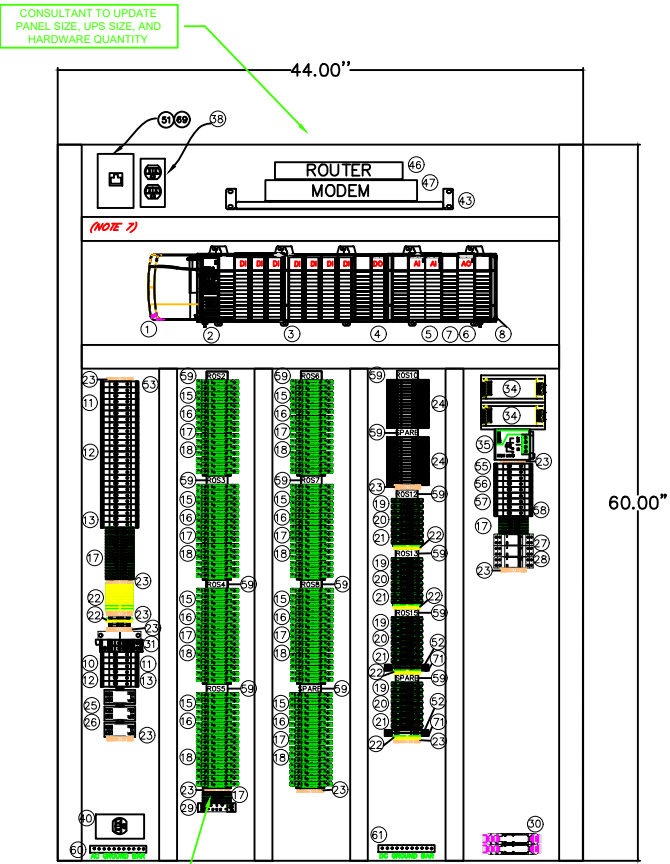


PLC PANEL FRONT VIEW



BACK PANEL VIEW

BILL OF MATERIALS				
ITEM	PART NUMBER	SUPPLIER	LABEL	DESCRIPTION
1	1756-PA75	ALLEN BRADLEY		CONTROLLOGIX POWER SUPPLY
2	1756-L82E	ALLEN BRADLEY		CONTROLLOGIX CPU
3	1756-IA16I	ALLEN BRADLEY		CONTROLLOGIX 16-POINT AC DIGITAL INPUT CARD
4	1756-OA16Q	ALLEN BRADLEY		CONTROLLOGIX 16-POINT AC DIGITAL OUTPUT CARD
5	1756-IB8H	ALLEN BRADLEY		CONTROLLOGIX HART 8-POINT ANALOG INPUT CARD
6	1756-OB8H	ALLEN BRADLEY		CONTROLLOGIX HART 8-POINT ANALOG OUTPUT CARD
7	1756-N2	ALLEN BRADLEY		CONTROLLOGIX SLOT FILLER
8	1756-A17	ALLEN BRADLEY		CONTROLLOGIX 17-SLOT CHASSIS
9	9926251015	WEDDMULLER	CBRL1-15A	SURGE PROTECTOR CIRCUIT BREAKER 1P 15A
10	9102003500	WEDDMULLER	CBRL1-15A, CBRUP5-15A	CIRCUIT BREAKER 1P 15A
11	9101803500	WEDDMULLER	CBREC2-5A, CBR112-5A, CBR131-5A, CBR132-5A	CIRCUIT BREAKER 1P 5A
12	9101703500	WEDDMULLER	CBRPB1-3A, CBRPB2-3A, CBR100-3A, CBR117-3A, CBR118-3A	CIRCUIT BREAKER 1P 3A
13	9101203500	WEDDMULLER	CBRSW1-1A, CBR116-1A, CBR119-1A	CIRCUIT BREAKER 1P 1A
14	9911050000	WEDDMULLER	CBR404-0.5A, CBR405-0.5A	CIRCUIT BREAKER 1P 0.5A DC - BACKUP CONTROL SPARES
15	1162960000	WEDDMULLER	IO-2/0/A - IO-2/15/A, IO-3/0/A - IO-3/15/A, IO-4/0/A - IO-4/15/A, IO-5/0/A - IO-5/15/A, IO-6/0/A - IO-6/15/A	TERMINAL BLOCK, FUSED, 120Vac W/ TRIP INDICATION
16	1142990000	WEDDMULLER	IO-2/0/B - IO-2/15/B, IO-3/0/B - IO-3/15/B, IO-4/0/B - IO-4/15/B, IO-5/0/B - IO-5/15/B, IO-6/0/B - IO-6/15/B, N1, N2, 0VDC	END PLATE FOR ABOVE
17	1020100000	WEDDMULLER	IO-9-0+ - IO-9-7+, IO-10-0+ - IO-10-7+, IO-9-0- - IO-9-7-, IO-10-0- - IO-10-7-, IO-12-0+ - IO-12-7+, IO-12-0- - IO-12-7-	TERMINAL BLOCK, FEED THROUGH, FOR DIO, NEUTRAL AND 0VDC TERMINALS
18	117960000	WEDDMULLER	IO-9-0+ - IO-9-7+, IO-10-0+ - IO-10-7+, IO-9-0- - IO-9-7-, IO-10-0- - IO-10-7-, IO-12-0+ - IO-12-7+, IO-12-0- - IO-12-7-	END PLATE FOR ABOVE
19	0687460000	WEDDMULLER	IO-9-0+ - IO-9-7+, IO-10-0+ - IO-10-7+, IO-9-0- - IO-9-7-, IO-10-0- - IO-10-7-, IO-12-0+ - IO-12-7+, IO-12-0- - IO-12-7-	TERMINAL BLOCK, 2-TIER, KNIFE DISCONNECT
20	0687560000	WEDDMULLER	IO-9-0+ - IO-9-7+, IO-10-0+ - IO-10-7+, IO-9-0- - IO-9-7-, IO-10-0- - IO-10-7-, IO-12-0+ - IO-12-7+, IO-12-0- - IO-12-7-	END PLATE FOR ABOVE
21	1020490000	WEDDMULLER	SHLD	TERMINAL BLOCK, FEED THROUGH, GREEN
22	1010100000	WEDDMULLER	GND	TERMINAL BLOCK, GROUND
23	1061200000	WEDDMULLER		END BRACKET FOR W-SERIES TERMINALS
24	1123040000	WEDDMULLER	CR-00-8/O - CR-00-8/15	INTERPOSING RELAY, 120VAC COIL, 1 C/O CONTACT
24	700-HF32A14	ALLEN BRADLEY	PF1, CR21, CR22, CR23	CONTROL RELAY, 120VAC COIL, 2 C/O CONTACTS
25	700-HN116	ALLEN BRADLEY		RELAY BASE FOR ABOVE
27	1133520000	WEDDMULLER	UPS #1 R/1, UPS #1 R/2	CONTROL RELAY, 24Vdc COIL, 2 C/O CONTACTS
28	776006225	WEDDMULLER		RELAY BASE FOR ABOVE
29	8647680000	WEDDMULLER	TD21, TD22	TIMING RELAY, MULTIFUNCTION
30	KFAS-582-EX2-W	PEPPERL & FUCHS	ISR-1, ISR-2	INTRINSICALLY SAFE BARRIER, DUAL CHANNEL
31	2859963	PHOENIX		LINE SURGE SUPPRESSOR
32	9SX1500	EATON	UPS #1	9SX UPS 1500VA
33	RELAY-M5	EATON	UPS #1	RELAY CARD FOR ABOVE
34	2938581	PHOENIX		24VDC POWER SUPPLY
35	2938963	PHOENIX		24VDC POWER SUPPLY REDUNDANCY MODULE FOR ABOVE
36	FLKDS	HAMMOND		PANEL DOOR LIGHT SWITCH
37	FLK10LED	HAMMOND		PANEL LIGHT - LED 26"
38	IG5262	HUBBELL		DUPLEX RECEPTACLE (NETWORK), ISOLATED GROUND - ORANGE
39	P-362-F3R0	GRACE		PROGRAMMER PORT
40	IG5261	HUBBELL		SINGLE RECEPTACLE, UPS FEED, IVORY
41	14182W18	HAMMOND		72" X48" X24" NEMA 12 FREE STANDING ENCLOSURE
42	722WFW	HAMMOND		60" Hx44" W BACK PANEL FOR ABOVE
43	RASU240515BK1	HAMMOND		NETWORK EQUIPMENT SHELF
44	PKT1212	HAMMOND		DRAWING HOLDER
45	SP1801894	HAMMOND		LAPTOP SHELF, 22"
46				SERVICE ACCESS SWITCH (FREE ISSUED)
47				CISCO INTEGRATED SERVICES ROUTER (FREE ISSUED)
48	800T-QTH2R	ALLEN BRADLEY	PL1	ILLEGAL ENTRY PILOT LIGHT, RED, LED, PUSH TO TEST
49	800T-QTH2R	ALLEN BRADLEY	PL2	SECURITY SYSTEM ARMED PILOT LIGHT, RED, LED, PUSH TO TEST
50	839K107	EATON		WET WELL LEVEL TRANSMITTER LOCAL DISCONNECT SWITCH
51	NS7265S	HUBBELL		RJ11 JACK WITH BOX AND FACEPLATE
52	2864419	PHOENIX		SIGNAL ISOLATOR
53	9101903500	WEDDMULLER	CBRUP5-10A, CBRREC1-10A	CIRCUIT BREAKER 1P 10A
54	SPARE			
55	9101803500	WEDDMULLER	CBR200-5A	CIRCUIT BREAKER 1P 5A DC
56	9101703500	WEDDMULLER	CBR201-3A - CBR204-3A, CBR206-3A, CBR205-1A, CBR206-1A, CBR207-1A, CBR208-1A, CBR209-1A, CBR210-1A, CBR211-1A, CBR212-1A, CBR213-1A, CBR214-1A	CIRCUIT BREAKER 1P 3A DC
57	9101203500	WEDDMULLER	CBR214-1A	CIRCUIT BREAKER 1P 1A DC
58	9104183500	WEDDMULLER	CBR205-0.2A	CIRCUIT BREAKER 1P 0.2A DC - UPS RELAYS
59	292460000	WEDDMULLER		GROUP MARKER
60	PK15GT-A	SQUARE-D		AC GROUND BAR
61	NSCH-1M	WEDDMULLER		ISOLATED DC GROUND BAR
62	VSC15/10	SCEPTER		DISCONNECT SWITCH COVER
63	RC1-960-MA	RUTHERFORD		SECURITY KEYSWITCH
64	7MLS033-2FA00-2A	SIEMENS		MULTITRONICS MULTIRANGER 200 HMI CONTROLLER
65		BELL SUPPLIED		BIX BLOCK AND LIGHTNING ARRESTOR
66		PANDUIT		SLOTTED WIRE WAY, VARIOUS WIDTHS, 4" (100MM) DEEP
67				MISC. COMPONENTS - DIN RAIL, GROUNDING, WIRE LABELS
68	C016652-09F004	COMMSCOPE		PATCH CABLES
69	JBX3530W-A	PANDUIT		SINGLE GANG TWO-PIECE SNAP TOGETHER BOX
70	2864150	PHOENIX		NON-POWERED LOOP SIGNAL ISOLATOR
71	ARP-361SAP-E01-007	ARISTA		THIN CLIENT

NOTES:

1. LAPTOP SHELF TO BE MOUNTED ON OUTER SIDE OF INNER SWING DOOR. THE LAPTOP SHELF TO BE HINGED AT THE TOP AND FOLD UP. SHELF HEIGHT IS 40" FROM THE FLOOR, NOT THE BOTTOM OF THE PANEL.
2. LITERATURE POCKET TO BE MOUNTED ON INNER SIDE OF INNER SWING DOOR.
3. AVOID RUNNING CONDUIT THROUGH TOP OF ENCLOSURE.
4. NO CONDUIT ENTRIES DIRECTLY BELOW OR BESIDE THE UPS.

THESE DRAWINGS ARE TEMPLATE DRAWINGS
1. REMOVE THIS NOTE AS PART OF THE DESIGN PROCESS.
2. MODIFY THIS DRAWING AS DIRECTED IN THE SCADA STANDARDS.
3. ADD ADDITIONAL DETAILS AS REQUIRED TO MEET THE PROJECT SPECIAL REQUIREMENTS.
4. WHEN THE CONSULTANT DEVIATES FROM THIS TEMPLATE THEY ARE REQUIRED TO NOTIFY HALTON REGION THROUGH THE USE OF THE STANDARDS DEVIATION MEMO.
5. FUSED TERMINAL BLOCKS AND CIRCUIT BREAKERS TO BE SIZED APPROPRIATELY.
6. SHOW ADDITIONAL RED TRACES (UP TO A MAXIMUM OF 2) ONLY IF NECESSARY BASED ON DESIGN REQUIREMENTS.
7. THE CONSULTANT IS TO SPECIFY SIGNAL ISOLATORS WHERE REQUIRED. FOLLOW MANUFACTURER'S SPECIFICATIONS FOR GROUNDING OF SHIELDS.
8. PANEL SIZING TO COMPLY WITH SECTION 3 OF THE SCADA STANDARDS.
9. CONSULTANT TO SIZE UPS TO ALLOW FOR 30 MINUTES OF UPTIME.

NO	Date	By	REVISIONS	MAN/CAD
Design	---	Ch'kd	---	Date
Drawn	---	Ch'kd	---	
Scale	N.T.S.			References

Field Notes

Stamp

Regional
ACCEPTED FOR CONSTRUCTION OF REGIONAL INFRASTRUCTURE
REVIEWED FOR COMPLIANCE WITH REGIONAL STANDARDS ONLY.
Director, Water & Wastewater Treatment
Manager, Plant Capital & Engineering



TITLE REGIONAL MUNICIPALITY OF HALTON
CONSULTANT PROJECT TITLE
TYPE III & IV PLC CONTROL PANEL
INNER LAYOUT
Consultant File NO
Regional Drawing NO
CONTRACT NO
Drawing NO 1901
SHEET XX OF XX