CONDUIT AND WIRE SCHEDULE - ALUMINUM

FEEDER NAME	WIRE SIZE		MIN. CONDUIT SIZE (MM)			MAX LENGTH (M) @80%		
(# DENOTES NO. OF CONDUCTORS)	PHASE & NEUTRAL	BOND (AS REQ'D)	2C	3C	4C	208V	600V	CIRCUIT AMPACITY (A)
60-#A	#4	#6	27	35	35	23	68	65
70-#A	#3	#6	27	35	35	25	73	75
90-#A	#2	#6	27	35	35	24	70	90
100-#A	#1	#6	35	41	41	27	78	100
125-#A	2/0	#4	41	53	53	31	90	135
150-#A	3/0	#4	41	53	53	31	90	155
175-#A	4/0	#4	53	53	63	32	94	180
200-#A	250 MCM	#2	53	63	78	31	91	205
250-#A	350 MCM	#2	63	78	78	31	91	250
300-#A	500 MCM	#1	78	78	91	32	94	310
400-#A	(2) 250 MCM	(2) #2	(2) 53	(2) 53	(2) 63	31	91	410
450-#A	(2) 300 MCM	(2) #2	(2) 53	(2) 63	(2) 78	32	92	460
500-#A	(2) 350 MCM	(2) #2	(2) 63	(2) 78	(2) 78	31	91	500
600-#A	(2) 500 MCM	(2) #1	(2) 78	(2) 78	(2) 91	32	94	620
700-#A	(2) 600 MCM	(2) #1	(2) 78	(2) 91	(2) 103	30	88	680
800-#A	(3) 500 MCM	(3) #1	(2) 78	(2) 78	(3) 91	36	106	930
1000-#A	(3) 600 MCM	(3) #1	(3) 78	(3) 91	(3) 103	32	93	1020
1200-#A	(4) 600 MCM	(4) #1	(4) 78	(4) 91	(4) 103	35	103	1360
1600-#A	(5) 600 MCM	(5) #1	(5) 78	(5) 91	(5) 103	33	96	1700
2000-#A	(6) 600 MCM	(6) #1	(6) 78	(6) 91	(6) 103	32	93	2040

EQ EQUIPMENT FEEDER - REFER TO ELECTRICAL EQUIPMENT SCHEDULE

200 - 4A FEEDER DESIGNATION

CONDUCTOR MATERIAL:
(BLANK) - COPPER
(A) - ALUMINUM
CONDUCTOR QUANTITY:
(2) - 1Ø 2W
(3) - 1Ø 3W OR 3Ø 3W
(4) - 3Ø, 4W
CONDUCTOR AMPACITY:
(SEE FEEDER SCHEDULE)

GENERAL NOTES:

A. THE ABOVE FEEDER SCHEDULE IS A SCHEDULE OF TYPICAL FEEDERS AND SOME SIZES MAY NOT BE UTILIZED.

B. ALL CONDUCTOR AMPACITIES ARE BASED ON TABLE 4 OF THE CEC FOR ALUMINUM CONDUCTOR TYPE RW90.

C. FEEDER SIZES SHOWN ON THE RISER DIAGRAM INDICATE FEEDER AMPACITIES AND DO NOT NECESSARILY CORRESPOND TO CIRCUIT BREAKER AMPACITIES. CERTAIN FEEDERS MAY BE SIZED FOR THE DERATION FACTORS REQUIRED BY CODE AND/OR ARE OVERSIZED FOR VOLTAGE DROP.

D. WHERE MULTIPLE CONDUITS AND CONDUCTORS ARE INDICATED FOR A SINGLE FEEDER, EACH CONDUIT SHALL CONTAIN 1 PARALLEL PHASE, NEUTRAL, AND GROUND CONDUCTORS INDICATED.

E. CONDUIT ABOVE GRADE INDOORS SHALL BE EMT. CONDUIT ABOVE GRADE OUTDOORS SHALL BE GALVANIZED IMC OR RMC. CONDUIT BELOW GRADE SHALL BE PVC WITH GALVANIZED RMC ELBOWS. CONDUIT SIZE INDICATED IS MINIMUM SIZE REGARDLESS OF CONDUIT TYPE.

CONDUIT AND WIRE SCHEDULE - COPPER

FEEDER NAME	WIRE SIZE		MIN. CONDUIT SIZE (MM)			MAX LENGTH (M) @80%		
(# DENOTES NO. OF CONDUCTORS)	PHASE & NEUTRAL	BOND (AS REQ'D)	2C	3C	4C	208V	600V	CIRCUIT AMPACITY (A)
20-#	#12	#14	21	21	21	19	55	20
30-#	#10	#12	21	21	21	21	61	30
50-#	#8	#10	21	21	21	19	55	50
60-#	#6	#8	21	27	27	24	70	65
70-#	#4	#8	27	27	35	31	91	85
80-#	#4	#8	27	27	35	27	80	85
90-#	#3	#6	27	35	35	29	86	100
100-#	#3	#6	27	35	35	26	77	100
115-#	#2	#6	27	35	35	28	81	115
125-#	#1	#6	35	35	41	31	90	130
150-#	1/0	#6	41	41	53	32	94	150
175-#	2/0	#6	41	41	53	32	93	175
200-#	3/0	#4	53	53	53	33	97	200
225-#	4/0	#4	53	53	63	34	100	230
250-#	250 MCM	#4	53	53	63	34	98	255
300-#	350 MCM	#3	63	63	78	34	99	310
400-#	600 MCM	#3	78	78	91	34	99	420
450-#	(2) 4/0	(2) #4	(2) 53	(2) 53	(2) 63	34	100	460
500-#	(2) 250 MCM	(2) #4	(2) 53	(2) 53	(2) 63	34	98	510
600-#	(2) 350 MCM	(2) #3	(2) 63	(2) 63	(2) 78	34	99	620
700-#	(2) 500 MCM	(2) #3	(2) 63	(2) 78	(2) 91	34	100	760
800-#	(2) 600 MCM	(2) #2	(2) 78	(2) 78	(2) 91	32	94	840
1000-#	(3) 500 MCM	(3) #3	(3) 63	(3) 78	(3) 91	36	105	1140
1200-#	(3) 600 MCM	(3) #2	(3) 78	(3) 78	(3) 91	32	94	1260
1600-#	(4) 600 MCM	(4) #2	(4) 78	(4) 78	(4) 91	32	94	1680
2000-#	(5) 600 MCM	(5) #2	(5) 78	(5) 78	(5) 91	32	94	2100
2500-#	(6) 600 MCM	(6) #2	(6) 78	(6) 78	(6) 91	31	94	2520

EQ EQUIPMENT FEEDER - REFER TO ELECTRICAL EQUIPMENT SCHEDULE

200 - 4A FEEDER DESIGNATION

CONDUCTOR MATERIAL:
(BLANK) - COPPER
(A) - ALUMINUM
CONDUCTOR QUANTITY:
(2) - 1Ø 2W
(3) - 1Ø 3W OR 3Ø 3W
(4) - 3Ø, 4W
CONDUCTOR AMPACITY:
(SEE FEEDER SCHEDULE)

GENERAL NOTES:

A. THE ABOVE FEEDER SCHEDULE IS A SCHEDULE OF TYPICAL FEEDERS AND SOME SIZES MAY NOT BE UTILIZED.

B. ALL CONDUCTOR AMPACITIES ARE BASED ON TABLE 2 OF THE CEC FOR COPPER CONDUCTOR TYPE RW90.

C. FEEDER SIZES SHOWN ON THE RISER DIAGRAM INDICATE FEEDER AMPACITIES AND DO NOT NECESSARILY CORRESPOND TO CIRCUIT BREAKER AMPACITIES. CERTAIN FEEDERS MAY BE SIZED FOR THE DERATION FACTORS REQUIRED BY CODE AND/OR ARE OVERSIZED FOR VOLTAGE DROP.

D. WHERE MULTIPLE CONDUITS AND CONDUCTORS ARE INDICATED FOR A SINGLE FEEDER, EACH CONDUIT SHALL CONTAIN 1 PARALLEL PHASE, NEUTRAL, AND GROUND CONDUCTORS INDICATED.

E. CONDUIT ABOVE GRADE INDOORS SHALL BE EMT. CONDUIT ABOVE GRADE OUTDOORS SHALL BE GALVANIZED IMC OR RMC. CONDUIT BELOW GRADE SHALL BE PVC WITH GALVANIZED RMC ELBOWS. CONDUIT SIZE INDICATED IS MINIMUM SIZE REGARDLESS OF CONDUIT TYPE.

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
Epp Siepman Engineering Inc.
No. 4035

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No.	REVISION/DESCRIPTION	BY	DATE
0	ISSUED FOR TENDER	JS/MP	24-04-01

SEAL

PROVINCE OF MANITOBA
M.G. PENNER
Member
23792
2024-04-01
REGISTERED PROFESSIONAL ENGINEER

EW DRAWN	MP/KG CHECKED	KG DESIGNED	MP/KG APPROVED
DATE 2024-04-01	USER APPROVAL		

Winnipeg
THE CITY OF WINNIPEG
ASSETS & PROJECT MANAGEMENT DEPARTMENT
MUNICIPAL ACCOMMODATIONS DIVISION
3-65 GARRY STREET, R3C 4K4

PROJECT
PEMBINA TRAILS COLLEGIATE
VOCATIONAL WING
TENDER NO. 954-2023B
50 FRONTIER TRAIL, WINNIPEG, MANITOBA, R3Y 2H1

SHEET TITLE
Conduit and Wire Schedules

SCALE	PROJECT No:	SHEET No:
1 : 96	2020-127	E6.17

DRAWING SHEET SIZE: A1 (594x841) PLOT 1:1
ESE 24049