Winnipeg

THE CITY OF WINNIPEG
WATER & WASTE DEPARTMENT
ENGINEERING DIVISION

DRAWING INDEX

DRAWING No.	DISCIPLINE	DRAWING TITLE
1-0101-S1197-ACBD-B101-001	AUTOMATION	PANEL LAYOUT BOILER CONTROL PANEL - CP-B8001
1-0101-S1197-ACBD-C101-001	AUTOMATION	PANEL LAYOUT CENTRATE CONTROL PANEL 1 - CP-C8001
1-0101-S1197-ACBD-C102-001	AUTOMATION	PANEL LAYOUT CENTRATE CONTROL PANEL 2 - CP-C8002
1-0101-S1197-ACBD-D101-001	AUTOMATION	PANEL LAYOUT DIGESTER CONTROL PANEL 1 - CP-D8001
1-0101-S1197-ACBD-D102-001	AUTOMATION	PANEL LAYOUT DIGESTER CONTROL PANEL 2 - CP-D8002
1-0101-S1197-ACBD-G101-001	AUTOMATION	PANEL LAYOUT GRIT CONTROL PANEL - CP-G8001
1-0101-S1197-ACBD-M101-001	AUTOMATION	PANEL LAYOUT MAIN CONTROL PANEL - CP-M8001
1-0101-S1197-ACBD-P101-001	AUTOMATION	PANEL LAYOUT PRIMARY CLARIFIER CONTROL PANEL CP-P8001
1-0101-S1197-ACBD-R101-001	AUTOMATION	PANEL LAYOUT REACTORS CONTROL PANEL CP-R8001
1-0101-S1197-ACBD-S101-001	AUTOMATION	PANEL LAYOUT SECONDARY CLARIFIERS CONTROL PANEL 1 - CP-S8001
1-0101-S1197-ACBD-S102-001	AUTOMATION	PANEL LAYOUT SECONDARY CLARIFIERS CONTROL PANEL 2 - CP-S8002
1-0101-S1197-ACBD-U101-001	AUTOMATION	PANEL LAYOUT UV CONTROL PANEL 1 - CP-U8001
1-0101-S1197-ACBD-U102-001	AUTOMATION	PANEL LAYOUT UV CONTROL PANEL 2 - CP-U8001
1-0101-S1197-ACBD-W101-001	AUTOMATION	PANEL LAYOUT DEWATERING CONTROL PANEL 1 - CP-W8001
1-0101-S1197-ACBD-W102-001	AUTOMATION	PANEL LAYOUT DEWATERING CONTROL PANEL 2 - CP-W8002
1-0101-S1197-ACBD-W103-001	AUTOMATION	PANEL LAYOUT DEWATERING CONTROL PANEL 3 - CP-W8003
1-0101-S1197-ACBD-W001-001	AUTOMATION	PANEL LAYOUT NP-W900 DEWATERING NETWORK PANEL
1-0101-S1197-AGAD-E001-001	AUTOMATION	SUBSTATION BUILDING SERVER ROOM
1-0101-S1197-AGAD-L001-001	AUTOMATION	LECHATE ROOM
1-0101-S1197-AGAD-Y001-001	AUTOMATION	INSTRUMENTATION GENERAL ARRANGEMENT HAULED WASTEWATER 1
1-0101-S1197-AGAD-Y002-001	AUTOMATION	INSTRUMENTATION GENERAL ARRANGEMENT HAULED WASTEWATER 2

AECOM

60643525

REFERENCE DRAWING LIST

The City of Winnipeg
NEWPCC DCS MIGRATION - REFERENCE

111-1199 Pacific Avenue, Winnipeg MB, R3E 3S8

ISSUED FOR REVIEW - JUNE 23, 2023

Project Management Initials: Designer: KG Checked: SDS Approved: SRB ISO A1 594mm x 841mm

Last saved by: KATHERINE.GLEDSON(2023-07-21) Last Plotted: 2023-08-03
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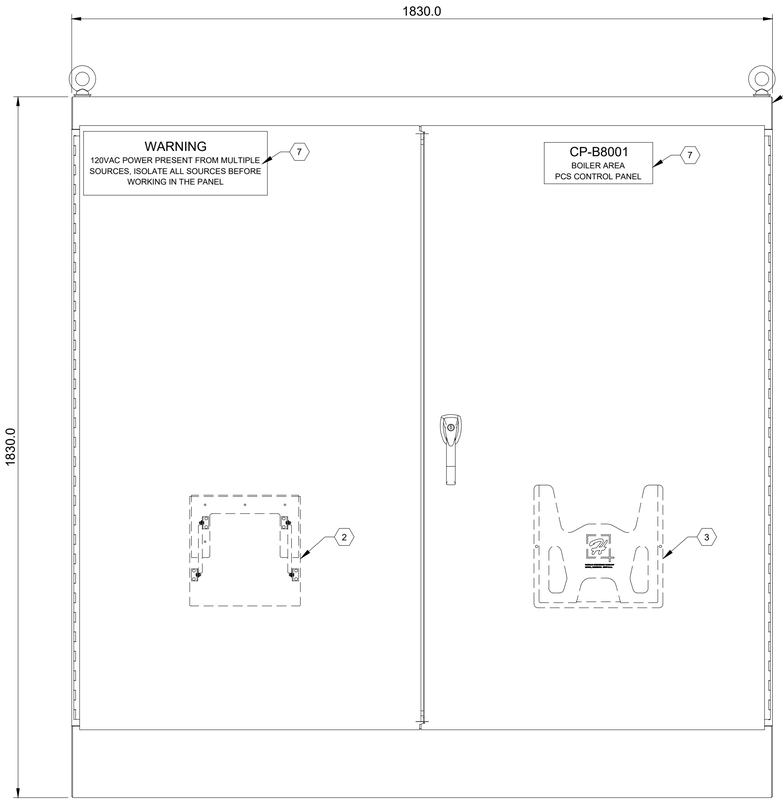
A1 SIZE - 594mm x 841mm



EXTERIOR PANEL VIEW

SCALE: 1:8

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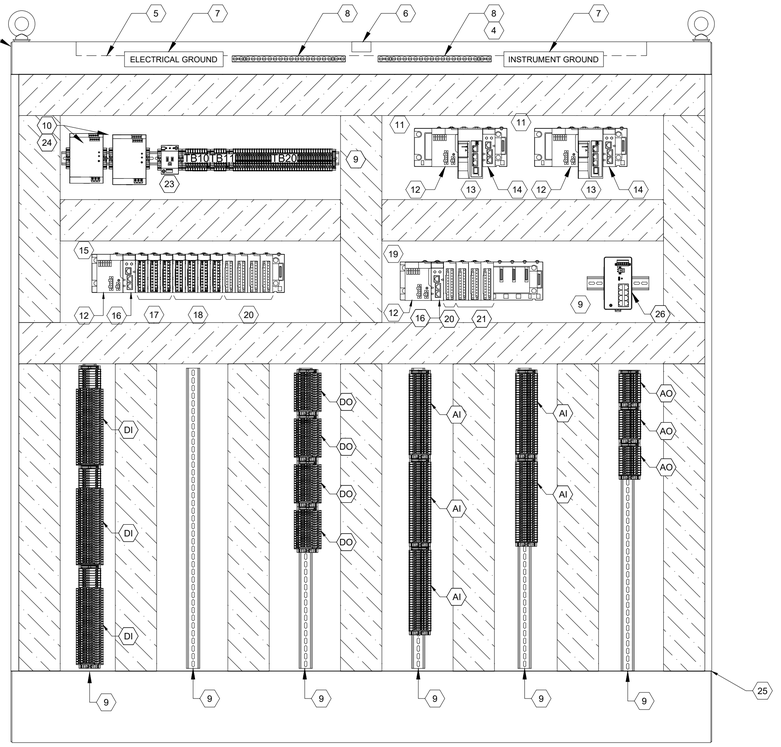
1:8



INTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

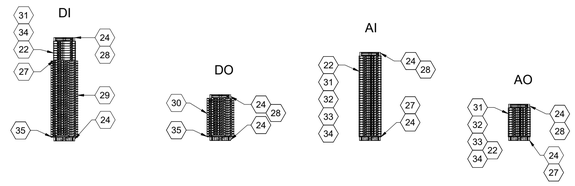
1:8

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	ENCLOSURE, FREE STAND, DOUBLE DOOR, NEMA 12, BACKPLANE	HAMMOND	1418ZYD24, 72ZYFW
2	1	FOLDING SHELF	HAMMOND	FDS1212GY
3	1	DOCUMENT HOLDER	HAMMOND	PKT1212S
4	AS REQ'D	ISOLATION STANDOFF	PANDUIT	UGB-IN-SO
5	1	PANEL LIGHT, 120VAC	HAMMOND	LEDA1S35
6	1	PANEL LIGHT SWITCH	HAMMOND	LDSWITCH
7	AS REQ'D	LAMACOID, WHITE BACKGROUND, BLACK TEXT	N/A	N/A
8	2	GROUND BAR, 20 TAPS	N/A	N/A
9	AS REQ'D	35mm TOP HAT DIN RAIL	PHOENIX CONTACT	0801733
10	2	24 VDC POWER SUPPLY	SOLA	SDN 20-24-100C
11	2	4 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-0400
12	4	POWER SUPPLY MODULE X80 - 24..48 V DC	SCHNEIDER ELECTRIC	BMX-CPS-3020
13	2	REDUNDANT PROCESSOR MODULE	SCHNEIDER ELECTRIC	BME-H58-6040
14	2	COMMUNICATION MODULE - ETHERNET CONTROL ROUTER WITH IP FORWARDING FUNCTION	SCHNEIDER ELECTRIC	BME-NOC-0321
15	1	12 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-1200
16	2	X80 RIO DROP E/IP STD	SCHNEIDER ELECTRIC	BMX-CRA-31210
17	3	DISCRETE INPUT MODULE X80 - 32 INPUTS - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDI-3202K
18	4	DISCRETE OUTPUT MODULE X80 - 16 OUTPUTS - SOLID STATE - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDO-1602
19	1	8 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-0800
20	5	ISOLATED ANALOG INPUT MODULE X80 - 8 INPUTS	SCHNEIDER ELECTRIC	BMX-AMI-0810
21	3	ANALOG OUTPUT MODULE X80 - 4 OUTPUTS	SCHNEIDER ELECTRIC	BMX-AMO-0410
22	AS REQ'D	TERMINAL BLOCK - FEED THROUGH UT	PHOENIX CONTACT	3046184
23	1	120V RECEPTACLE	PHOENIX CONTACT	0804155
24	AS REQ'D	TERMINAL BLOCK END CLAMP	PHOENIX CONTACT	3022218
25	AS REQ'D	WIRE WAY	PANDUIT	F4X3LG6, C4LG6
26	1	MODICON EXTENDED MANAGED SWITCH, 8 PORTS COPPER	SCHNEIDER ELECTRIC	MCSESM083F23F1
27	AS REQ'D	TERMINAL BLOCK END COVER UT	PHOENIX CONTACT	3047141
28	AS REQ'D	TERMINAL BLOCK MARKER	PHOENIX CONTACT	1004348
29	AS REQ'D	PLC-BSC-120UC/21 - RELAY MODULE	PHOENIX CONTACT	2966281
30	AS REQ'D	PLC-RSC- 24DC/21 - RELAY MODULE	PHOENIX CONTACT	2966171
31	AS REQ'D	FUSE PLUG-P-FU 5X20	PHOENIX CONTACT	3036806
32	AS REQ'D	KNIFE DISCONECT TERMINAL - UT	PHOENIX CONTACT	3046139
33	AS REQ'D	POTENTIAL - EARTH TERMINAL - UT	PHOENIX CONTACT	3046207
34	AS REQ'D	FUSED TERMINAL - UT	PHOENIX CONTACT	3046142
35	AS REQ'D	PLC-ATP BK - SEPARATING PLATE	PHOENIX CONTACT	2966841

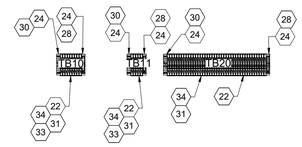
TYPICAL TERMINAL BLOCK LAYOUTS

SCALE: 1:8



POWER TERMINAL BLOCK LAYOUTS

SCALE: 1:8



INTEGRATOR NOTES:

1. SEE SPECIFICATION 40 90 00 FOR SCOPE.
2. INTEGRATOR SCOPE IS TO BUILD AND SUPPLY THE PANEL. INTEGRATOR TO COMPLETE BILL OF MATERIAL AS PART OF AS-BUILT SET.
3. ALL POWER WIRING TO BE TEW/ MTW 600V, 105°C INSULATION, STRANDED COPPER, 12 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
4. ALL CONTROL WIRING TO BE TEW/ MTW 300V, 105°C INSULATION, STRANDED COPPER, 16 AWG.
5. ALL ANALOG WIRING TO BE 18 AWG SHIELDED TWISTED PAIR, WITH INSULATION RATED AT 300V.
6. EXTERNAL PANEL MOUNTED COMPONENTS ARE TO BE LABELED.
7. ALL MAJOR COMPONENTS INSIDE THE PANEL TO BE LABELED WITH LAMACOIDS. LAMACOIDS TO BE MOUNTED ON THE BACKPLANE.
8. PROVIDE LIP BLADE LUGS FOR ALL WIRING.
9. ALL TERMINAL BLOCKS SHALL BE NUMBERED, COMPLETE WITH GROUP LABELING.
10. ALL WIRES SHALL BE TAGGED.
11. ROUTE ALL 24VDC WIRING SEPARATE FROM 120VAC WIRING.
12. ALL ETHERNET CABLING IS TO BE ATTACHED TO THE SIDE WALLS OF THE ENCLOSURE AND KEPT AS FAR AS POSSIBLE FROM 120VAC WIRING.
13. DOOR CLAMP BLOCKS TO BE REMOVED.
14. JUMPER BARS SHALL BE USED INSTEAD OF WIRE JUMPERS WHERE POSSIBLE.
15. PANEL DOORS TO BE SECURELY GROUNDED TO PANEL GROUND.
16. BACKPLANE TO BE FABRICATED TO ALLOW FOR MOUNTING ON TEMPORARY STAND AND TO BE REINSTALLED IN ENCLOSURE AFTER SWITCHOVER. SEE SPECIFICATION 40 90 00 AND APPENDIX A FOR MORE DETAILS.
17. PROVIDE CSA CERTIFICATION.
18. GROUP TERMINAL BLOCKS BASED ON IO TYPE AND FUNCTION. ENSURE A SINGLE TYPE OF IO IS IN EACH WIREWAY.
19. THE BILL OF MATERIAL IS INTENDED TO PROVIDE A GENERAL GUIDELINE ONLY, MAY NOT INCLUDE ALL MISCELLANEOUS MATERIALS. IT IS THE RESPONSIBILITY OF THE PANEL VENDOR TO PROVIDE ALL REQUIRED MATERIALS FOR COMPLETE AND OPERATING SYSTEM.

CONTRACTOR NOTES:

1. SEE SPECIFICATION 26 05 10 FOR SCOPE.
2. CONTRACTOR SCOPE IS TO INSTALL PANEL AND PANEL POWER FEEDS.
3. TEST ALL WIRING AND COMPONENTS FOR FUNCTIONAL OPERATION, CORRECT CONNECTION, CONTINUITY AND INSULATION INTEGRITY, THREE COPIES OF CERTIFIED TEST DOCUMENTATION ARE TO BE PROVIDED.
4. GROUP CABLE AND CONDUIT PENETRATIONS SUCH THAT THE INCOMING AND OUTGOING WIRES ARE CLOSEST TO THEIR TERMINAL BLOCKS AND ANALOG AND DIGITAL WIRES DO NOT CROSS INSIDE OF THE PANELS.

REF. NO.	DRAWING TITLE	DRAWING NUMBER
3	POWER DISTRIBUTION SCHEMATIC BOILER CONTROL PANEL CP-B8001	1-0101-AWDG-B001-001 1-0101-AWDG-B001-002
2	BOILER NETWORK DIAGRAM	1-0101-ANET-B101
1	BOILER AREA CONTROL ROOM	1-0101-AGAD-B001

REFERENCE DRAWING

NO.	REVISIONS	DATE	DESIGN	CHECK
0A	GC PACKAGE ISSUED FOR 100% REVIEW	2023-06-23	KG	SDS
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: KG	APPROVED BY: SRB
SCALE: 1:8	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:

CONSULTANT NO.:

ENGINEER'S SEAL

Winnipeg

THE CITY OF WINNIPEG

WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT

DCS MIGRATION

PANEL LAYOUT

BOILER CONTROL PANEL - CP-B8001

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-S1197-ACBD-B101	001	0A	A1

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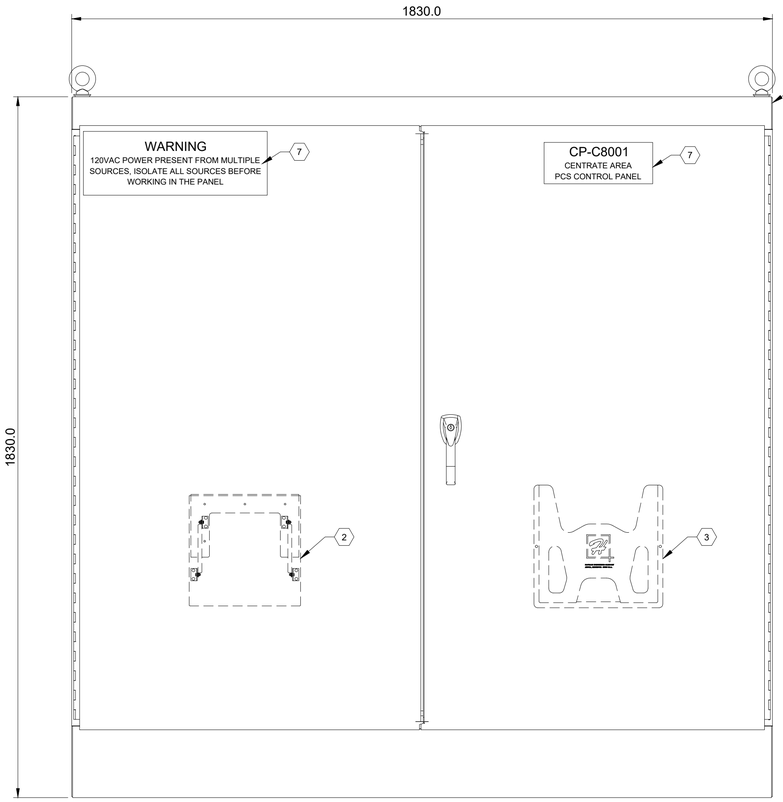
A1 SIZE - 594mm x 841mm



EXTERIOR PANEL VIEW

SCALE: 1:8

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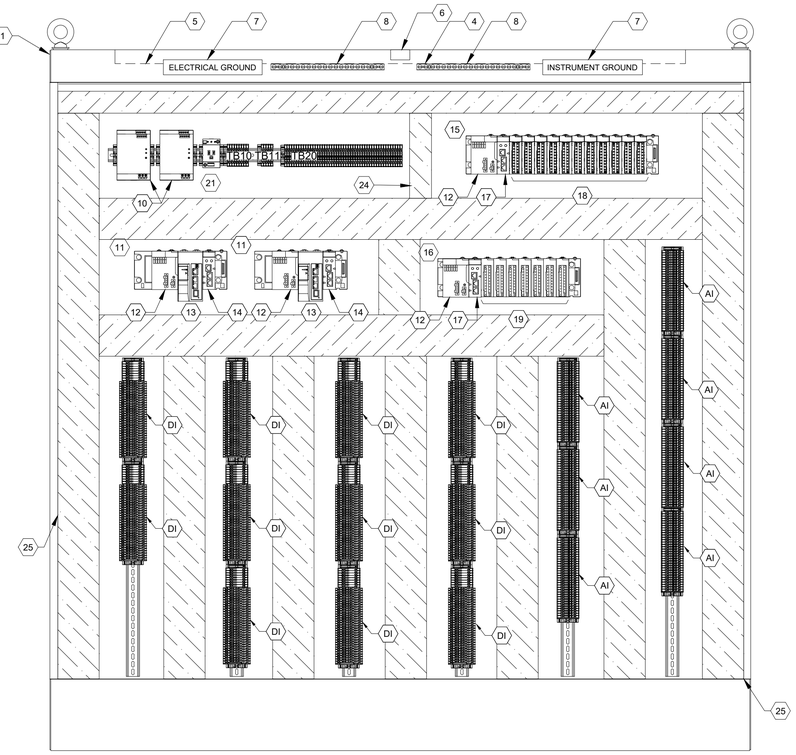
1:8



INTERIOR PANEL VIEW

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0 200 400 mm

1:8

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	ENCLOSURE, FREE STAND, DOUBLE DOOR, NEMA 12, BACKPLANE	HAMMOND	1418ZYD2, 72ZYFW
2	1	FOLDING SHELF	HAMMOND	FDS1212GY
3	1	DOCUMENT HOLDER	HAMMOND	PKT1212S
4	AS REQ'D	ISOLATION TERMINAL	PANDUIT	UGB-IN-SO
5	1	PANEL LIGHT	HAMMOND	LEDA1S35
6	1	PANEL LIGHT SWITCH	HAMMOND	LDSWITCH
7	AS REQ'D	LAMACOID, WHITE BACKGROUND, BLACK TEXT	N/A	N/A
8	2	GROUND BAR, 20 TAPS	N/A	N/A
9	AS REQ'D	35mm TOP HAT DIN RAIL	PHOENIX CONTACT	0801733
10	2	24 VDC POWER SUPPLY	SOLA	SDN 10-24-100C
11	2	4 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-0400
12	4	POWER SUPPLY MODULE X80 - 24..48 V DC	SCHNEIDER ELECTRIC	BMX-CPS-3020
13	2	REDUNDANT PROCESSOR MODULE	SCHNEIDER ELECTRIC	BME-H58-6040
14	2	COMMUNICATION MODULE - ETHERNET CONTROL ROUTER WITH IP FORWARDING FUNCTION	SCHNEIDER ELECTRIC	BME-NOC-0321
15	1	12 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-1200
16	1	8 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-0800
17	2	MODICON X80 RIO DROP E/IP STD	SCHNEIDER ELECTRIC	BMX-CRA-31210
18	11	DISCRETE INPUT MODULE X80 - 32 INPUTS - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDI-3202K
19	7	ISOLATED ANALOG INPUT MODULE X80 - 8 INPUTS	SCHNEIDER ELECTRIC	BMX-AMI-0810
20	AS REQ'D	TERMINAL BLOCK - FEED THROUGH UT	PHOENIX CONTACT	3046184
21	1	120V RECEPTACLE	PHOENIX CONTACT	804155
22	AS REQ'D	TERMINAL BLOCK END CLAMP	PHOENIX CONTACT	3022218
23	AS REQ'D	WIRE WAY	PANDUIT	F4X3LG6, C1G6
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25	AS REQ'D	FUSED TERMINAL - UT	PHOENIX CONTACT	3046142
26	AS REQ'D	TERMINAL BLOCK END COVER UT	PHOENIX CONTACT	3047141
27	AS REQ'D	TERMINAL BLOCK MARKER	PHOENIX CONTACT	1004348
28	AS REQ'D	PLC-BSC-120UC/21 - RELAY MODULE	PHOENIX CONTACT	2966281
29	AS REQ'D	PLC-RSC- 24DC/21 - RELAY MODULE	PHOENIX CONTACT	2966171
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31	AS REQ'D	KNIFE DISCONECT TERMINAL - UT	PHONEIX CONTACT	3046139
32	AS REQ'D	POTENTIAL - EARTH TERMINAL - UT	PHOENIX CONTACT	3046207
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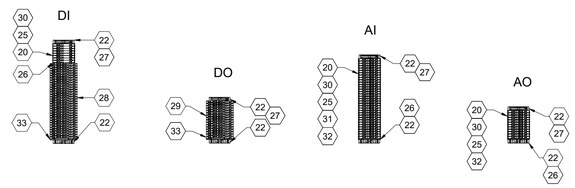
TYPICAL TERMINAL BLOCK LAYOUTS

SCALE: 1:8



POWER TERMINAL BLOCK LAYOUTS

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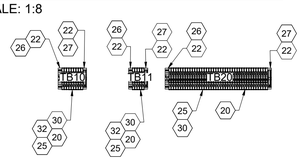

INTEGRATOR NOTES:

1. SEE SPECIFICATION 40 90 00 FOR SCOPE.
2. INTEGRATOR SCOPE IS TO BUILD AND SUPPLY THE PANEL. INTEGRATOR TO COMPLETE BILL OF MATERIAL AS PART OF AS-BUILT SET.
3. ALL POWER WIRING TO BE TEW/ MTW 600V, 105°C INSULATION, STRANDED COPPER, 12 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
4. ALL CONTROL WIRING TO BE TEW/ MTW 300V, 105°C INSULATION, STRANDED COPPER, 16 AWG.
5. ALL ANALOG WIRING TO BE 18 AWG SHIELDED TWISTED PAIR, WITH INSULATION RATED AT 300V.
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7. ALL MAJOR COMPONENTS INSIDE THE PANEL TO BE LABELED WITH LAMACOIDS. LAMACOIDS TO BE MOUNTED ON THE BACKPLANE.
8. PROVIDE LIP BLADE LUGS FOR ALL WIRING.
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10. ALL WIRES SHALL BE TAGGED.
11. ROUTE ALL 24VDC WIRING SEPARATE FROM 120VAC WIRING.
12. ALL ETHERNET CABLING IS TO BE ATTACHED TO THE SIDE WALLS OF THE ENCLOSURE AND KEPT AS FAR AS POSSIBLE FROM 120VAC WIRING.
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REF. NO.	DRAWING TITLE	DRAWING NUMBER
4	PANEL LAYOUT CENTRATE CONTROL PANEL 2 CP-C8002	1-0101-ACBD-C102-001
3	POWER DISTRIBUTION SCHEMATIC CENTRATE CONTROL PANEL CP-C8001	1-0101-AWDG-C001-001 1-0101-AWDG-C001-002
2	CENTRATE NETWORK DIAGRAM	1-0101-ANET-C101-001
1	CENTRATE AREA CONTROL ROOM	1-0101-AGAD-C001-001

REFERENCE DRAWING

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AECOM

DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: RC	APPROVED BY: SRB
SCALE: 1:8	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:

CONSULTANT NO.:

ENGINEER'S SEAL

Winnipeg

THE CITY OF WINNIPEG

WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT
DCS MIGRATION

PANEL LAYOUT
CENTRATE CONTROL PANEL 1 - CP-C8001

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-S1197-ACBD-C101	001	0A	A1

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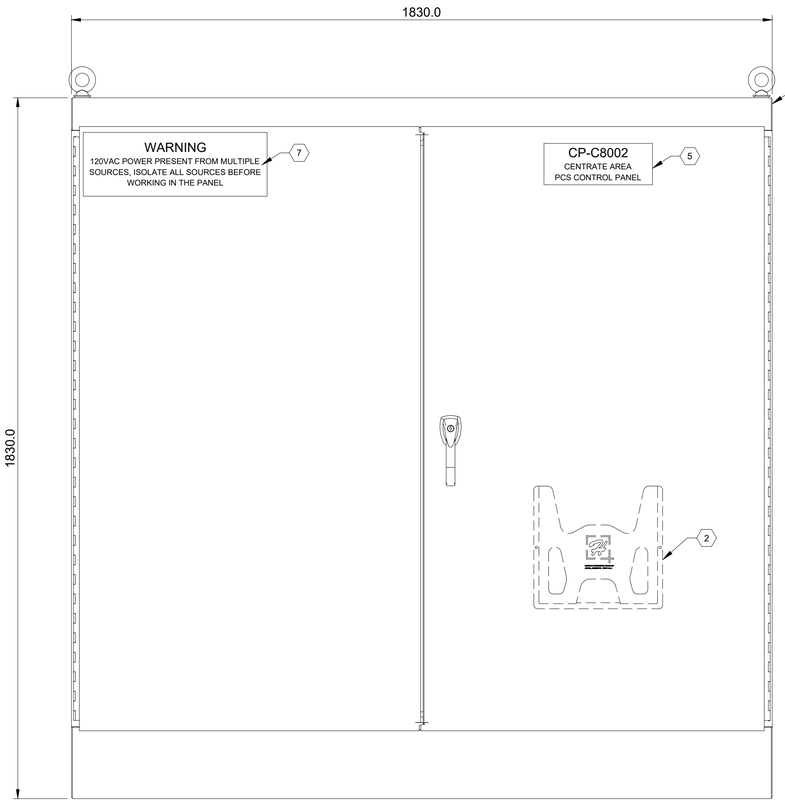
A1 SIZE - 594mm x 841mm



EXTERIOR PANEL VIEW

SCALE: 1:8

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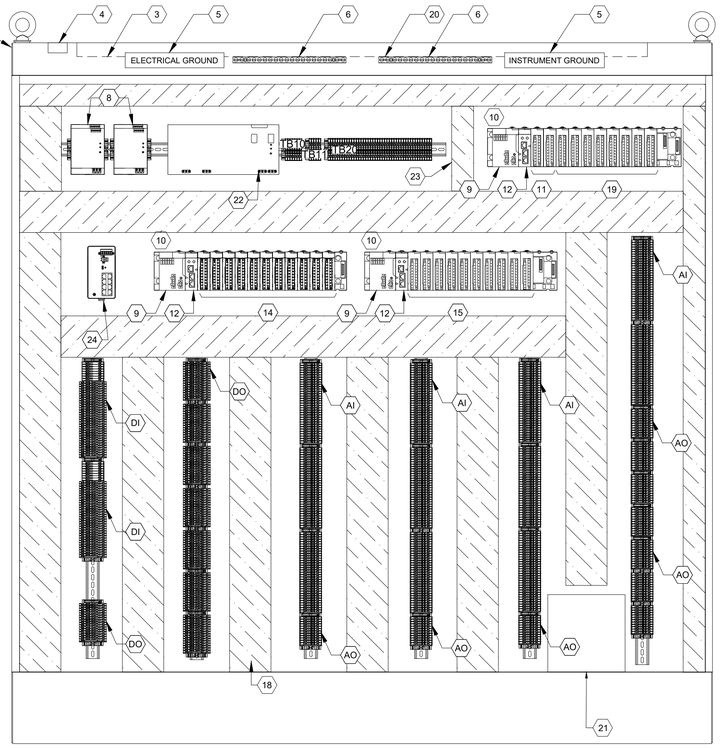
1:8



INTERIOR PANEL VIEW

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0 200 400 mm

1:8

INTEGRATOR NOTES:

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17. PROVIDE CSA CERTIFICATION.
18. GROUP TERMINAL BLOCKS BASED ON IO TYPE AND FUNCTION. ENSURE A SINGLE TYPE OF IO IS IN EACH WIREWAY.
19. THE BILL OF MATERIAL IS INTENDED TO PROVIDE A GENERAL GUIDELINE ONLY, MAY NOT INCLUDE ALL MISCELLANEOUS MATERIALS. IT IS THE RESPONSIBILITY OF THE PANEL VENDOR TO PROVIDE ALL REQUIRED MATERIALS FOR COMPLETE AND OPERATING SYSTEM.

CONTRACTOR NOTES:

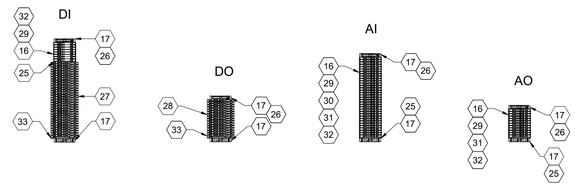
1. SEE SPECIFICATION 26 05 10 FOR SCOPE.
2. CONTRACTOR SCOPE IS TO INSTALL PANEL AND PANEL POWER FEEDS.
3. TEST ALL WIRING AND COMPONENTS FOR FUNCTIONAL OPERATION, CORRECT CONNECTION, CONTINUITY AND INSULATION INTEGRITY, THREE COPIES OF CERTIFIED TEST DOCUMENTATION ARE TO BE PROVIDED.
4. GROUP CABLE AND CONDUIT PENETRATIONS SUCH THAT THE INCOMING AND OUTGOING WIRES ARE CLOSEST TO THEIR TERMINAL BLOCKS AND ANALOG AND DIGITAL WIRES DO NOT CROSS INSIDE OF THE PANELS.

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	ENCLOSURE, FREE STAND, DOUBLE DOOR, NEMA 12, BACKPLANE	HAMMOND	1418ZYD2, 72ZYFW
2	1	DOCUMENT HOLDER	HAMMOND	PKT1212S
3	1	PANEL LIGHT, 120VAC	HAMMOND	LEDA1S35
4	1	PANEL LIGHT SWITCH	HAMMOND	LDSWITCH
5	AS REQ'D	LAMACOID, WHITE BACKGROUND, BLACK TEXT	N/A	N/A
6	2	GROUND BAR, 20 TAPS	N/A	N/A
7	AS REQ'D	35mm TOP HAT DIN RAIL	PHOENIX CONTACT	0801733
8	2	24 VDC POWER SUPPLY	SOLA	SDN 20-24-100C
9	4	POWER SUPPLY MODULE X80 - 24..48 V DC	SCHNEIDER ELECTRIC	BMX-CPS-3020
10	3	12 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-1200
11	2	DISCRETE INPUT MODULE X80 - 32 INPUTS - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDI-3202K
12	3	MODICON X80 RIO DROP E/IP STD	SCHNEIDER ELECTRIC	BMX-CRA-31210
13	AS REQ'D	TERMINAL BLOCK END COVER	PHOENIX CONTACT	D-UK 5
14	11	ISOLATED ANALOG INPUT MODULE X80 - 8 INPUTS	SCHNEIDER ELECTRIC	BMX-AMI-0810
15	10	ANALOG OUTPUT MODULE X80 - 4 OUTPUTS	SCHNEIDER ELECTRIC	BMX-AMO-0410
16	AS REQ'D	TERMINAL BLOCK - FEED THROUGH UT	PHOENIX CONTACT	3046184
17	AS REQ'D	TERMINAL BLOCK END CLAMP	PHOENIX CONTACT	3022218
18	AS REQ'D	WIRE WAY	PANDUIT	F4X3LG6,C4LG6
19	8	DISCRETE OUTPUT MODULE X80 - 16 OUTPUTS - SOLID STATE - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDO-1602
20	AS REQ'D	ISOLATION STANDOFF	PANDUIT	UGB-IN-SO
21	1	UPS BATTERY, 26Ah	PHOENIX CONTACT	2320429
22	1	120V 1KVA UPS	PHOENIX CONTACT	2320283
23	AS REQ'D	WIRE WAY	PANDUIT	F2X3LG6, C2LG6
24	1	MODICON EXTENDED MANAGED SWITCH, 8 PORTS COPPER	SCHNEIDER ELECTRIC	MCSESM083F23F1
25	AS REQ'D	TERMINAL BLOCK END COVER UT	PHOENIX CONTACT	3047141
26	AS REQ'D	TERMINAL BLOCK MARKER	PHOENIX CONTACT	1004348
27	AS REQ'D	PLC-BSC-120UC/21 - RELAY MODULE	PHOENIX CONTACT	2966281
28	AS REQ'D	PLC-RSC- 24DC/21 - RELAY MODULE	PHOENIX CONTACT	2966171
29	AS REQ'D	FUSE PLUG-P-FU 5X20	PHONEIX CONTACT	3036806
30	AS REQ'D	KNIFE DISCONECT TERMINAL - UT	PHONEIX CONTACT	3046139
31	AS REQ'D	POTENTIAL - EARTH TERMINAL - UT	PHOENIX CONTACT	3046207
32	AS REQ'D	FUSED TERMINAL - UT	PHOENIX CONTACT	3046142
33	AS REQ'D	PLC-ATP BK - SEPARATING PLATE	PHOENIX CONTACT	2966841

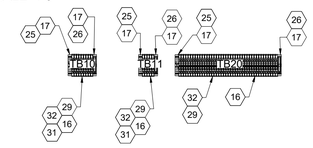
TYPICAL TERMINAL BLOCK LAYOUTS

SCALE: 1:8



POWER TERMINAL BLOCK LAYOUTS

SCALE: 1:8



REF. NO.	DRAWING TITLE	DRAWING NUMBER
4	PANEL LAYOUT CENTRATE CONTROL PANEL 1 CP-C8001	1-0101-ACBD-C101-001
3	POWER DISTRIBUTION SCHEMATIC CENTRATE CONTROL PANEL CP-C8002	1-0101-AWDG-C003-001 1-0101-AWDG-C003-002
2	CENTRATE NETWORK DIAGRAM	1-0101-ANET-C101-001
1	CENTRATE AREA CONTROL ROOM	1-0101-AGAD-C002-001

REFERENCE DRAWING

NO.	REVISIONS	DATE	DESIGN	CHECK
0A	GC PACKAGE ISSUED FOR 100% REVIEW	2023-06-23	KG	SDS
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: RC	APPROVED BY: SRB
SCALE: 1:8	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:

CONSULTANT NO.:

ENGINEER'S SEAL

Winnipeg

THE CITY OF WINNIPEG

WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT

DCS MIGRATION

PANEL LAYOUT

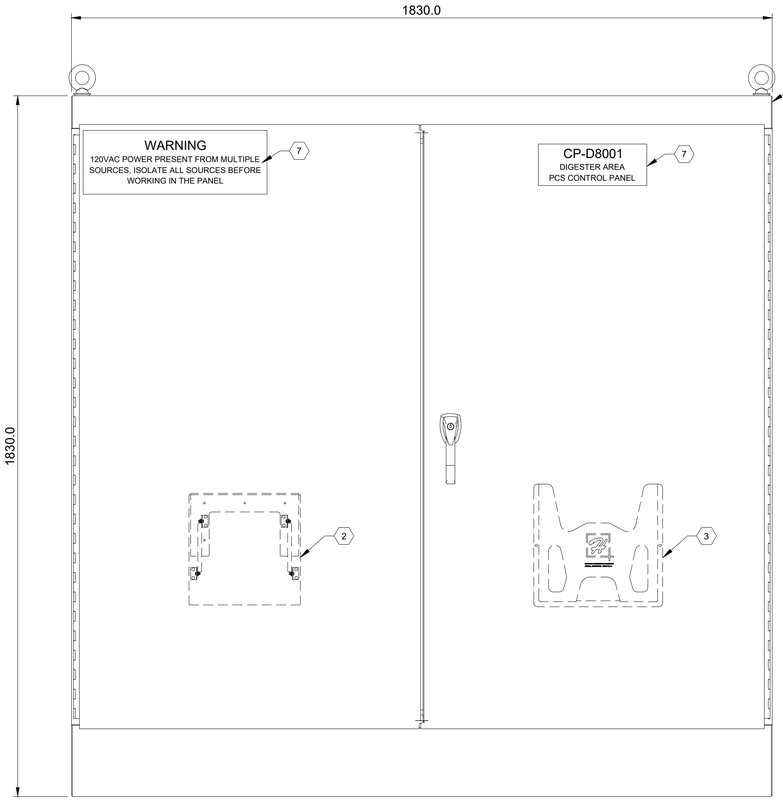
CENTRATE CONTROL PANEL 2 - CP-C8002

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-S1197-ACBD-C102	001	0A	A1

LAST SAVE: 2023/07/21 9:24 AM

PATH: C:\Users\Katherine.Gleiser\ACCDocs\AECOM\City of Winnipeg - NEWPCC Upgrades 2021\Project Files\900 Design Collaboration\60643255 DCS Migration\02 - Main Package\1-0101-ACBD-C101-102.dwg

A1 SIZE - 594mm x 841mm

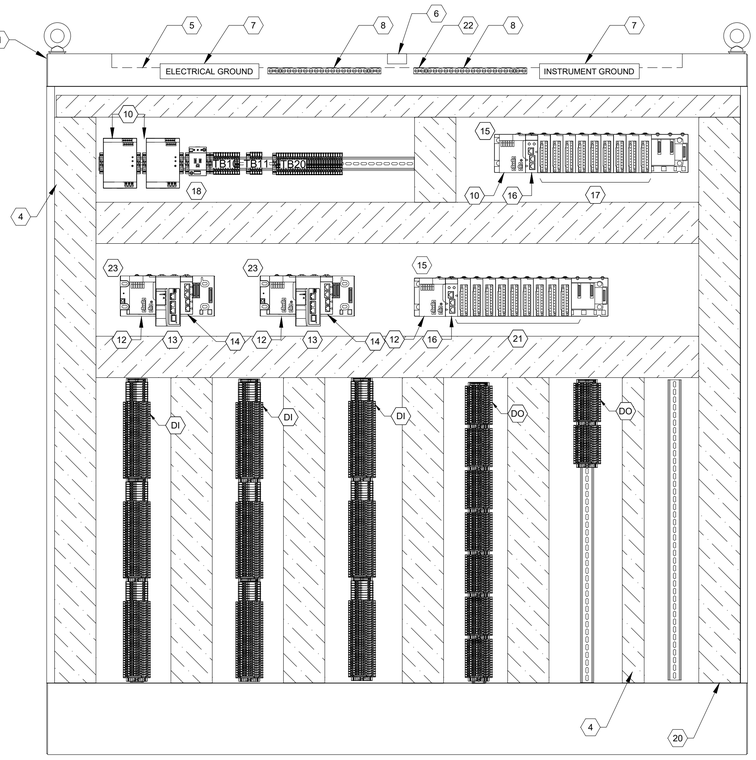


EXTERIOR PANEL VIEW

SCALE: 1:8

0 400 800 mm

1:8



INTERIOR PANEL VIEW

SCALE: 1:8

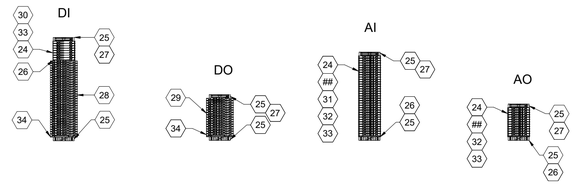
0 400 800 mm

1:8

BILL OF MATERIAL				
ITEM	QTY.	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	ENCLOSURE, FREE STAND, DOUBLE DOOR, STAINLESS, NEMA 4X, BACKPLANE	HAMMOND	HN4FS727224SS, 72ZYFW
2	1	FOLDING SHELF	HAMMOND	FDS1212GY
3	1	DOCUMENT HOLDER	HAMMOND	PKT1212S
4	1	WIRE WAY	PANDUIT	F2X3LG6, C2LG6
5	1	PANEL LIGHT, 120VAC	HAMMOND	LEDA1S35
6	1	PANEL LIGHT SWITCH	HAMMOND	LDSWITCH
7	AS REQ'D	LAMACOID, WHITE BACKGROUND, BLACK TEXT	N/A	N/A
8	2	GROUND BAR, 20 TAPS	N/A	N/A
9	AS REQ'D	35mm TOP HAT DIN RAIL	PHOENIX CONTACT	0801733
10	2	24 VDC POWER SUPPLY	SOLA	SDN 10-24-100C
11	0	8 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-0800
12	4	POWER SUPPLY MODULE X80 - 24..48 V DC	SCHNEIDER ELECTRIC	BMX-CPS-3020
13	2	REDUNDANT PROCESSOR MODULE	SCHNEIDER ELECTRIC	BME-H58-6040
14	2	COMMUNICATION MODULE - ETHERNET CONTROL ROUTER WITH IP FORWARDING FUNCTION	SCHNEIDER ELECTRIC	BME-NOC-0321
15	2	12 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-1200
16	2	MODICON X80 RIO DROP E/IP STD	SCHNEIDER ELECTRIC	BMX-CRA-31200
17	9	DISCRETE INPUT MODULE X80 - 32 INPUTS - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDI-3202K
18	1	120V RECEPTACLE	PHOENIX CONTACT	0804155
20	AS REQ'D	WIRE WAY	PANDUIT	F4X3LG6, C4LG6
21	9	DISCRETE OUTPUT MODULE X80 - 16 OUTPUTS - SOLID STATE - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDO-1602
22	AS REQ'D	ISOLATION STANDOFF	PANDUIT	UGB-IN-SO
23	1	4 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-0400
24	AS REQ'D	TERMINAL BLOCK - FEED THROUGH UT	PHOENIX CONTACT	3046184
25	AS REQ'D	TERMINAL BLOCK END CLAMP	PHOENIX CONTACT	3022218
26	AS REQ'D	TERMINAL BLOCK END COVER UT	PHOENIX CONTACT	3047141
27	AS REQ'D	TERMINAL BLOCK MARKER	PHOENIX CONTACT	1004348
28	AS REQ'D	PLC-BSC-120UC/21 - RELAY MODULE	PHOENIX CONTACT	2966281
29	AS REQ'D	PLC-RSC- 24DC/21 - RELAY MODULE	PHOENIX CONTACT	2966171
30	AS REQ'D	FUSE PLUG-P-FU 5X20	PHOENIX CONTACT	3036806
31	AS REQ'D	KNIFE DISCONECT TERMINAL - UT	PHOENIX CONTACT	3046139
32	AS REQ'D	POTENTIAL - EARTH TERMINAL - UT	PHOENIX CONTACT	3046207
33	AS REQ'D	FUSED TERMINAL - UT	PHOENIX CONTACT	3046142
34	AS REQ'D	PLC-ATP BK - SEPARATING PLATE	PHOENIX CONTACT	2966841

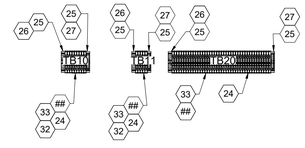
TYPICAL TERMINAL BLOCK LAYOUTS

SCALE: 1:8



POWER TERMINAL BLOCK LAYOUTS

SCALE: 1:8



INTEGRATOR NOTES:

1. SEE SPECIFICATION 40 90 00 FOR SCOPE.
2. INTEGRATOR SCOPE IS TO BUILD AND SUPPLY THE PANEL. INTEGRATOR TO COMPLETE BILL OF MATERIAL AS PART OF AS-BUILT SET.
3. ALL POWER WIRING TO BE TEW/ MTW 600V, 105°C INSULATION, STRANDED COPPER, 12 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
4. ALL CONTROL WIRING TO BE TEW/ MTW 300V, 105°C INSULATION, STRANDED COPPER, 16 AWG.
5. ALL ANALOG WIRING TO BE 18 AWG SHIELDED TWISTED PAIR, WITH INSULATION RATED AT 300V.
6. EXTERNAL PANEL MOUNTED COMPONENTS ARE TO BE LABELED.
7. ALL MAJOR COMPONENTS INSIDE THE PANEL TO BE LABELED WITH LAMACOIDS. LAMACOIDS TO BE MOUNTED ON THE BACKPLANE.
8. PROVIDE LIP BLADE LUGS FOR ALL WIRING.
9. ALL TERMINAL BLOCKS SHALL BE NUMBERED, COMPLETE WITH GROUP LABELING.
10. ALL WIRES SHALL BE TAGGED.
11. ROUTE ALL 24VDC WIRING SEPARATE FROM 120VAC WIRING.
12. ALL ETHERNET CABLING IS TO BE ATTACHED TO THE SIDE WALLS OF THE ENCLOSURE AND KEPT AS FAR AS POSSIBLE FROM 120VAC WIRING.
13. DOOR CLAMP BLOCKS TO BE REMOVED.
14. JUMPER BARS SHALL BE USED INSTEAD OF WIRE JUMPERS WHERE POSSIBLE.
15. PANEL DOORS TO BE SECURELY GROUNDED TO PANEL GROUND.
16. BACKPLANE TO BE FABRICATED TO ALLOW FOR MOUNTING ON TEMPORARY STAND AND TO BE REINSTALLED IN ENCLOSURE AFTER SWITCHOVER. SEE SPECIFICATION 40 90 00 AND APPENDIX A FOR MORE DETAILS.
17. PROVIDE CSA CERTIFICATION.
18. GROUP TERMINAL BLOCKS BASED ON IO TYPE AND FUNCTION. ENSURE A SINGLE TYPE OF IO IS IN EACH WIREWAY.
19. THE BILL OF MATERIAL IS INTENDED TO PROVIDE A GENERAL GUIDELINE ONLY, MAY NOT INCLUDE ALL MISCELLANEOUS MATERIALS. IT IS THE RESPONSIBILITY OF THE PANEL VENDOR TO PROVIDE ALL REQUIRED MATERIALS FOR COMPLETE AND OPERATING SYSTEM.

CONTRACTOR NOTES:

1. SEE SPECIFICATION 26 05 10 FOR SCOPE.
2. CONTRACTOR SCOPE IS TO INSTALL PANEL AND PANEL POWER FEEDS.
3. TEST ALL WIRING AND COMPONENTS FOR FUNCTIONAL OPERATION, CORRECT CONNECTION, CONTINUITY AND INSULATION INTEGRITY, THREE COPIES OF CERTIFIED TEST DOCUMENTATION ARE TO BE PROVIDED.
4. GROUP CABLE AND CONDUIT PENETRATIONS SUCH THAT THE INCOMING AND OUTGOING WIRES ARE CLOSEST TO THEIR TERMINAL BLOCKS AND ANALOG AND DIGITAL WIRES DO NOT CROSS INSIDE OF THE PANELS.

REF. NO.	DRAWING TITLE	DRAWING NUMBER
	REFERENCE DRAWING	
4	PANEL LAYOUT DIGESTER CONTROL PANEL 2 CP-D8002	1-0101-ACBD-D102-001
3	POWER DISTRIBUTION SCHEMATIC DIGESTER CONTROL PANEL CP-D8001	1-0101-AWDG-D001-001 1-0101-AWDG-D001-002
2	DIGESTER NETWORK DIAGRAM	1-0101-ANET-D101-001
1	DIGESTER AREA CONTROL ROOM	1-0101-AGAD-D001-001

NO.	REVISIONS	DATE	DESIGN	CHECK
0A	GC PACKAGE ISSUED FOR 100% REVIEW	2023-06-23	KG	SDS
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: KG	APPROVED BY: SRB
SCALE: 1:8	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:

CONSULTANT NO.:

ENGINEER'S SEAL

Winnipeg

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

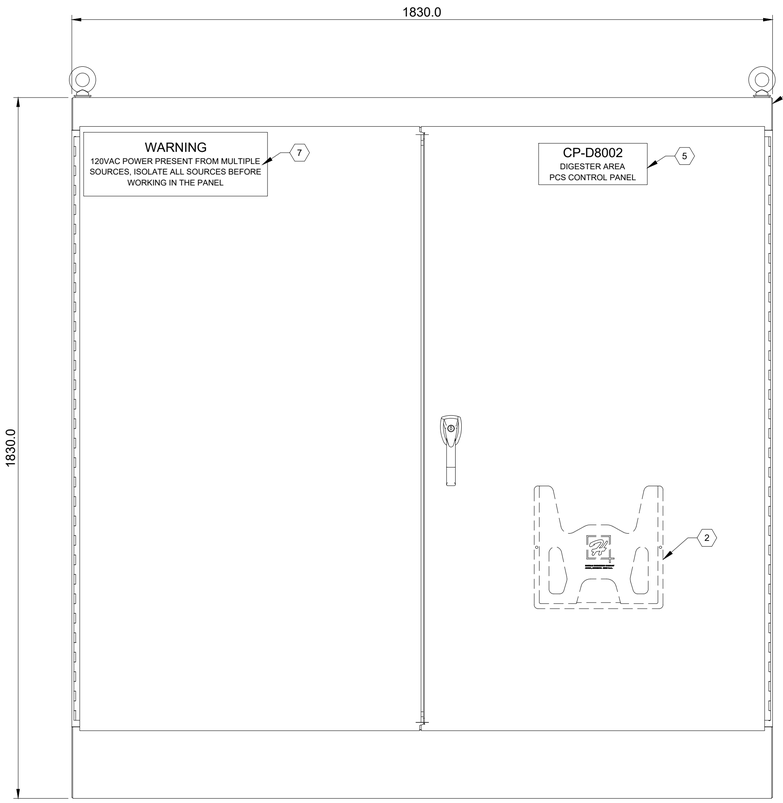
NORTH END SEWAGE TREATMENT PLANT
DCS MIGRATION

PANEL LAYOUT
DIGESTER CONTROL PANEL 1 - CP-D8001

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-S1197-ACBD-D101	001	0A	A1

LAST SAVE: 2023/07/21 9:25 AM
PATH: C:\Users\Katherine.Gleiser\ACCDocs\AECOM\City of Winnipeg - NEWPCC Upgrades 2021\Project Files\900 Design Collaboration\60643525 DCS Migration\02 - Main Package\1-0101-ACBD-D101-102.dwg

A1 SIZE - 594mm x 841mm

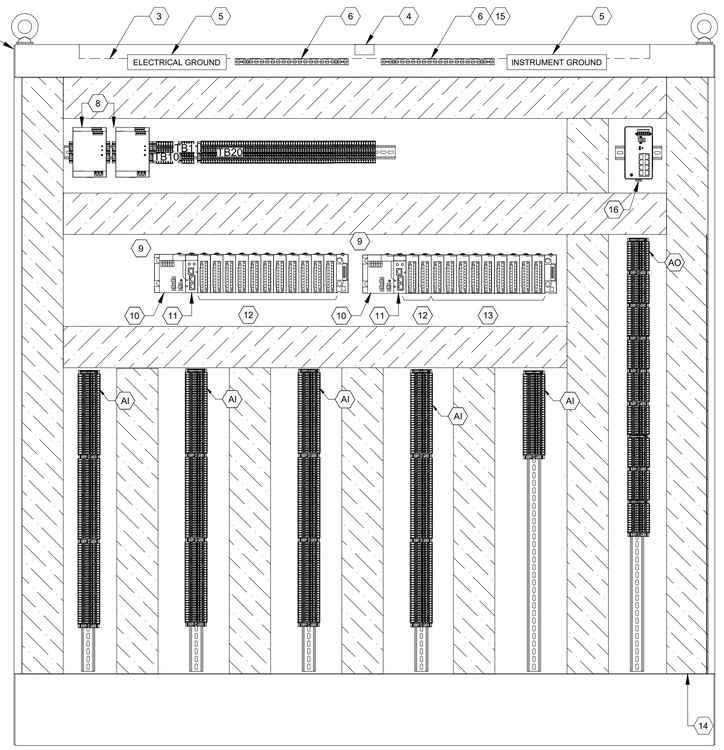


EXTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8



INTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

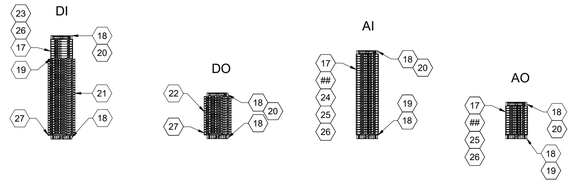
1:8

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	ENCLOSURE, FREE STAND, DOUBLE DOOR, STAINLESS, NEMA 4X, BACKPLANE	HAMMOND	HN4FS727224SS, 72ZYFW
2	1	DOCUMENT HOLDER	HAMMOND	PKT1212S
3	1	PANEL LIGHT, 120VAC	HAMMOND	LEDA1S35
4	1	PANEL LIGHT SWITCH	HAMMOND	LDSWITCH
5	AS REQ'D	LAMACOID, WHITE BACKGROUND, BLACK TEXT	N/A	N/A
6	2	GROUND BAR, 20 TAPS	N/A	N/A
7	AS REQ'D	35mm TOP HAT DIN RAIL	PHOENIX CONTACT	0801733
8	2	24 VDC POWER SUPPLY	SOLA	SDN 20-24-100C
9	2	12 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-1200
10	2	POWER SUPPLY MODULE X80 - 24..48 V DC	SCHNEIDER ELECTRIC	BMX-CPS-3020
11	2	MODICON X80 RIO DROP E/IP STD	SCHNEIDER ELECTRIC	BMX-CRA-31210
12	13	ISOLATED ANALOG INPUT MODULE X80 - 8 INPUTS	SCHNEIDER ELECTRIC	BMX-AMI-0810
13	9	ANALOG OUTPUT MODULE X80 - 4 OUTPUTS	SCHNEIDER ELECTRIC	BMX-AMO-0410
14	AS REQ'D	WIRE WAY	PANDUIT	F4X3LG6, C4LG6
15	AS REQ'D	ISOLATION STANDOFF	PANDUIT	UGB-IN-SO
16	1	MODICON EXTENDED MANAGED SWITCH, 8 PORTS COPPER	SCHNEIDER ELECTRIC	MCSESM083F23F1
17	AS REQ'D	TERMINAL BLOCK - FEED THROUGH UT	PHOENIX CONTACT	3046184
18	AS REQ'D	TERMINAL BLOCK END CLAMP	PHOENIX CONTACT	3022218
19	AS REQ'D	TERMINAL BLOCK END COVER UT	PHOENIX CONTACT	3047141
20	AS REQ'D	TERMINAL BLOCK MARKER	PHOENIX CONTACT	1004348
21	AS REQ'D	PLC-BSC-120UC/21 - RELAY MODULE	PHOENIX CONTACT	2966281
22	AS REQ'D	PLC-RSC- 24DC/21 - RELAY MODULE	PHOENIX CONTACT	2966171
23	AS REQ'D	FUSE PLUG-P-FU 5X20	PHOENIX CONTACT	3036806
24	AS REQ'D	KNIFE DISCONECT TERMINAL - UT	PHOENIX CONTACT	3046139
25	AS REQ'D	POTENTIAL - EARTH TERMINAL - UT	PHOENIX CONTACT	3046207
26	AS REQ'D	FUSED TERMINAL - UT	PHOENIX CONTACT	3046142
27	AS REQ'D	PLC-ATP BK - SEPARATING PLATE	PHOENIX CONTACT	2966841

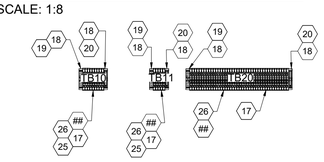
TYPICAL TERMINAL BLOCK LAYOUTS

SCALE: 1:8



POWER TERMINAL BLOCK LAYOUTS

SCALE: 1:8



INTEGRATOR NOTES:

1. SEE SPECIFICATION 40 90 00 FOR SCOPE.
2. INTEGRATOR SCOPE IS TO BUILD AND SUPPLY THE PANEL. INTEGRATOR TO COMPLETE BILL OF MATERIAL AS PART OF AS-BUILT SET.
3. ALL POWER WIRING TO BE TEW/ MTW 600V, 105°C INSULATION, STRANDED COPPER, 12 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
4. ALL CONTROL WIRING TO BE TEW/ MTW 300V, 105°C INSULATION, STRANDED COPPER, 16 AWG.
5. ALL ANALOG WIRING TO BE 18 AWG SHIELDED TWISTED PAIR, WITH INSULATION RATED AT 300V.
6. EXTERNAL PANEL MOUNTED COMPONENTS ARE TO BE LABELED.
7. ALL MAJOR COMPONENTS INSIDE THE PANEL TO BE LABELED WITH LAMACOIDS. LAMACOIDS TO BE MOUNTED ON THE BACKPLANE.
8. PROVIDE LIP BLADE LUGS FOR ALL WIRING.
9. ALL TERMINAL BLOCKS SHALL BE NUMBERED, COMPLETE WITH GROUP LABELING.
10. ALL WIRES SHALL BE TAGGED.
11. ROUTE ALL 24VDC WIRING SEPARATE FROM 120VAC WIRING.
12. ALL ETHERNET CABLING IS TO BE ATTACHED TO THE SIDE WALLS OF THE ENCLOSURE AND KEPT AS FAR AS POSSIBLE FROM 120VAC WIRING.
13. DOOR CLAMP BLOCKS TO BE REMOVED.
14. JUMPER BARS SHALL BE USED INSTEAD OF WIRE JUMPERS WHERE POSSIBLE.
15. PANEL DOORS TO BE SECURELY GROUNDED TO PANEL GROUND.
16. BACKPLANE TO BE FABRICATED TO ALLOW FOR MOUNTING ON TEMPORARY STAND AND TO BE REINSTALLED IN ENCLOSURE AFTER SWITCHOVER. SEE SPECIFICATION 40 90 00 AND APPENDIX A FOR MORE DETAILS.
17. PROVIDE CSA CERTIFICATION.
18. GROUP TERMINAL BLOCKS BASED ON IO TYPE AND FUNCTION. ENSURE A SINGLE TYPE OF IO IS IN EACH WIREWAY.
19. THE BILL OF MATERIAL IS INTENDED TO PROVIDE A GENERAL GUIDELINE ONLY, MAY NOT INCLUDE ALL MISCELLANEOUS MATERIALS. IT IS THE RESPONSIBILITY OF THE PANEL VENDOR TO PROVIDE ALL REQUIRED MATERIALS FOR COMPLETE AND OPERATING SYSTEM.

CONTRACTOR NOTES:

1. SEE SPECIFICATION 26 05 10 FOR SCOPE.
2. CONTRACTOR SCOPE IS TO INSTALL PANEL AND PANEL POWER FEEDS.
3. TEST ALL WIRING AND COMPONENTS FOR FUNCTIONAL OPERATION, CORRECT CONNECTION, CONTINUITY AND INSULATION INTEGRITY, THREE COPIES OF CERTIFIED TEST DOCUMENTATION ARE TO BE PROVIDED.
4. GROUP CABLE AND CONDUIT PENETRATIONS SUCH THAT THE INCOMING AND OUTGOING WIRES ARE CLOSEST TO THEIR TERMINAL BLOCKS AND ANALOG AND DIGITAL WIRES DO NOT CROSS INSIDE OF THE PANELS.

REF. NO.	DRAWING TITLE	DRAWING NUMBER
4	PANEL LAYOUT DIGESTER CONTROL PANEL 1 CP-D8001	1-0101-ACBD-D101-001
3	POWER DISTRIBUTION SCHEMATIC DIGESTER CONTROL PANEL CP-D8002	1-0101-AWDG-D002-001 1-0101-AWDG-D002-002
2	DIGESTER NETWORK DIAGRAM	1-0101-ANET-D101-001
1	DIGESTER AREA CONTROL ROOM	1-0101-AGAD-D001-001

REFERENCE DRAWING

NO.	REVISIONS	DATE	DESIGN	CHECK
0A	GC PACKAGE ISSUED FOR 100% REVIEW	2023-06-23	KG	SDS
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: SS	CHECKED BY: DA
DRAWN BY: MM	APPROVED BY: SRB
SCALE: 1:8	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:

CONSULTANT NO.:

ENGINEER'S SEAL

Winnipeg

THE CITY OF WINNIPEG

WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT

DCS MIGRATION

PANEL LAYOUT

DIGESTER CONTROL PANEL 2 - CP-D8002

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-S1197-ACBD-D102	001	0A	A1

LAST SAVE: 2023/07/21 9:25 AM

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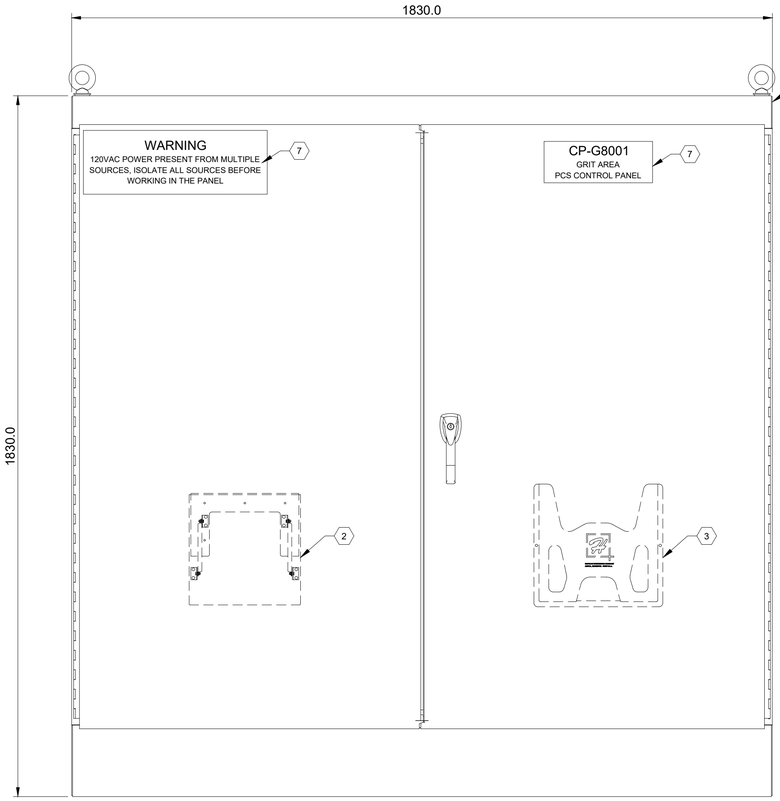
A1 SIZE - 594mm x 841mm

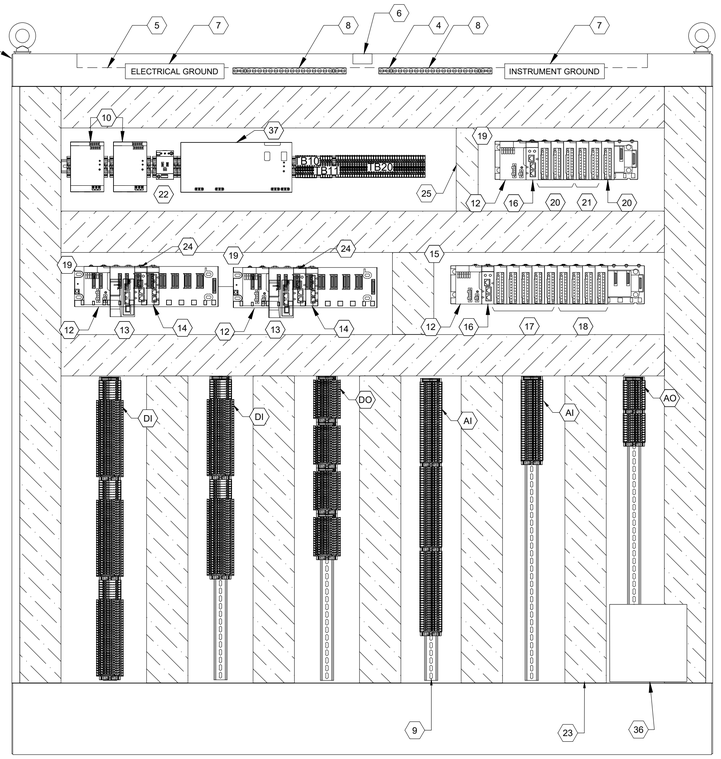


EXTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8



INTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8

INTEGRATOR NOTES:

1. SEE SPECIFICATION 40 90 00 FOR SCOPE.
2. INTEGRATOR SCOPE IS TO BUILD AND SUPPLY THE PANEL. INTEGRATOR TO COMPLETE BILL OF MATERIAL AS PART OF AS-BUILT SET.
3. ALL POWER WIRING TO BE TEW/ MTW 600V, 105°C INSULATION, STRANDED COPPER, 12 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
4. ALL CONTROL WIRING TO BE TEW/ MTW 300V, 105°C INSULATION, STRANDED COPPER, 16 AWG.
5. ALL ANALOG WIRING TO BE 18 AWG SHIELDED TWISTED PAIR, WITH INSULATION RATED AT 300V.
6. EXTERNAL PANEL MOUNTED COMPONENTS ARE TO BE LABELED.
7. ALL MAJOR COMPONENTS INSIDE THE PANEL TO BE LABELED WITH LAMACOIDS. LAMACOIDS TO BE MOUNTED ON THE BACKPLANE.
8. PROVIDE LIP BLADE LUGS FOR ALL WIRING.
9. ALL TERMINAL BLOCKS SHALL BE NUMBERED, COMPLETE WITH GROUP LABELING.
10. ALL WIRES SHALL BE TAGGED.
11. ROUTE ALL 24VDC WIRING SEPARATE FROM 120VAC WIRING.
12. ALL ETHERNET CABLING IS TO BE ATTACHED TO THE SIDE WALLS OF THE ENCLOSURE AND KEPT AS FAR AS POSSIBLE FROM 120VAC WIRING.
13. DOOR CLAMP BLOCKS TO BE REMOVED.
14. JUMPER BARS SHALL BE USED INSTEAD OF WIRE JUMPERS WHERE POSSIBLE.
15. PANEL DOORS TO BE SECURELY GROUNDED TO PANEL GROUND.
16. BACKPLANE TO BE FABRICATED TO ALLOW FOR MOUNTING ON TEMPORARY STAND AND TO BE REINSTALLED IN ENCLOSURE AFTER SWITCHOVER. SEE SPECIFICATION 40 90 00 AND APPENDIX A FOR MORE DETAILS.
17. PROVIDE CSA CERTIFICATION.
18. GROUP TERMINAL BLOCKS BASED ON IO TYPE AND FUNCTION. ENSURE A SINGLE TYPE OF IO IS IN EACH WIREWAY.
19. THE BILL OF MATERIAL IS INTENDED TO PROVIDE A GENERAL GUIDELINE ONLY, MAY NOT INCLUDE ALL MISCELLANEOUS MATERIALS. IT IS THE RESPONSIBILITY OF THE PANEL VENDOR TO PROVIDE ALL REQUIRED MATERIALS FOR COMPLETE AND OPERATING SYSTEM.

CONTRACTOR NOTES:

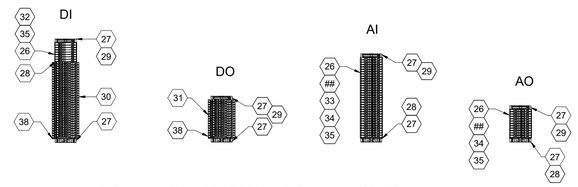
1. SEE SPECIFICATION 26 05 10 FOR SCOPE.
2. CONTRACTOR SCOPE IS TO INSTALL PANEL AND PANEL POWER FEEDS.
3. TEST ALL WIRING AND COMPONENTS FOR FUNCTIONAL OPERATION, CORRECT CONNECTION, CONTINUITY AND INSULATION INTEGRITY, THREE COPIES OF CERTIFIED TEST DOCUMENTATION ARE TO BE PROVIDED.
4. GROUP CABLE AND CONDUIT PENETRATIONS SUCH THAT THE INCOMING AND OUTGOING WIRES ARE CLOSEST TO THEIR TERMINAL BLOCKS AND ANALOG AND DIGITAL WIRES DO NOT CROSS INSIDE OF THE PANELS.

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	ENCLOSURE, FREE STAND, DOUBLE DOOR, NEMA 12, BACKPLANE	HAMMOND	1418ZYD24, 72ZYFW
2	1	FOLDING SHELF	HAMMOND	PKT1212S
3	1	DOCUMENT HOLDER	HAMMOND	PKT1212S
4	AS REQ'D	ISOLATION STANDOFF	PANDUIT	UGB-IN-SO
5	1	PANEL LIGHT, 120VAC	HAMMOND	LEDA1S35
6	1	PANEL LIGHT SWITCH	HAMMOND	LDSWITCH
7	AS REQ'D	LAMACOID, WHITE BACKGROUND, BLACK TEXT	N/A	N/A
8	2	GROUND BAR, 20 TAPS	N/A	N/A
9	AS REQ'D	35mm TOP HAT DIN RAIL	PHOENIX CONTACT	0801733
10	2	24 VDC POWER SUPPLY	SOLA	SDN 20-24-100C
11	2	8 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-0800
12	4	POWER SUPPLY MODULE X80 - 24..48 V DC	SCHNEIDER ELECTRIC	BMX-CPS-3020
13	2	REDUNDANT PROCESSOR MODULE	SCHNEIDER ELECTRIC	BME-H58-6040
14	2	COMMUNICATION MODULE - ETHERNET CONTROL ROUTER WITH IP FORWARDING FUNCTION	SCHNEIDER ELECTRIC	BME-NOC-0321
15	1	12 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-1200
16	2	MODICON X80 RIO DROP E/IP STD	SCHNEIDER ELECTRIC	BMX-CRA-31210
17	5	DISCRETE INPUT MODULE X80 - 32 INPUTS - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDI-3202K
18	4	DISCRETE OUTPUT MODULE X80 - 16 OUTPUTS - SOLID STATE - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDO-1602
19	1	8 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-0800
20	4	ISOLATED ANALOG INPUT MODULE X80 - 8 INPUTS	SCHNEIDER ELECTRIC	BMX-AMI-0810
21	2	ANALOG OUTPUT MODULE X80 -4 OUTPUTS	SCHNEIDER ELECTRIC	BMX-AMO-0410
22	1	120V RECEPTACLE	PHOENIX CONTACT	0804155
23	AS REQ'D	WIRE WAY	PANDUIT	F4X3LG6, C4LG6
24	2	FIBRE CONVERTER MODULE MODICON X80, MULTIMODE	SCHNEIDER ELECTRIC	BMXNRP0200
25	AS REQ'D	WIRE WAY	PANDUIT	F2X3LG6, C2LG6
26	AS REQ'D	TERMINAL BLOCK - FEED THROUGH UT	PHOENIX CONTACT	3046184
27	AS REQ'D	TERMINAL BLOCK END CLAMP	PHOENIX CONTACT	3022218
28	AS REQ'D	TERMINAL BLOCK END COVER UT	PHOENIX CONTACT	3047141
29	AS REQ'D	TERMINAL BLOCK MARKER	PHOENIX CONTACT	1004348
30	AS REQ'D	PLC-BSC-120UC/21 - RELAY MODULE	PHOENIX CONTACT	2966281
31	AS REQ'D	PLC-RSC- 24DC/21 - RELAY MODULE	PHOENIX CONTACT	2966171
32	AS REQ'D	FUSE PLUG-P-FU 5X20	PHONEIX CONTACT	3036806
33	AS REQ'D	KNIFE DISCONECT TERMINAL - UT	PHONEIX CONTACT	3046139
34	AS REQ'D	POTENTIAL - EARTH TERMINAL - UT	PHOENIX CONTACT	3046207
35	AS REQ'D	FUSED TERMINAL - UT	PHOENIX CONTACT	3046142
36	1	UPS BATTERY, 26Ah	PHOENIX CONTACT	2320429
37	1	120V 500VA UPS	PHOENIX CONTACT	1067327
38	AS REQ'D	PLC-ATP BK - SEPARATING PLATE	PHOENIX CONTACT	2966841

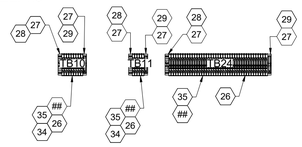
TYPICAL TERMINAL BLOCK LAYOUTS

SCALE: 1:8



POWER TERMINAL BLOCK LAYOUTS

SCALE: 1:8



REF. NO.	DRAWING TITLE	DRAWING NUMBER
3	POWER DISTRIBUTION SCHEMATIC GRIT CONTROL PANEL CP-G8001	1-0101-AWDG-G001-001 1-0101-AWDG-G001-002
2	GRIT NETWORK DIAGRAM	1-0101-ANET-G101-001
1	GRIT AREA CONTROL ROOM	1-0101-AGAD-G001-001

REFERENCE DRAWING

NO.	REVISIONS	DATE	DESIGN	CHECK
0A	GC PACKAGE ISSUED FOR 100% REVIEW	2023-06-23	KG	SDS
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: RC	APPROVED BY: SRB
SCALE: 1:8	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:

CONSULTANT NO.:

ENGINEER'S SEAL

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT
DCS MIGRATION

PANEL LAYOUT
GRIT CONTROL PANEL - CP-G8001

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-S1197-ACBD-G101	001	0A	A1

LAST SAVE: 2023/07/21 9:24 AM
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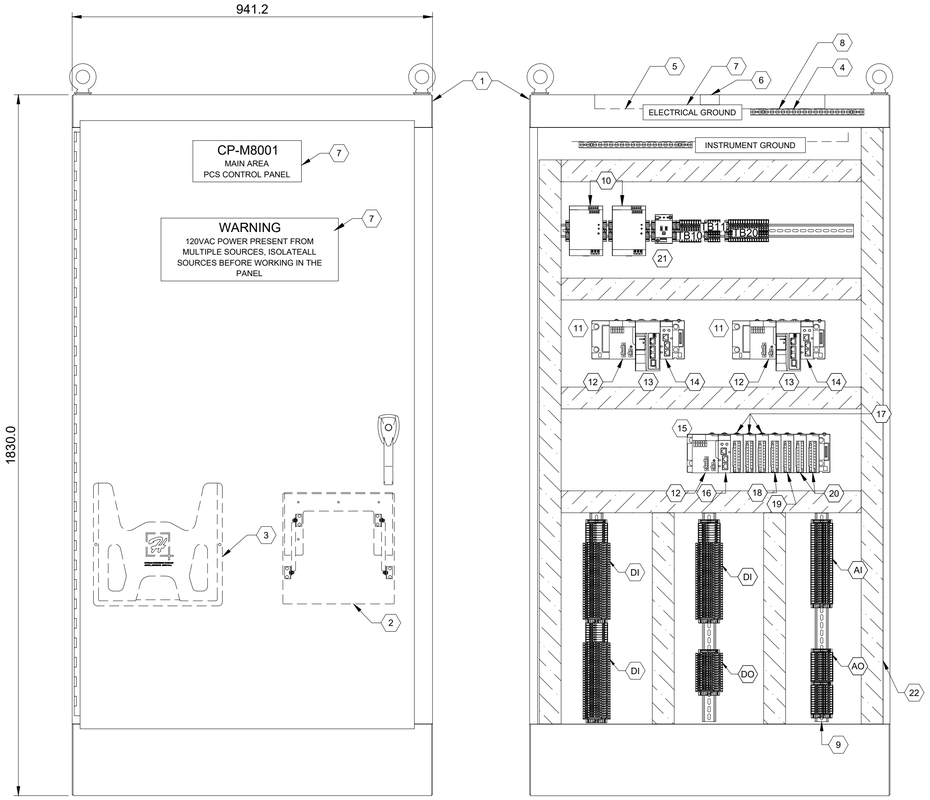

EXTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8

INTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8

INTEGRATOR NOTES:

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11. ROUTE ALL 24VDC WIRING SEPARATE FROM 120VAC WIRING.
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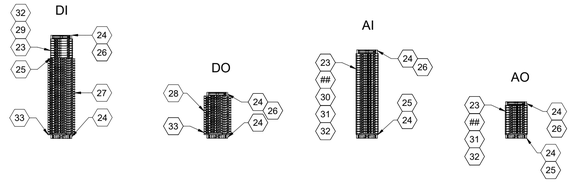
BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	ENCLOSURE, FREE STAND, NEMA 12, BACKPLANE	HAMMOND	1418Y24, 72YFW
2	1	FOLDING SHELF	HAMMOND	FDS1212GY
3	1	DOCUMENT HOLDER	HAMMOND	PKT1212S
4	AS REQ'D	ISOLATION STANDOFF	PANDUIT	UGB-IN-SO
5	1	PANEL LIGHT, 120VAC	HAMMOND	LEDA1S35
6	1	PANEL LIGHT SWITCH	HAMMOND	LDSWITCH
7	AS REQ'D	LAMACOID, WHITE BACKGROUND, BLACK TEXT	N/A	N/A
8	1	GROUND BAR, 20 TAPS	N/A	N/A
9	AS REQ'D	35mm TOP HAT DIN RAIL	PHOENIX CONTACT	0801733
10	2	24 VDC POWER SUPPLY	SOLA	SDN 10-24-100C
11	2	4 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-0400
12	3	POWER SUPPLY MODULE X80 - 24..48 V DC	SCHNEIDER ELECTRIC	BMX-CPS-3020
13	2	REDUNDANT PROCESSOR MODULE	SCHNEIDER ELECTRIC	BME-H58-6040
14	2	COMMUNICATION MODULE - ETHERNET CONTROL ROUTER WITH IP FORWARDING FUNCTION	SCHNEIDER ELECTRIC	BME-NOC-0321
15	1	8 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-0800
16	1	MODICON X80 RIO DROP E/IP STD	SCHNEIDER ELECTRIC	BMX-CRA-31210
17	3	DISCRETE INPUT MODULE X80 - 32 INPUTS - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDI-3202K
18	1	DISCRETE OUTPUT MODULE X80 - 16 OUTPUTS - SOLID STATE - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDO-1602
19	1	ISOLATED ANALOG INPUT MODULE X80 - 8 INPUTS	SCHNEIDER ELECTRIC	BMX-AMI-0810
20	2	ANALOG OUTPUT MODULE X80 - 4 OUTPUTS	SCHNEIDER ELECTRIC	BMX-AMO-0410
21	1	120VAC RECEPTACLE	PHOENIX CONTACT	804155
22	AS REQ'D	WIRE WAY	PANDUIT	F2X3LG6, C2LG6
23	AS REQ'D	TERMINAL BLOCK - FEED THROUGH UT	PHOENIX CONTACT	3046184
24	AS REQ'D	TERMINAL BLOCK END CLAMP	PHOENIX CONTACT	3022218
25	AS REQ'D	TERMINAL BLOCK END COVER UT	PHOENIX CONTACT	3047141
26	AS REQ'D	TERMINAL BLOCK MARKER	PHOENIX CONTACT	1004348
27	AS REQ'D	PLC-BSC-120UC/21 - RELAY MODULE	PHOENIX CONTACT	2966281
28	AS REQ'D	PLC-RSC- 24DC/21 - RELAY MODULE	PHOENIX CONTACT	2966171
29	AS REQ'D	FUSE PLUG-P-FU 5X20	PHONEIX CONTACT	3036806
30	AS REQ'D	KNIFE DISCONECT TERMINAL - UT	PHONEIX CONTACT	3046139
31	AS REQ'D	POTENTIAL - EARTH TERMINAL - UT	PHOENIX CONTACT	3046207
32	AS REQ'D	FUSED TERMINAL - UT	PHOENIX CONTACT	3046142
33	AS REQ'D	PLC-ATP BK - SEPARATING PLATE	PHOENIX CONTACT	2966841

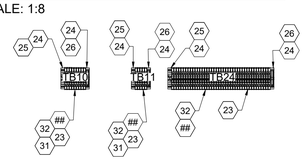
TYPICAL TERMINAL BLOCK LAYOUTS

SCALE: 1:8



POWER TERMINAL BLOCK LAYOUTS

SCALE: 1:8



REF. NO.	DRAWING TITLE	DRAWING NUMBER
3	POWER DISTRIBUTION SCHEMATIC MAIN CONTROL PANEL CP-M8001	1-0101-AWDG-M001-001
2	MAIN NETWORK DIAGRAM	1-0101-ANET-M101-001
1	MAIN AREA CONTROL ROOM	1-0101-AGAD-M001-001

REFERENCE DRAWING

NO.	REVISIONS	DATE	DESIGN	CHECK
0A	GC PACKAGE ISSUED FOR 100% REVIEW	2023-06-23	KG	SDS
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: TW	APPROVED BY: SRB
SCALE: 1:8	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:
CONSULTANT NO.:	

ENGINEER'S SEAL

Winnipeg

THE CITY OF WINNIPEG

WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT

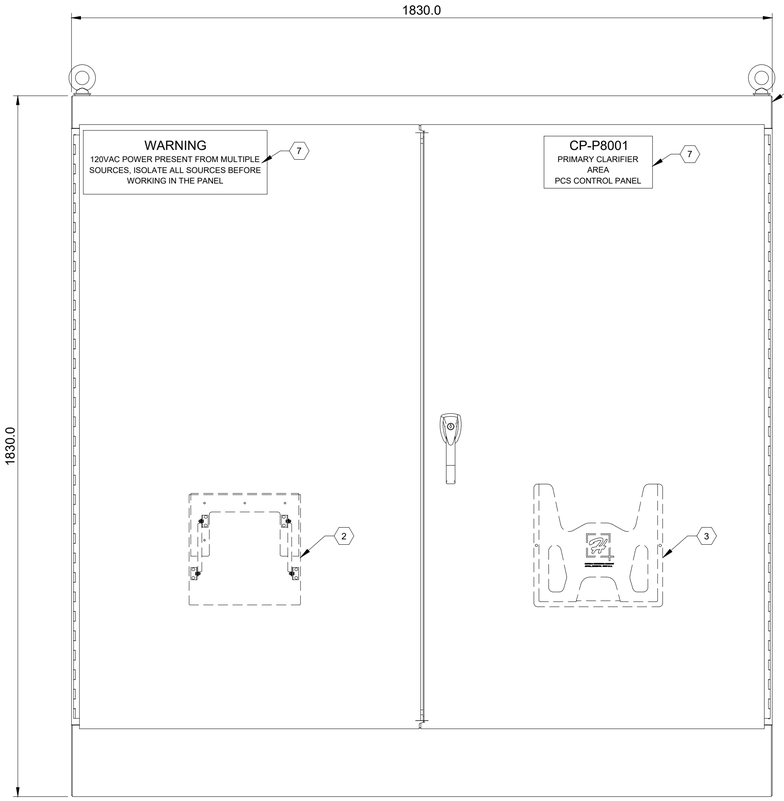
DCS MIGRATION

PANEL LAYOUT

MAIN BUILDING CONTROL PANEL - CP-M8001

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-S1197-ACBD-M101	001	0A	A1

A1 SIZE - 594mm x 841mm

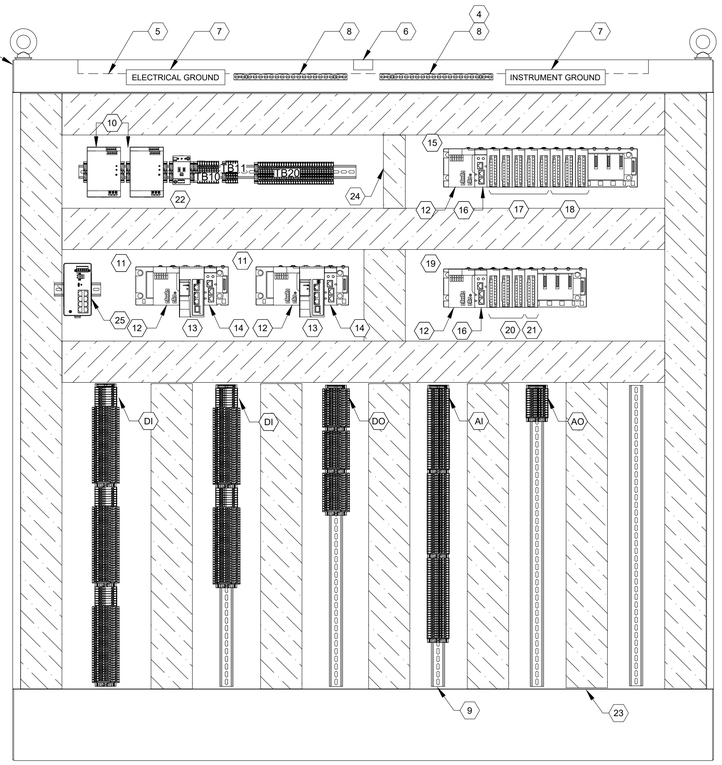


EXTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8



INTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	ENCLOSURE, FREE STAND, DOUBLE DOOR, STAINLESS, NEMA 4X, BACK PLANE	HAMMOND	HN4FS727224SS, 72ZYFW
2	1	FOLDING SHELF	HAMMOND	FDS1212GY
3	1	DOCUMENT HOLDER	HAMMOND	PKT1212S
4	AS REQ'D	ISOLATION STANDOFF	PANDUIT	UGB-IN-SO
5	1	PANEL LIGHT	HAMMOND	LEDA1S35
6	1	PANEL LIGHT SWITCH	HAMMOND	LDSWITCH
7	AS REQ'D	LAMACOID, WHITE BACKGROUND, BLACK TEXT	N/A	N/A
8	2	GROUND BAR, 20 TAPS	N/A	N/A
9	AS REQ'D	35mm TOP HAT DIN RAIL	PHOENIX CONTACT	0801733
10	2	24 VDC POWER SUPPLY	SOLA	SDN 20-24-100C
11	2	4 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-0400
12	4	POWER SUPPLY MODULE X80 - 24..48 V DC	SCHNEIDER ELECTRIC	BMX-CPS-3020
13	2	REDUNDANT PROCESSOR MODULE	SCHNEIDER ELECTRIC	BME-H58-6040
14	2	COMMUNICATION MODULE - ETHERNET CONTROL ROUTER WITH IP FORWARDING FUNCTION	SCHNEIDER ELECTRIC	BME-NOC-0321
15	1	12 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-1200
16	2	MODICON X80 RIO DROP E/IP STD	SCHNEIDER ELECTRIC	BMX-CRA-31210
17	5	DISCRETE INPUT MODULE X80 - 32 INPUTS - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDI-3202K
18	3	DISCRETE OUTPUT MODULE X80 - 16 OUTPUTS - SOLID STATE - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDO-1602
19	1	8 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-0800
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22	1	120V RECEPTACLE	PHOENIX CONTACT	0804155
23	AS REQ'D	WIRE WAY	PANDUIT	F4X3LG6, C4LG6
24	AS REQ'D	WIRE WAY	PANDUIT	F2X3LG6, C2LG6
25	1	MODICON EXTENDED MANAGED SWITCH, 8 PORTS COPPER	SCHNEIDER ELECTRIC	MCSESM083F23F1
26	AS REQ'D	TERMINAL BLOCK - FEED THROUGH UT	PHOENIX CONTACT	3046184
27	AS REQ'D	TERMINAL BLOCK END CLAMP	PHOENIX CONTACT	3022218
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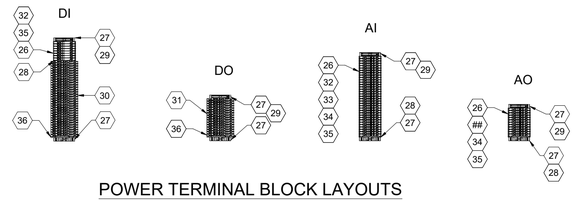
36	AS REQ'D	PLC-ATP BK - SEPARATING PLATE	PHOENIX CONTACT	2966841

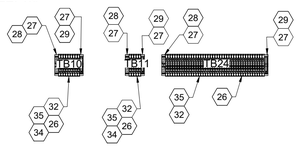
TYPICAL TERMINAL BLOCK LAYOUTS

SCALE: 1:6



POWER TERMINAL BLOCK LAYOUTS

SCALE: 1:6



INTEGRATOR NOTES:

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11. ROUTE ALL 24VDC WIRING SEPARATE FROM 120VAC WIRING.
12. ALL ETHERNET CABLING IS TO BE ATTACHED TO THE SIDE WALLS OF THE ENCLOSURE AND KEPT AS FAR AS POSSIBLE FROM 120VAC WIRING.
13. DOOR CLAMP BLOCKS TO BE REMOVED.
14. JUMPER BARS SHALL BE USED INSTEAD OF WIRE JUMPERS WHERE POSSIBLE.
15. PANEL DOORS TO BE SECURELY GROUNDED TO PANEL GROUND.
16. BACKPLANE TO BE FABRICATED TO ALLOW FOR MOUNTING ON TEMPORARY STAND AND TO BE REINSTALLED IN ENCLOSURE AFTER SWITCHOVER. SEE SPECIFICATION 40 90 00 AND APPENDIX A FOR MORE DETAILS.
17. PROVIDE CSA CERTIFICATION.
18. GROUP TERMINAL BLOCKS BASED ON IO TYPE AND FUNCTION. ENSURE A SINGLE TYPE OF IO IS IN EACH WIREWAY.
19. THE BILL OF MATERIAL IS INTENDED TO PROVIDE A GENERAL GUIDELINE ONLY, MAY NOT INCLUDE ALL MISCELLANEOUS MATERIALS. IT IS THE RESPONSIBILITY OF THE PANEL VENDOR TO PROVIDE ALL REQUIRED MATERIALS FOR COMPLETE AND OPERATING SYSTEM.

CONTRACTOR NOTES:

1. SEE SPECIFICATION 26 05 10 FOR SCOPE.
2. CONTRACTOR SCOPE IS TO INSTALL PANEL AND PANEL POWER FEEDS.
3. TEST ALL WIRING AND COMPONENTS FOR FUNCTIONAL OPERATION, CORRECT CONNECTION, CONTINUITY AND INSULATION INTEGRITY, THREE COPIES OF CERTIFIED TEST DOCUMENTATION ARE TO BE PROVIDED.
4. GROUP CABLE AND CONDUIT PENETRATIONS SUCH THAT THE INCOMING AND OUTGOING WIRES ARE CLOSEST TO THEIR TERMINAL BLOCKS AND ANALOG AND DIGITAL WIRES DO NOT CROSS INSIDE OF THE PANELS.

REF. NO.	DRAWING TITLE	DRAWING NUMBER
3	POWER DISTRIBUTION SCHEMATIC PRIMARY CLARIFIER CONTROL PANEL CP-P8001	1-0101-AWDG-P001-001 1-0101-AWDG-P001-002
2	PRIMARY CLARIFIER NETWORK DIAGRAM	1-0101-ANET-P101-001
1	PRIMARY CLARIFIER AREA CONTROL ROOM	1-0101-AGAD-P001-001

REFERENCE DRAWING

NO.	REVISIONS	DATE	DESIGN	CHECK
0A	GC PACKAGE ISSUED FOR 100% REVIEW	2023-06-23	KG	SDS
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: TW	APPROVED BY: SRB
SCALE: 1:8	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:

CONSULTANT NO.:

ENGINEER'S SEAL

Winnipeg

THE CITY OF WINNIPEG

WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT

DCS MIGRATION

PANEL LAYOUT

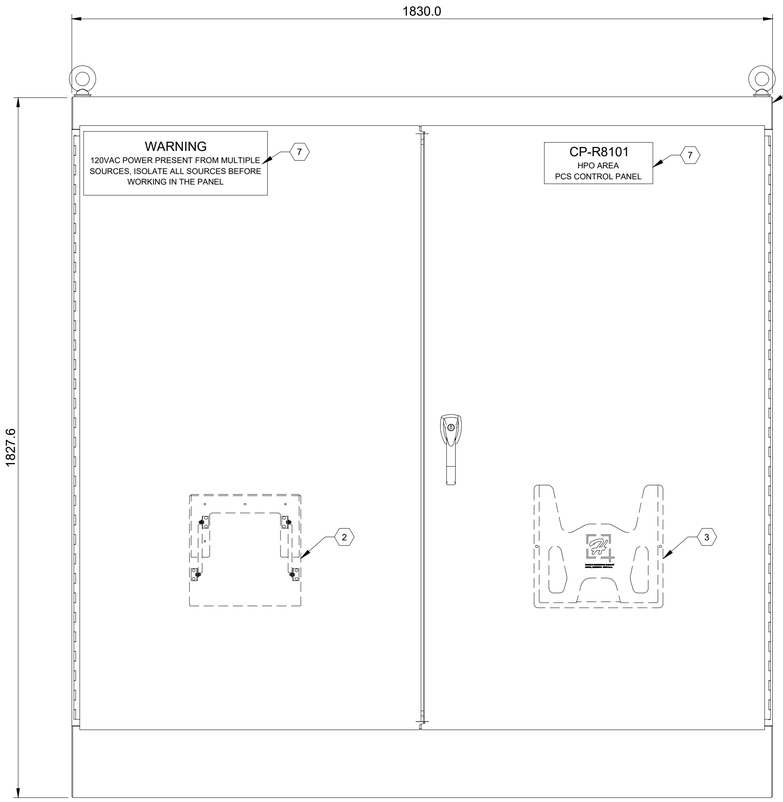
PRIMARY CLARIFIER CONTROL PANEL CP-P8001

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-S1197-ACBD-P101	001	0A	A1

LAST SAVE: 2023/07/21 9:23 AM

PATH: C:\Users\Katherine.Gledson\ACCDocs\AECOM\City of Winnipeg - NEWPCC Upgrades 2021\Project Files\900 Design Collaboration\60643525 DCS Migration\02 - Main Package\1-0101-ACBD-P101.dwg

A1 SIZE - 594mm x 841mm

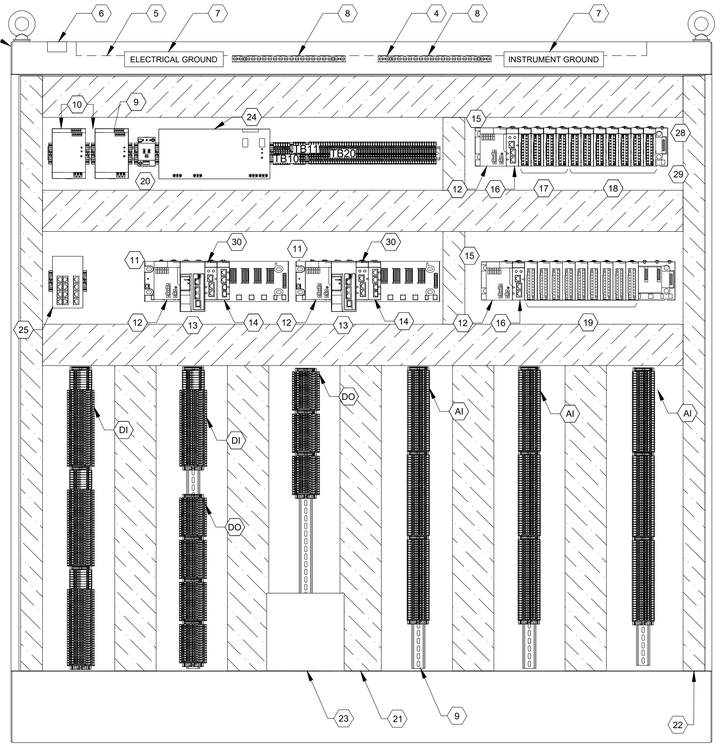


EXTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8



INTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8

INTEGRATOR NOTES:

1. SEE SPECIFICATION 40 90 00 FOR SCOPE.
2. INTEGRATOR SCOPE IS TO BUILD AND SUPPLY THE PANEL. INTEGRATOR TO COMPLETE BILL OF MATERIAL AS PART OF AS-BUILT SET.
3. ALL POWER WIRING TO BE TEW/ MTW 600V, 105°C INSULATION, STRANDED COPPER, 12 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
4. ALL CONTROL WIRING TO BE TEW/ MTW 300V, 105°C INSULATION, STRANDED COPPER, 16 AWG.
5. ALL ANALOG WIRING TO BE 18 AWG SHIELDED TWISTED PAIR, WITH INSULATION RATED AT 300V.
6. EXTERNAL PANEL MOUNTED COMPONENTS ARE TO BE LABELED.
7. ALL MAJOR COMPONENTS INSIDE THE PANEL TO BE LABELED WITH LAMACOIDS. LAMACOIDS TO BE MOUNTED ON THE BACKPLANE.
8. PROVIDE LIP BLADE LUGS FOR ALL WIRING.
9. ALL TERMINAL BLOCKS SHALL BE NUMBERED, COMPLETE WITH GROUP LABELING.
10. ALL WIRES SHALL BE TAGGED.
11. ROUTE ALL 24VDC WIRING SEPARATE FROM 120VAC WIRING.
12. ALL ETHERNET CABLING IS TO BE ATTACHED TO THE SIDE WALLS OF THE ENCLOSURE AND KEPT AS FAR AS POSSIBLE FROM 120VAC WIRING.
13. DOOR CLAMP BLOCKS TO BE REMOVED.
14. JUMPER BARS SHALL BE USED INSTEAD OF WIRE JUMPERS WHERE POSSIBLE.
15. PANEL DOORS TO BE SECURELY GROUNDED TO PANEL GROUND.
16. BACKPLANE TO BE FABRICATED TO ALLOW FOR MOUNTING ON TEMPORARY STAND AND TO BE REINSTALLED IN ENCLOSURE AFTER SWITCHOVER. SEE SPECIFICATION 40 90 00 AND APPENDIX A FOR MORE DETAILS.
17. PROVIDE CSA CERTIFICATION.
18. GROUP TERMINAL BLOCKS BASED ON IO TYPE AND FUNCTION. ENSURE A SINGLE TYPE OF IO IS IN EACH WIREWAY.
19. THE BILL OF MATERIAL IS INTENDED TO PROVIDE A GENERAL GUIDELINE ONLY, MAY NOT INCLUDE ALL MISCELLANEOUS MATERIALS. IT IS THE RESPONSIBILITY OF THE PANEL VENDOR TO PROVIDE ALL REQUIRED MATERIALS FOR COMPLETE AND OPERATING SYSTEM.

CONTRACTOR NOTES:

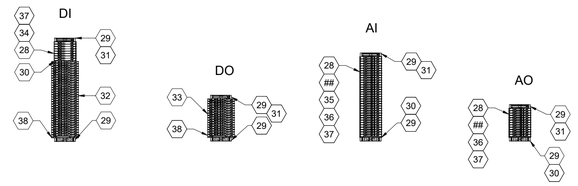
1. SEE SPECIFICATION 26 05 10 FOR SCOPE.
2. CONTRACTOR SCOPE IS TO INSTALL PANEL AND PANEL POWER FEEDS.
3. TEST ALL WIRING AND COMPONENTS FOR FUNCTIONAL OPERATION, CORRECT CONNECTION, CONTINUITY AND INSULATION INTEGRITY, THREE COPIES OF CERTIFIED TEST DOCUMENTATION ARE TO BE PROVIDED.
4. GROUP CABLE AND CONDUIT PENETRATIONS SUCH THAT THE INCOMING AND OUTGOING WIRES ARE CLOSEST TO THEIR TERMINAL BLOCKS AND ANALOG AND DIGITAL WIRES DO NOT CROSS INSIDE OF THE PANELS.

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	ENCLOSURE, FREE STAND, DOUBLE DOOR, NEMA 12, BACKPLANE	HAMMOND	1418ZYD24, 72ZYFW
2	1	FOLDING SHELF	HAMMOND	FDS1212GY
3	1	DOCUMENT HOLDER	HAMMOND	PKT1212S
4	AS REQ'D	ISOLATION STANDOFF	PANDUIT	UGB-IN-SO
5	1	PANEL LIGHT, 120VAC	HAMMOND	LEDA1S35
6	1	PANEL LIGHT SWITCH	HAMMOND	LDSWITCH
7	AS REQ'D	LAMACOID, WHITE BACKGROUND, BLACK TEXT	N/A	N/A
8	2	GROUND BAR, 20 TAPS	N/A	N/A
9	AS REQ'D	35mm TOP HAT DIN RAIL	PHOENIX CONTACT	0801733
10	2	24 VDC POWER SUPPLY	SOLA	SDN 10-24-100C
11	2	8 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-0800
12	4	POWER SUPPLY MODULE X80 - 24..48 V DC	SCHNEIDER ELECTRIC	BMX-CPS-3020
13	2	REDUNDANT PROCESSOR MODULE	SCHNEIDER ELECTRIC	BME-H58-6040
14	2	COMMUNICATION MODULE - ETHERNET CONTROL ROUTER WITH IP FORWARDING FUNCTION	SCHNEIDER ELECTRIC	BME-NOC-0321
15	2	12 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-1200
16	2	MODICON X80 RIO DROP E/IP STD	SCHNEIDER ELECTRIC	BMX-CRA-31210
17	4	DISCRETE INPUT MODULE X80 - 32 INPUTS - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDI-3202K
18	7	DISCRETE OUTPUT MODULE X80 - 16 OUTPUTS - SOLID STATE - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDO-1602
19	9	ISOLATED ANALOG INPUT MODULE X80 - 8 INPUTS	SCHNEIDER ELECTRIC	BMX-AMI-0810
20	1	120VAC RECEPTACLE	PHOENIX CONTACT	0804155
21	AS REQ'D	WIRE WAY	PANDUIT	F4X3LG6, C4LG6
22	AS REQ'D	WIRE WAY	PANDUIT	F2X3LG6, C2LG6
23	1	UPS BATTERY, 26Ah	PHOENIX CONTACT	2320429
24	1	120V 500VA UPS	PHOENIX CONTACT	1067327
25	1	MANAGED SWITCH, 8 PORT ETHERNET AND 4 SFP GIGABIT	MOXA	EDS-G512E-4GSFP
26	AS REQ'D	MULTIMODE OM3 LC TO SFP CONNECTION MODULE, GIGABIT CAPABLE	N/A	N/A
27	2	FIBRE CONVERTER MODULE, MODICON X80, MULTIMODE	SCHNEIDER ELECTRIC	BMXNRP0200
28	AS REQ'D	TERMINAL BLOCK - FEED THROUGH UT	PHOENIX CONTACT	3046184
29	AS REQ'D	TERMINAL BLOCK END CLAMP	PHOENIX CONTACT	3022218
30	AS REQ'D	TERMINAL BLOCK END COVER UT	PHOENIX CONTACT	3047141
31	AS REQ'D	TERMINAL BLOCK MARKER	PHOENIX CONTACT	1004348
32	AS REQ'D	PLC-BSC-120UC/21 - RELAY MODULE	PHOENIX CONTACT	2966281
33	AS REQ'D	PLC-RSC- 24DC/21 - RELAY MODULE	PHOENIX CONTACT	2966171
34	AS REQ'D	FUSE PLUG-P-FU 5X20	PHONEIX CONTACT	3036806
35	AS REQ'D	KNIFE DISCONECT TERMINAL - UT	PHOENIX CONTACT	3046139
36	AS REQ'D	POTENTIAL - EARTH TERMINAL - UT	PHOENIX CONTACT	3046207
37	AS REQ'D	FUSED TERMINAL - UT	PHOENIX CONTACT	3046142
38	AS REQ'D	PLC-ATP BK - SEPARATING PLATE	PHOENIX CONTACT	2966841

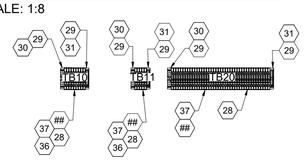
TYPICAL TERMINAL BLOCK LAYOUTS

SCALE: 1:8



POWER TERMINAL BLOCK LAYOUTS

SCALE: 1:8



REF. NO.	DRAWING TITLE	DRAWING NUMBER
3	POWER DISTRIBUTION SCHEMATIC REACTOR CONTROL PANEL CP-R8001	1-0101-AWDG-R001-001 1-0101-AWDG-R001-002
2	REACTOR NETWORK DIAGRAM	1-0101-ANET-R101-001
1	HPO CONTROL ROOM	1-0101-AGAD-R001-001

REFERENCE DRAWING

NO.	REVISIONS	DATE	DESIGN	CHECK
0A	GC PACKAGE ISSUED FOR 100% REVIEW	2023-06-23	KG	SDS
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: TW	APPROVED BY: SRB
SCALE: 1:8	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:
CONSULTANT NO.:	

ENGINEER'S SEAL

Winnipeg

THE CITY OF WINNIPEG

WATER AND WASTE DEPARTMENT

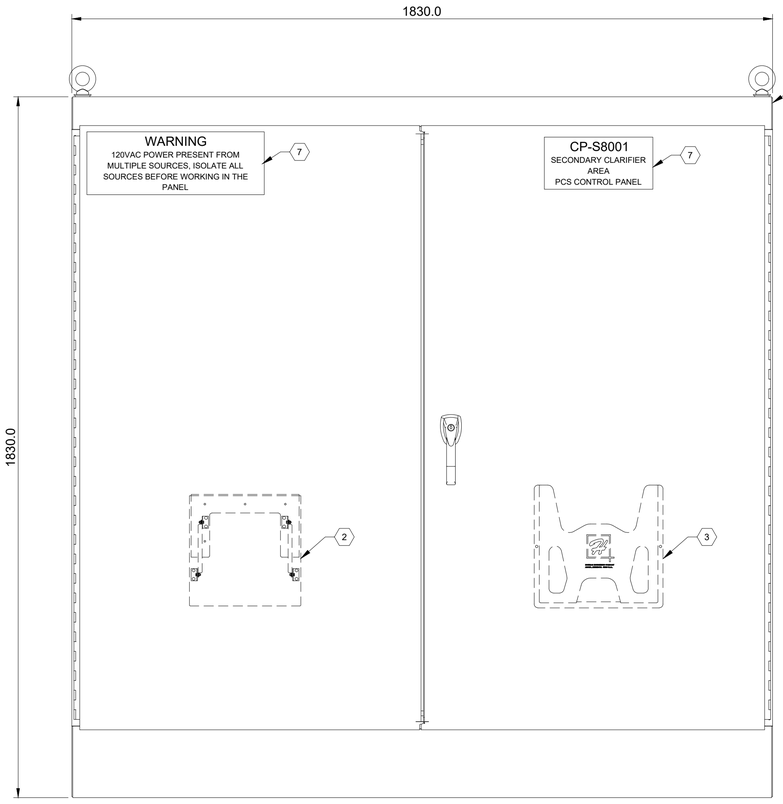
NORTH END SEWAGE TREATMENT PLANT
DCS MIGRATION

PANEL LAYOUT
REACTORS CONTROL PANEL - CP-R8001

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-S1197-ACBD-R101	001	0A	A1

LAST SAVE: 2023/07/21 9:24 AM
PATH: C:\Users\Katherine.Gledson\ACCDocs\AECOM\City of Winnipeg - NEWPCC Upgrades 2021\Project Files\900 Design Collaboration\60843525 DCS Migration\02 - Main Package\1-0101-ACBD-R101.dwg

A1 SIZE - 594mm x 841mm

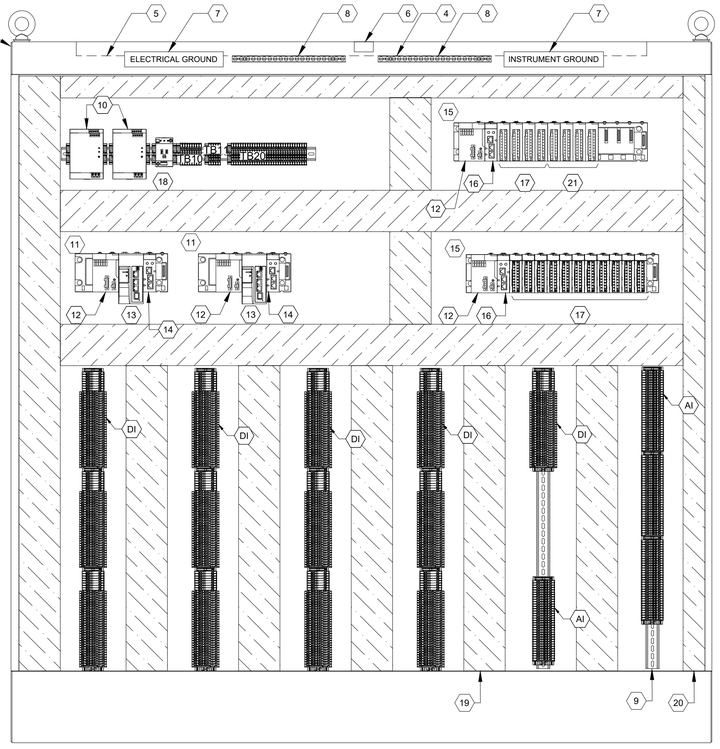


EXTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8



INTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8

INTEGRATOR NOTES:

1. SEE SPECIFICATION 40 90 00 FOR SCOPE.
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3. ALL POWER WIRING TO BE TEW/ MTW 600V, 105°C INSULATION, STRANDED COPPER, 12 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
4. ALL CONTROL WIRING TO BE TEW/ MTW 300V, 105°C INSULATION, STRANDED COPPER, 16 AWG.
5. ALL ANALOG WIRING TO BE 18 AWG SHIELDED TWISTED PAIR, WITH INSULATION RATED AT 300V.
6. EXTERNAL PANEL MOUNTED COMPONENTS ARE TO BE LABELED.
7. ALL MAJOR COMPONENTS INSIDE THE PANEL TO BE LABELED WITH LAMACOIDS. LAMACOIDS TO BE MOUNTED ON THE BACKPLANE.
8. PROVIDE LIP BLADE LUGS FOR ALL WIRING.
9. ALL TERMINAL BLOCKS SHALL BE NUMBERED, COMPLETE WITH GROUP LABELING.
10. ALL WIRES SHALL BE TAGGED.
11. ROUTE ALL 24VDC WIRING SEPARATE FROM 120VAC WIRING.
12. ALL ETHERNET CABLING IS TO BE ATTACHED TO THE SIDE WALLS OF THE ENCLOSURE AND KEPT AS FAR AS POSSIBLE FROM 120VAC WIRING.
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14. JUMPER BARS SHALL BE USED INSTEAD OF WIRE JUMPERS WHERE POSSIBLE.
15. PANEL DOORS TO BE SECURELY GROUNDED TO PANEL GROUND.
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18. GROUP TERMINAL BLOCKS BASED ON IO TYPE AND FUNCTION. ENSURE A SINGLE TYPE OF IO IS IN EACH WIREWAY.
19. THE BILL OF MATERIAL IS INTENDED TO PROVIDE A GENERAL GUIDELINE ONLY, MAY NOT INCLUDE ALL MISCELLANEOUS MATERIALS. IT IS THE RESPONSIBILITY OF THE PANEL VENDOR TO PROVIDE ALL REQUIRED MATERIALS FOR COMPLETE AND OPERATING SYSTEM.

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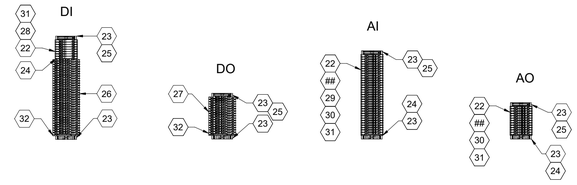
BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	ENCLOSURE, FREE STAND, NEMA 12, DOUBLE DOOR	HAMMOND	1418ZYD24, 72ZYFW
2	1	FOLDING SHELF	HAMMOND	FDS1212GY
3	1	DOCUMENT HOLDER	HAMMOND	PKT1212S
4	AS REQ'D	ISOLATION STANDOFF	PANDUIT	UGB-IN-SO
5	1	PANEL LIGHT, 120VAC	HAMMOND	LEDA1S35
6	1	PANEL LIGHT SWITCH	HAMMOND	LDSWITCH
7	AS REQ'D	LAMACOID, WHITE BACKGROUND, BLACK TEXT	N/A	N/A
8	2	GROUND BAR, 20 TAPS	N/A	N/A
9	AS REQ'D	35mm TOP HAT DIN RAIL	PHOENIX CONTACT	0801733
10	2	24 VDC POWER SUPPLY	SOLA	SDN 10-24-100C
11	2	4 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-0400
12	4	POWER SUPPLY MODULE X80 - 24..48 V DC	SCHNEIDER ELECTRIC	BMX-CPS-3020
13	2	REDUNDANT PROCESSOR MODULE	SCHNEIDER ELECTRIC	BME-H58-6040
14	2	COMMUNICATION MODULE - ETHERNET CONTROL ROUTER WITH IP FORWARDING FUNCTION	SCHNEIDER ELECTRIC	BME-NOC-0321
15	1	12 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-1200
16	2	MODICON X80 RIO DROP E/IP STD	SCHNEIDER ELECTRIC	BMX-CRA-31210
17	13	DISCRETE INPUT MODULE X80 - 32 INPUTS - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDI-3202K
18	1	120VAC RECEPTACLE	PHOENIX CONTACT	804155
19	AS REQ'D	WIRE WAY	PANDUIT	F4X3LG6, C4LG6
20	AS REQ'D	WIRE WAY	PANDUIT	P2X3LG6, C2LG6
21	4	ISOLATED ANALOG INPUT MODULE X80 - 8 INPUTS	SCHNEIDER ELECTRIC	BMX-AMI-0810
22	AS REQ'D	TERMINAL BLOCK - FEED THROUGH UT	PHOENIX CONTACT	3046184
23	AS REQ'D	TERMINAL BLOCK END CLAMP	PHOENIX CONTACT	3022218
24	AS REQ'D	TERMINAL BLOCK END COVER UT	PHOENIX CONTACT	3047141
25	AS REQ'D	TERMINAL BLOCK MARKER	PHOENIX CONTACT	1004348
26	AS REQ'D	PLC-BSC-120UC/21 - RELAY MODULE	PHOENIX CONTACT	2966281
27	AS REQ'D	PLC-RSC- 24DC/21 - RELAY MODULE	PHOENIX CONTACT	2966171
28	AS REQ'D	FUSE PLUG-P-FU 5X20	PHONEIX CONTACT	3036806
29	AS REQ'D	KNIFE DISCONECT TERMINAL - UT	PHONEIX CONTACT	3046139
30	AS REQ'D	POTENTIAL - EARTH TERMINAL - UT	PHOENIX CONTACT	3046207
31	AS REQ'D	FUSED TERMINAL - UT	PHOENIX CONTACT	3046142
32	AS REQ'D	PLC-ATP BK - SEPARATING PLATE	PHOENIX CONTACT	2966841

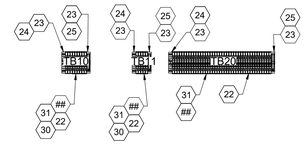
TYPICAL TERMINAL BLOCK LAYOUTS

SCALE: 1:8



POWER TERMINAL BLOCK LAYOUTS

SCALE: 1:8



REF. NO.	DRAWING TITLE	DRAWING NUMBER
REFERENCE DRAWING		
5	PANEL LAYOUT SECONDARY CLARIFIER CONTROL PANEL 3 CP-S8003	1-0101-ACBD-S103-001
4	PANEL LAYOUT SECONDARY CLARIFIER CONTROL PANEL 2 CP-S8002	1-0101-ACBD-S102-001
3	POWER DISTRIBUTION SCHEMATIC SECONDARY CLARIFIER CONTROL PANEL 1 CP-S8001	1-0101-AWDG-S001-001 1-0101-AWDG-S001-002
2	SECONDARY CLARIFIER NETWORK DIAGRAM	1-0101-ANET-S101-001
1	SECONDARY CLARIFIER AREA CONTROL ROOM	1-0101-AGAD-S001-001

NO.	REVISIONS	DATE	DESIGN	CHECK
0A	GC PACKAGE ISSUED FOR 100% REVIEW	2023-06-23	KG	SDS
1	ISSUED FOR ADDENDUM #2	2023-04-18	KG	SDS
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: TW	APPROVED BY: SRB
SCALE: 1:8	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:
CONSULTANT NO.:	

ENGINEER'S SEAL

Winnipeg

THE CITY OF WINNIPEG

WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT

DCS MIGRATION

PANEL LAYOUT

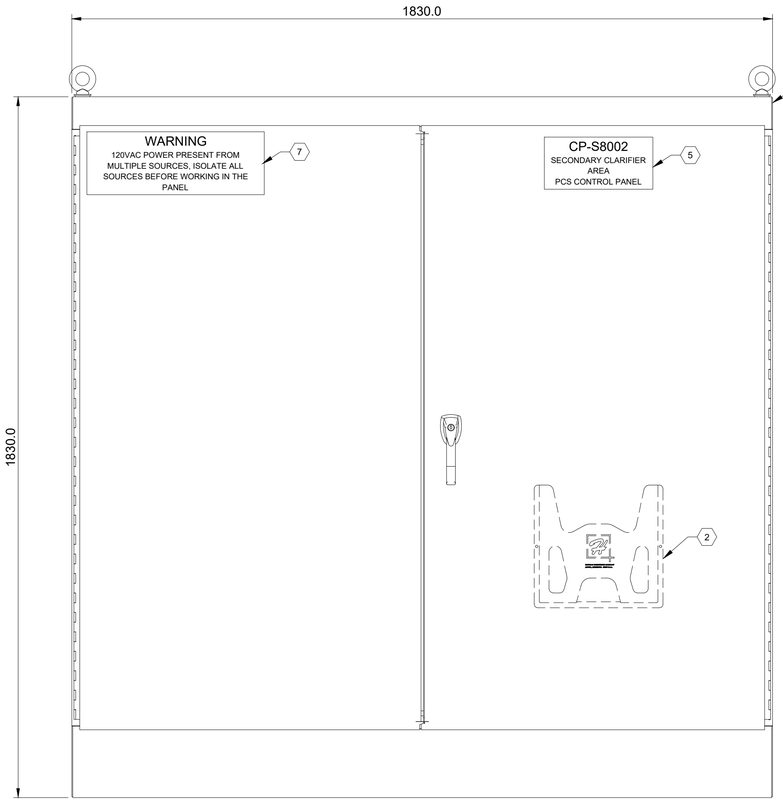
SECONDARY CLARIFIERS CONTROL PANEL 1 - CP-S8001

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-S1197-ACBD-S101	001	0A	A1

LAST SAVE: 2023/07/21 9:25 AM

PATH: C:\Users\Katherine.Gledson\ACCDocs\AECOM\City of Winnipeg - NEWPCC Upgrades 2021\Project Files\900 Design Collaboration\60643325 DCS Migration\02 - Main Package\1-0101-ACBD-S101-102-103.dwg

A1 SIZE - 594mm x 841mm

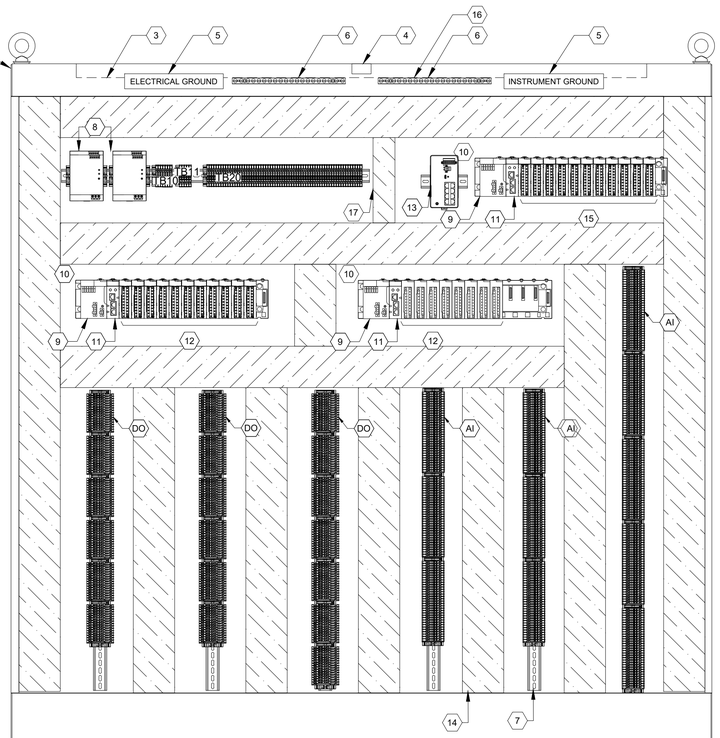


EXTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8



INTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

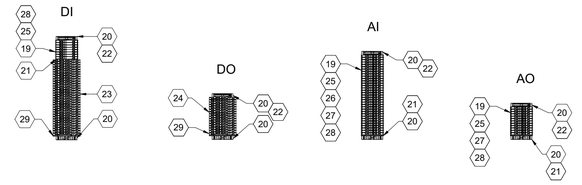
1:8

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	ENCLOSURE, FREE STAND, DOUBLE DOOR, NEMA 12, BACKPLANE	HAMMOND	1418ZYD24, 72ZYFW
2	1	DOCUMENT HOLDER	HAMMOND	PKT1212S
3	1	PANEL LIGHT, 120VAC	HAMMOND	LEDA1S35
4	1	PANEL LIGHT SWITCH	HAMMOND	LDSWITCH
5	AS REQ'D	LAMACOID, WHITE BACKGROUND, BLACK TEXT	N/A	N/A
6	2	GROUND BAR, 20 TAPS	N/A	N/A
7	AS REQ'D	35mm TOP HAT DIN RAIL	PHOENIX CONTACT	0801733
8	2	24 VDC POWER SUPPLY	SOLA	SDN 20-24-100C
9	3	POWER SUPPLY MODULE X80 - 24..48 V DC	SCHNEIDER ELECTRIC	BMX-CPS-3020
10	3	12 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-1200
11	3	MODICON X80 RIO DROP E/IP STD	SCHNEIDER ELECTRIC	BMX-CRA-31210
12	19	DISCRETE OUTPUT MODULE X80 - 16 OUTPUTS - SOLID STATE - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDO-1602
13	1	MODICON EXTENDED MANAGED SWITCH, 8 PORTS COPPER	SCHNEIDER ELECTRIC	MCSESM083F23F1
14	AS REQ'D	WIRE WAY	PANDUIT	F4X3LG6, C4LG6
15	11	ISOLATED ANALOG INPUT MODULE X80 - 8 INPUTS	SCHNEIDER ELECTRIC	BMX-AMI-0810
16	AS REQ'D	ISOLATION STANDOFF	PANDUIT	UGB-IN-SO
17	AS REQ'D	WIRE WAY	PANDUIT	F2X3LG6, C2LG6
19	AS REQ'D	TERMINAL BLOCK - FEED THROUGH UT	PHOENIX CONTACT	3046184
20	AS REQ'D	TERMINAL BLOCK END CLAMP	PHOENIX CONTACT	3022218
21	AS REQ'D	TERMINAL BLOCK END COVER UT	PHOENIX CONTACT	3047141
22	AS REQ'D	TERMINAL BLOCK MARKER	PHOENIX CONTACT	1004348
23	AS REQ'D	PLC-BSC-120UC/21 - RELAY MODULE	PHOENIX CONTACT	2966281
24	AS REQ'D	PLC-RSC- 24DC/21 - RELAY MODULE	PHOENIX CONTACT	2966171
25	AS REQ'D	FUSE PLUG-P-FU 5X20	PHONEIX CONTACT	3036806
26	AS REQ'D	KNIFE DISCONECT TERMINAL - UT	PHONEIX CONTACT	3046139
27	AS REQ'D	POTENTIAL - EARTH TERMINAL - UT	PHOENIX CONTACT	3046207
28	AS REQ'D	FUSED TERMINAL - UT	PHOENIX CONTACT	3046142
29	AS REQ'D	PLC-ATP BK - SEPARATING PLATE	PHOENIX CONTACT	2966841

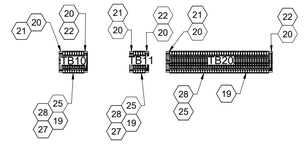
TYPICAL TERMINAL BLOCK LAYOUTS

SCALE: 1:8



POWER TERMINAL BLOCK LAYOUTS

SCALE: 1:8



INTEGRATOR NOTES:

1. SEE SPECIFICATION 40 90 00 FOR SCOPE.
2. INTEGRATOR SCOPE IS TO BUILD AND SUPPLY THE PANEL. INTEGRATOR TO COMPLETE BILL OF MATERIAL AS PART OF AS-BUILT SET.
3. ALL POWER WIRING TO BE TEW/ MTW 600V, 105°C INSULATION, STRANDED COPPER, 12 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
4. ALL CONTROL WIRING TO BE TEW/ MTW 300V, 105°C INSULATION, STRANDED COPPER, 16 AWG.
5. ALL ANALOG WIRING TO BE 18 AWG SHIELDED TWISTED PAIR, WITH INSULATION RATED AT 300V.
6. EXTERNAL PANEL MOUNTED COMPONENTS ARE TO BE LABELED.
7. ALL MAJOR COMPONENTS INSIDE THE PANEL TO BE LABELED WITH LAMACOIDS. LAMACOIDS TO BE MOUNTED ON THE BACKPLANE.
8. PROVIDE LIP BLADE LUGS FOR ALL WIRING.
9. ALL TERMINAL BLOCKS SHALL BE NUMBERED, COMPLETE WITH GROUP LABELING.
10. ALL WIRES SHALL BE TAGGED.
11. ROUTE ALL 24VDC WIRING SEPARATE FROM 120VAC WIRING.
12. ALL ETHERNET CABLING IS TO BE ATTACHED TO THE SIDE WALLS OF THE ENCLOSURE AND KEPT AS FAR AS POSSIBLE FROM 120VAC WIRING.
13. DOOR CLAMP BLOCKS TO BE REMOVED.
14. JUMPER BARS SHALL BE USED INSTEAD OF WIRE JUMPERS WHERE POSSIBLE.
15. PANEL DOORS TO BE SECURELY GROUNDED TO PANEL GROUND.
16. BACKPLANE TO BE FABRICATED TO ALLOW FOR MOUNTING ON TEMPORARY STAND AND TO BE REINSTALLED IN ENCLOSURE AFTER SWITCHOVER. SEE SPECIFICATION 40 90 00 AND APPENDIX A FOR MORE DETAILS.
17. PROVIDE CSA CERTIFICATION.
18. GROUP TERMINAL BLOCKS BASED ON IO TYPE AND FUNCTION. ENSURE A SINGLE TYPE OF IO IS IN EACH WIREWAY.
19. THE BILL OF MATERIAL IS INTENDED TO PROVIDE A GENERAL GUIDELINE ONLY, MAY NOT INCLUDE ALL MISCELLANEOUS MATERIALS. IT IS THE RESPONSIBILITY OF THE PANEL VENDOR TO PROVIDE ALL REQUIRED MATERIALS FOR COMPLETE AND OPERATING SYSTEM.

CONTRACTOR NOTES:

1. SEE SPECIFICATION 26 05 10 FOR SCOPE.
2. CONTRACTOR SCOPE IS TO INSTALL PANEL AND PANEL POWER FEEDS.
3. TEST ALL WIRING AND COMPONENTS FOR FUNCTIONAL OPERATION, CORRECT CONNECTION, CONTINUITY AND INSULATION INTEGRITY, THREE COPIES OF CERTIFIED TEST DOCUMENTATION ARE TO BE PROVIDED.
4. GROUP CABLE AND CONDUIT PENETRATIONS SUCH THAT THE INCOMING AND OUTGOING WIRES ARE CLOSEST TO THEIR TERMINAL BLOCKS AND ANALOG AND DIGITAL WIRES DO NOT CROSS INSIDE OF THE PANELS.

REF. NO.	DRAWING TITLE	DRAWING NUMBER
5	PANEL LAYOUT SECONDARY CLARIFIER CONTROL PANEL 3 CP-S8003	1-0101-ACBD-S103-001
4	PANEL LAYOUT SECONDARY CLARIFIER CONTROL PANEL 1 CP-S8001	1-0101-ACBD-S101-001
3	POWER DISTRIBUTION SCHEMATIC SECONDARY CLARIFIER CONTROL PANEL 2 CP-S8002	1-0101-AWDG-S002-001 1-0101-AWDG-S002-002
2	SECONDARY CLARIFIER NETWORK DIAGRAM	1-0101-ANET-S101-001
1	SECONDARY CLARIFIER AREA CONTROL ROOM	1-0101-AGAD-S001-001
REFERENCE DRAWING		

NO.	REVISIONS	DATE	DESIGN	CHECK
0A	GC PACKAGE ISSUED FOR 100% REVIEW	2023-06-23	KG	SDS
1	ISSUED FOR ADDENDUM #2	2023-04-18	KG	SDS
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: TW	APPROVED BY: SRB
SCALE: 1:8	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:

CONSULTANT NO.:

ENGINEER'S SEAL

Winnipeg

THE CITY OF WINNIPEG

WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT

DCS MIGRATION

PANEL LAYOUT

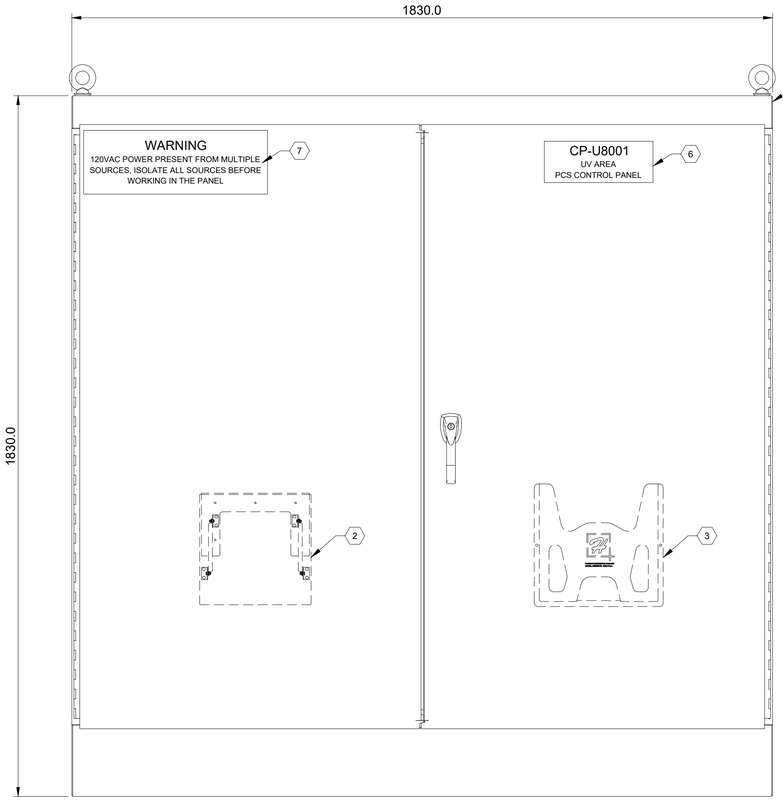
SECONDARY CLARIFIERS CONTROL PANEL 2 - CP-S8002

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-S1197-ACBD-S102	001	0A	A1

LAST SAVE: 2023/07/21 9:25 AM

PATH: C:\Users\Katherine.Gledson\ACCDocs\AECOM\City of Winnipeg - NEWPCC Upgrades 2021\Project Files\900 Design Collaboration\69f4535S DCS Migration\02 - Main Package\1-0101-ACBD-S101-102-103.dwg

A1 SIZE - 594mm x 841mm

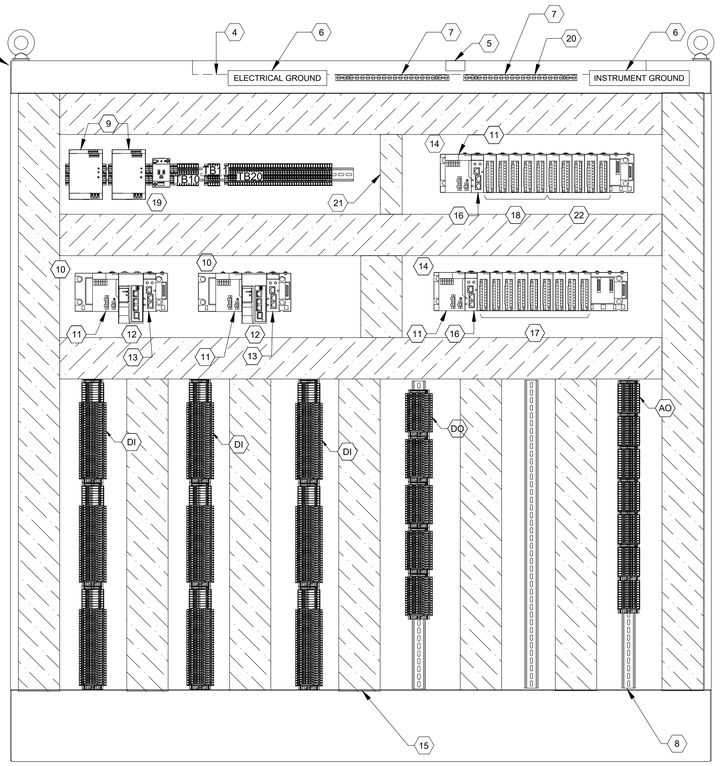


EXTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8



INTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8

INTEGRATOR NOTES:

1. SEE SPECIFICATION 40 90 00 FOR SCOPE.
2. INTEGRATOR SCOPE IS TO BUILD AND SUPPLY THE PANEL. INTEGRATOR TO COMPLETE BILL OF MATERIAL AS PART OF AS-BUILT SET.
3. ALL POWER WIRING TO BE TEW/ MTW 600V, 105°C INSULATION, STRANDED COPPER, 12 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
4. ALL CONTROL WIRING TO BE TEW/ MTW 300V, 105°C INSULATION, STRANDED COPPER, 16 AWG.
5. ALL ANALOG WIRING TO BE 18 AWG SHIELDED TWISTED PAIR, WITH INSULATION RATED AT 300V.
6. EXTERNAL PANEL MOUNTED COMPONENTS ARE TO BE LABELED.
7. ALL MAJOR COMPONENTS INSIDE THE PANEL TO BE LABELED WITH LAMACOIDS. LAMACOIDS TO BE MOUNTED ON THE BACKPLANE.
8. PROVIDE LIP BLADE LUGS FOR ALL WIRING.
9. ALL TERMINAL BLOCKS SHALL BE NUMBERED, COMPLETE WITH GROUP LABELING.
10. ALL WIRES SHALL BE TAGGED.
11. ROUTE ALL 24VDC WIRING SEPARATE FROM 120VAC WIRING.
12. ALL ETHERNET CABLING IS TO BE ATTACHED TO THE SIDE WALLS OF THE ENCLOSURE AND KEPT AS FAR AS POSSIBLE FROM 120VAC WIRING.
13. DOOR CLAMP BLOCKS TO BE REMOVED.
14. JUMPER BARS SHALL BE USED INSTEAD OF WIRE JUMPERS WHERE POSSIBLE.
15. PANEL DOORS TO BE SECURELY GROUNDED TO PANEL GROUND.
16. BACKPLANE TO BE FABRICATED TO ALLOW FOR MOUNTING ON TEMPORARY STAND AND TO BE REINSTALLED IN ENCLOSURE AFTER SWITCHOVER. SEE SPECIFICATION 40 90 00 AND APPENDIX A FOR MORE DETAILS.
17. PROVIDE CSA CERTIFICATION.
18. GROUP TERMINAL BLOCKS BASED ON IO TYPE AND FUNCTION. ENSURE A SINGLE TYPE OF IO IS IN EACH WIREWAY.
19. THE BILL OF MATERIAL IS INTENDED TO PROVIDE A GENERAL GUIDELINE ONLY, MAY NOT INCLUDE ALL MISCELLANEOUS MATERIALS. IT IS THE RESPONSIBILITY OF THE PANEL VENDOR TO PROVIDE ALL REQUIRED MATERIALS FOR COMPLETE AND OPERATING SYSTEM.

CONTRACTOR NOTES:

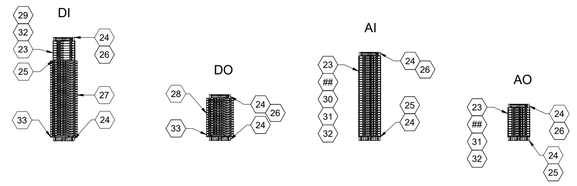
1. SEE SPECIFICATION 26 05 10 FOR SCOPE.
2. CONTRACTOR SCOPE IS TO INSTALL PANEL AND PANEL POWER FEEDS.
3. TEST ALL WIRING AND COMPONENTS FOR FUNCTIONAL OPERATION, CORRECT CONNECTION, CONTINUITY AND INSULATION INTEGRITY, THREE COPIES OF CERTIFIED TEST DOCUMENTATION ARE TO BE PROVIDED.
4. GROUP CABLE AND CONDUIT PENETRATIONS SUCH THAT THE INCOMING AND OUTGOING WIRES ARE CLOSEST TO THEIR TERMINAL BLOCKS AND ANALOG AND DIGITAL WIRES DO NOT CROSS INSIDE OF THE PANELS.

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	ENCLOSURE, FREE STAND, DOUBLE DOOR, NEMA 12, BACKPLANE	HAMMOND	1418ZYD2, 72ZYFW
2	1	FOLDING SHELF	HAMMOND	FDS1212GY
3	1	DOCUMENT HOLDER	HAMMOND	PKT1212S
4	1	PANEL LIGHT	HAMMOND	LEDA1S35
5	1	PANEL LIGHT SWITCH	HAMMOND	LDSWITCH
6	AS REQ'D	LAMACOID, WHITE BACKGROUND, BLACK TEXT	N/A	N/A
7	2	GROUND BAR, 20 TAPS	N/A	N/A
8	AS REQ'D	35mm TOP HAT DIN RAIL	PHOENIX CONTACT	0801733
9	2	24 VDC POWER SUPPLY	SOLA	SDN 20-24-100C
10	2	4 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-0400
11	4	POWER SUPPLY MODULE X80 - 24..48 V DC	SCHNEIDER ELECTRIC	BMX-CPS-3020
12	2	REDUNDANT PROCESSOR MODULE	SCHNEIDER ELECTRIC	BME-H58-6040
13	2	COMMUNICATION MODULE - ETHERNET CONTROL ROUTER WITH IP FORWARDING FUNCTION	SCHNEIDER ELECTRIC	BME-NOC-0321
14	2	12 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-1200
15	AS REQ'D	WIRE WAY	PANDUIT	F4X3LG6, C4LG6
16	2	MODICON X80 RIO DROP E/IP STD	SCHNEIDER ELECTRIC	BMX-CRA-31210
17	9	DISCRETE INPUT MODULE X80 - 32 INPUTS - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDI-3202K
18	5	DISCRETE OUTPUT MODULE X80 - 16 OUTPUTS - SOLID STATE - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDO-1602
19	1	120V RECEPTACLE	PHOENIX CONTACT	0804155
20	AS REQ'D	ISOLATION STANDOFF	PANDUIT	UGB-IN-SO
21	AS REQ'D	WIREWAY	PANDUIT	F2X3LG6, C2LG6
22	7	ANALOG OUTPUT MODULE X80 - 4 OUTPUTS	SCHNEIDER ELECTRIC	BMX-AMO-0410
23	AS REQ'D	TERMINAL BLOCK - FEED THROUGH UT	PHOENIX CONTACT	3046184
24	AS REQ'D	TERMINAL BLOCK END CLAMP	PHOENIX CONTACT	3022218
25	AS REQ'D	TERMINAL BLOCK END COVER UT	PHOENIX CONTACT	3047141
26	AS REQ'D	TERMINAL BLOCK MARKER	PHOENIX CONTACT	1004348
27	AS REQ'D	PLC-BSC-120UC/21 - RELAY MODULE	PHOENIX CONTACT	2966281
28	AS REQ'D	PLC-RSC- 24DC/21 - RELAY MODULE	PHOENIX CONTACT	2966171
29	AS REQ'D	FUSE PLUG-P-FU 5X20	PHONEIX CONTACT	3036806
30	AS REQ'D	KNIFE DISCONECT TERMINAL - UT	PHONEIX CONTACT	3046139
31	AS REQ'D	POTENTIAL - EARTH TERMINAL - UT	PHOENIX CONTACT	3046207
32	AS REQ'D	FUSED TERMINAL - UT	PHOENIX CONTACT	3046142
33	AS REQ'D	PLC-ATP BK - SEPARATING PLATE	PHOENIX CONTACT	2966841

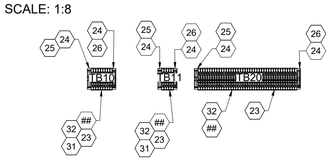
TYPICAL TERMINAL BLOCK LAYOUTS

SCALE: 1:8



POWER TERMINAL BLOCK LAYOUTS

SCALE: 1:8



REF. NO.	DRAWING TITLE	DRAWING NUMBER
4	PANEL LAYOUT UV CONTROL PANEL 2 CP-U8002	1-0101-ACBD-U102-001
3	POWER DISTRIBUTION SCHEMATIC UV CONTROL PANEL CP-U8001	1-0101-AWDG-U001-001 1-0101-AWDG-U001-002
2	UV NETWORK DIAGRAM	1-0101-ANET-U101-001
1	UV AREA CONTROL ROOM	1-0101-AGAD-U001-001

REFERENCE DRAWING

NO.	REVISIONS	DATE	DESIGN	CHECK
0A	GC PACKAGE ISSUED FOR 100% REVIEW	2023-06-23	KG	SDS
1	ISSUED FOR ADDENDUM #2	2023-04-18	KG	SDS
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: TW	APPROVED BY: SRB
SCALE: 1:8	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:
CONSULTANT NO.:	

ENGINEER'S SEAL

Winnipeg

THE CITY OF WINNIPEG

WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT

DCS MIGRATION

PANEL LAYOUT

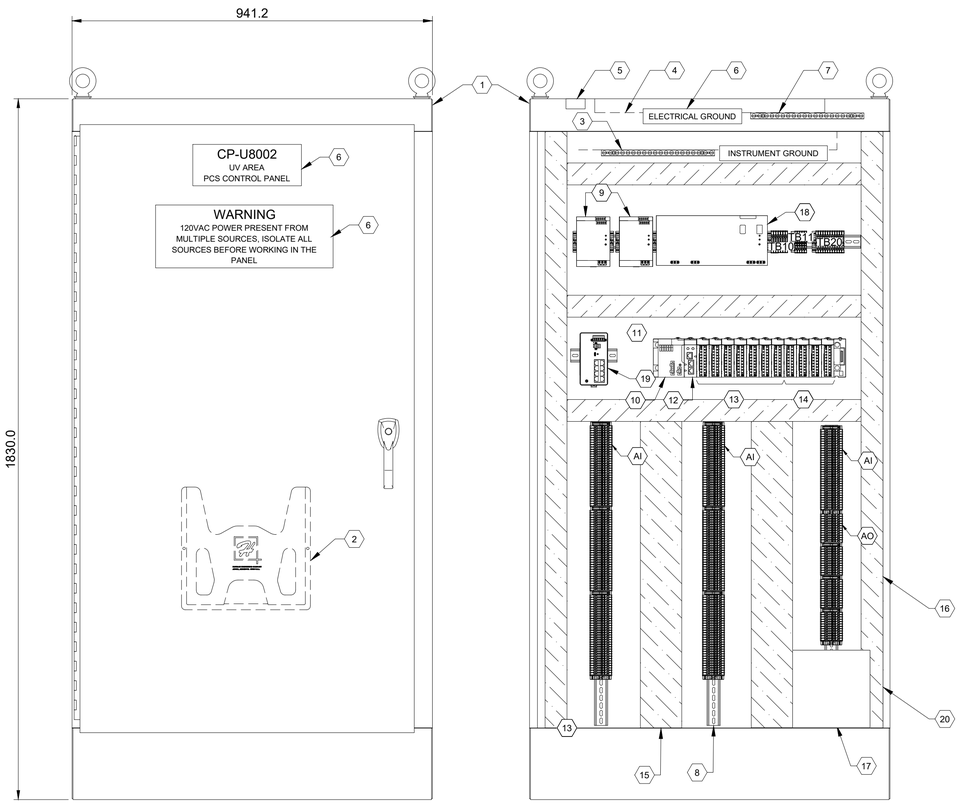
UV CONTROL PANEL 1 - CP-U8001

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-S1197-ACBD-U101	001	0A	A1

LAST SAVE: 2023/07/21 9:24 AM

PATH: C:\Users\Katherine.Gledson\ACCDocs\AECOM\City of Winnipeg - NEWPCC Upgrades 2021\Project Files\900 Design Collaboration\60643325 DCS Migration\02 - Main Package\1-0101-ACBD-U101-102.dwg

A1 SIZE - 594mm x 841mm



EXTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8

INTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

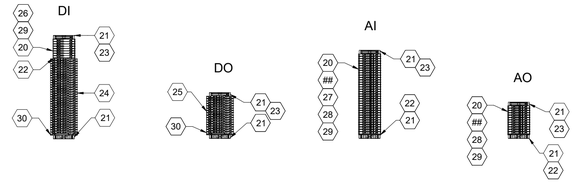
1:8

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	ENCLOSURE, FREE STAND, NEMA 12, BACKPLANE	HAMMOND	1418Y24, 72YFW
2	1	DOCUMENT HOLDER	HAMMOND	PKT1212S
3	1	ISOLATION STANDOFF	PANDUIT	UGB-IN-SO
4	1	PANEL LIGHT, 120VAC	HAMMOND	LEDA1S35
5	1	PANEL LIGHT SWITCH	HAMMOND	LDSWITCH
6	AS REQ'D	LAMACOID, WHITE BACKGROUND, BLACK TEXT	N/A	N/A
7	2	GROUND BAR, 20 TAPS	N/A	N/A
8	AS REQ'D	35mm TOP HAT DIN RAIL	PHOENIX CONTACT	0801733
9	2	24 VDC POWER SUPPLY	SOLA	SDN 10-24-100C
10	1	POWER SUPPLY MODULE X80 - 24..48 V DC	SCHNEIDER ELECTRIC	BMX-CPS-3020
11	1	12 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-1200
12	1	MODICON X80 RIO DROP E/IP STD	SCHNEIDER ELECTRIC	BMX-CRA-31210
13	7	ISOLATED ANALOG INPUT MODULE X80 - 8 INPUTS	SCHNEIDER ELECTRIC	BMX-AMI-0810
14	4	ANALOG OUTPUT MODULE X80 - 4 OUTPUTS	SCHNEIDER ELECTRIC	BMX-AMO-0410
15	AS REQ'D	WIRE WAY	PANDUIT	F4X3LG6,C4LG6
16	AS REQ'D	WIRE WAY	PANDUIT	F2X3LG6,C2LG6
17	1	UPS BATTERY, 12 Ah	PHOENIX CONTACT	1274119
18	1	120V 1KVA UPS	PHOENIX CONTACT	2905908
19	1	MODICON EXTENDED MANAGED SWITCH, 8 PORTS COPPER	SCHNEIDER ELECTRIC	MCSESM083F23F1
20	AS REQ'D	TERMINAL BLOCK - FEED THROUGH UT	PHOENIX CONTACT	3046184
21	AS REQ'D	TERMINAL BLOCK END CLAMP	PHOENIX CONTACT	3022218
22	AS REQ'D	TERMINAL BLOCK END COVER UT	PHOENIX CONTACT	3047141
23	AS REQ'D	TERMINAL BLOCK MARKER	PHOENIX CONTACT	1004348
24	AS REQ'D	PLC-BSC-120UC/21 - RELAY MODULE	PHOENIX CONTACT	2966281
25	AS REQ'D	PLC-RSC- 24DC/21 - RELAY MODULE	PHOENIX CONTACT	2966171
26	AS REQ'D	FUSE PLUG-P-FU 5X20	PHONEIX CONTACT	3036806
27	AS REQ'D	KNIFE DISCONECT TERMINAL - UT	PHONEIX CONTACT	3046139
28	AS REQ'D	POTENTIAL - EARTH TERMINAL - UT	PHOENIX CONTACT	3046207
29	AS REQ'D	FUSED TERMINAL - UT	PHOENIX CONTACT	3046142
30	AS REQ'D	PLC-ATP BK - SEPARATING PLATE	PHOENIX CONTACT	2966841

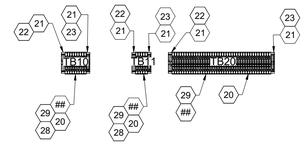
TYPICAL TERMINAL BLOCK LAYOUTS

SCALE: 1:8



POWER TERMINAL BLOCK LAYOUTS

SCALE: 1:8



INTEGRATOR NOTES:

1. SEE SPECIFICATION 40 90 00 FOR SCOPE.
2. INTEGRATOR SCOPE IS TO BUILD AND SUPPLY THE PANEL. INTEGRATOR TO COMPLETE BILL OF MATERIAL AS PART OF AS-BUILT SET.
3. ALL POWER WIRING TO BE TEW/ MTW 600V, 105°C INSULATION, STRANDED COPPER, 12 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
4. ALL CONTROL WIRING TO BE TEW/ MTW 300V, 105°C INSULATION, STRANDED COPPER, 16 AWG.
5. ALL ANALOG WIRING TO BE 18 AWG SHIELDED TWISTED PAIR, WITH INSULATION RATED AT 300V.
6. EXTERNAL PANEL MOUNTED COMPONENTS ARE TO BE LABELED.
7. ALL MAJOR COMPONENTS INSIDE THE PANEL TO BE LABELED WITH LAMACOIDS. LAMACOIDS TO BE MOUNTED ON THE BACKPLANE.
8. PROVIDE LIP BLADE LUGS FOR ALL WIRING.
9. ALL TERMINAL BLOCKS SHALL BE NUMBERED, COMPLETE WITH GROUP LABELING.
10. ALL WIRES SHALL BE TAGGED.
11. ROUTE ALL 24VDC WIRING SEPARATE FROM 120VAC WIRING.
12. ALL ETHERNET CABLING IS TO BE ATTACHED TO THE SIDE WALLS OF THE ENCLOSURE AND KEPT AS FAR AS POSSIBLE FROM 120VAC WIRING.
13. DOOR CLAMP BLOCKS TO BE REMOVED.
14. JUMPER BARS SHALL BE USED INSTEAD OF WIRE JUMPERS WHERE POSSIBLE.
15. PANEL DOORS TO BE SECURELY GROUNDED TO PANEL GROUND.
16. BACKPLANE TO BE FABRICATED TO ALLOW FOR MOUNTING ON TEMPORARY STAND AND TO BE REINSTALLED IN ENCLOSURE AFTER SWITCHOVER. SEE SPECIFICATION 40 90 00 AND APPENDIX A FOR MORE DETAILS.
17. PROVIDE CSA CERTIFICATION.
18. GROUP TERMINAL BLOCKS BASED ON IO TYPE AND FUNCTION. ENSURE A SINGLE TYPE OF IO IS IN EACH WIREWAY.
19. THE BILL OF MATERIAL IS INTENDED TO PROVIDE A GENERAL GUIDELINE ONLY, MAY NOT INCLUDE ALL MISCELLANEOUS MATERIALS. IT IS THE RESPONSIBILITY OF THE PANEL VENDOR TO PROVIDE ALL REQUIRED MATERIALS FOR COMPLETE AND OPERATING SYSTEM.

CONTRACTOR NOTES:

1. SEE SPECIFICATION 26 05 10 FOR SCOPE.
2. CONTRACTOR SCOPE IS TO INSTALL PANEL AND PANEL POWER FEEDS.
3. TEST ALL WIRING AND COMPONENTS FOR FUNCTIONAL OPERATION, CORRECT CONNECTION, CONTINUITY AND INSULATION INTEGRITY, THREE COPIES OF CERTIFIED TEST DOCUMENTATION ARE TO BE PROVIDED.
4. GROUP CABLE AND CONDUIT PENETRATIONS SUCH THAT THE INCOMING AND OUTGOING WIRES ARE CLOSEST TO THEIR TERMINAL BLOCKS AND ANALOG AND DIGITAL WIRES DO NOT CROSS INSIDE OF THE PANELS.

REF. NO.	DRAWING TITLE	DRAWING NUMBER
4	PANEL LAYOUT UV CONTROL PANEL 1 CP-U8001	1-0101-ACBD-U101-001
3	POWER DISTRIBUTION SCHEMATIC UV CONTROL PANEL CP-U8002	1-0101-AWDG-U002-001 1-0101-AWDG-U002-002
2	UV NETWORK DIAGRAM	1-0101-ANET-U101-001
1	UV AREA CONTROL ROOM	1-0101-AGAD-U001-001

REFERENCE DRAWING

NO.	REVISIONS	DATE	DESIGN	CHECK
0A	GC PACKAGE ISSUED FOR 100% REVIEW	2023-06-23	KG	SDS
1	ISSUED FOR ADDENDUM #2	2023-04-18	KG	SDS
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: RC	APPROVED BY: SRB
SCALE: 1:8	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:
CONSULTANT NO.:	

ENGINEER'S SEAL

Winnipeg

THE CITY OF WINNIPEG

WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT

DCS MIGRATION

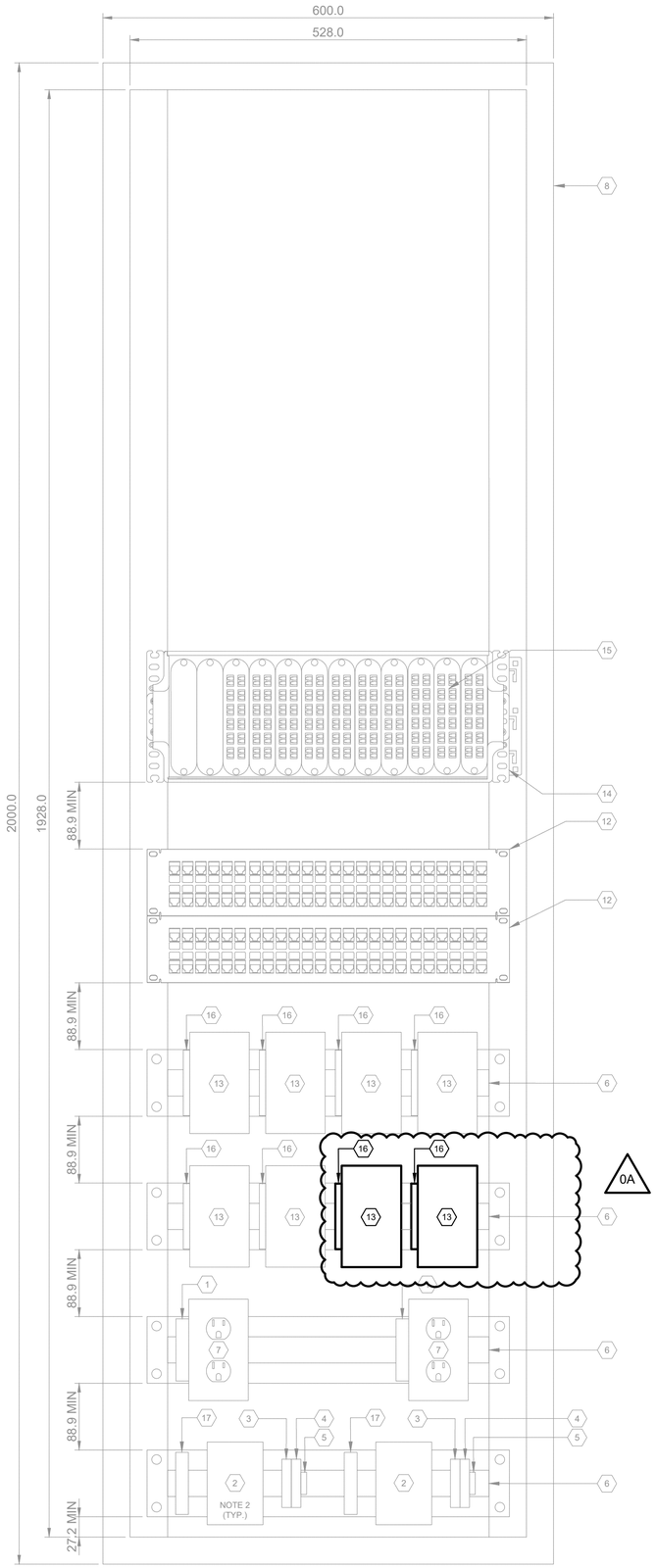
PANEL LAYOUT

UV CONTROL PANEL 2 - CP-U8002

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-S1197-ACBD-U102	001	0A	A1

LAST SAVE: 20230721 9:24 AM

PATH: C:\Users\Katherine.Gledson\ACCDocs\AECOM\City of Winnipeg - NEWPCC Upgrades 2021\Project Files\900 Design Collaboration\60584525 DCS Migration\02 - Main Package\1-0101-ACBD-U101-102.dwg



1 ENCLOSURE INTERNAL VIEW AND DEVICE ARRANGEMENT

SCALE: 1:4

BILL OF MATERIALS

ITEM	DESCRIPTION	NEWPCC STANDARDIZED COMPONENTS		QTY
		PART NUMBER	MANUFACTURER	
1	CIRCUIT BREAKER, 5A, 120VAC, DIN RAIL MOUNTING	N/A	N/A	2
2	POWER SUPPLY, 120VAC INPUT, 24VDC OUTPUT, DIN RAIL MOUNTING, PARALLEL OPERABLE	N/A	N/A	2
3	DC TERMINAL BLOCK (+), DIN RAIL MOUNTING	N/A	N/A	2
4	DC TERMINAL BLOCK (-), DIN RAIL MOUNTING	N/A	N/A	2
5	DIN RAIL STOPPER	N/A	N/A	AS REQ
6	ADJUSTABLE DEPTH RACK MOUNT 35mm DIN RAIL KIT	N/A	N/A	4
7	15A, 120V, DUPLEX RECEPTACLE WITH FACEPLATE, DIN RAIL MOUNTING	N/A	N/A	2
8	NEMA 12 (2000mm H x 600mm W x 800mm D) PARTIAL DOOR, DUAL ACCESS CABINET	N/A	N/A	1
9	MULTIMODE OM3 LC FIBRE PATCH CABLES (NOTE 1)	N/A	N/A	AS REQ
10	ETHERNET PATCH CABLES (NOTE 1)	N/A	N/A	AS REQ
11	MULTIMODE OM3 LC TO SFP CONNECTION MODULE, GIGABIT CAPABLE	N/A	N/A	AS REQ
12	~~3RU ETHERNET PATCH PANEL WITH 48 PORTS~~	~~N/A~~	~~N/A~~	~~2~~
13	MANAGED SWITCH, 8 PORT ETHERNET AND 4 SFP GIGABIT	EDS-G512E-4GSFP	MOXA	8
14	~~FIBRE TERMINATION ENCLOSURE, 4RU, CAPACITY FOR UP TO TWELVE PIGTAIL CASSETTES FOR A TOTAL OF 288F LC CONNECTORS.~~	~~N/A~~	~~N/A~~	~~1~~
15	~~PIGTAIL SPLICE CASSETTE, 24F, LC DUPLEX FACEPLATE IN AQUA, MULTIMODE OM3, 2m PIGTAIL.~~	~~N/A~~	~~N/A~~	~~10~~
16	FUSED TERMINAL BLOCK, 10A, 300VAC, DIN RAIL MOUNTING	N/A	N/A	8
17	~~FUSED TERMINAL BLOCK, 16A, 150VAC, DIN RAIL MOUNTING~~	~~N/A~~	~~N/A~~	~~2~~
18	FOLDING, DOOR MOUNT LAPTOP SHELF	N/A	N/A	1

0A

0A

NOTES:

1. CABLING OMITTED FOR CLARITY.
2. MAINTAIN MANUFACTURER FREE SPACE REQUIREMENTS FOR ALL PANEL COMPONENTS.
3. SEE REFERENCE DRAWING 1 FOR DEWATERING CONTROL ROOM LAYOUT.
4. SEE REFERENCE DRAWING 2 FOR ENCLOSURE LAYOUT FOR NP-W900 DEWATERING NETWORK PANEL.
5. SEE REFERENCE DRAWING 3 FOR CONNECTION DIAGRAM OF NP-W900 DEWATERING NETWORK PANEL.
6. INSTALL TWO NEW ETHERNET SWITCHES, NSW-W9111 AND NSW-W9211.
7. SEE REFERENCE DRAWING 4 FOR NETWORK CONNECTION.

0A

REVISION 0A CHANGES THE ENGINEER'S DESIGN RESPONSIBILITIES ARE LIMITED TO THE CHANGES INDICATED IN THE CLOUDED WORK	
DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: KG	APPROVED BY: SRB
DATE: 2023/03/17	RELEASED FOR CONSTR. DATE:

0 0.1 .2 m

1:4

NO.	DRAWING TITLE	DRAWING NUMBER
4	BLOCK DIAGRAM NETWORK ARCHITECTURE AREAS W, Y & X	1-0101-ANET-A007
3	NP-W900 DEWATERING NETWORK PANEL CONNECTION DIAGRAM	1-0101-AWDG-W001
2	PARTIAL DOOR, DUAL ACCESS PANEL ENCLOSURE - TYPICAL	1-0101-ACBD-A001
1	DEWATERING AREA CONTROL ROOM	1-0101-AGAD-W001

REFERENCE DRAWING

NO.	REVISIONS	DATE	DESIGN	CHECK
0A	GC PACKAGE ISSUED FOR 100% REVIEW	2023-06-23	KG	SDS
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: KG	APPROVED BY: SRB
SCALE: AS SHOWN	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:

CONSULTANT NO.:

ENGINEER'S SEAL

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
AECOM Canada Ltd.
No. 4671 Date: 2023/03/17

Winnipeg

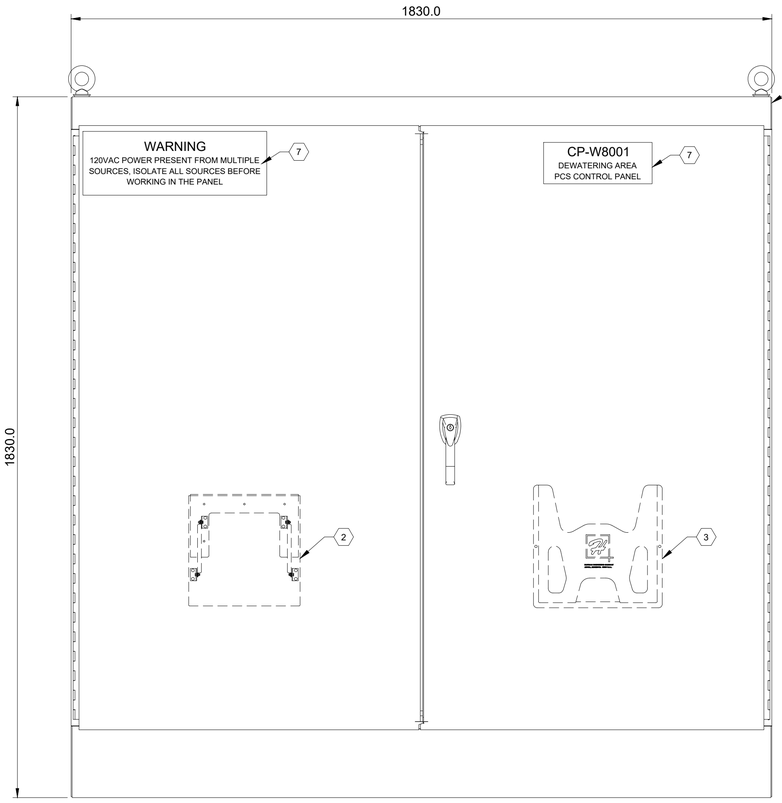
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT
DCS MIGRATION
PANEL LAYOUT
NP-W9000 DEWATERING NETWORK PANEL

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-S1197-ACBD-W001	001	0A	A1

LAST SAVE: 2023/07/21 9:22 AM
PATH: C:\Users\Katherine.Gledson\ACCDocs\AECOM\City of Winnipeg - NEWPCC Upgrades 2021\Project Files\800 Design Collaboration\60643525 DCS Migration\02 - Main Package\1-0101-ACBD-W001.dwg

A1 SIZE - 594mm x 841mm

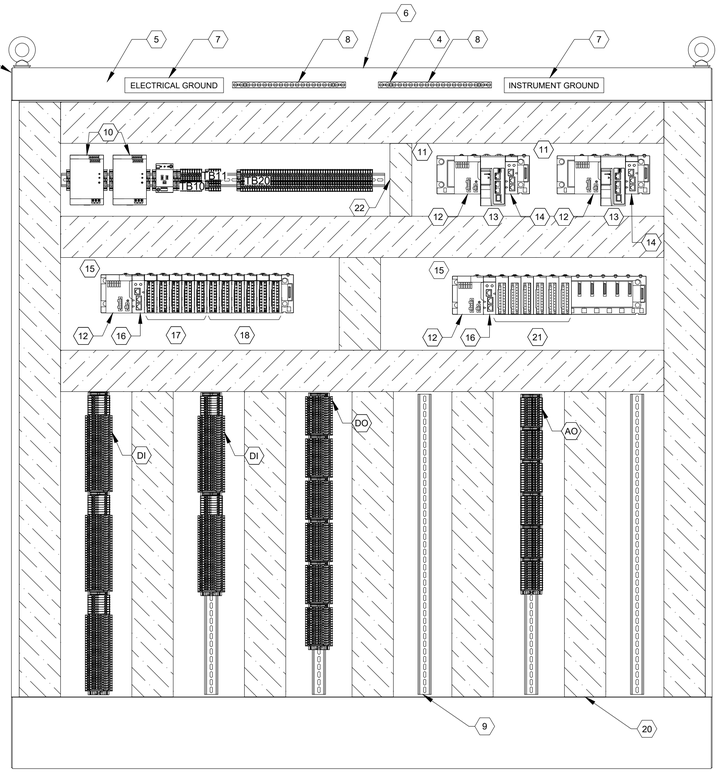


EXTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8



INTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

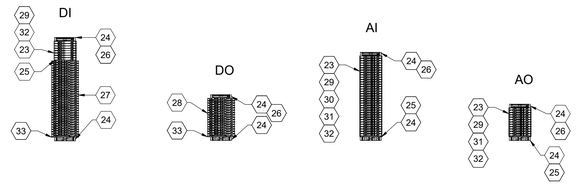
1:8

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	ENCLOSURE, FREE STAND, DOUBLE DOOR, NEMA 12, BACKPLANE	HAMMOND	1418ZYD24, 72ZYFW
2	1	FOLDING SHELF	HAMMOND	FDS1212GY
3	1	DOCUMENT HOLDER	HAMMOND	PKT1212S
4	AS REQ'D	ISOLATION STANDOFF	PANDUIT	UGB-IN-SO
5	1	PANEL LIGHT, 120VAC	HAMMOND	LEDA1S35
6	1	PANEL LIGHT SWITCH	HAMMOND	LDSWITCH
7	AS REQ'D	LAMACOID, WHITE BACKGROUND, BLACK TEXT	N/A	N/A
8	2	GROUND BAR, 20 TAPS	N/A	N/A
9	AS REQ'D	35mm DIN RAIL	PHOENIX CONTACT	0801733
10	2	24 VDC POWER SUPPLY	SOLA	SDN 20-24-100C
11	2	4 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-0400
12	4	POWER SUPPLY MODULE X80 - 24..48 V DC	SCHNEIDER ELECTRIC	BMX-CPS-3020
13	2	REDUNDANT PROCESSOR MODULE	SCHNEIDER ELECTRIC	BME-H58-6040
14	2	COMMUNICATION MODULE - ETHERNET CONTROL ROUTER WITH IP FORWARDING FUNCTION	SCHNEIDER ELECTRIC	BME-NOC-0321
15	2	12 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-1200
16	2	MODICON X80 RIO DROP E/IP STD	SCHNEIDER ELECTRIC	BMX-CRA-31210
17	5	DISCRETE INPUT MODULE X80 - 32 INPUTS - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDI-3202K
18	6	DISCRETE OUTPUT MODULE X80 - 16 OUTPUTS - SOLID STATE - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDO-1602
19	1	120V RECEPTACLE	PHOENIX CONTACT	0804155
20	AS REQ'D	WIRE WAY	PANDUIT	F4X3LG6,C4LG6
21	6	ANALOG OUTPUT MODULE X80 - 4 OUTPUTS	SCHNEIDER ELECTRIC	BMX-AM0-0410
22	AS REQ'D	WIRE WAY	PANDUIT	F2X3LG6, C2LG6
23	AS REQ'D	TERMINAL BLOCK - FEED THROUGH UT	PHOENIX CONTACT	3046184
24	AS REQ'D	TERMINAL BLOCK END CLAMP	PHOENIX CONTACT	3022218
25	AS REQ'D	TERMINAL BLOCK END COVER UT	PHOENIX CONTACT	3047141
26	AS REQ'D	TERMINAL BLOCK MARKER	PHOENIX CONTACT	1004348
27	AS REQ'D	PLC-BSC-120UC/21 - RELAY MODULE	PHOENIX CONTACT	2966281
28	AS REQ'D	PLC-RSC- 24DC/21 - RELAY MODULE	PHOENIX CONTACT	2966171
29	AS REQ'D	FUSE PLUG-P-FU 5X20	PHONEIX CONTACT	3036806
30	AS REQ'D	KNIFE DISCONECT TERMINAL - UT	PHONEIX CONTACT	3046139
31	AS REQ'D	POTENTIAL - EARTH TERMINAL - UT	PHOENIX CONTACT	3046207
32	AS REQ'D	FUSED TERMINAL - UT	PHOENIX CONTACT	3046142
33	AS REQ'D	PLC-ATP BK - SEPARATING PLATE	PHOENIX CONTACT	2966841

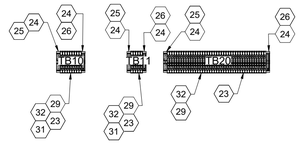
TYPICAL TERMINAL BLOCK LAYOUTS

SCALE: 1:8



POWER TERMINAL BLOCK LAYOUTS

SCALE: 1:8



INTEGRATOR NOTES:

1. SEE SPECIFICATION 40 90 00 FOR SCOPE.
2. INTEGRATOR SCOPE IS TO BUILD AND SUPPLY THE PANEL. INTEGRATOR TO COMPLETE BILL OF MATERIAL AS PART OF AS-BUILT SET.
3. ALL POWER WIRING TO BE TEW/ MTW 600V, 105°C INSULATION, STRANDED COPPER, 12 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
4. ALL CONTROL WIRING TO BE TEW/ MTW 300V, 105°C INSULATION, STRANDED COPPER, 16 AWG.
5. ALL ANALOG WIRING TO BE 18 AWG SHIELDED TWISTED PAIR, WITH INSULATION RATED AT 300V.
6. EXTERNAL PANEL MOUNTED COMPONENTS ARE TO BE LABELED.
7. ALL MAJOR COMPONENTS INSIDE THE PANEL TO BE LABELED WITH LAMACOIDS. LAMACOIDS TO BE MOUNTED ON THE BACKPLANE.
8. PROVIDE LIP BLADE LUGS FOR ALL WIRING.
9. ALL TERMINAL BLOCKS SHALL BE NUMBERED, COMPLETE WITH GROUP LABELING.
10. ALL WIRES SHALL BE TAGGED.
11. ROUTE ALL 24VDC WIRING SEPARATE FROM 120VAC WIRING.
12. ALL ETHERNET CABLING IS TO BE ATTACHED TO THE SIDE WALLS OF THE ENCLOSURE AND KEPT AS FAR AS POSSIBLE FROM 120VAC WIRING.
13. DOOR CLAMP BLOCKS TO BE REMOVED.
14. JUMPER BARS SHALL BE USED INSTEAD OF WIRE JUMPERS WHERE POSSIBLE.
15. PANEL DOORS TO BE SECURELY GROUNDED TO PANEL GROUND.
16. BACKPLANE TO BE FABRICATED TO ALLOW FOR MOUNTING ON TEMPORARY STAND AND TO BE REINSTALLED IN ENCLOSURE AFTER SWITCHOVER. SEE SPECIFICATION 40 90 00 AND APPENDIX A FOR MORE DETAILS.
17. PROVIDE CSA CERTIFICATION.
18. GROUP TERMINAL BLOCKS BASED ON IO TYPE AND FUNCTION. ENSURE A SINGLE TYPE OF IO IS IN EACH WIREWAY.
19. THE BILL OF MATERIAL IS INTENDED TO PROVIDE A GENERAL GUIDELINE ONLY, MAY NOT INCLUDE ALL MISCELLANEOUS MATERIALS. IT IS THE RESPONSIBILITY OF THE PANEL VENDOR TO PROVIDE ALL REQUIRED MATERIALS FOR COMPLETE AND OPERATING SYSTEM.

CONTRACTOR NOTES:

1. SEE SPECIFICATION 26 05 10 FOR SCOPE.
2. CONTRACTOR SCOPE IS TO INSTALL PANEL AND PANEL POWER FEEDS.
3. TEST ALL WIRING AND COMPONENTS FOR FUNCTIONAL OPERATION, CORRECT CONNECTION, CONTINUITY AND INSULATION INTEGRITY, THREE COPIES OF CERTIFIED TEST DOCUMENTATION ARE TO BE PROVIDED.
4. GROUP CABLE AND CONDUIT PENETRATIONS SUCH THAT THE INCOMING AND OUTGOING WIRES ARE CLOSEST TO THEIR TERMINAL BLOCKS AND ANALOG AND DIGITAL WIRES DO NOT CROSS INSIDE OF THE PANELS.

REF. NO.	DRAWING TITLE	DRAWING NUMBER
5	PANEL LAYOUT DEWATERING CONTROL PANEL 3 CP-W8003	1-0101-ACBD-W103-001
4	PANEL LAYOUT DEWATERING CONTROL PANEL 2 CP-W8002	1-0101-ACBD-W102-001
3	POWER DISTRIBUTION SCHEMATIC DEWATERING CONTROL PANEL CP-W8001	1-0101-AWDG-W001-001 1-0101-AWDG-W001-002
2	DEWATERING NETWORK DIAGRAM	1-0101-ANET-W101-001
1	DEWATERING CONTROL ROOM	1-0101-AGAD-W001-001
REFERENCE DRAWING		

NO.	REVISIONS	DATE	DESIGN	CHECK
0A	GC PACKAGE ISSUED FOR 100% REVIEW	2023-06-23	KG	SDS
1	ISSUED FOR ADDENDUM #2	2023-04-18	KG	SDS
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: TW	APPROVED BY: SRB
SCALE: 1:8	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:
CONSULTANT NO.:	

ENGINEER'S SEAL

Winnipeg

THE CITY OF WINNIPEG

WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT

DCS MIGRATION

PANEL LAYOUT

DEWATERING CONTROL PANEL 1 - CP-W8001

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-S1197-ACBD-W101	001	0A	A1

LAST SAVE: 2023/07/21 9:30 AM

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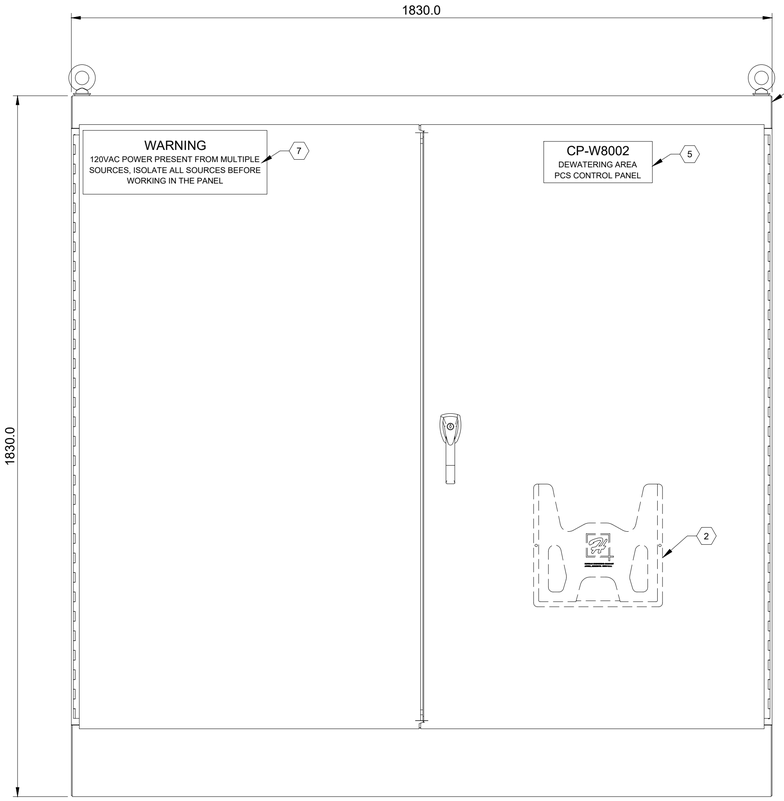
A1 SIZE - 594mm x 841mm

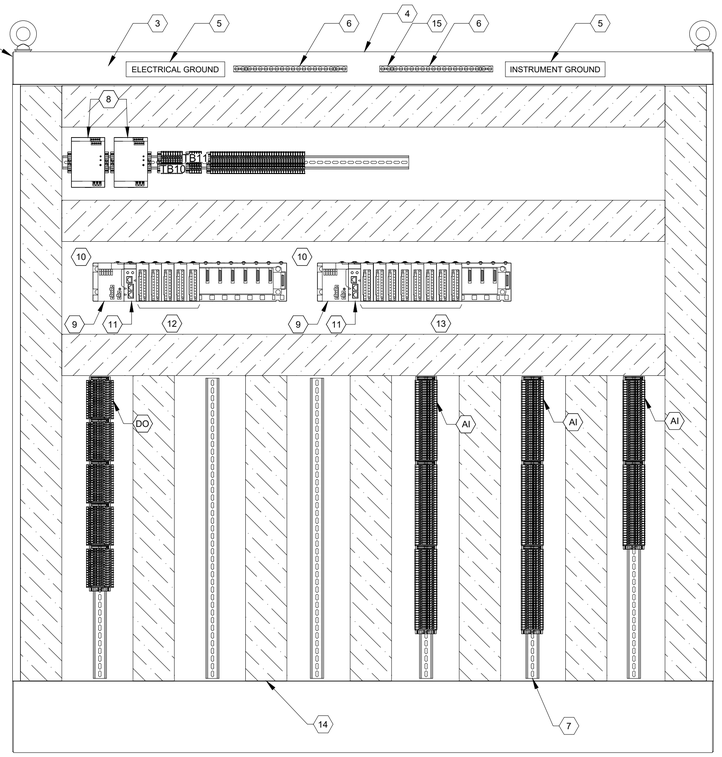


EXTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8



INTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8

BILL OF MATERIAL

ITEM	QTY.	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	ENCLOSURE, FREE STAND, DOUBLE DOOR, NEMA 12, BACKPLANE	HAMMOND	1418ZYD24, 72ZYFW
2	1	DOCUMENT HOLDER	HAMMOND	PKT1212S
3	1	PANEL LIGHT, 120VAC	HAMMOND	LEDA1S35
4	1	PANEL LIGHT SWITCH	HAMMOND	LDSWITCH
5	AS REQ'D	LAMACOID, WHITE BACKGROUND, BLACK TEXT	N/A	N/A
6	2	GROUND BAR, 20 TAPS	N/A	N/A
7	AS REQ'D	35mm DIN RAIL	PHOENIX CONTACT	0801733
8	2	24 VDC POWER SUPPLY	SOLA	SDN 20-24-100C
9	2	POWER SUPPLY MODULE X80 - 24..48 V DC	SCHNEIDER ELECTRIC	BMX-CPS-3020
10	2	12 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-1200
11	2	MODICON X80 RIO DROP E/IP STD	SCHNEIDER ELECTRIC	BMX-CRA-31210
12	5	DISCRETE OUTPUT MODULE X80 - 16 OUTPUTS - SOLID STATE - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDO-1602
13	8	ISOLATED ANALOG INPUT MODULE X80 - 8 INPUTS	SCHNEIDER ELECTRIC	BMX-AMI-0810
14	AS REQ'D	WIRE WAY	PANDUIT	F4X3LG6, C4LG6
15	AS REQ'D	ISOLATION STANDOFF	PANDUIT	UGB-IN-SO
16	AS REQ'D	TERMINAL BLOCK - FEED THROUGH UT	PHOENIX CONTACT	3046184
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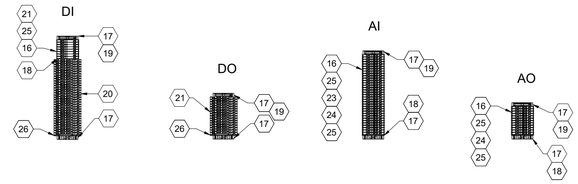
19	AS REQ'D	TERMINAL BLOCK MARKER	PHOENIX CONTACT	1004348
20	AS REQ'D	PLC-BSC-120UC/21 - RELAY MODULE	PHOENIX CONTACT	2966281
21	AS REQ'D	PLC-RSC- 24DC/21 - RELAY MODULE	PHOENIX CONTACT	2966171
22	AS REQ'D	FUSE PLUG-P-FU 5X20	PHONEIX CONTACT	3036806
23	AS REQ'D	KNIFE DISCONECT TERMINAL - UT	PHONEIX CONTACT	3046139
24	AS REQ'D	POTENTIAL - EARTH TERMINAL - UT	PHOENIX CONTACT	3046207
25	AS REQ'D	FUSED TERMINAL - UT	PHOENIX CONTACT	3046142
26	AS REQ'D	PLC-ATP BK - SEPARATING PLATE	PHOENIX CONTACT	2966841

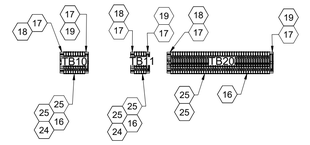
TYPICAL TERMINAL BLOCK LAYOUTS

SCALE: 1:8



POWER TERMINAL BLOCK LAYOUTS

SCALE: 1:8



INTEGRATOR NOTES:

1. SEE SPECIFICATION 40 90 00 FOR SCOPE.
2. INTEGRATOR SCOPE IS TO BUILD AND SUPPLY THE PANEL. INTEGRATOR TO COMPLETE BILL OF MATERIAL AS PART OF AS-BUILT SET.
3. ALL POWER WIRING TO BE TEW/ MTW 600V, 105°C INSULATION, STRANDED COPPER, 12 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
4. ALL CONTROL WIRING TO BE TEW/ MTW 300V, 105°C INSULATION, STRANDED COPPER, 16 AWG.
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8. PROVIDE LIP BLADE LUGS FOR ALL WIRING.
9. ALL TERMINAL BLOCKS SHALL BE NUMBERED, COMPLETE WITH GROUP LABELING.
10. ALL WIRES SHALL BE TAGGED.
11. ROUTE ALL 24VDC WIRING SEPARATE FROM 120VAC WIRING.
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CONTRACTOR NOTES:

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REF. NO.	DRAWING TITLE	DRAWING NUMBER
5	PANEL LAYOUT DEWATERING CONTROL PANEL 3 CP-W8003	1-0101-ACBD-W103-001
4	PANEL LAYOUT DEWATERING CONTROL PANEL 1 CP-W8001	1-0101-ACBD-W101-001
3	POWER DISTRIBUTION SCHEMATIC DEWATERING CONTROL PANEL CP-W8002	1-0101-AWDG-W002-001 1-0101-AWDG-W002-002
2	DEWATERING NETWORK DIAGRAM	1-0101-ANET-W101-001
1	DEWATERING CONTROL ROOM	1-0101-AGAD-W001-001

REFERENCE DRAWING

NO.	REVISIONS	DATE	DESIGN	CHECK
0A	GC PACKAGE ISSUED FOR 100% REVIEW	2023-06-23	KG	SDS
1	ISSUED FOR ADDENDUM #2	2023-04-18	KG	SDS
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: KG | CHECKED BY: SDS
DRAWN BY: TW | APPROVED BY: SRB
SCALE: 1:8 | RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23 | DATE:
CONSULTANT NO.:

ENGINEER'S SEAL

Winnipeg

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT
DCS MIGRATION

PANEL LAYOUT
DEWATERING CONTROL PANEL 2 - CP-W8002

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-S1197-ACBD-W102	001	0A	A1

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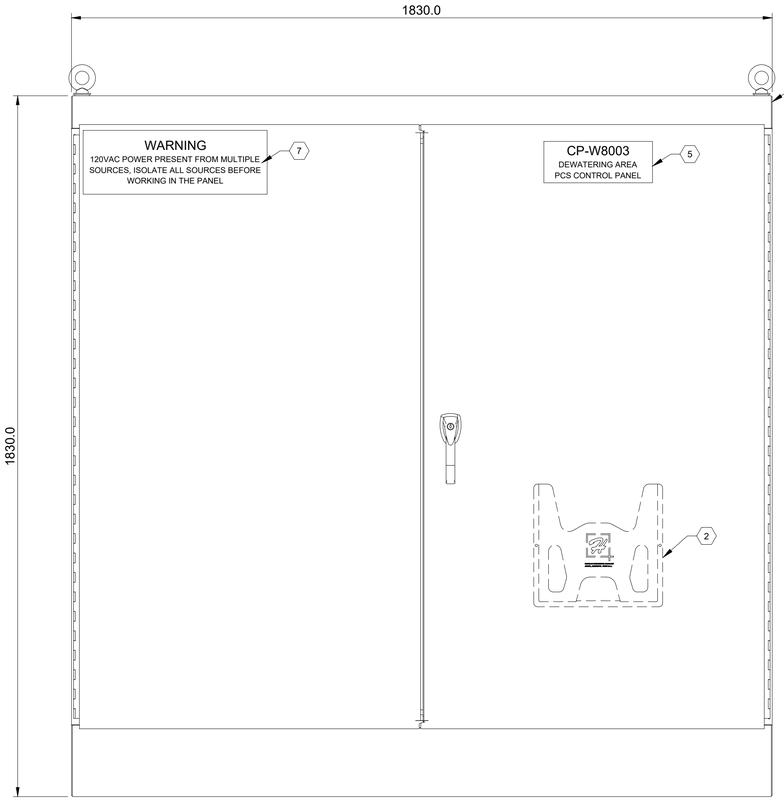
A1 SIZE - 594mm x 841mm

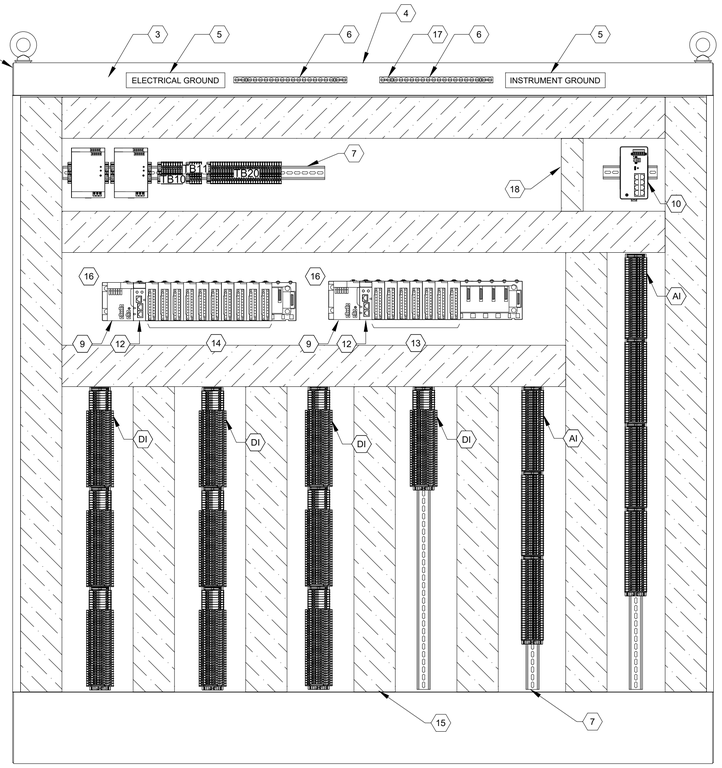


EXTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8



INTERIOR PANEL VIEW

SCALE: 1:8

0 200 400 mm

1:8

BILL OF MATERIAL				
ITEM	QTY.	DESCRIPTION	MANUFACTURER	CATALOG NUMBER
1	1	ENCLOSURE, FREE STAND, DOUBLE DOOR, NEMA 12, BACKPLANE	HAMMOND	1418ZYD24, 72ZYFW
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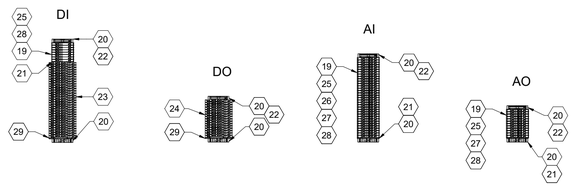
3	1	PANEL LIGHT, 120VAC	HAMMOND	LEDA1S35
4	1	PANEL LIGHT SWITCH	HAMMOND	LDSWITCH
5	AS REQ'D	LAMACOID, WHITE BACKGROUND, BLACK TEXT	N/A	N/A
6	2	GROUND BAR, 20 TAPS	N/A	N/A
7	AS REQ'D	35mm DIN RAIL	PHOENIX CONTACT	0801733
8	2	24 VDC POWER SUPPLY	SOLA	SDN 10-24-100C
9	2	POWER SUPPLY MODULE X80 - 24..48 V DC	SCHNEIDER ELECTRIC	BMX-CPS-3020
10	1	MODICON EXTENDED MANAGED SWITCH, 8 PORTS COPPER	SCHNEIDER ELECTRIC	MCSESM083F23F1
12	2	MODICON X80 RIO DROP E/IP STD	SCHNEIDER ELECTRIC	BMX-CRA-31210
13	7	ISOLATED ANALOG INPUT MODULE X80 - 8 INPUTS	SCHNEIDER ELECTRIC	BMX-AMI-0810
14	10	DISCRETE INPUT MODULE X80 - 32 INPUTS - 24 V DC POSITIVE	SCHNEIDER ELECTRIC	BMX-DDI-3202K
15	AS REQ'D	WIRE WAY	PANDUIT	F4X3LG6, C4LG6
16	2	12 SLOT RACK	SCHNEIDER ELECTRIC	BME-XBP-1200
17	AS REQ'D	ISOLATION STANDOFF	PANDUIT	UGB-IN-SO
18	AS REQ'D	WIRE WAY	PANDUIT	F2X3LG6, C2LG6
19	AS REQ'D	TERMINAL BLOCK - FEED THROUGH UT	PHOENIX CONTACT	3046184
20	AS REQ'D	TERMINAL BLOCK END CLAMP	PHOENIX CONTACT	3022218
21	AS REQ'D	TERMINAL BLOCK END COVER UT	PHOENIX CONTACT	3047141
22	AS REQ'D	TERMINAL BLOCK MARKER	PHOENIX CONTACT	1004348
23	AS REQ'D	PLC-BSC-120UC/21 - RELAY MODULE	PHOENIX CONTACT	2966281
24	AS REQ'D	PLC-RSC- 24DC/21 - RELAY MODULE	PHOENIX CONTACT	2966171
25	AS REQ'D	FUSE PLUG-P-FU 5X20	PHONEIX CONTACT	3036806
26	AS REQ'D	KNIFE DISCONECT TERMINAL - UT	PHONEIX CONTACT	3046139
27	AS REQ'D	POTENTIAL - EARTH TERMINAL - UT	PHOENIX CONTACT	3046207
28	AS REQ'D	FUSED TERMINAL - UT	PHOENIX CONTACT	3046142
29	AS REQ'D	PLC-ATP BK - SEPARATING PLATE	PHOENIX CONTACT	2966841

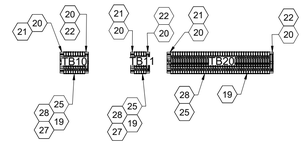
TYPICAL TERMINAL BLOCK LAYOUTS

SCALE: 1:8



POWER TERMINAL BLOCK LAYOUTS

SCALE: 1:8



INTEGRATOR NOTES:

1. SEE SPECIFICATION 40 90 00 FOR SCOPE.
2. INTEGRATOR SCOPE IS TO BUILD AND SUPPLY THE PANEL. INTEGRATOR TO COMPLETE BILL OF MATERIAL AS PART OF AS-BUILT SET.
3. ALL POWER WIRING TO BE TEW/ MTW 600V, 105°C INSULATION, STRANDED COPPER, 12 AWG OR LARGER WHERE CURRENT REQUIREMENTS DICTATE AS PER CEC REQUIREMENTS.
4. ALL CONTROL WIRING TO BE TEW/ MTW 300V, 105°C INSULATION, STRANDED COPPER, 16 AWG.
5. ALL ANALOG WIRING TO BE 18 AWG SHIELDED TWISTED PAIR, WITH INSULATION RATED AT 300V.
6. EXTERNAL PANEL MOUNTED COMPONENTS ARE TO BE LABELED.
7. ALL MAJOR COMPONENTS INSIDE THE PANEL TO BE LABELED WITH LAMACOIDS. LAMACOIDS TO BE MOUNTED ON THE BACKPLANE.
8. PROVIDE LIP BLADE LUGS FOR ALL WIRING.
9. ALL TERMINAL BLOCKS SHALL BE NUMBERED, COMPLETE WITH GROUP LABELING.
10. ALL WIRES SHALL BE TAGGED.
11. ROUTE ALL 24VDC WIRING SEPARATE FROM 120VAC WIRING.
12. ALL ETHERNET CABLING IS TO BE ATTACHED TO THE SIDE WALLS OF THE ENCLOSURE AND KEPT AS FAR AS POSSIBLE FROM 120VAC WIRING.
13. DOOR CLAMP BLOCKS TO BE REMOVED.
14. JUMPER BARS SHALL BE USED INSTEAD OF WIRE JUMPERS WHERE POSSIBLE.
15. PANEL DOORS TO BE SECURELY GROUNDED TO PANEL GROUND.
16. BACKPLANE TO BE FABRICATED TO ALLOW FOR MOUNTING ON TEMPORARY STAND AND TO BE REINSTALLED IN ENCLOSURE AFTER SWITCHOVER. SEE SPECIFICATION 40 90 00 AND APPENDIX A FOR MORE DETAILS.
17. PROVIDE CSA CERTIFICATION.
18. GROUP TERMINAL BLOCKS BASED ON IO TYPE AND FUNCTION. ENSURE A SINGLE TYPE OF IO IS IN EACH WIREWAY.
19. THE BILL OF MATERIAL IS INTENDED TO PROVIDE A GENERAL GUIDELINE ONLY, MAY NOT INCLUDE ALL MISCELLANEOUS MATERIALS. IT IS THE RESPONSIBILITY OF THE PANEL VENDOR TO PROVIDE ALL REQUIRED MATERIALS FOR COMPLETE AND OPERATING SYSTEM.

CONTRACTOR NOTES:

1. SEE SPECIFICATION 26 05 10 FOR SCOPE.
2. CONTRACTOR SCOPE IS TO INSTALL PANEL AND PANEL POWER FEEDS.
3. TEST ALL WIRING AND COMPONENTS FOR FUNCTIONAL OPERATION, CORRECT CONNECTION, CONTINUITY AND INSULATION INTEGRITY, THREE COPIES OF CERTIFIED TEST DOCUMENTATION ARE TO BE PROVIDED.
4. GROUP CABLE AND CONDUIT PENETRATIONS SUCH THAT THE INCOMING AND OUTGOING WIRES ARE CLOSEST TO THEIR TERMINAL BLOCKS AND ANALOG AND DIGITAL WIRES DO NOT CROSS INSIDE OF THE PANELS.

REF. NO.	DRAWING TITLE	DRAWING NUMBER
5	PANEL LAYOUT DEWATERING CONTROL PANEL 2 CP-W8002	1-0101-ACBD-W102-001
4	PANEL LAYOUT DEWATERING CONTROL PANEL 1 CP-W8001	1-0101-ACBD-W101-001
3	POWER DISTRIBUTION SCHEMATIC DEWATERING CONTROL PANEL CP-W8003	1-0101-AWDG-W003-001 1-0101-AWDG-W003-002
2	DEWATERING NETWORK DIAGRAM	1-0101-ANET-W101-001
1	DEWATERING CONTROL ROOM	1-0101-AGAD-W001-001

REFERENCE DRAWING

NO.	REVISIONS	DATE	DESIGN	CHECK
0A	GC PACKAGE ISSUED FOR 100% REVIEW	2023-06-23	KG	SDS
1	ISSUED FOR ADDENDUM #2	2023-04-18	KG	SDS
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: TW	APPROVED BY: SRB
SCALE: 1:8	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:
CONSULTANT NO.:	

ENGINEER'S SEAL

Winnipeg

THE CITY OF WINNIPEG

WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT

DCS MIGRATION

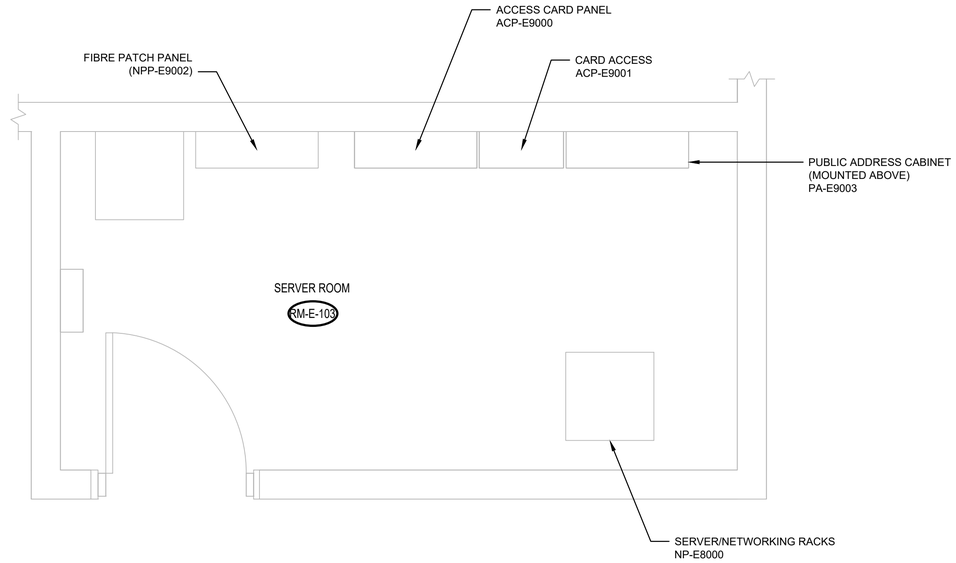
PANEL LAYOUT

DEWATERING CONTROL PANEL 3 - CP-W8003

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-S1197-ACBD-W103	001	0A	A1

LAST SAVE: 2023/07/21 9:30 AM

PATH: C:\Users\Katherine.Gleiser\ACCDocs\AECOM\City of Winnipeg - NEWPCC Upgrades 2021\Project Files\900 Design Collaboration\6943525.DCS Migration\02 - Main Package\1-0101-ACBD-W101-102-103.dwg



SUBSTATION BUILDING SERVER ROOM

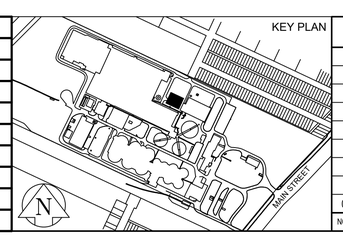
0 500 1000 mm

1:20

INTEGRATOR NOTES:

1. SEE SPECIFICATION 40 90 00 FOR SCOPE.
2. INTEGRATOR SCOPE IS TO FULLY INTEGRATE THE EXISTING AREA PLC INTO THE PCS.

REF. NO.	DRAWING TITLE	DRAWING NUMBER
REFERENCE DRAWING		



NO.	REVISIONS	DATE	DESIGN	CHECK
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: TW	APPROVED BY: SRB
SCALE: AS NOTED	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:
CONSULTANT NO.:	

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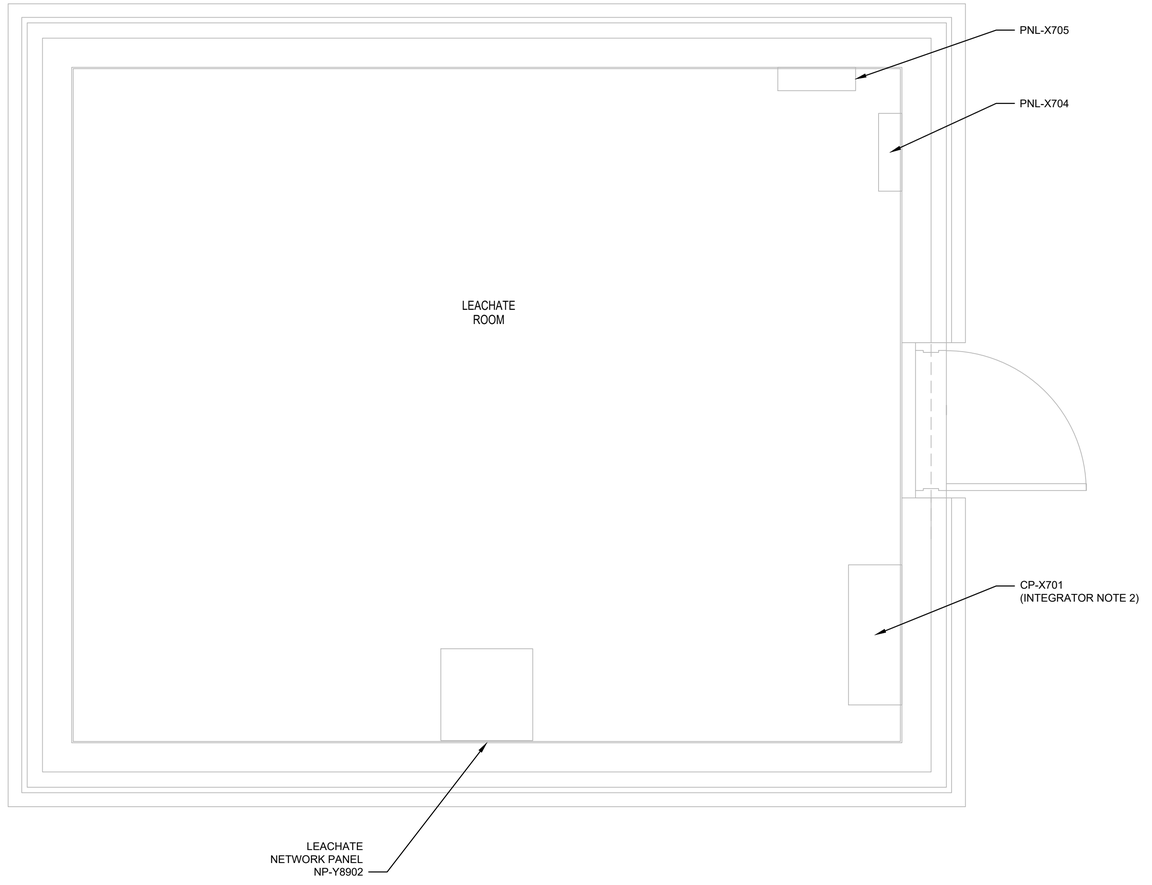
THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT
DCS MIGRATION
INSTRUMENTATION GENERAL ARRANGEMENT
SUBSTATION BUILDING
SERVER ROOM

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-AGAD-E001	001	0	A1



LEACHATE ROOM

0 500 1000 mm

1:20

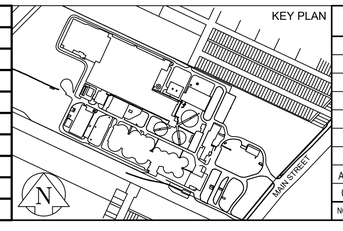
INTEGRATOR NOTES:

1. SEE SPECIFICATION 40 90 00 FOR SCOPE.
2. INTEGRATOR SCOPE IS TO FULLY INTEGRATE THE EXISTING AREA PLC INTO THE PCS.

CONTRACTOR NOTES:

1. SEE SPECIFICATION 26 05 10 FOR SCOPE.

REF. NO.	DRAWING TITLE	DRAWING NUMBER
	REFERENCE DRAWING	



NO.	REVISIONS	DATE	DESIGN	CHECK
A0	GC PACKAGE ISSUED FOR 100% REVIEW	2023-06-23	KG	SDS
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: TW	APPROVED BY: SRB
SCALE: AS NOTED	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:

CONSULTANT NO.:

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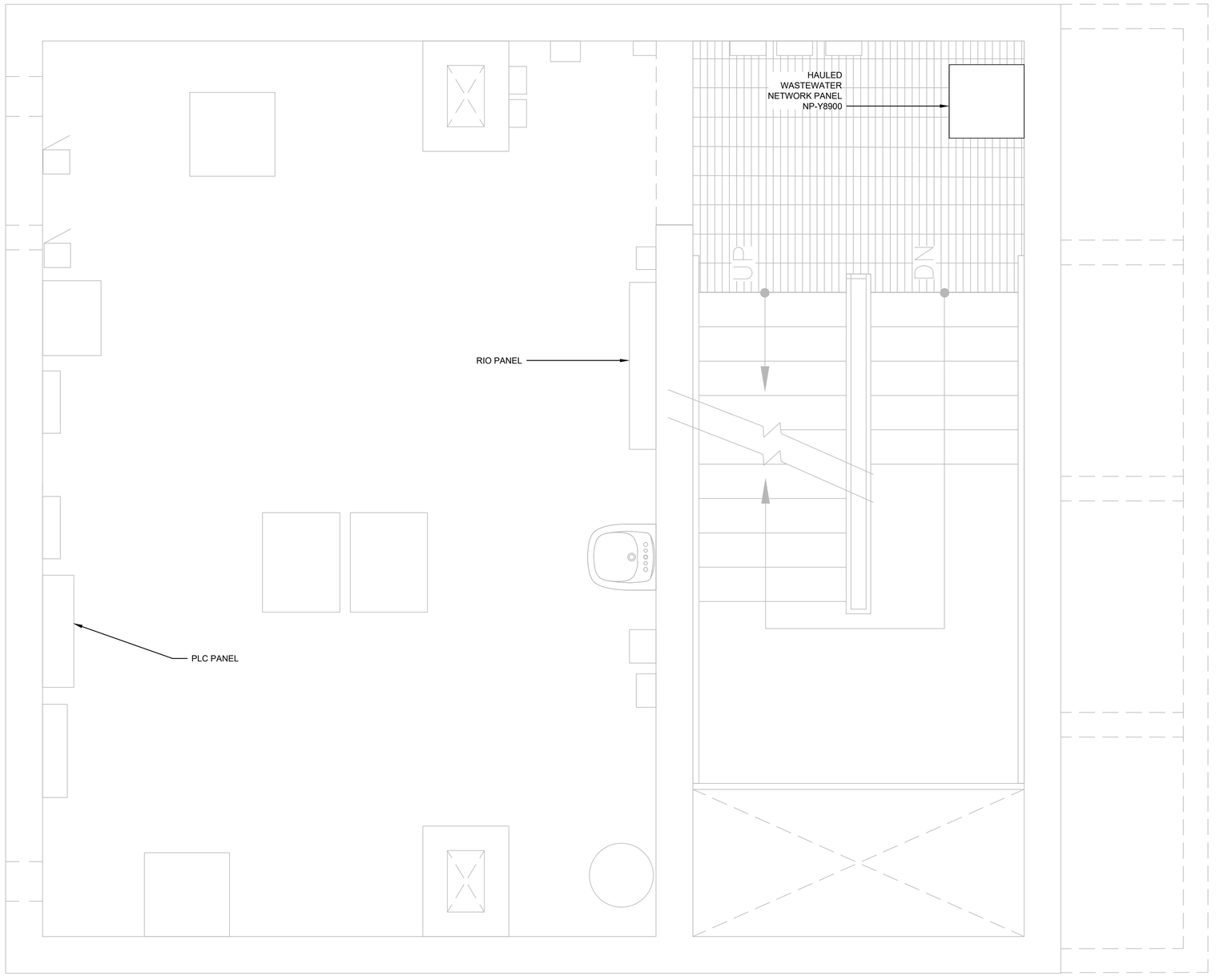
WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT
DCS MIGRATION
INSTRUMENTATION GENERAL ARRANGEMENT
LEACHATE ROOM

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-AGAD-L001	001	A0	A1



HAULED WASTEWATER 1

0 500 1000 mm

1:20

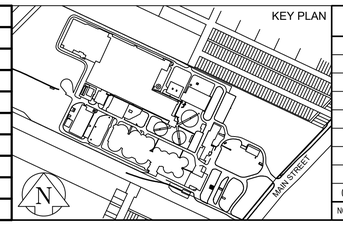
INTEGRATOR NOTES:

1. SEE SPECIFICATION 40 90 00 FOR SCOPE.
2. INTEGRATOR SCOPE IS TO FULLY INTEGRATE THE EXISTING AREA PLC INTO THE PCS.

CONTRACTOR NOTES:

1. SEE SPECIFICATION 26 05 10 FOR SCOPE.

NO.	DRAWING TITLE	DRAWING NUMBER
	REFERENCE DRAWING	



NO.	REVISIONS	DATE	DESIGN	CHECK
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: KG	APPROVED BY: SRB
SCALE: AS NOTED	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:
CONSULTANT NO.:	

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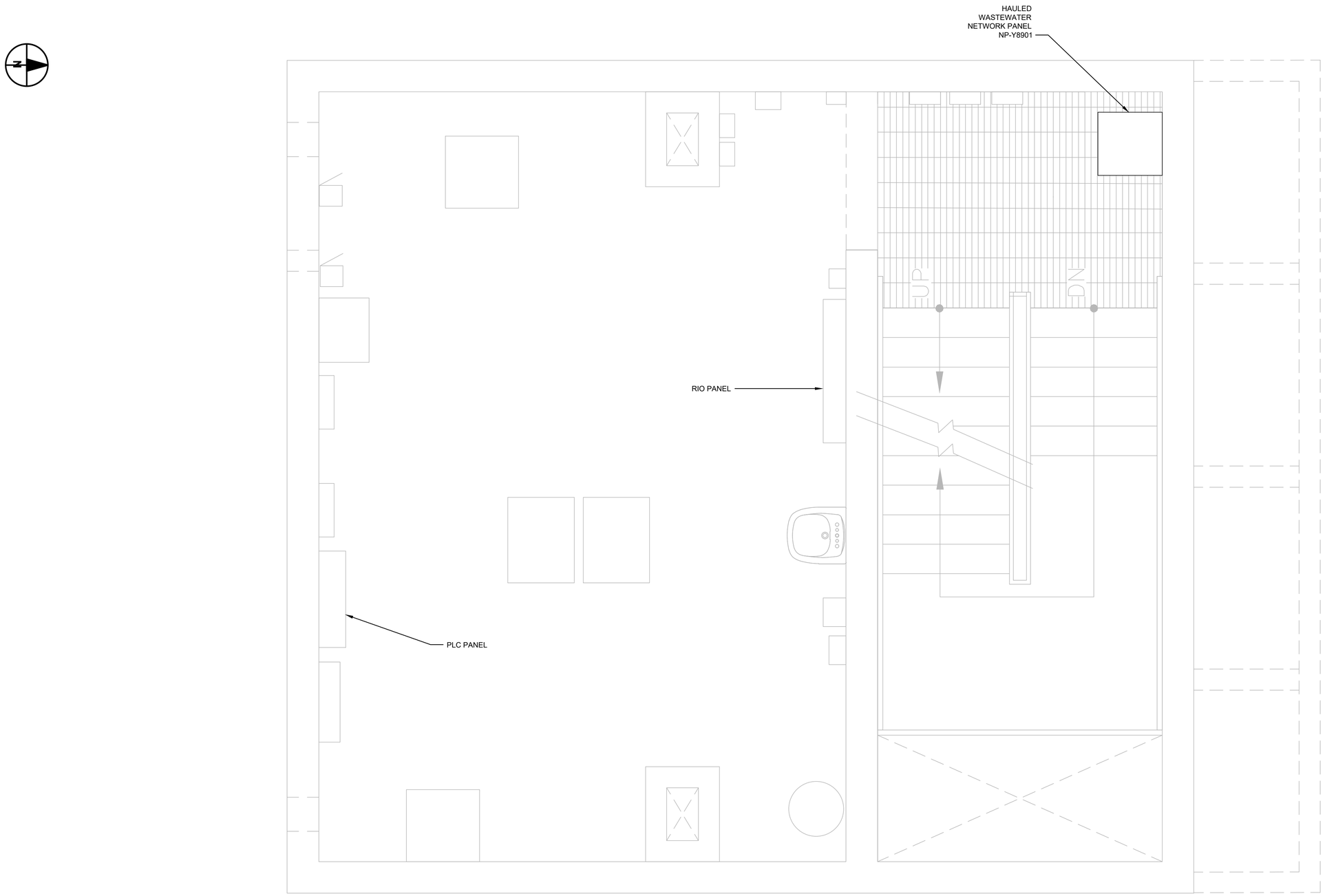
WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT
DCS MIGRATION
INSTRUMENTATION GENERAL ARRANGEMENT
HAULED WASTEWATER 1

CITY DRAWING NUMBER	SHEET	REV.	SIZE
1-0101-AGAD-Y001	001	0	A1



HAULED WASTEWATER 2

0 500 1000 mm

1:20

INTEGRATOR NOTES:

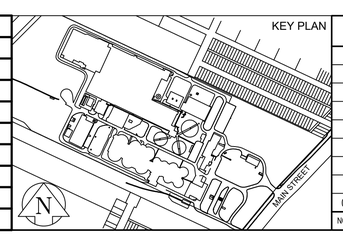
1. SEE SPECIFICATION 40 90 00 FOR SCOPE.
2. INTEGRATOR SCOPE IS TO FULLY INTEGRATE THE EXISTING AREA PLC INTO THE PCS.

CONTRACTOR NOTES:

1. SEE SPECIFICATION 26 05 10 FOR SCOPE.

NO.	DRAWING TITLE	DRAWING NUMBER
	REFERENCE DRAWING	

KEY PLAN



NO.	REVISIONS	DATE	DESIGN	CHECK
0	ISSUED FOR TENDER	2023-03-17	KG	SDS

AECOM

DESIGNED BY: KG	CHECKED BY: SDS
DRAWN BY: KG	APPROVED BY: SRB
SCALE: AS NOTED	RELEASED FOR CONSTRUCTION BY:
DATE: 2023-06-23	DATE:
CONSULTANT NO.:	

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THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

NORTH END SEWAGE TREATMENT PLANT
DCS MIGRATION
INSTRUMENTATION GENERAL ARRANGEMENT
HAULED WASTEWATER 2

CITY DRAWING NUMBER	SHEET	REV.	SIZE
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