

ELECTRICAL EQUIPMENT LIST (PARTIAL SHOWING MAJOR EQUIPMENT)

NO.	ITEM	QTY.	DESCRIPTION	FUNCTION	LOCATION	COMMENTS
1	CB	3	CB, 3P, 600AF/600AT	PROTECTION	ELEC EQUIP RM 2ND FLR	FROM SWBD #2
2	ATS	1	ATS, 3P, 600A	FDR TRANSFER PROTECTION	NORTH MTR RM	FROM N TWR
3	BUS	1	600A, 600VAC, 3PH, 3W BUS	SERVICE DISTR	SOUTH MCC	FROM S TWR
4	CB	1	CB, 3P, 600AF/600AT	FDR	SOUTH MCC	FROM S TWR
5	CB LP2	1	CB, 3P, 100AF/20AT	PROTECTION	SOUTH MCC	FROM S TWR
6	MCP SPAN LOCK MTR SOUTH	1	CB, 3P, 15A/90AT	PROTECTION	SOUTH MCC	FROM S TWR
7	CB SOUTH PIER LIGHTHOUSE	1	CB, 3P, 100AF/30AT	PROTECTION	SOUTH MCC	FROM S TWR
8	MCP MTR BRAKE S1, S4	2	CB, 3P, 3A/18AT	PROTECTION	SOUTH MCC	FROM S TWR
9	MCP MACH BRAKE S2, S3	2	CB, 3P, 3A/18AT	PROTECTION	SOUTH MCC	FROM S TWR
10	CB ELEVATOR	1	CB, 3P, 100AF/50AT	PROTECTION	SOUTH MCC	FROM S TWR
11	MCP PEDESTRIAN GATE PG-SW	1	CB, 3P, 3A/18AT	PROTECTION	SOUTH MCC	FROM S TWR
12	CB	1	CB, 3P, 100AF/40AT	PROTECTION	SOUTH MCC	FROM S TWR
13	CB	1	CB, 3P, 100AF/60AT	PROTECTION	SOUTH MCC	FROM S TWR
14	CB NETWORK POWER SUPPLY	1	CB, 3P, 150A	PROTECTION	SOUTH MCC	FROM S TWR
15	MCP DIFF LOCK DIFL-S	1	CB, 3P, 3A/18AT	PROTECTION	SOUTH MCC	FROM S TWR
16	MCP MTR BLOWERS BL-1E, BL-2W	2	CB, 3P, 7A/42AT	PROTECTION	SOUTH MCC	FROM S TWR
17	MCP BARRIER GATE BG-SE	1	CB, 3P, 7A/30AT	PROTECTION	SOUTH MCC	FROM S TWR
18	MCP TRAFFIC GATES TG-SE, TG-SW	2	CB, 3P, 3A/18AT	PROTECTION	SOUTH MCC	FROM S TWR
19	CB VECTOR DRIVES 1E-MA, 2W-SL	2	CB, 3P, 400AF/350AT	PROTECTION	SOUTH MCC	FROM S TWR
20	STR SPAN LOCK SOUTH	1	COMB FVR MAG STR	MTR STARTING	SOUTH MCC	FROM S TWR
21	STR MTR. BRAKE S1, S4	2	COMB FVNR MAG STR	MTR STARTING	SOUTH MCC	FROM S TWR
22	STR MACH. BRAKE S3, S4	2	COMB FVNR MAG STR	MTR STARTING	SOUTH MCC	FROM S TWR
23	STR PED. GATE	1	COMB FVR MAG STR	MTR STARTING	SOUTH MCC	FROM S TWR
24	STR. DIFF. LOCK DIFL-S	1	COMB FVR MAG STR	MTR STARTING	SOUTH MCC	FROM S TWR
25	STR MTR. BLOWERS BL-1E, BL-2W	2	COMB FVNR MAG STR	MTR STARTING	SOUTH MCC	FROM S TWR
26	STR BARRIER GATE BG-SE	1	COMB FVR MAG STR	MTR STARTING	SOUTH MCC	FROM S TWR
27	STR TRAFFIC GATES TG-SE, TG-SW	2	COMB FVR MAG STR	MTR STARTING	SOUTH MCC	FROM S TWR
28	OL SPAN LOCK SOUTH	1	OL, SW	PROTECTION	SOUTH MCC	FROM S TWR
29	OL MTR. BRAKE S1, S4	2	OL, SW	PROTECTION	SOUTH MCC	FROM S TWR
30	OL MACH. BRAKES S3, S4	2	OL, SW	PROTECTION	SOUTH MCC	FROM S TWR
31	OL PED. GATE PG-SW	1	OL, SW	PROTECTION	SOUTH MCC	FROM S TWR
32	OL DIFF. LOCK DIFL-S	1	OL, SW	PROTECTION	SOUTH MCC	FROM S TWR
33	OL MTR. BLOWERS BL-1E, BL-2W	2	OL, SW	PROTECTION	SOUTH MCC	FROM S TWR
34	OL BARRIER GATE BG-SE	1	OL, SW	PROTECTION	SOUTH MCC	FROM S TWR
35	OL TRAFFIC GATES TG-SE, TG-SW	2	OL, SW	PROTECTION	SOUTH MCC	FROM S TWR
36	CB VECTOR DRIVES 1E-MA, 2W-SL	2	CB, 3P, 400AF/350AT	PROTECTION	SOUTH VECTOR DRIVES	FROM S TWR
37	VECTOR DRIVES 1E-MA, 2W-SL	2	VFD DRIVES	SPEED CONTROL DRIVES MTRS.	SOUTH MTR. RM.	FROM S TWR
38	ELECTRIC BRAKING MODULES 1E-MA, 2W-SL	2	DYNAMIC BRAKE MODULE		SOUTH VECTOR DRIVES	FROM S TWR
39	BRAKING RESISTORS	2	DYNAMIC BRAKE RESISTORS		SOUTH VECTOR DRIVES	FROM S TWR
40	SPAN MTRS. 1E-MA, 2W-SL	2	DRIVE MOTORS AND ENCODERS		SOUTH MTR. RM.	FROM S TWR
41	DS SPAN MTRS 1E-MA, 2W-SL	2	DISC SW	PROTECTION	SOUTH MTR. RM.	EXIST FROM S TWR
42	DS LP2	1	DISC SW	PROTECTION	LP2 SOUTH MTR RM.	EXIST FROM S TWR
43	DS SPAN LOCK SOUTH	1	DISC SW	PROTECTION	SPAN LOCK SOUTH	EXIST FROM S TWR
44	DS PED. GATE PG-SW	1	DISC SW	PROTECTION	PED. GATE PG-SW CABINET	FROM S TWR
45	DS BARRIER GATE BG-SE	1	DISC SW	PROTECTION	BARRIER GATE BG-SE CABINET	FROM S TWR
46	DS TRAFFIC GATES TG-SE, TG-SW	2	DISC SW	PROTECTION	TRAFFIC GATE CABINETS TG-SE, TG-SW	FROM S TWR
47	SOUTH PIER LIGHTHOUSE	1	SOUTH PIER HOUSE SERVICE FDR		SOUTH PIER	EXIST FROM S TWR
48	ELEVATOR SOUTH	1	ELEVATOR EQUIPMENT	ELEVATOR FDR	SOUTH MTR RM	EXIST FROM S TWR
49	AUX. DRIVE MTS	1	MTS, 3P	FDR TRANSFER PROTECTION	SOUTH MTR RM	EXIST FROM S TWR
50	MTR. BRAKES S1, S4	2	SOUTH MTR. BRAKES 1/3 HP		SOUTH MTR RM	FROM S TWR
51	MACH. BRAKES S2, S3	2	SOUTH MACH. BRAKES 3/4 HP		SOUTH MTR RM	EXIST BRAKES
52	PED GATE PG-SW	1	PED. GATE MTR, 1 HP		SW SIDEWALK APPROACH	FROM S TWR
53	HEATING PANEL	1	PANEL BD	ROOM HEATING DISTR	SOUTH MTR RM	EXIST FROM S TWR
54	TRANSF.	1	STEP DOWN TRANSF		SOUTH MTR RM	EXIST FROM S TWR
55	LP2	1	PANEL BD	MISC LIGHTING DISTR	SOUTH MTR RM	EXIST FROM S TWR
56	MCP AUX. DRIVE	1	CB, 3P, 50A/150AT	PROTECTION	SOUTH MTR RM	EXIST FROM S TWR
57	AUX. DRIVE PNL	1	STR AUX DRIVE		SOUTH MTR RM	FROM S TWR
58	DS	1	DISC SW	PROTECTION	SOUTH MTR RM	EXIST FROM S TWR
59	TRANSF	1	STEP DOWN TRANSF		SOUTH MTR RM	EXIST FROM S TWR
60	EM. PNL.	1	EM PANEL BD	EM LTG DISTR	SOUTH MTR RM	EXIST FROM S TWR
61	AUX. DRIVE MTR	1	AUX DRIVE MTR, 20 HP		SOUTH MTR RM	FROM S TWR
62	DIFF LOCK MTR DIFL-S	1	DIFF LOCK MTR, 1/2 HP		SOUTH MTR RM	FROM S TWR
63	MTR BLOWERS BL-1E, BL-2W	2	MTR BLOWER, 3 HP		SOUTH MTR RM	FROM S TWR
64	BARRIER GATE BG-SE	1	BARRIER GATE MTR, 1-1/2 HP		SE ROADWAY APPROACH	FROM S TWR
65	TRAFFIC GATES TG-SE, TG-SW	2	TRAFFIC GATE MTRS, 1 HP		SE, SW ROADWAY	FROM S TWR
66	SPAN LOCK MTR SOUTH	1	SPAN LOCK MTR, 5 HP		BELOW SPAN SOUTH	FROM S TWR
67	DIGITAL METER	1	DIGITAL METER	LOCAL METERING	SOUTH MCC	FROM S TWR
68	NETWORK POWER SUPPLY	1	COMM NETWORK POWER SUPPLY		SOUTH MCC	FROM S TWR
69	COMMUNICATION NETWORK LINKING UNIT	1	PLC COMMUNICATION LINKING UNIT	REMOTE PLC COMM.	SOUTH MCC	FROM S TWR
70	-	-	-	-	-	NOT USED

ELECTRICAL EQUIPMENT LIST (PARTIAL SHOWING MAJOR EQUIPMENT CONTINUED)

NO.	ITEM	QTY.	DESCRIPTION	FUNCTION	LOCATION	COMMENTS
71	BUS	1	600A, 600VAC, 3PH, 3W BUS	SERVICE DISTR	NORTH MCC	FROM N TWR
72	CB	1	CB, 3P, 600AF/600AT	FDR	NORTH MCC	FROM N TWR
73	CB LP3	1	CB, 3P, 100AF/20AT	PROTECTION	NORTH MCC	FROM N TWR
74	MCP SPAN LOCK MTR NORTH	1	CB, 3P, 15A/90AT	PROTECTION	NORTH MCC	FROM N TWR
75	CB	1	CB, 3P, 100AF/15AT	PROTECTION	NORTH MCC	FROM N TWR
76	MCP MTR BRAKES N1, N4	2	CB, 3P, 3A/18AT	PROTECTION	NORTH MCC	FROM N TWR
77	MCP MACH BRAKES N2, N3	2	CB, 3P, 3A/18AT	PROTECTION	NORTH MCC	FROM N TWR
78	CB ELEVATOR	1	CB, 3P, 100AF/50AT	PROTECTION	NORTH MCC	FROM N TWR
79	MCP PED GATE PG-NW	1	CB, 3P, 3A/18AT	PROTECTION	NORTH MCC	FROM N TWR
80	CB HEATING PNL	1	CB, 3P, 100AF/40AT	PROTECTION	NORTH MCC	FROM N TWR
81	CB AUX DRIVE	1	CB, 3P, 100AF/60AT	PROTECTION	NORTH MCC	FROM N TWR
82	CB NETWORK PWR SUPPLY	1	CB, 3P, 150A	PROTECTION	NORTH MCC	FROM N TWR
83	MCP DIFF LOCK DIFL-N	1	CB, 3P, 3A/18AT	PROTECTION	NORTH MCC	FROM N TWR
84	MCP MTR BLOWERS BL-3E, BL-4W	2	CB, 3P, 7A/42AT	PROTECTION	NORTH MCC	FROM N TWR
85	MCP BARRIER GATE BG-NE	1	CB, 3P, 7A/42AT	PROTECTION	NORTH MCC	FROM N TWR
86	MCP TRAFFIC GATES TG-NE, TG-NW	2	CB, 3P, 3A/18AT	PROTECTION	NORTH MCC	FROM N TWR
87	CB VECTOR DRIVES 3E-MA, 4W-SL	2	CB, 3P, 400AF/350AT	PROTECTION	NORTH MCC	FROM N TWR
88	STR SPAN LOCK NORTH	1	COMB FVR MAG STR	MTR STARTING	NORTH MCC	FROM N TWR
89	STR MTR BRAKES N1, N4	2	COMB FVNR MAG STR	MTR STARTING	NORTH MCC	FROM N TWR
90	STR MACH BRAKES N2, N3	2	COMB FVNR MAG STR	MTR STARTING	NORTH MCC	FROM N TWR
91	STR PED GATE PG-NW	1	COMB FVR MAG STR	MTR STARTING	NORTH MCC	FROM N TWR
92	STR DIFF LOCK DIFL-N	1	COMB FVR MAG STR	MTR STARTING	NORTH MCC	FROM N TWR
93	STR MTR BLOWERS BL-3E, BL-4W	2	COMB FVNR MAG STR	MTR STARTING	NORTH MCC	FROM N TWR
94	STR BARRIER GATE BG-NE	1	COMB FVR MAG STR	MTR STARTING	NORTH MCC	FROM N TWR
95	STR TRAFFIC GATES TG-NE, TG-NW	2	COMB FVR MAG STR	MTR STARTING	NORTH MCC	FROM N TWR
96	OL SPAN LOCK NORTH	1	OL, SW	PROTECTION	NORTH MCC	FROM N TWR
97	OL MTR BRAKES N1, N4	2	OL, SW	PROTECTION	NORTH MCC	FROM N TWR
98	OL MACH BRAKES N2, N3	2	OL, SW	PROTECTION	NORTH MCC	FROM N TWR
99	OL PED GATE PG-NW	1	OL, SW	PROTECTION	NORTH MCC	FROM N TWR
100	OL DIFF LOCK DIFL-N	1	OL, SW	PROTECTION	NORTH MCC	FROM N TWR
101	OL MTR BLOWERS BL-3E, BL-4W	2	OL, SW	PROTECTION	NORTH MCC	FROM N TWR
102	OL BARRIER GATE BG-NE	1	OL, SW	PROTECTION	NORTH MCC	FROM N TWR
103	OL TRAFFIC GATES TG-NE, TG-NW	2	OL, SW	PROTECTION	NORTH MCC	FROM N TWR
104	CB VECTOR DRIVES 3E-MA, 4W-SL	2	CB, 3P, 400AF/350AT	PROTECTION	NORTH VECTOR DRIVES	FROM N TWR
105	VECTOR DRIVES 3E-MA, 4W-SL	2	VFD DRIVES	SPEED CONTROL DRIVES MTRS.	NORTH MTR RM	FROM N TWR
106	ELECTRIC BRAKING MODULES 3E-MA, 4W-SL	2	DYNAMIC BRAKE MODULE		NORTH VECTOR DRIVES	FROM N TWR
107	BRAKING RESISTORS	2	DYNAMIC BRAKE RESISTORS		NORTH VECTOR DRIVES	FROM N TWR
108	SPAN MTRS 3E-MA, 4W-SL	2	DRIVE MOTORS AND ENCODERS		NORTH MTR RM	FROM N TWR
109	DS SPAN MTRS 3E-MA, 4W-SL	2	DISC SW	PROTECTION	NORTH MTR RM	EXIST FROM N TWR
110	DS LP3	1	DISC SW	PROTECTION	LP3 NORTH MTR RM	FROM N TWR
111	DS SPAN LOCK NORTH	1	DISC SW	PROTECTION	SPAN LOCK SOUTH	EXIST N TWR
112	DS LP3	1	DISC SW	PROTECTION	LP3 NORTH MTR RM	EXIST FROM N TWR
113	DS PED GATE PG-NW	1	DISC SW	PROTECTION	PED GATE PG-NW CABINET	FROM N TWR
114	DS BARRIER GATE BG-NE	1	DISC SW	PROTECTION	BARRIER GATE BG-NE CABINET	FROM N TWR
115	DS TRAFFIC GATES TG-NE, TG-NW	2	DISC SW	PROTECTION	TRAFFIC GATES TG-NW, TG-NW	FROM N TWR
116	ELEVATOR NORTH	1	ELEVATOR EQUIPMENT	ELEVATOR FDR	NORTH MTR RM	FROM N TWR
117	AUX DRIVE MTS	1	MTS, 3P	FDR TRANSFER PROTECTION	NORTH MTR RM	FROM N TWR
118	MTR BRAKES N1, N4	2	NORTH MTR BRAKES, 1/3 HP		NORTH MTR RM	FROM N TWR
119	MTR BRAKES N2, N3	2	NORTH MACHINE BRAKES, 3/4 HP		NORTH MTR RM	FROM N TWR
120	PED GATE PG-NW	1	PED GATE MTR, 1 HP		NW SIDEWALK APPROACH	FROM N TWR
121	HEATING PANEL	1	PANEL BD	ROOM HEATING DISTR	NORTH MTR RM	FROM N TWR
122	TRANSF	1	STEP DOWN TRANSF		NORTH MTR RM	EXIST FROM N TWR
123	LP3	1	PANEL BD	MISC LIGHTING DISTR	NORTH MTR RM	EXIST FROM N TWR
124	MCP AUX DRIVE	1	CB, 3P, 50A/150AT	PROTECTION	NORTH MTR RM	EXIST FROM N TWR
125	AUX. DRIVE PNL	1	STR AUX DRIVE		NORTH MTR RM	FROM N TWR
126	DS	1	DISC SW	PROTECTION	NORTH MTR RM	EXIST FROM N TWR
127	TRANSF	1	STEP DOWN TRANSF		NORTH MTR RM	EXIST FROM N TWR
128	EM PNL	1	EM PANEL BD	EM LTG DISTR	NORTH MTR RM	EXIST FROM N TWR
129	AUX DRIVE MTR	1	AUX DRIVE MTR, 20 HP		NORTH MTR RM	FROM N TWR
130	DIFF LOCK MTR DIFL-N	1	DIFF LOCK MTR, 1-1/2 HP		NORTH MTR RM	FROM N TWR
131	MTR BLOWERS BL-3E, BL-4W	2	MTR BLOWER, 3 HP		NORTH MTR RM	FROM N TWR
132	BARRIER GATE BG-NE	1	BARRIER GATE MTR, 1-1/2 HP		NE ROADWAY APPROACH	FROM N TWR
133	TRAFFIC GATES TG-NE, TG-NW	2	TRAFFIC GATE MTRS, 1 HP		NE, NW ROADWAY APPROACH	FROM N TWR
134	SPAN LOCK MTR NORTH	1	SPAN LOCK MTR, 5 HP		BELOW SPAN SOUTH	FROM N TWR
135	TRANSF	1	NORTH MTR TRANSF		NORTH MTR RM	EXIST FROM N TWR
136	LP4	1	PANEL BD	MISC LIGHTING DISTR	NORTH MTR RM	EXIST FROM N TWR
137	DIGITAL METER	1	DIGITAL METER	LOCAL METERING	NORTH MCC	FROM N TWR
138	NETWORK POWER SUPPLY	1	COMM NETWORK POWER SUPPLY		NORTH MCC	FROM N TWR
139	COMMUNICATION NETWORK LINKING UNIT	1	PLC COMMUNICATION LINKING UNIT	REMOTE PLC COMM.	NORTH MCC	FROM N TWR
140	-	-	-	-	-	NOT USED

NOTES:
1. CONDUIT AND CABLE SCHEDULE AND SERVICE DESIGNATIONS ARE INTENDED AS A GUIDE FOR THE CONTRACTOR AND ARE NOT CONSIDERED TO BE COMPLETE. THE CONTRACTOR MUST COMPLETE THE SCHEDULE AND SUBMIT WITH THE SHOP DRAWINGS BASED ON CONTRACTOR SELECTED EQUIPMENT BRANDS AND MODELS AND FINAL CONFIGURATIONS.



Public Works and Government Services Canada
Architectural and Engineering Services
Ontario Region

Travaux publics et Services gouvernementaux Canada
Services d'architecture et de génie
Région de l'Ontario

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Temporary Licensee
Name: Mark VanDeRee
Number: 100181047-02
Limitations: Electrical system design for the Burlington Canal Bridge in Burlington, Ontario for Public Works and Government Services Canada

Collaborator: Zvonko Trajkovic, P. Eng.
Expiry Date : July 31, 2013
Association of Professional Engineers of Ontario

Mark VanDeRee 243-07-08



07	FOR TENDER 2	2013-06-30
06	FOR TENDER	2013-06-04
05	FINAL DESIGN COMPLETION	2013-05-31
04	99% DESIGN COMPLETION	2013-05-31
03	90% DESIGN SUBMITTAL	2013-03-31
02	66% DESIGN SUBMITTAL	2013-02-14
01	33% DESIGN SUBMITTAL	2012-12-10

revision		date
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Do not scale drawings.
Verify all dimensions and conditions on site and immediately notify the Departmental Representative of all discrepancies.

A

B

C

Detail No.,
No. du détail
drawing no. — where detail required
dessin no. — où détail exigé
drawing no. — where detailed
dessin no. — où détaillé

project title
titre du projet
**HAMILTON ONTARIO
BURLINGTON CANAL
VERTICAL LIFT BRIDGE
REPLACEMENT OF CONTROLS,
DRIVES AND OVERHEAD CABLES**

drawing title
titre du dessin
ELECTRICAL EQUIPMENT LIST 1

drawn by
dessiné par
D. Buro

designed by
conc par
D. Raffington/J. Chin

approved by
approuvé par
M. Vanderee

bid
soumission
A. Ghubril

project manager
administrateur
de projets

project date
date du projet
2013-05-31

project no.
no. du projet
R.012641.001

drawing no.
dessiné no.
E-92