

I. MATERIALS

- A. THE SINGLE CONDUCTOR ALUMINUM WIRE SHALL CONSIST OF ONE ACSR #2, 7 STRAND 6/1, CONDUCTOR. THE WIRE SHALL HAVE 0.047 INCHES OF CROSS LINKED POLYETHYLENE INSULATION RATED AT 600V.
- B. THE SECONDARY RACKS SHALL BE HEAVY DUTY, HOT DIPPED GALVANIZED STEEL WITH 3" SPOOL INSULATORS. PORCELAIN PRODUCTS #3928 OR APPROVED EQUAL.
- C. THE SECONDARY RACK 9" OR 21" EXTENSION BRACKET SHALL BE HEAVY DUTY, HOT DIPPED GALVANIZED STEEL. COOPER #DR2E1 OR DR2E2, OR APPROVED EQUAL.
- D. THE SPLICES SHALL BE COMPRESSION TYPE, ALUMINUM, EQUAL TO BURNDY PRODUCT.
- E. THE TIE WIRES SHALL BE #6 ALUMINUM.
- F. THE THROUGH BOLTS, NUTS, AND WASHERS SHALL BE HOT DIPPED GALVANIZED, 5/8" DIAMETER.
- G. THE INSULATING PADS SHALL BE APPROXIMATELY 3-1/4" X 4-1/2" X 0.125" SCOTCH #2200 OR APPROVED EQUAL.

II. INSTALLATION

- A. THE OVERHEAD CIRCUIT SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE CONTRACT DRAWINGS AND INDICATED IN THE FIELD BY THE ENGINEER.
- B. SECONDARY RACK EXTENSION BRACKETS SHALL BE USED IN LOCATIONS SHOWN ON THE CONTRACT DRAWINGS AND INDICATED IN THE FIELD BY THE ENGINEER.
- C. THE WIRE SHALL BE STRUNG AND SAGGED IN ACCORDANCE WITH THE SAG AND TENSION DATA CHART.
- D. THE OVERHEAD CIRCUIT SHALL CONSIST OF TWO WIRES STRUNG ON THE SECONDARY RACKS IN THE AREAS INDICATED.
- E. ALL CLEARANCES INDICATED IN THE NATIONAL ELECTRICAL SAFETY CODE SHALL BE MAINTAINED THROUGHOUT AND ANY RELOCATION OF EXISTING FACILITIES REQUIRED OR INDICATED.
- F. ALL RACKS AT DEAD-ENDS OR AT ANGLE POINTS SHALL BE INSTALLED BY BOLTING THROUGH THE POLE.
- G. PREFORMED COATED DEAD-ENDS OF THE APPROPRIATE SIZE SHALL BE USED AT CIRCUIT TERMINATIONS.
- H. ALL LINES SIDE SPLICES AND TAPS SHALL BE INSULATED WITH AN INSULATING PAD.

III. BASIS OF PAYMENT

ITEM	UNIT	DESCRIPTION
MIS-400	CIRCUIT FOOT	OVERHEAD CIRCUIT, 2 WIRE-OPEN WIRE
MIS-400	CIRCUIT FOOT	OVERHEAD CIRCUIT, 3 WIRE-OPEN WIRE
MIS-400	CIRCUIT FOOT	OVERHEAD CIRCUIT, 4 WIRE-OPEN WIRE

SAG & TENSION DATA FOR STREET LIGHTING PIGNUT

SPAN = 100 FT.		
TEMP.	SAG	TENSION
F	FT.	LB.
0	0.13	1202
10	0.13	1160
20	0.14	1116
30	0.14	1072
40	0.15	1025
50	0.16	977
60	0.17	928
70	0.18	877
80	0.19	824
90	0.20	770
100	0.22	714

SPAN = 110 FT.		
TEMP.	SAG	TENSION
F	FT.	LB.
0	0.15	1202
10	0.16	1160
20	0.17	1116
30	0.17	1071
40	0.18	1025
50	0.19	977
60	0.20	928
70	0.21	877
80	0.23	824
90	0.24	770
100	0.26	715

SPAN = 120 FT.		
TEMP.	SAG	TENSION
F	FT.	LB.
0	0.18	1202
10	0.19	1159
20	0.20	1116
30	0.21	1071
40	0.22	1025
50	0.23	977
60	0.24	928
70	0.25	877
80	0.27	825
90	0.29	771
100	0.31	715

SPAN = 130 FT.		
TEMP.	SAG	TENSION
F	FT.	LB.
0	0.22	1201
10	0.22	1159
20	0.23	1116
30	0.24	1071
40	0.25	1025
50	0.27	977
60	0.28	928
70	0.30	877
80	0.32	825
90	0.34	771
100	0.36	716

SPAN = 140 FT.		
TEMP.	SAG	TENSION
F	FT.	LB.
0	0.25	1201
10	0.26	1159
20	0.27	1115
30	0.28	1071
40	0.29	1025
50	0.31	977
60	0.32	928
70	0.34	877
80	0.37	825
90	0.39	772
100	0.42	717

SPAN = 150 FT.		
TEMP.	SAG	TENSION
F	FT.	LB.
0	0.29	1200
10	0.30	1158
20	0.31	1115
30	0.32	1070
40	0.34	1024
50	0.35	977
60	0.37	928
70	0.39	877
80	0.42	825
90	0.45	772
100	0.48	717

SPAN = 160 FT.		
TEMP.	SAG	TENSION
F	FT.	LB.
0	0.33	1200
10	0.34	1158
20	0.35	1115
30	0.37	1070
40	0.38	1024
50	0.40	977
60	0.42	928
70	0.45	878
80	0.48	826
90	0.51	773
100	0.55	718

SPAN = 170 FT.		
TEMP.	SAG	TENSION
F	FT.	LB.
0	0.37	1200
10	0.38	1158
20	0.40	1115
30	0.42	1070
40	0.43	1024
50	0.45	977
60	0.48	928
70	0.51	878
80	0.54	826
90	0.57	773
100	0.62	719

SPAN = 180 FT.		
TEMP.	SAG	TENSION
F	FT.	LB.
0	0.42	1199
10	0.43	1157
20	0.45	1114
30	0.47	1070
40	0.49	1024
50	0.51	976
60	0.54	928
70	0.57	878
80	0.60	826
90	0.64	774
100	0.69	720

SPAN = 190 FT.		
TEMP.	SAG	TENSION
F	FT.	LB.
0	0.46	1199
10	0.48	1157
20	0.50	1114
30	0.52	1069
40	0.54	1024
50	0.57	976
60	0.60	928
70	0.63	878
80	0.67	827
90	0.72	774
100	0.77	721

SPAN = 200 FT.		
TEMP.	SAG	TENSION
F	FT.	LB.
0	0.51	1198
10	0.53	1156
20	0.55	1113
30	0.58	1069
40	0.60	1023
50	0.63	976
60	0.66	928
70	0.70	878
80	0.74	827
90	0.79	775
100	0.85	722

SPAN = 210 FT.		
TEMP.	SAG	TENSION
F	FT.	LB.
0	0.57	1198
10	0.59	1156
20	0.61	1113
30	0.63	1069
40	0.66	1023
50	0.69	976
60	0.73	928
70	0.77	878
80	0.82	828
90	0.87	776
100	0.94	723

SPAN = 220 FT.		
TEMP.	SAG	TENSION
F	FT.	LB.
0	0.63	1180
10	0.65	1138
20	0.68	1094
30	0.71	1050
40	0.74	1004
50	0.78	957
60	0.82	908
70	0.87	858
80	0.92	808
90	0.98	756
100	1.06	703

<h1>MIS-400</h1>	DEPARTMENT OF PUBLIC UTILITIES - DIVISION OF POWER CITY OF COLUMBUS, OHIO		
	OVERHEAD CIRCUIT, "X" WIRE- OPEN WIRE (2, 3, OR 4 WIRE)		
	DRAWN BY: A.S.S.	DATE: 1/1/2018	
	APPROVED: <i>Amy A. Wilfong</i>		
SCALE: NONE	SHEET: 1 OF 1	400	