

INDEX - CONDUCTORS

DWG NO.	TITLE	REV DATE
1801	OVERHEAD CONDUCTORS	3/27/2020
1802	UNDERGROUND CONDUCTORS	4/6/2022

BURLINGTON ELECTRIC DEPT.

DISTRIBUTION STANDARDS

CONDUCTORS

DATE: 04/06/22 DWG. NO.: 180000

DWN BY: CC APP. BY:

SCALE: NONE SHEET 1 OF 1

OVERHEAD PRIMARY BARE/COVERED WIRE

<u>WIRE</u>	<u>WEIGHT LBS/1000'</u>	<u>ULTIMATE STRENGTH</u>	<u>MAX DESIGN TENSION</u>	<u>AMPACITY</u>	<u>COVER MILS</u>
#2 BARE ACSR, 6/1	91.0	2850	1500	161	0
1/0 BARE ACSR, 6/1	145.0	4380	2000	213	0
4/0 BARE ACSR, 6/1	291.0	8350	2500	320	0
336 BARE ACSR, 18/1	365.0	8680	2500	455	0
556 BARE ACSR, 18/1	603.0	13700	3000	623	0
#2 BARE AAAC, 7 STRAND (AMES)	72.0	2800	1500	168	0
*1/0 BARE AAAC, 7 STRAND (AZUZA)	115.0	4280	2000	225	0
4/0 BARE AAAC AL, 7 STRAND (ALLIANCE)	230.2	8560	2500	347	0
*336 BARE AAC AL, 19 STRAND (TULIP)	315.0	6150	2500	450	0
*556 BARE AAC AL, 37 STRAND (MISTLETOE)	522.0	9940	3000	616	0
*1/0 POLY AAAC AL, 7 STRAND (OILNUT)	159.0	3440	2000	236	60
4/0 POLY AAC AL, 7 STRAND (OLIVE)	253.0	3450	2000	352	60
*336 POLY AAC AL, 19 STRAND (ANNONA)	377.0	5540	2500	475	60
*556 POLY AAC AL, 37 STRAND (PAW PAW)	619.0	8950	3000	645	80
*1/0 AAC COVERED SPACER CABLE	210.0			203	165
*336 AAC COVERED SPACER CABLE	487.0			427	165
*556 AAC COVERED SPACER CABLE	734.0			591	165

* INDICATES STANDARD WIRE FOR USE IN NEW CONSTRUCTION

NOTES

1. AMPACITIES FOR BARE CONDUCTORS ARE BASED ON CONDUCTOR TEMPERATURE OF 80°C, AMBIENT TEMPERATURE OF 40°C, EMISSIVITY 0.5, WIND 2'/SECOND IN SUN.
2. AMPACITIES FOR COVERED CONDUCTORS ARE BASED ON CONDUCTOR TEMPERATURE OF 90°C, AMBIENT TEMPERATURE OF 40°C, EMISSIVITY 0.91, AND WIND 2'/SECOND IN SUN.
3. ALL COVERED PRIMARY CONDUCTORS SHALL BE COVERED WITH CROSSLINKED POLYETHYLENE.

BURLINGTON ELECTRIC DEPT.

DISTRIBUTION STANDARDS

**OVERHEAD
CONDUCTORS**

DATE: 07/1/22

DWG. NO.: 180101

DWN BY: RG

APP. BY:

SCALE: NONE

SHEET 1 OF 2

OVERHEAD ALUMINUM SERVICE/SECONDARY CABLES

<u>CABLES</u>	<u>WEIGHT LBS/1000'</u>	<u>ULTIMATE STRENGTH</u>	<u>MAX DESIGN TENSION</u>	<u>AMPACITY</u>
<u>SERVICE CABLES</u>				
#6 TRIPLEX (HIPPA)	107	1110	500	85
#4 TRIPLEX (BARNACLE)	160	1760	500	115
#2 TRIPLEX (SHRIMP)	243	2800	1000	150
1/0 TRIPLEX (GAMMARUS)	390	4460	2000	205
4/0 TRIPLEX (LEPAS)	728	8560	2500	315
336 TRIPLEX (LIMPET)	1167	8680	2500	420
<u>SECONDARY CABLES</u>				
1/0 TRIPLEX RTS (AUBURN)	404	4460	2000	205
4/0 TRIPLEX RTS (DURANT)	756	8560	2500	315
336 TRIPLEX RTS (PACKARD)	1050	8560	2500	420
<u>STREET LIGHT SECONDARY CABLE</u>				
#6 DUPLEX (VIZSLA)	65	1110	500	85
<u>SERVICE/SECONDARY CABLES</u>				
1/0 QUADRUPLEX (SHETLAND)	519	4460	2000	180
4/0 QUADRUPLEX (WALKING)	977	8560	2500	275
336 QUADRUPLEX (LIPPIZANER)	1519	6146	2500	370

NOTES

1. AMPACITIES ARE BASED ON CONDUCTOR TEMPERATURE OF 90°C, AMBIENT TEMPERATURE OF 40°C, EMISSIVITY 0.9, WIND 2'/SECOND IN SUN.

BURLINGTON ELECTRIC DEPT.

DISTRIBUTION STANDARDS

**OVERHEAD
CONDUCTORS**

DATE: 12/10/19

DWG. NO.: 180102

DWN BY: RG

APP. BY:

SCALE: NONE

SHEET 2 OF 2

PRIMARY UNDERGROUND CABLES

REGULAR STOCK

AMPACITY**

#2 AL, 15kV, 220 MIL, FULL CONCENTRIC NEUTRAL, JACKETED (1 ϕ ON REEL)	125
#2 AL, 15kV, 220 MIL, 1/3 CONCENTRIC NEUTRAL PER ϕ , JACKETED, (3 ϕ ON REEL)	120
*1/0 AL, 15kV, EPR INSULATION, 220 MIL, FULL CONCENTRIC NEUTRAL, JACKETED (1 ϕ ON REEL)	160
*1/0 AL, 15kV, EPR INSULATION, 220 MIL, FULL CONCENTRIC NEUT PER ϕ , JACKETED (3 ϕ ON REEL)	155
4/0 CU, 15kV, EPR INSULATION, 220 MIL, SHIELDED, JACKETED (3 ϕ ON REEL)	--
*350 MCM CU, 15kV, EPR INSULATION, 220 MIL, SHIELDED, JACKETED, (3 ϕ ON REEL)	415
750 MCM CU, 15kV, EPR INSULATION, 220 MIL, SHIELDED, JACKETED, (1 ϕ ON REEL)	610
*1000 MCM CU, 15kV, EPR INSULATION, 220 MIL, SHIELDED, JACKETED, (1 ϕ ON REEL)	690
*750 MCM CU, 35kV, EPR INSULATION, 345 MIL, CONCENTRIC NEUTRAL, JACKETED, (1 ϕ ON REEL)	610

EMERGENCY STOCK

#2 CU, 5kV, VULKENE, 110 MIL, UNSHIELDED
 #2 CU, 5kV, EPR OR TR-XLPE INSULATION, 115 MIL, SHIELDED, JACKETED
 4/0 CU, 5kV, EPR INSULATION, 115 MIL, SHIELDED, JACKETED
 350 MCM CU, 5kV, EPR INSULATION, 115 MIL, SHIELDED, JACKETED

NOTES

1. TR-XLPE = TREE-RETARDANT CROSS-LINKED POLYETHYLENE
2. EPR = ETHYLENE PROPYLENE RUBBER
3. IN CASE OF 5kV REPLACEMENT, USE 15kV CABLE.
4. RUN CALCULATIONS FOR AMPACITY RATINGS IN DUCT BANK.

* INDICATES STANDARD WIRE FOR USE IN NEW CONSTRUCTION.

** AMPACITY RATINGS AT 90°C IN DUCT PER OKONITE DATA SHEET.

BURLINGTON ELECTRIC DEPT.

DISTRIBUTION STANDARDS

**UNDERGROUND
CABLES**

DATE: 04/06/22 DWG. NO.: 180201

DWN BY: RG APP. BY:

SCALE: NONE SHEET 1 OF 2

ALUMINUM SERVICE/SECONDARY UNDERGROUND CABLES

<u>CABLE</u>	<u>AMPACITY</u>	<u>MILS</u>
#2 TRIPLEX (RAMAPO/XLPE)	120	60
1/0 TRIPLEX (BERGEN/XLPE)	160	80
4/0 TRIPLEX (MONMOUTH/XLPE)	240	80
350 MCM TRIPLEX (WESLEYAN/XLPE)	320	95
500 MCM TRIPLEX (RIDER/XLPE)	395	95

NOTES

1. AMPACITIES ARE BASED ON 90°C CONDUCTOR TEMPERATURE, 20°C EARTH AMBIENT TEMPERATURE, EARTH THERMAL RESISTIVITY (RHO) = 90, 100% LOAD FACTOR, IN DUCT, WITH NEUTRAL CARRYING ONLY UNBALANCED LOAD.

BURLINGTON ELECTRIC DEPT.	
DISTRIBUTION STANDARDS	
UNDERGROUND CABLES	
DATE: 11/15/17	DWG. NO.: 180202
DWN BY: RG	APP. BY:
SCALE: NONE	SHEET 2 OF 2