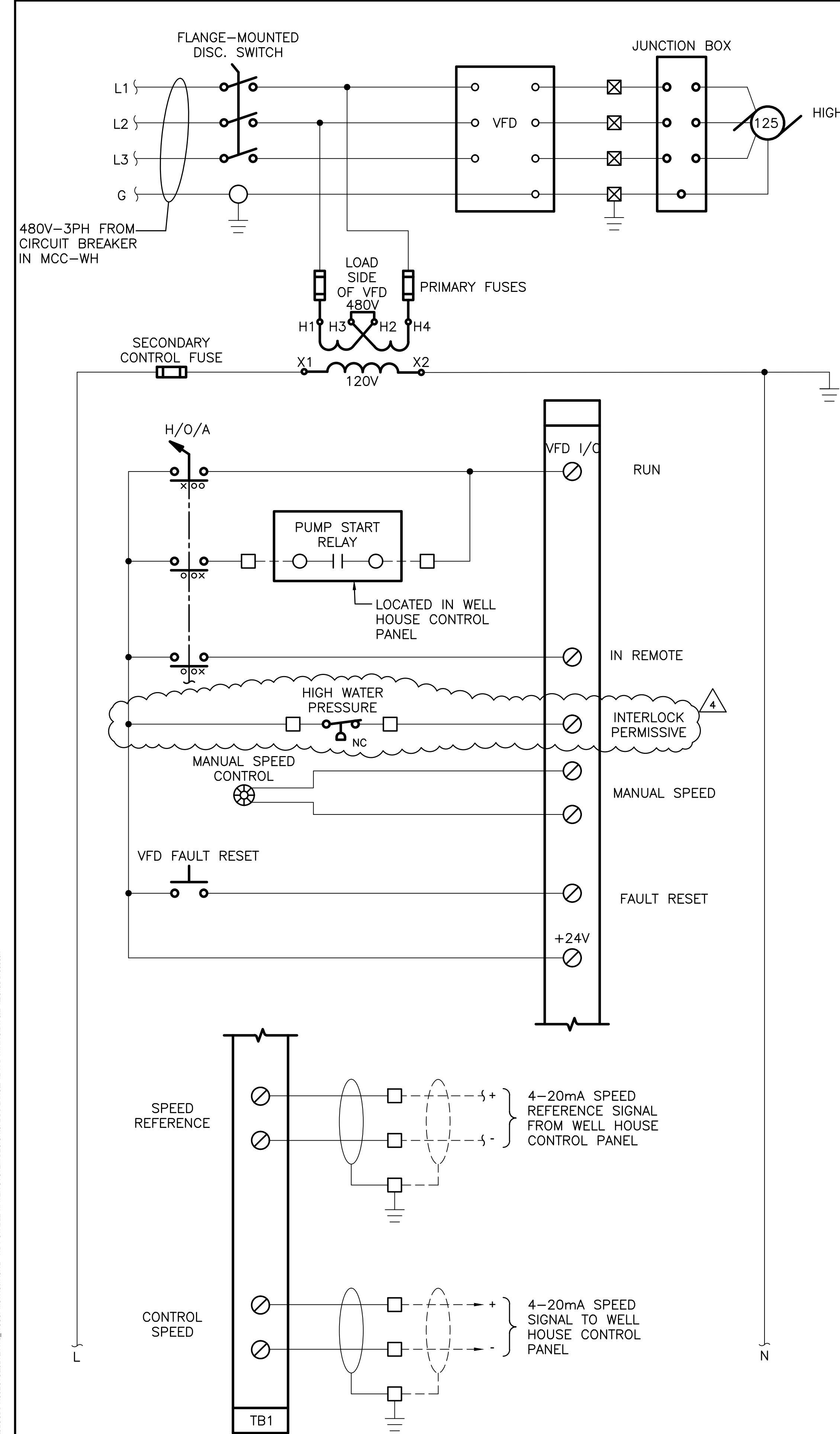
EXHAUST FAN EF-1
CONTROL WIRING DIAGRAM



DESIGN:	DLCF	12/19/2025
DRAWN:	CMB	12/19/2025
CHECKED:	KRG	12/19/2025

PROFESSIONAL CERTIFICATION		DATE	REVISIONS
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.		07/13/2026	4 ADDENDUM NO. 4
CONTRACT: #CD6915B20			

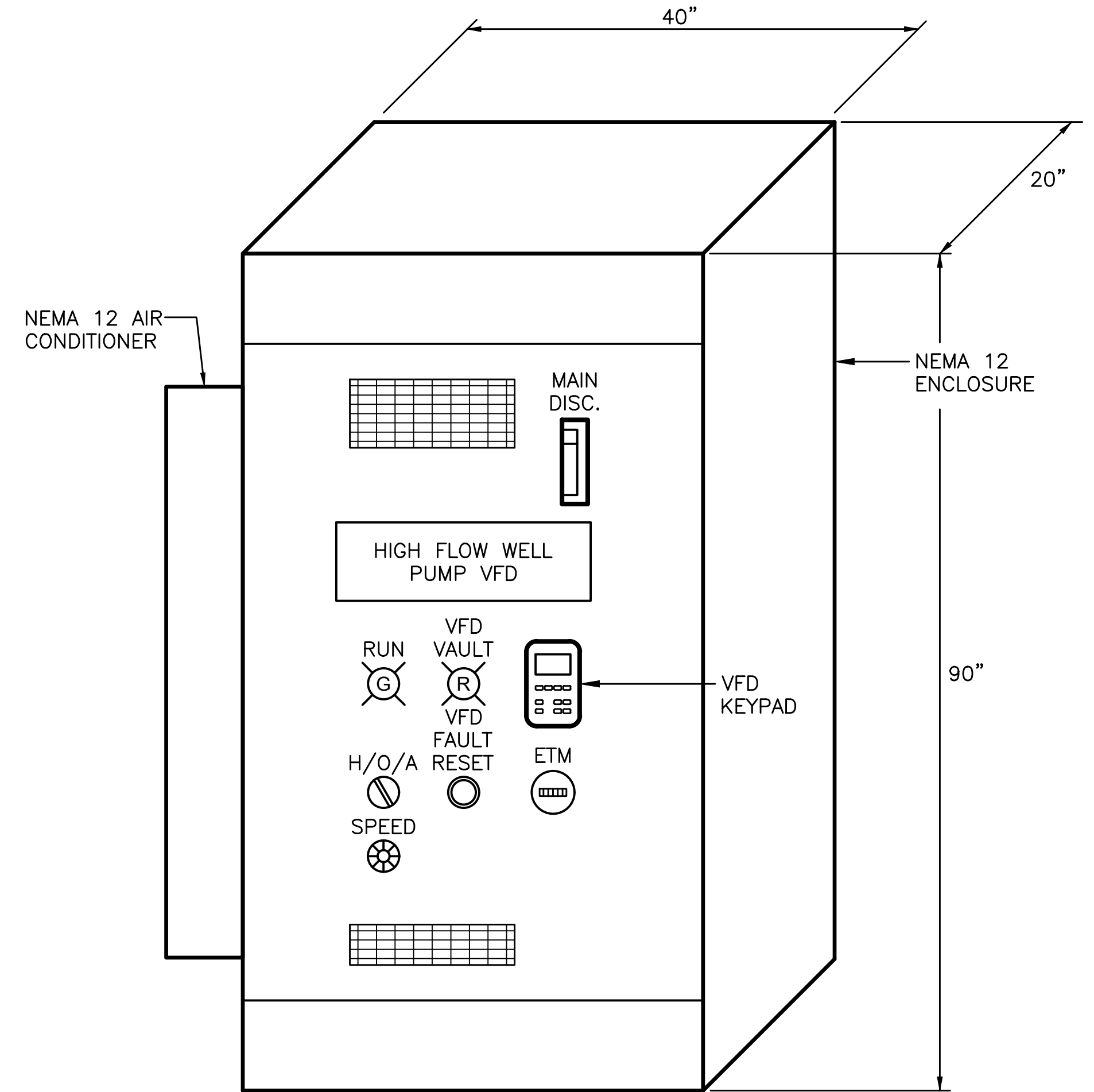
PATH: I:\04 RK COM\S\G\04\PROJECTS\2021\2170_WSSCW\INSTRU\TASK2 - WB POTABLE WATER SYSTEM DESIGN\ADD\PLANS-E-12 VFD WIRING.DWG-12.Dwg Brodbeck



LARGE WELL PUMP
VFD WIRING DIAGRAM

NOTES

- COORDINATE VFD CONTROL WIRING WITH THE VFD MANUFACTURER. REFER TO THE DESCRIPTION OF OPERATION IN THE SPECS FOR THE LOCAL/OFF/REMOTE AND SPEED CONTROL SEQUENCE.



LARGE WELL PUMP
VFD ELEVATION

DESIGN:	DLCF	12/19/2025
DRAWN:	CMB	12/19/2025
CHECKED:	KRG	12/19/2025

PROFESSIONAL CERTIFICATION		DATE	REVISIONS
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. 700 EAST PRATT STREET SUITE 600 BALTIMORE, MD 21201 (P) 410 728-2900 (F) 410 728-2854 STATE OF MARYLAND DEPARTMENT OF COMMERCE REGISTERED PROFESSIONAL ENGINEER AS 63295 07/13/2026		07/13/2026	4 ADDENDUM NO. 4
CONTRACT: #CD6915B20			

WASHINGTON SUBURBAN SANITARY COMMISSION



THESE DOCUMENTS CONTAIN PRIVILEGED AND CONFIDENTIAL INFORMATION WHICH SHALL NOT BE REDISTRIBUTED WITHOUT PRIOR WSSC APPROVAL



700 EAST PRATT STREET
SUITE 600
BALTIMORE, MD 21201
(P) 410 728-2900
(F) 410 728-2854

WESTERN BRANCH WRRF
POTABLE WATER SYSTEM UPGRADES

HIGH FLOW WELL PUMP
VFD

E-12

NO 7
OF 19

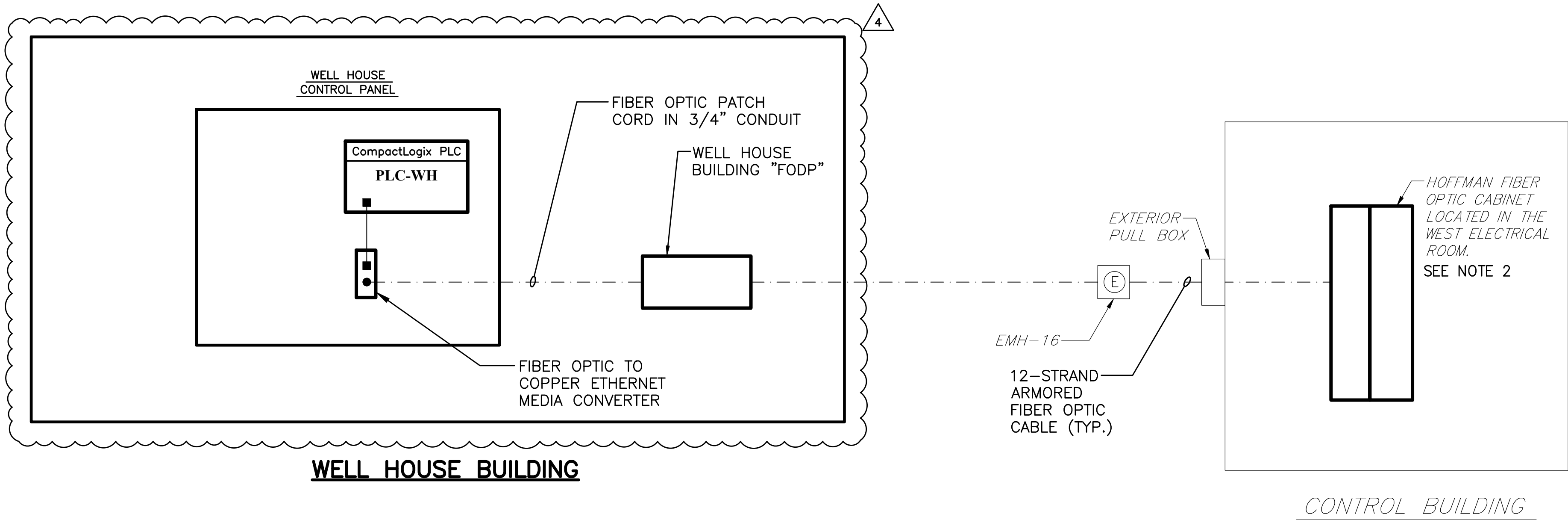
FIBER OPTIC NOTES

1.
- THE CONTRACTOR SHALL TEST AND TERMINATE THE FIBER OPTIC CABLES AT THE TERMINATION POINTS. THE WSSC PROCESS CONTROL DIVISION (PCD) WILL MAKE THE FINAL I/O CONNECTIONS.

2.
- THE HOFFMAN FIBER OPTIC CABINET IS LOCATED IN THE CONTROL BUILDING WEST ELECTRICAL ROOM. SEE DRAWING E-04 FOR A PLAN OF THE CONTROL BUILDING.

NOTES

1.
- THE EXACT MOUNTING LOCATION OF THE NEW "FODP" IS TO BE COORDINATED WITH WSSC (PCD) BEFORE INSTALLATION.



DESIGN:	DLCF	12/19/2025
DRAWN:	CMB	12/19/2025
CHECKED:	KRG	12/19/2025

PROFESSIONAL CERTIFICATION		DATE	REVISIONS
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO.: 63295 EXPIRATION DATE: 07/22/2026		07/13/2026	4 ADDENDUM NO. 4
CONTRACT: #CD6915B20			

WSSC
WESTERN BRANCH
6600 CRAIN HIGHWAY
UPPER MALBORO, MD 20772-4136

POTABLE WATER SYSTEM UPGRADES
CONTROL LOGIX PLC
WELL HOUSE
CONTRACT NO. CD6915B20

FOR REFERENCE ONLY

DESIGN:	DLCF	12/19/2025
DRAWN:	CMB	12/19/2025
CHECKED:	KRG	12/19/2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

STATE OF MARYLAND
DEPARTMENT OF GENERAL SERVICES
REGISTERED PROFESSIONAL ENGINEER
No. 63295
07/15/2026

LICENSE NO.: 63295
EXPIRATION DATE: 07/22/2026

DATE	REVISIONS
07/13/2026	4 ADDENDUM NO. 4

CONTRACT: #CD6915B20

WASHINGTON SUBURBAN SANITARY COMMISSION



THESE DOCUMENTS CONTAIN PRIVILEGED AND CONFIDENTIAL INFORMATION WHICH SHALL NOT BE REDISTRIBUTED WITHOUT PRIOR WSSC APPROVAL



700 EAST PRATT STREET
SUITE 600
BALTIMORE, MD 21201
(P) 410 728-2900
(F) 410 728-2854

WESTERN BRANCH WRRF
POTABLE WATER SYSTEM UPGRADES

WELL HOUSE
CONTROL PANEL WIRING

PCS-03

NO 9
OF 19

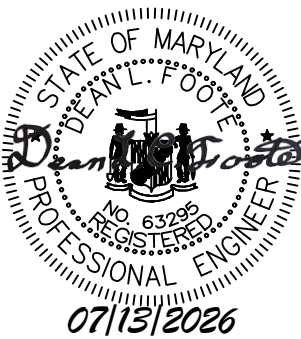
TABLE OF CONTENTS

PAGE NO.	DESCRIPTION
1	TITLE SHEET
2	SHEET INDEX & BILL OF MATERIALS
3	120VAC & 24VDC POWER DISTRIBUTION
4	WIRE SPECIFICATIONS
5	DIGITAL INPUTS BASE 0/SLOTS 1 AND 2
6	DIGITAL OUTPUTS BASE 0/SLOT 3
7	ANALOG INPUTS BASE 0/SLOTS 4 AND 5
8	ANALOG OUTPUTS BASE 0/SLOT 6
9	BACK PANEL LAYOUT
10	BACK PANEL LAYOUT - DETAIL 1
11	ENCLOSURE DIMENSIONS

BILL OF MATERIALS

ITEM #	MAKE	SERIES	MODEL	COUNT	IS	SUPPLIED BY
1	BUSSMAN		GDA-1A	3	FUSE, 1A, 5 x 20 mm	VENDOR
2	BUSSMAN		GDA-250MA	16	FUSE, 0.25A, 5 x 20 mm	VENDOR
3	BUSSMAN		GDA-2A	16	FUSE, 2A, 5 x 20 mm	VENDOR
4	BUSSMAN		GDA-500MA	6	FUSE, 0.5A, 5 x 20 mm	VENDOR
5	NVENT/HOFFMAN		A723618FSDG	1	72"H x 48"W x 18"D ENCLOSURE	WSSC
6	NVENT/HOFFMAN		A72P48F1	1	BACK PANEL, 60"H x 44"W	WSSC
7	NVENT/HOFFMAN		EL 1200D24V	1	ENCLOSURE LED LIGHT KIT	WSSC
8	ROCKWELL	1756	A10	1	CONTROL LOGIX PLC 10-SLOT CHASSIS	WSSC
9	STRIDE		SE3-MC2U-T1-T	2	MEDIA CONVERTER	WSSC
10	DOLD		HC3096N-48-9100	2	RELAY MODULE 3NO/1NC CONTACT,24 VDC	WSSC
11	ROCKWELL		IA16	2	16-PT DIGITAL INPUT MODULE, 120VAC	WSSC
12	ROCKWELL		IF8I	2	8-CH. ANALOG INPUT MODULE	WSSC
13	ROCKWELL		L81E	1	CONTROLLOGIX PLC	WSSC
14	ROCKWELL		N2	4	SLOT FILLER	WSSC
15	ROCKWELL		OF8I	1	8-CH. ANALOG OUTPUT MODULE	WSSC
16	ROCKWELL		OW16I	1	16-PT RELAY OUTPUT MODULE	WSSC
17	ROCKWELL		PA75	1	CONTROL LOGIX POWER SUPPLY, 120V, 75W	WSSC
18	ROCKWELL		TBNH	2	CONTROL LOGIX 20 PIN SCREW TERMINAL BLOCK	WSSC
19	ROCKWELL		TBCH	3	CONTROL LOGIX 36 PIN SCREW TERMINAL BLOCK	WSSC
20	SIEMENS		5SY4103-7	1	3A MINI CKT BREAKER	VENDOR
21	SIEMENS		5SY4106-7	2	6A MINI CKT BREAKER	VENDOR
22	SIEMENS		CQD120	2	CIRCUIT BREAKER, 277VAC, 20A, 1-POLE	VENDOR
23	SIEMENS	SITOP	6EP1961-3BA21	1	POWER SUPPLY REDUNDANCY MODULE	VENDOR
24	SIEMENS		6EP3334-8SB00-0AY0	2	MODULAR POWER SUPPLY 24VDC	VENDOR
25	SOLAHD		IE-120	1	LINE FILTER	VENDOR
26	SQUARE D		PK15GTACP	1	PANEL GROUND BAR, 15-POS	VENDOR
27	WEIDMULLER		1010000000	25	WPE 2.5 GROUND TERMINAL	VENDOR
28	WEIDMULLER		1011300000	22	FUSE TERMINAL, 10-30V, LED BFI - DC	VENDOR
29	WEIDMULLER		1012300000	11	FUSE TERMINAL, 60-150V, LED BFI - AC	VENDOR
30	WEIDMULLER		1020000000	35	WDU 2.5 THRU TERM, ONE TIER	VENDOR
31	WEIDMULLER		1021500000	48	WDK 2.5 THRU TERM, TWO TIER	VENDOR
32	WEIDMULLER		1061200000	1	WEW 35/2 ENDSTOP	VENDOR
33	WEIDMULLER		67200005420	1	120VAC DUAL OUTLET, 20A	VENDOR
34	WEIDMULLER		105386000	4	WQV 2.5/4 CROSS CONNECTOR	VENDOR
35	WEIDMULLER		1609801044	10	DEK 5/8 TERMINAL MARKERS, BLANK, 100 PER CARD	VENDOR
36	WEIDMULLER		1856740000	5	DEK 5/5 TERMINAL MARKERS, BLANK, 80 PER CARD	VENDOR
37	WEIDMULLER		1059100000	3	END PLATE, DOUBLE LEVEL	VENDOR
38	WEIDMULLER		1050000000	10	END PLATE, SINGLE LEVEL	VENDOR
39	PANDUIT		F3X4WH6	14	3"X4" WIREWAY, WHITE (QTY IN FT)	VENDOR
40	PANDUIT		C3WH6	14	3" WIREWAY COVER, WHITE (QTY IN FT)	VENDOR
41	PANDUIT		F2X4WH6	18	2"X4" WIREWAY, WHITE (QTY IN FT)	VENDOR
42	PANDUIT		C2WH6	18	2" WIREWAY COVER, WHITE (QTY IN FT)	VENDOR
43	PHOENIX CONTACT		801733	3	DIN RAIL, NS35/7,5 PERF 2M LENGTH	VENDOR
44	WEIDMULLER		1059660000	2	WQV 2.5/15 CROSS CONNECTOR	VENDOR

FOR REFERENCE ONLY

PROFESSIONAL CERTIFICATION		DATE	REVISIONS
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. 		07/13/2026	4 ADDENDUM NO. 4
		CONTRACT: #CD6915B20	

DESIGN:	DLCF	12/19/2025
DRAWN:	CMB	12/19/2025
CHECKED:	KRG	12/19/2025

LICENSE NO.: 63295
EXPIRATION DATE: 07/22/2026

WASHINGTON SUBURBAN SANITARY COMMISSION



THESE DOCUMENTS CONTAIN PRIVILEGED AND CONFIDENTIAL INFORMATION WHICH SHALL NOT BE REDISTRIBUTED WITHOUT PRIOR WSSC APPROVAL



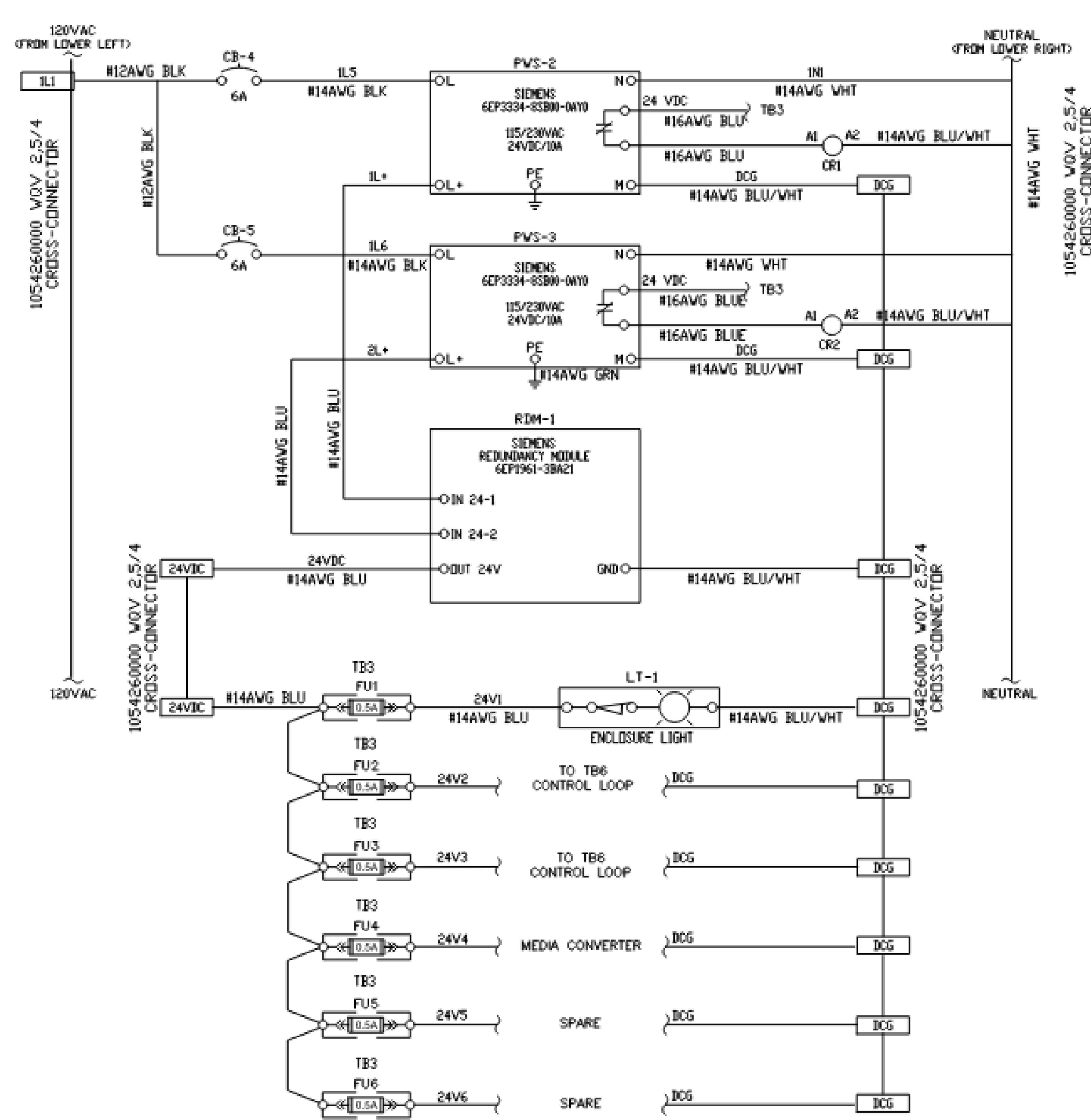
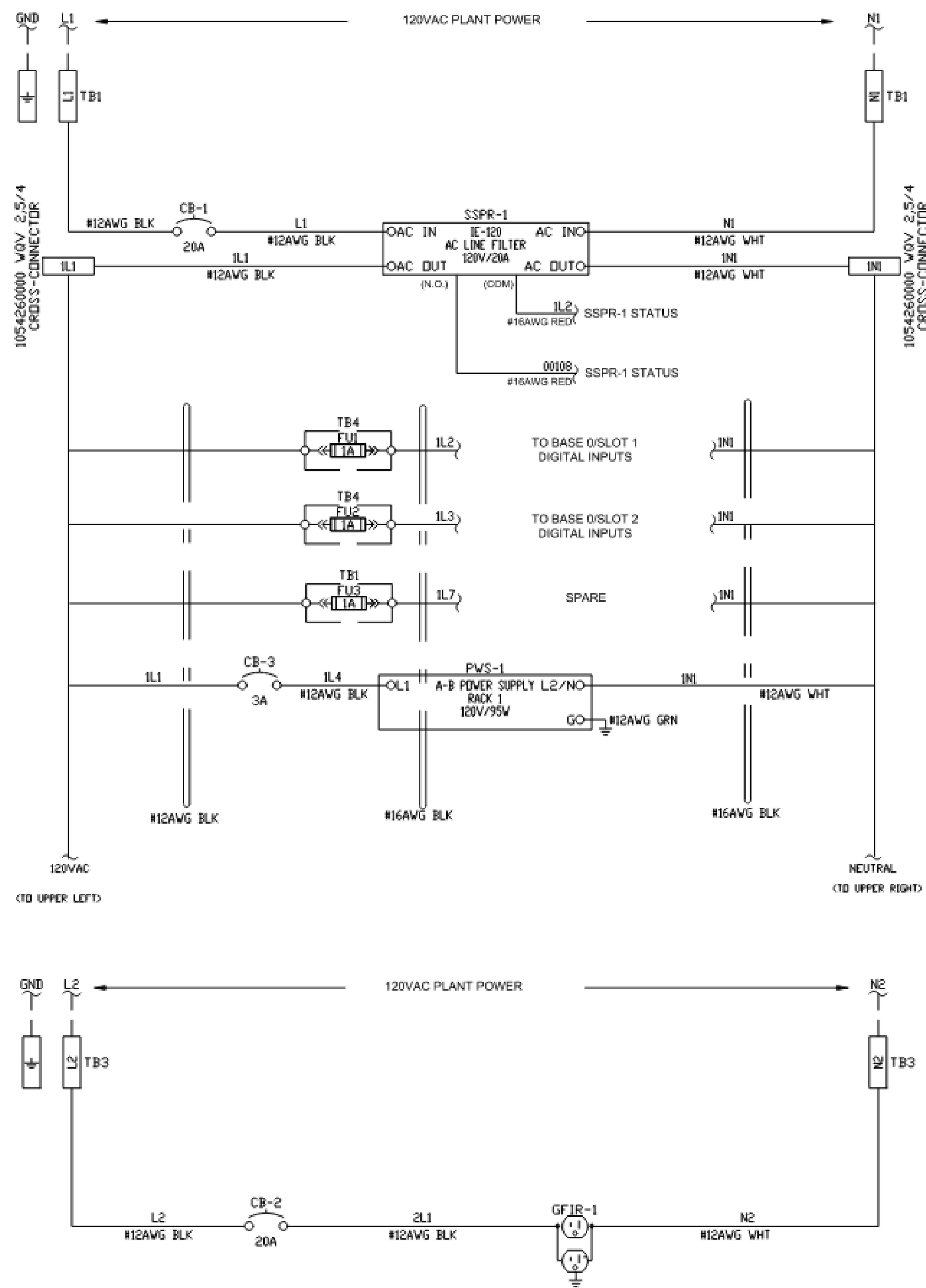
700 EAST PRATT STREET
SUITE 600
BALTIMORE, MD 21201
(7) 410 726-2900
(7) 410 726-2854

WESTERN BRANCH WRRF
POTABLE WATER SYSTEM UPGRADES

WELL HOUSE
CONTROL PANEL WIRING

PCS-04

NO 10
OF 19



FOR REFERENCE ONLY

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

STATE OF MARYLAND
DEPARTMENT OF THE ENVIRONMENT
PROFESSIONAL ENGINEER
AS 4398
07/13/2026

DESIGN: DLCP 12/19/2025
DRAWN: CMB 12/19/2025
CHECKED: KRG 12/19/2025

LICENSE NO.: 63295
EXPIRATION DATE: 07/22/2026

DATE	REVISIONS
07/13/2026	4 ADDENDUM NO. 4

CONTRACT: #CD6915B20

WASHINGTON SUBURBAN SANITARY COMMISSION



THESE DOCUMENTS CONTAIN PRIVILEGED AND CONFIDENTIAL INFORMATION WHICH SHALL NOT BE REDISTRIBUTED WITHOUT PRIOR WSSC APPROVAL



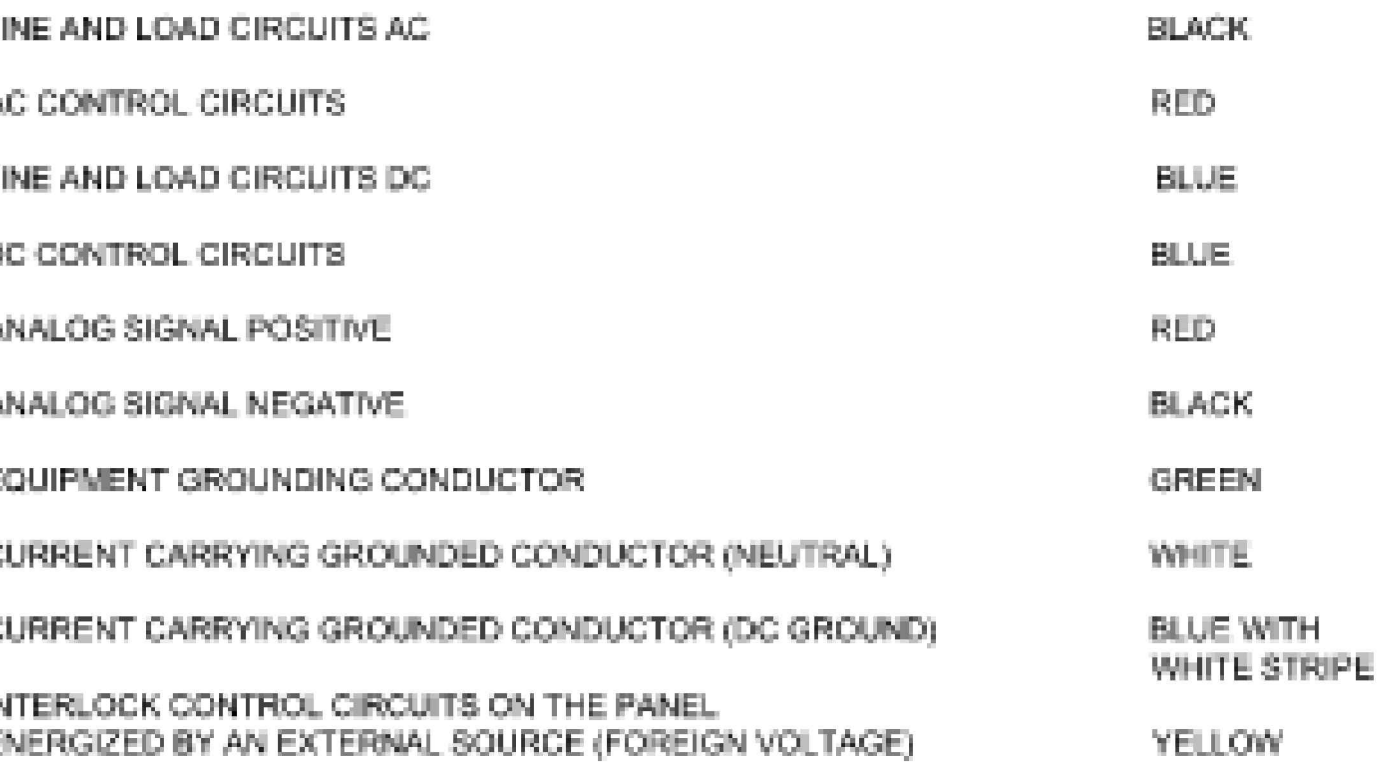
700 EAST PRATT STREET
SUITE 600
BALTIMORE, MD 21201
(P) 410 728-2900
(F) 410 728-2854

WESTERN BRANCH WRRF
POTABLE WATER SYSTEM UPGRADES

WELL HOUSE
CONTROL PANEL WIRING

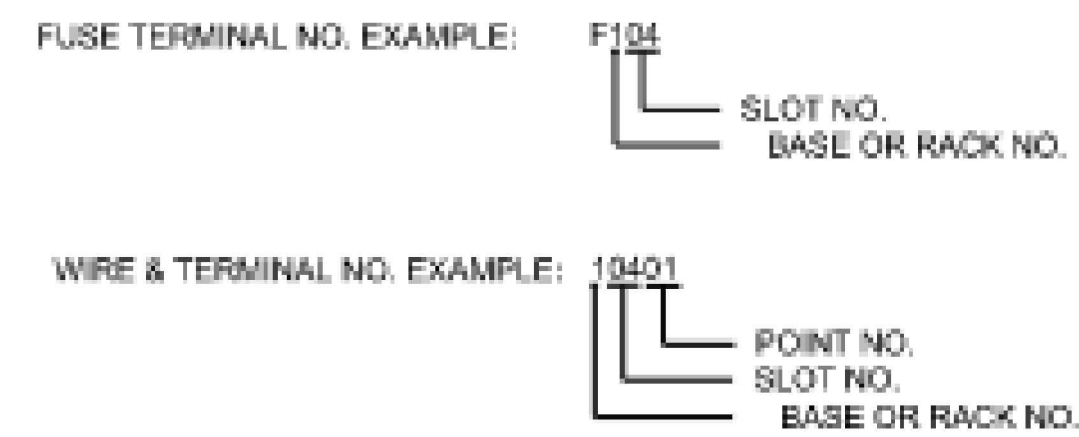
PCS-05
NO 11
OF 19

WIRE COLOR CODE



POWER WIRING AC AND DC	18 AWG
AC CONTROL CIRCUITS	18 AWG
LINE AND LOAD CIRCUITS DC	16 AWG
DC CONTROL CIRCUITS	16 AWG
ANALOG SIGNAL CIRCUITS	20 AWG

ANALOG INPUT 2-WIRE TRANSMITTER (EXAMPLE)



PROFESSIONAL CERTIFICATION

CONTRACT: #CD6915B20

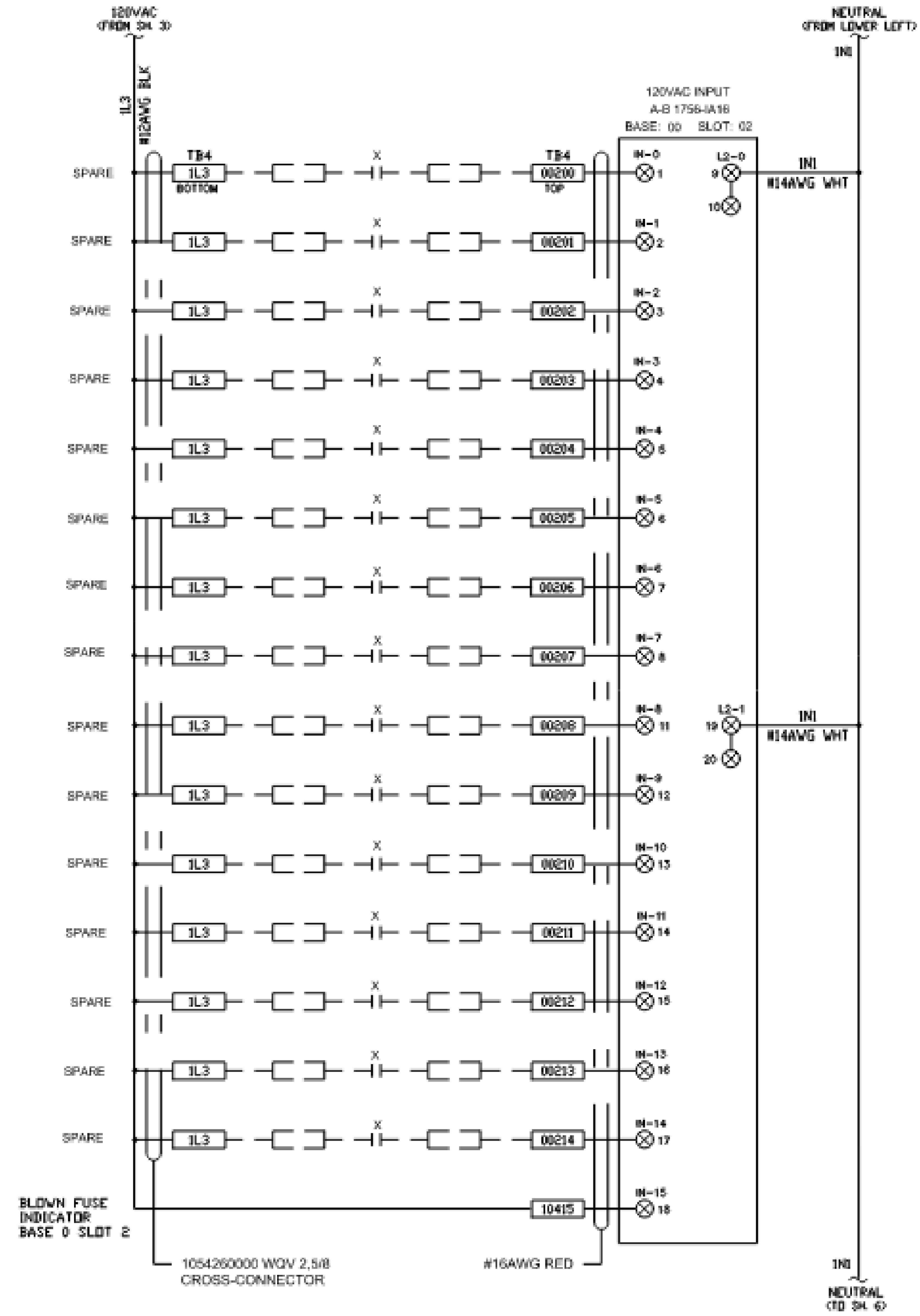
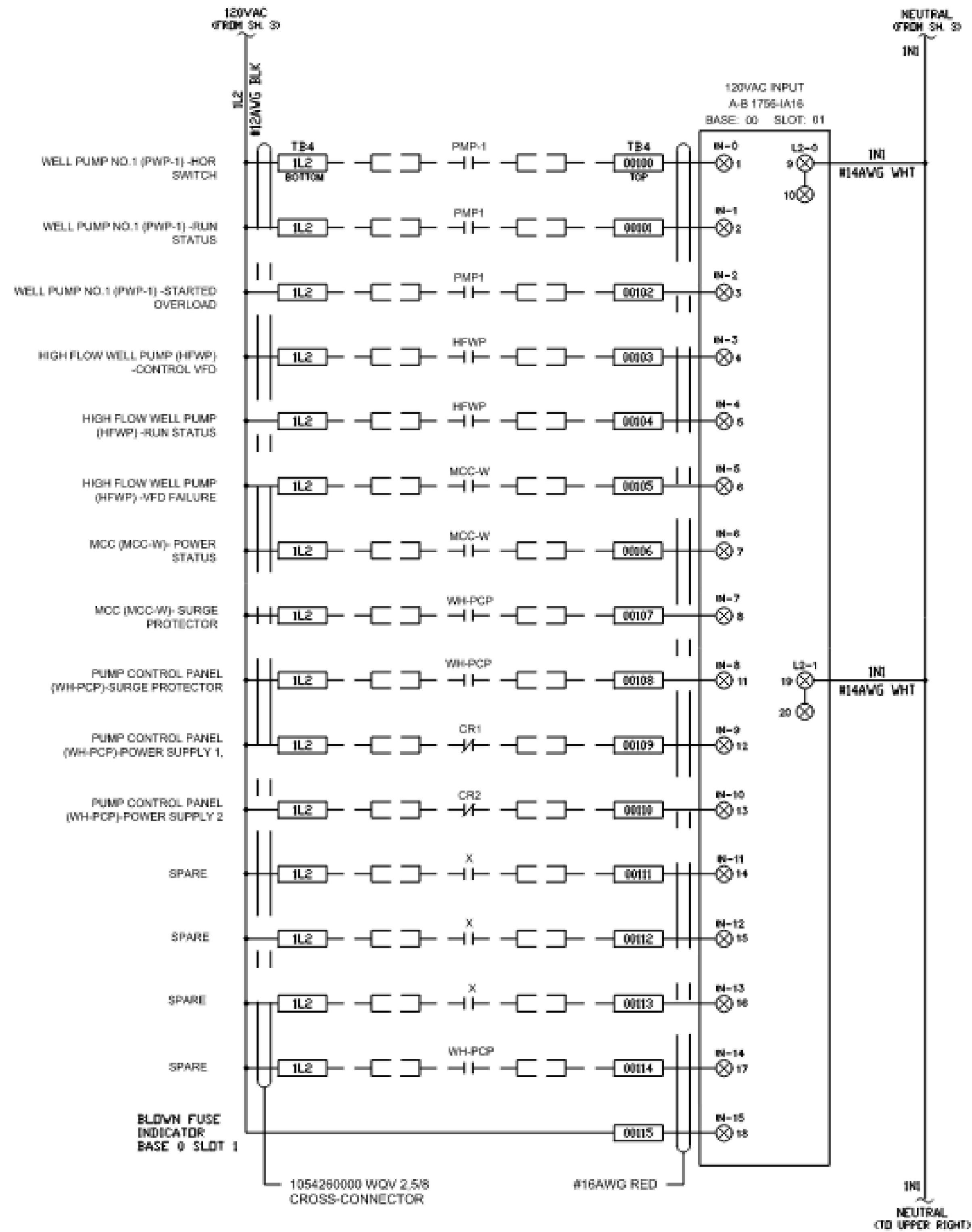
LICENSE NO.: 63295
EXPIRATION DATE: 07/22/2026



WSSC WATER
DELIVERING THE ESSENTIAL



NO	12
DF	19



FOR REFERENCE ONLY

PROFESSIONAL CERTIFICATION		DATE	REVISIONS
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.		07/13/2026	4 ADDENDUM NO. 4
LICENSE NO.: 63295 EXPIRATION DATE: 07/22/2026		CONTRACT: #CD6915B20	

WASHINGTON SUBURBAN SANITARY COMMISSION



THESE DOCUMENTS CONTAIN
PRIVILEGED AND CONFIDENTIAL
INFORMATION WHICH SHALL NOT BE
REDISTRIBUTED WITHOUT PRIOR WSSC
APPROVAL



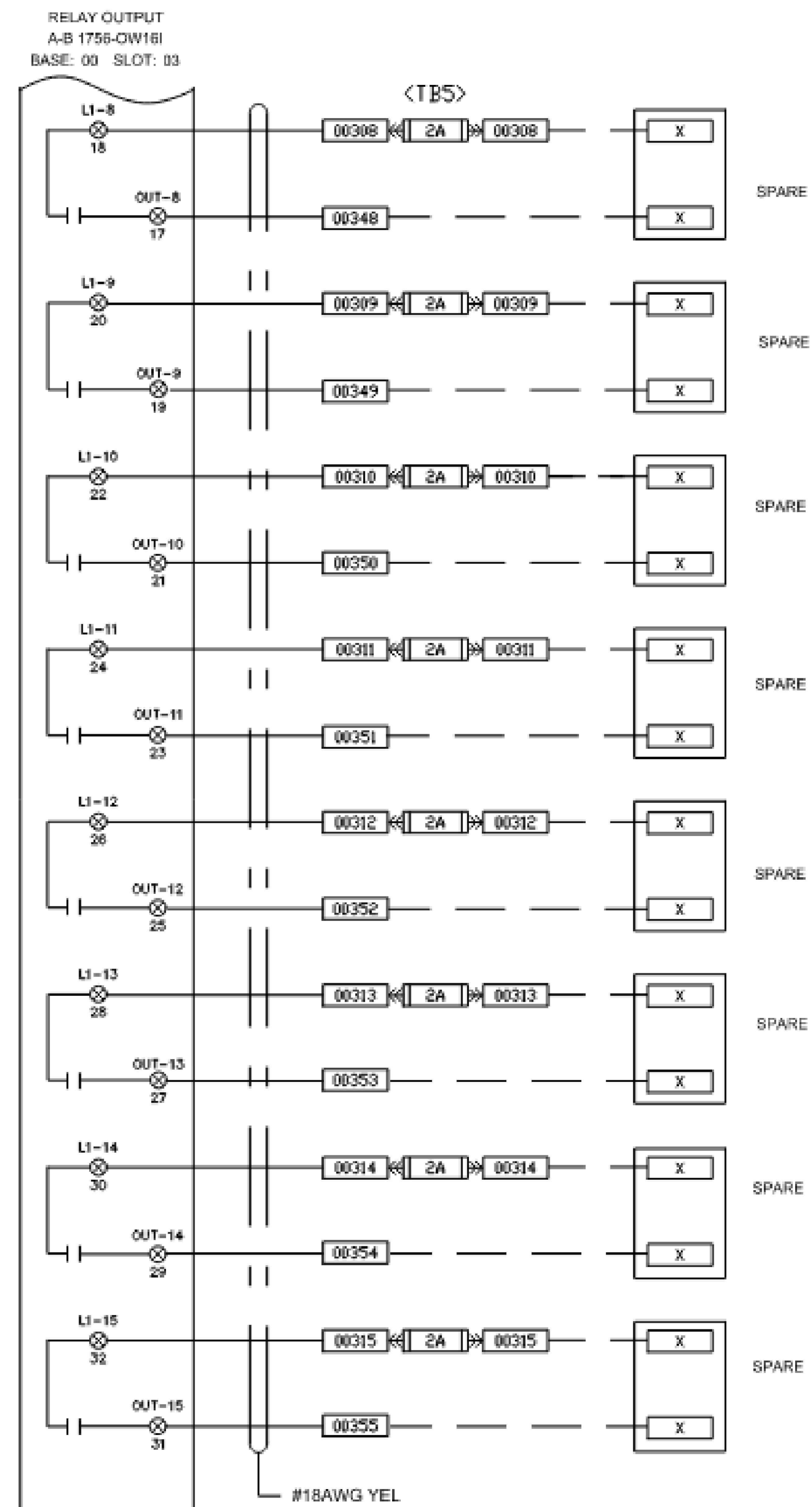
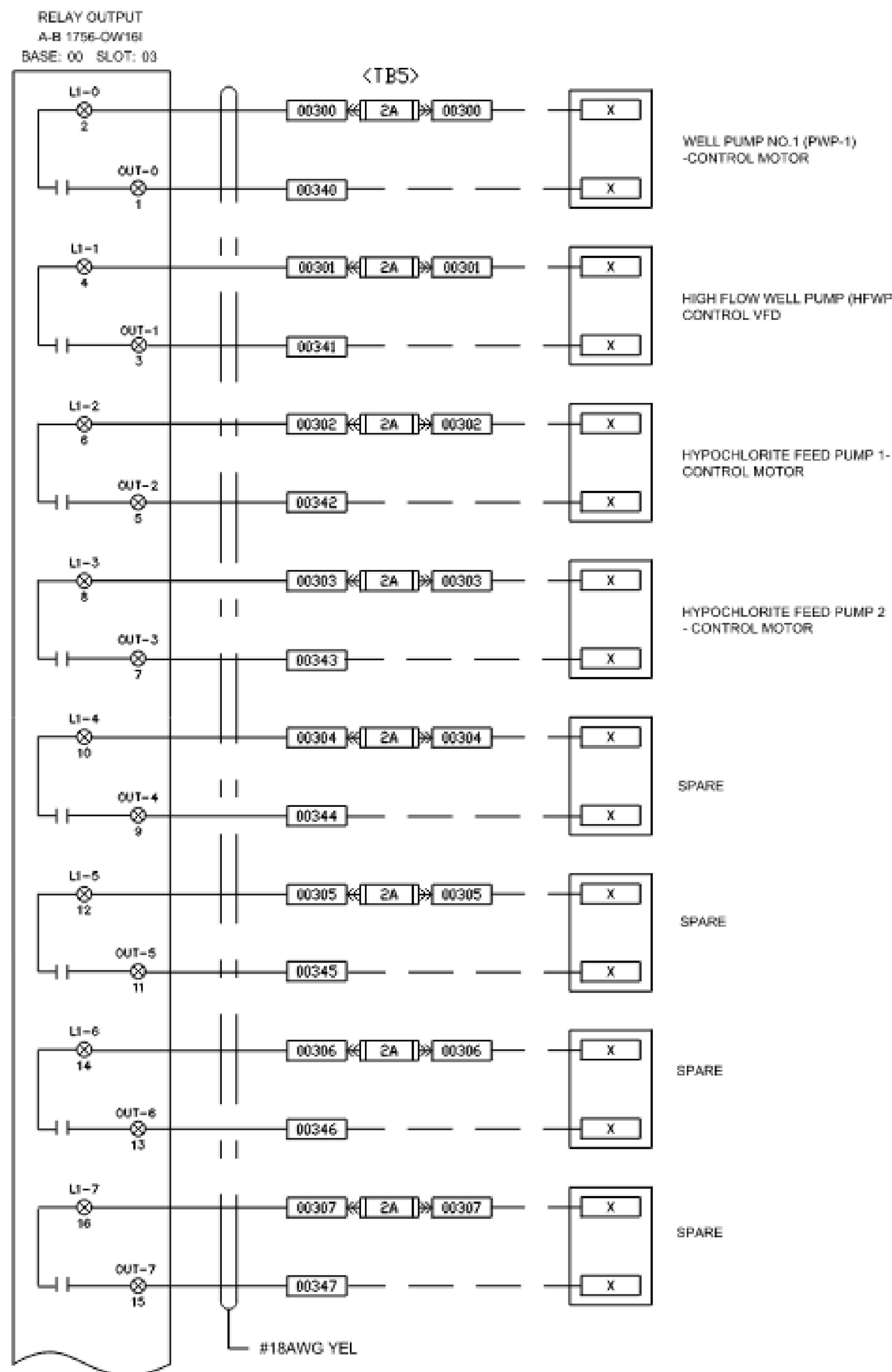
**700 EAST PRATT STREET
SUITE 500
BALTIMORE, MD 21201
(F) 410 728-2900
(F) 410 728-2834**

WESTERN BRANCH WRRF
POTABLE WATER SYSTEM UPGRADES

WELL HOUSE CONTROL PANEL WIRING

PCS-07

NO	13
DF	19



FOR REFERENCE ONLY

<u>PROFESSIONAL CERTIFICATION</u>		<u>DATE</u>		<u>REVISIONS</u>	
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO.: 63295 EXPIRATION DATE: 07/22/2026		07/13/2026		1 ADDENDUM NO. 4	
					
CONTRACT: #CD6915B20					

DESIGN:	DLCF	12/19/202
DRAWN:	CMB	12/19/202
CHECKED:	KRG	12/19/202

WASHINGTON SUBURBAN SANITARY COMMISSION



THESE DOCUMENTS CONTAIN
PRIVILEGED AND CONFIDENTIAL
INFORMATION WHICH SHALL NOT BE
REDISTRIBUTED WITHOUT PRIOR WSSC
APPROVAL



**700 EAST PRATT STREET
SUITE 500
BALTIMORE, MD 21201
(F) 410 728-2900
(F) 410 728-2834**

WESTERN BRANCH WRRF
POTABLE WATER SYSTEM UPGRADES

WELL HOUSE CONTROL PANEL WIRING

PCS-08

NO	14
OF	19

PATH: I:\00 RK\COMPS\00\PROJECTS\2021\170_WSSC\PLANS\PCS-09.DWG\Layout1\Chad Boedick

HIGH FLOW WELL PUMP (HFWP)-
SPEED INDICATION

POTABLE WATER (AIT-XXX)- CHLORINE
RESIDUAL

POTABLE WATER (AIT-XXX)- PH

POTABLE WATER (FIT-XXX)- LOW FLOW
RATE

POTABLE WATER (FIT-XXX)- HIGH
FLOW RATE

POTABLE WATER (PIT-XXX)- PRESSURE

WELL (LIT-XXX) -LEVEL

MCC (MCC-W) - POWER USAGE

ANALOG INPUT
AB 1756-IF8I
BASE: 00
SLOT: 04

18/2 TWISTED SHIELDED PAIR

HYPOCHLORITE FEED PUMP 1
(CFP-XXX)- SPEED SIGNAL

HYPOCHLORITE FEED PUMP 2
(CFP-XXX)- SPEED SIGNAL

SPARE

SPARE

SPARE

SPARE

SPARE

SPARE

ANALOG INPUT
AB 1756-IF8I
BASE: 00
SLOT: 05

18/2 TWISTED SHIELDED PAIR

FOR REFERENCE ONLY

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.



LICENSE NO.: 63295
EXPIRATION DATE: 07/22/2026

DESIGN:	DLCF	12/19/2025
DRAWN:	CMB	12/19/2025
CHECKED:	KRG	12/19/2025

DATE

12/13/2026

REVISIONS

4 ADDENDUM NO. 4

CONTRACT: #CD6915B20

WASHINGTON SUBURBAN SANITARY COMMISSION



THESE DOCUMENTS CONTAIN
PRIVILEGED AND CONFIDENTIAL
INFORMATION WHICH SHALL NOT BE
REDISTRIBUTED WITHOUT PRIOR WSSC
APPROVAL



700 EAST PRATT STREET
SUITE 600
BALTIMORE, MD 21201
(P) 410 728-2900
(F) 410 728-2854

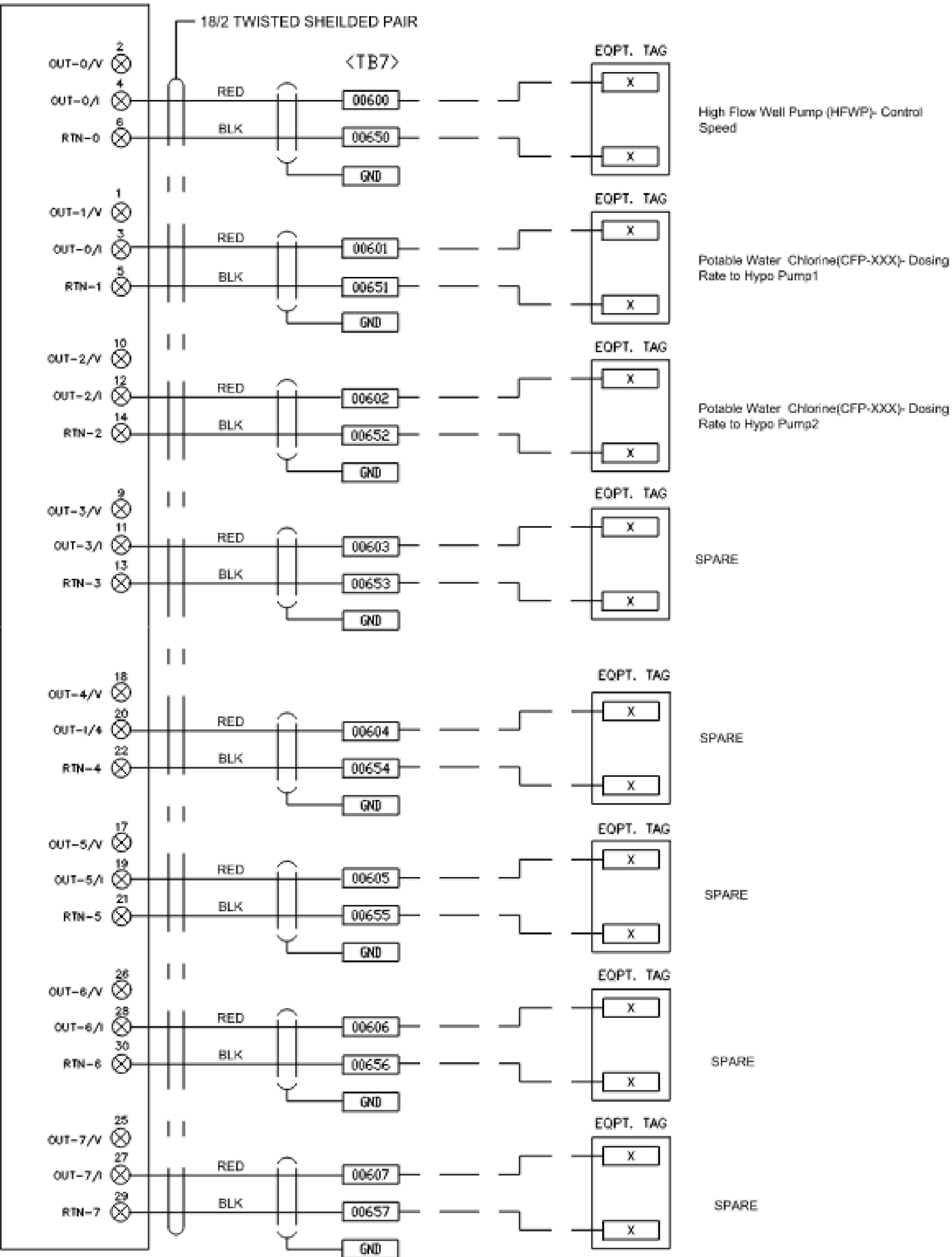
WESTERN BRANCH WRRF
POTABLE WATER SYSTEM UPGRADES

WELL HOUSE
CONTROL PANEL WIRING

PCS-09

NO 15
OF 19

ANALOG OUTPUT
A-B 1758-OF8I
BASE: 00 SLOT: 06



DESIGN:	DLCF	12/19/2025
DRAWN:	CMB	12/19/2025
CHECKED:	KRG	12/19/2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.



LICENSE NO.: 63295
EXPIRATION DATE: 07/22/2026

FOR REFERENCE ONLY

DATE	REVISIONS
07/13/2026	4 ADDENDUM NO. 4

CONTRACT: #CD6915B20

WASHINGTON SUBURBAN SANITARY COMMISSION



THESE DOCUMENTS CONTAIN PRIVILEGED AND CONFIDENTIAL INFORMATION WHICH SHALL NOT BE REDISTRIBUTED WITHOUT PRIOR WSSC APPROVAL



700 EAST PRATT STREET
SUITE 600
BALTIMORE, MD 21201
(P) 410 728-2900
(F) 410 728-2854

WESTERN BRANCH WRRF
POTABLE WATER SYSTEM UPGRADES

WELL HOUSE
CONTROL PANEL WIRING

PCS-10

NO 16
OF 19

FOR REFERENCE ONLY	
DATE	REVISIONS
07/13/2026	④ ADDENDUM NO. 4
CONTRACT: #CD6915B20	

WASHINGTON SUBURBAN SANITARY COMMISSION



THESE DOCUMENTS CONTAIN
PRIVILEGED AND CONFIDENTIAL
INFORMATION WHICH SHALL NOT BE
REDISTRIBUTED WITHOUT PRIOR WSSC
APPROVAL



**700 EAST PRATT STREET
SUITE 500
BALTIMORE, MD 21201
(F) 410 728-2900
(E) 410 728-2834**

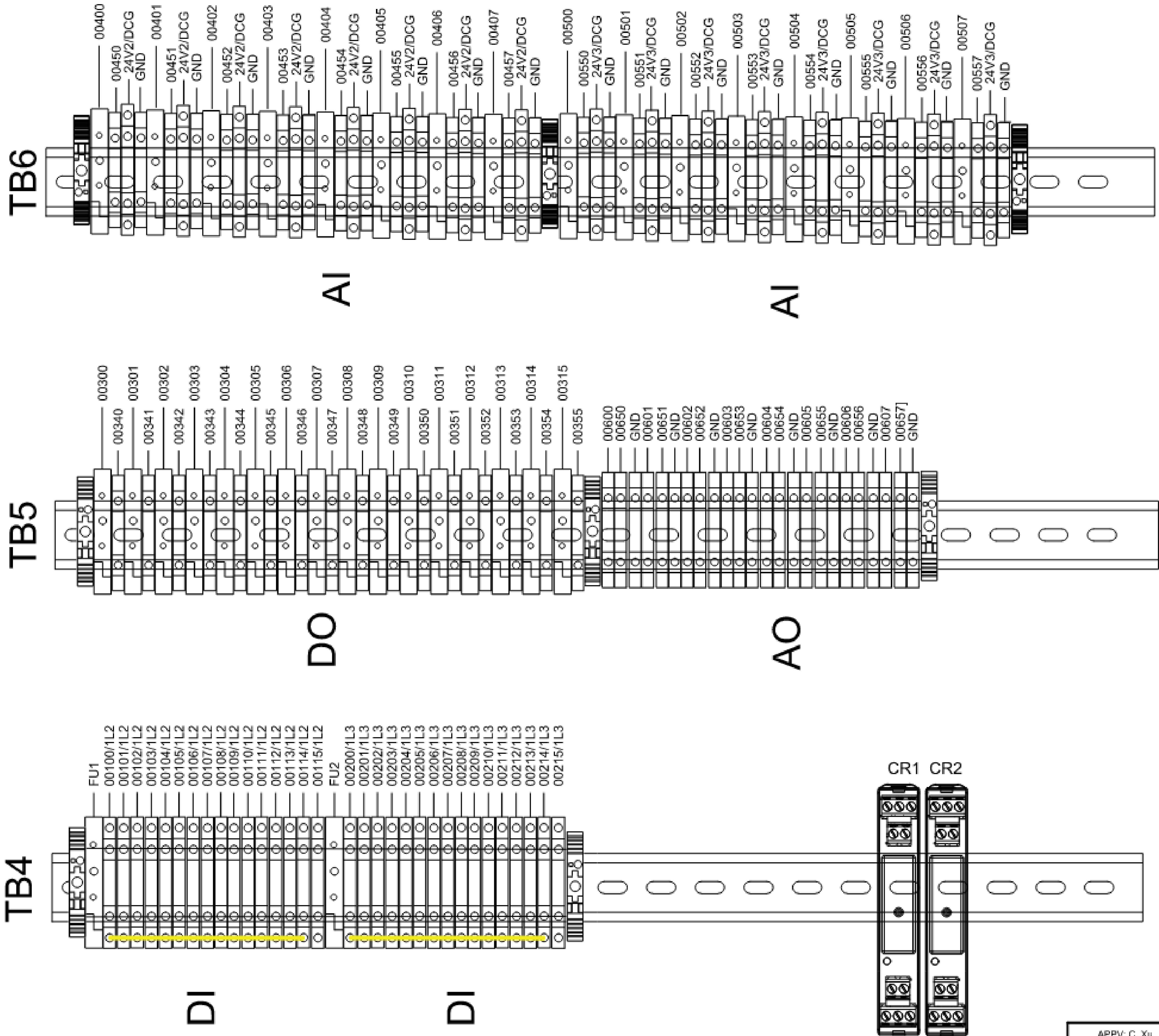
WESTERN BRANCH WRRF POTABLE WATER SYSTEM UPGRADES

WELL HOUSE CONTROL PANEL WIRING

PCS-11

NO	17
OF	19

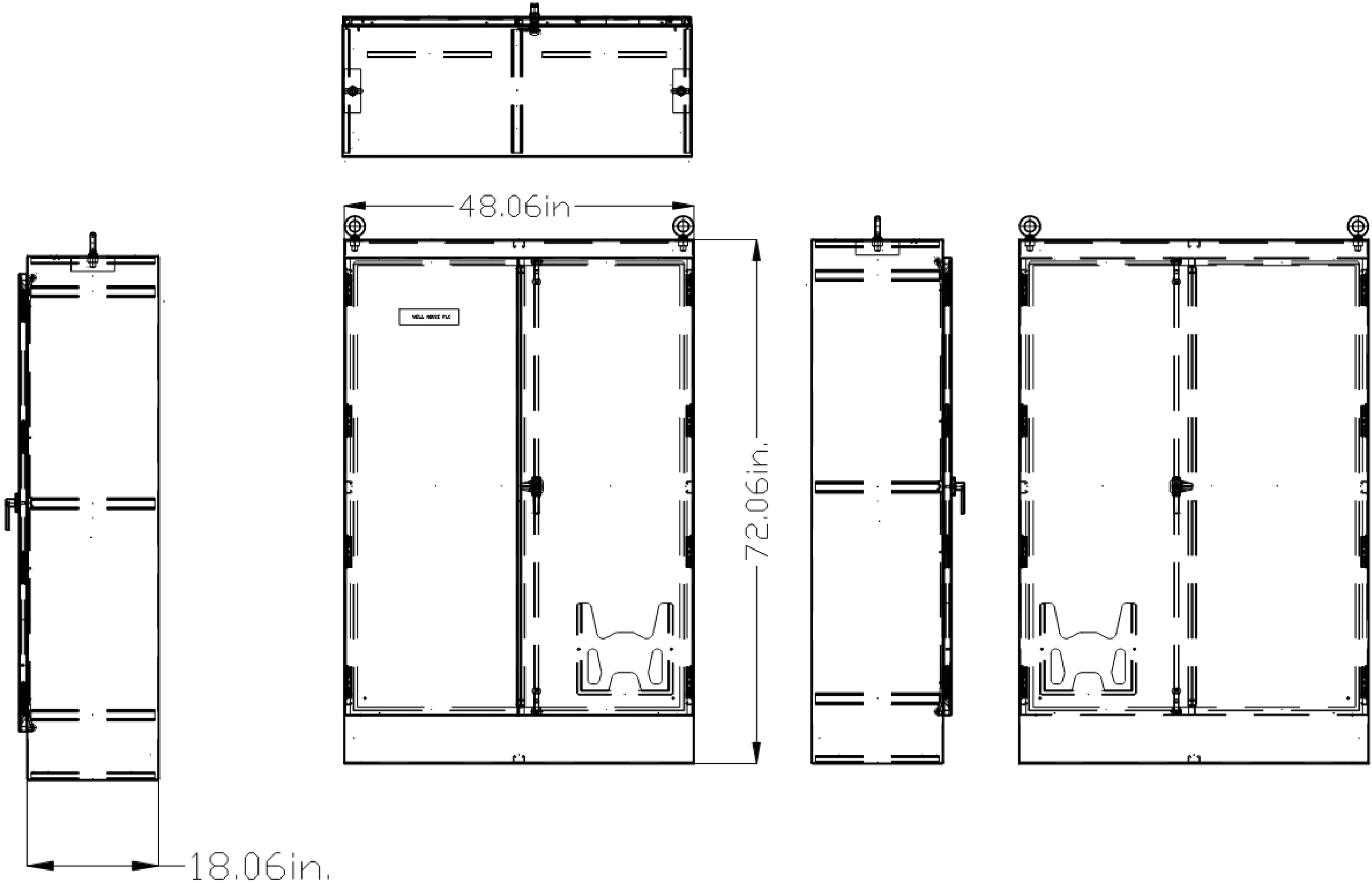
PATH: I:\0 RK\COMF5\GOLD\PROJECTS\2021\2170_WSSCP\STRUCT\TASK2 - WB POTABLE WATER SYSTEM DESIGN\CD\PLANS\PCS-12.DWG Layout1 Chief Boadack



APPV: C. Xu		
DESIGN:	DLCF	12/19/2025
DRAWN:	CMB	12/19/2025
CHECKED:	KRG	12/19/2025

PROFESSIONAL CERTIFICATION		FOR REFERENCE ONLY	
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. 700 EAST PRATT STREET SUITE 600 BALTIMORE, MD 21201 (7) 410 728-2900 (7) 410 728-2854 700 EAST PRATT STREET SUITE 600 BALTIMORE, MD 21201 (7) 410 728-2900 (7) 410 728-2854		DATE	REVISIONS
		07/13/2026	4 ADDENDUM NO. 4
CONTRACT: #CD6915B20		NO 18	
WELL HOUSE CONTROL PANEL WIRING		OF 19	

PATH: I:\0 RK&K\COMFES\00\PROJECTS\2021\170_WSSC\PLANS\TASK2 - WB POTABLE WATER SYSTEM DESIGN\ADD\PLANS\PCS-13.DWG(Layer1) Chief Bookback



FOR REFERENCE ONLY

DESIGN:	DLCF	12/19/2025
DRAWN:	CMB	12/19/2025
CHECKED:	KRG	12/19/2025

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE NO.: 63295
EXPIRATION DATE: 07/22/2026

DATE	REVISIONS
07/13/2026	4 ADDENDUM NO. 4

CONTRACT: #CD6915B20

WASHINGTON SUBURBAN SANITARY COMMISSION



THESE DOCUMENTS CONTAIN PRIVILEGED AND CONFIDENTIAL INFORMATION WHICH SHALL NOT BE REDISTRIBUTED WITHOUT PRIOR WSSC APPROVAL



700 EAST PRATT STREET
SUITE 600
BALTIMORE, MD 21201
(P) 410 728-2900
(F) 410 728-2854

WESTERN BRANCH WRRF
POTABLE WATER SYSTEM UPGRADES

WELL HOUSE
CONTROL PANEL WIRING

PCS-13

NO 19
OF 19