


**UNDERGROUND
SERVICE ENTRANCE CONDUCTORS
GENERAL NOTES**

1. THE LATERAL SERVICE CONDUCTOR IS THE CONDUCTOR THAT BEGINS AT THE SERVICE DISCONNECT, RUNS THRU THE METER BASE OR C.T. ENCLOSURE AND SERVICE LATERAL CONDUIT, AND EXTENDS TO CITY UTILITIES PAD MOUNTED TRANSFORMER OR SECONDARY SERVICE PEDESTAL. THE CUSTOMER IS REQUIRED TO FURNISH AND INSTALL ALL SERVICE LATERAL CONDUITS AND CONDUCTORS.
2. THE CUSTOMERS SERVICE LATERAL CONDUCTORS SHALL EXTEND INTO THE PAD MOUNTED TRANSFORMER OR SECONDARY SERVICE PEDESTAL A **MINIMUM** OF 36" PAST CITY UTILITIES SERVICE CONNECTION POINT.
3. REDUCED NEUTRALS ARE NOT ALLOWED AS SERVICE LATERAL CONDUCTORS ON CITY UTILITIES SYSTEM.
4. AMPACITIES FOR SERVICE LATERAL CONDUCTORS TAKEN FROM 2017 NEC TABLE 310.15(B)(16) (75° C).
5. ALUMINUM CONDUCTOR INSULATION SHALL BE MARKED AS "AA8000".
6. CABLE ASSEMBLIES, SUCH AS SERVICE ENTRANCE CABLE, SHALL NOT BE ALLOWED.
7. WHEN SERVICE LATERAL CONDUCTORS ARE INSTALLED AS PARALLEL RUNS, CONDUCTORS SHALL BE A MINIMUM OF 1/0 AWG AND ALL CONNECTIONS SHALL BE IN ACCORDANCE WITH 2017 NEC ARTICLE 310.4.
8. ONLY 2 PHASE CONDUCTORS USED FOR 120/208 VOLT SINGLE PHASE SERVICE.
9. 120/240 VOLT, 4 WIRE, 3 PHASE SERVICE REQUIRES PRIOR APPROVAL BY CITY UTILITIES.
10. THE INSULATED GROUNDED "NEUTRAL" CONDUCTOR LARGER THAN 6 AWG SHALL BE IDENTIFIED BY ONE OF THE FOLLOWING MEANS:
 - (1) BY A CONTINUOUS WHITE OR GRAY OUTER FINISH.
 - (2) BY THREE CONTINUOUS WHITE STRIPES ALONG ITS ENTIRE LENGTH ON OTHER THAN GREEN INSULATION.
 - (3) AT THE TIME OF INSTALLATION, BY A DISTINCTIVE WHITE OR GRAY MARKING AT ITS TERMINATIONS. THIS MARKING SHALL ENCIRCLE THE CONDUCTOR OR INSULATION. 2017 NEC ARTICLE 200.6B.
11. ON A 4-WIRE, 120/240 VOLT, DELTA-CONNECTED SERVICE WHERE THE MIDPOINT OF ONE PHASE WINDING IS GROUNDED, THE SERVICE CONDUCTOR HAVING THE HIGHER PHASE VOLTAGE TO GROUND "WILD LEG" SHALL BE DURABLY AND PERMANENTLY MARKED BY AN OUTER FINISH THAT IS ORANGE IN COLOR AT EACH TERMINATION OR JUNCTION POINT. 2017 NEC ARTICLE 230.56

	<i>GENERAL NOTES</i>	ELECTRIC SERVICE STANDARD CITY UTILITIES OF SPRINGFIELD MO.			
		DRAWN BY: W.BROOKS	UNDERGROUND SERVICE LATERAL CONDUCTORS GENERAL NOTES		
		REV BY: K.DENTON			
		FILE: SU-GN11			
		APPROVED: 10/29/14	REVISED: 03/19/18	SHEET OF 1 OF 4	STD. NO. SU - GN1

RESIDENTIAL SERVICE LATERAL CONDUCTORS
100-800 AMPS
SINGLE PHASE

SU - GN1

COPPER CONDUCTOR				
INSULATION TYPES: RHW, THHW, THW, THWN, XHHN, THHN				
SERVICE AMPACITY	SIZE	CONDUCTOR INFO		CONDUIT SIZE
		AMPS	# REQD	
100 AMP	#3	100 A	3	2"
125 AMP	#1	130 A	3	2"
150 AMP	#1/0	150 A	3	2"
200 AMP	#3/0	200 A	3	2"
320-400 AMP	#3/0	200 A	2 SETS OF 3	EACH SET IN 2"
320-400 AMP	500 MCM	380 A	3	3"
600 AMP	350 MCM	310 A	2 SETS OF 3	EACH SET IN 3"
600 AMP	#3/0	200 A	3 SETS OF 3	EACH SET IN 2"
800 AMP	500 MCM	380 A	2 SETS OF 3	EACH SET IN 3"
800 AMP	#3/0	200 A	4 SETS OF 3	EACH SET IN 2"

ALUMINUM CONDUCTOR				
INSULATION TYPES: RHW, THHW, THW, THWN, XHHN, THHN				
SERVICE AMPACITY	SIZE	CONDUCTOR INFO		CONDUIT SIZE
		AMPS	# REQD	
100 AMP	#1	100 A	3	2"
125 AMP	#2/0	135 A	3	2"
150 AMP	#3/0	155 A	3	2"
200 AMP	250 MCM	205 A	3	2"
320-400 AMP	250 MCM	205 A	2 SETS OF 3	EACH SET IN 2"
320-400 AMP	750 MCM	385 A	3	3"
600 AMP	500 MCM	310 A	2 SETS OF 3	EACH SET IN 3"
600 AMP	250 MCM	205 A	3 SETS OF 3	EACH SET IN 2"
800 AMP	750 MCM	385 A	2 SETS OF 3	EACH SET IN 3"
800 AMP	400 MCM	270 A	3 SETS OF 3	EACH SET IN 3"

△	<i>GENERAL NOTES</i>		ELECTRIC SERVICE STANDARD CITY UTILITIES OF SPRINGFIELD MO.			
			DRAWN BY: G.GUEVARA REV BY: K.DENTON FILE: SU-GN12 APPROVED: 10/29/14	UNDERGROUND SERVICE ENTRANCE CONDUCTORS RESIDENTIAL SERVICES 100-800 AMPS SINGLE PHASE REVISED: 03/19/18	SHEET OF 2 OF 4	STD. NO. SU - GN1

COMMERCIAL SERVICE LATERAL CONDUCTORS
100-800 AMPS
SINGLE & THREE PHASE

SU - GN1

COPPER CONDUCTOR				
INSULATION TYPES: RHW, THHW, THW, THWN, XHHN, THHN				
SERVICE AMPACITY	SIZE	CONDUCTOR INFO		CONDUIT SIZE
		AMPS	# RECD	
100 AMP--1 PH	#3	100 A	3	2"
100 AMP--3 PH	#3	100 A	4	2"
125 AMP--1 PH	#1	130 A	3	2"
125 AMP--3 PH	#1	130 A	4	2"
150 AMP--1 PH	#1/0	150 A	3	2"
150 AMP--3 PH	#1/0	150 A	4	2"
200 AMP--1 PH	#3/0	200 A	3	2"
200 AMP--3 PH	#3/0	200 A	4	3"
320-400 AMP--1 PH	#3/0	200 A	2 SETS OF 3	EACH SET IN 2"
320-400 AMP--1 PH	500 MCM	380 A	3	3"
320-400 AMP--3 PH	#3/0	200 A	2 SETS OF 4	EACH SET IN 2"
320-400 AMP--3 PH	500 MCM	380 A	4	4"
600 AMP--1 PH	350 MCM	310 A	2 SETS OF 3	EACH SET IN 3"
600 AMP--1 PH	#3/0	200 A	3 SETS OF 3	EACH SET IN 2"
600 AMP--3 PH	350 MCM	310 A	2 SETS OF 4	EACH SET IN 3"
600 AMP--3 PH	#3/0	200 A	3 SETS OF 4	EACH SET IN 2"
800 AMP--1 PH	500 MCM	380 A	2 SETS OF 3	EACH SET IN 3"
800 AMP--1 PH	#3/0	200 A	4 SETS OF 3	EACH SET IN 2"
800 AMP--3 PH	500 MCM	380 A	2 SETS OF 4	EACH SET IN 4"
800 AMP--3 PH	#3/0	200 A	4 SETS OF 4	EACH SET IN 2"

ALUMINUM CONDUCTOR				
INSULATION TYPES: RHW, THHW, THW, THWN, XHHN, THHN				
SERVICE AMPACITY	SIZE	CONDUCTOR INFO		CONDUIT SIZE
		AMPS	# RECD	
100 AMP--1 PH	#1	100 A	3	2"
100 AMP--3 PH	#1	100 A	4	2"
125 AMP--1 PH	#2/0	135 A	3	2"
125 AMP--3 PH	#2/0	135 A	4	2"
150 AMP--1 PH	#3/0	155 A	3	2"
150 AMP--3 PH	#3/0	155 A	4	2"
200 AMP--1 PH	250 MCM	205 A	3	2"
200 AMP--3 PH	250 MCM	205 A	4	3"
320-400 AMP--1 PH	250 MCM	205 A	2 SETS OF 3	EACH SET IN 2"
320-400 AMP--1 PH	750 MCM	385 A	3	3"
320-400 AMP--3 PH	250 MCM	205 A	2 SETS OF 4	EACH SET IN 2 1/2"
320-400 AMP--3 PH	750 MCM	385 A	4	4"
600 AMP--1 PH	500 MCM	310 A	2 SETS OF 3	EACH SET IN 3"
600 AMP--1 PH	250 MCM	205 A	3 SETS OF 3	EACH SET IN 2"
600 AMP--3 PH	500 MCM	310 A	2 SETS OF 4	EACH SET IN 4"
600 AMP--3 PH	250 MCM	205 A	3 SETS OF 4	EACH SET IN 3"
800 AMP--1 PH	750 MCM	385 A	2 SETS OF 3	EACH SET IN 3"
800 AMP--1 PH	400 MCM	270 A	3 SETS OF 3	EACH SET IN 3"
800 AMP--3 PH	750 MCM	385 A	2 SETS OF 4	EACH SET IN 4"
800 AMP--3 PH	400 MCM	270 A	3 SETS OF 4	EACH SET IN 3"

△	<i>GENERAL NOTES</i>		ELECTRIC SERVICE STANDARD CITY UTILITIES OF SPRINGFIELD MO.			
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COMMERCIAL SERVICE LATERAL CONDUCTORS
1000-3000 AMPS
SINGLE & THREE PHASE

SU - GN1

COPPER CONDUCTOR

INSULATION TYPES: RHW, THHW, THW, THWN, XHHN, THHN

SERVICE AMPACITY	CONDUCTOR INFO			CONDUIT SIZE
	SIZE	AMPS	# REQD	
1000 AMP--3 PH	400 MCM	335 A	3 SETS OF 4	EACH SET IN 3"
1000 AMP--3 PH	250 MCM	255 A	4 SETS OF 4	EACH SET IN 3"
1000 AMP--3 PH	#3/0	200 A	5 SETS OF 4	EACH SET IN 2"
1200 AMP--3 PH	600 MCM	420 A	3 SETS OF 4	EACH SET IN 4"
1200 AMP--3 PH	350 MCM	310 A	4 SETS OF 4	EACH SET IN 3"
1200 AMP--3 PH	#3/0	200 A	6 SETS OF 4	EACH SET IN 2"
1600 AMP--3 PH	600 MCM	420 A	4 SETS OF 4	EACH SET IN 4"
1600 AMP--3 PH	350 MCM	310 A	6 SETS OF 4	EACH SET IN 3"
2000 AMP--3 PH	600 MCM	420 A	5 SETS OF 4	EACH SET IN 4"
2000 AMP--3 PH	350 MCM	310 A	7 SETS OF 4	EACH SET IN 3"
2400 AMP--3 PH	1000 MCM	545 A	5 SETS OF 4	EACH SET IN 5"
2400 AMP--3 PH	600 MCM	420 A	6 SETS OF 4	EACH SET IN 4"
3000 AMP--3 PH	1000 MCM	545 A	6 SETS OF 4	EACH SET IN 5"
3000 AMP--3 PH	600 MCM	420 A	7 SETS OF 4	EACH SET IN 4"

ALUMINUM CONDUCTOR

INSULATION TYPES: RHW, THHW, THW, THWN, XHHN, THHN

SERVICE AMPACITY	CONDUCTOR INFO			CONDUIT SIZE
	SIZE	AMPS	# REQD	
1000 AMP--3 PH	600 MCM	340 A	3 SETS OF 4	EACH SET IN 4"
1000 AMP--3 PH	350 MCM	250 A	4 SETS OF 4	EACH SET IN 3"
1000 AMP--3 PH	250 MCM	205 A	5 SETS OF 4	EACH SET IN 3"
1200 AMP--3 PH	1000 MCM	445 A	3 SETS OF 4	EACH SET IN 4"
1200 AMP--3 PH	500 MCM	310 A	4 SETS OF 4	EACH SET IN 4"
1200 AMP--3 PH	250 MCM	205 A	6 SETS OF 4	EACH SET IN 3"
1600 AMP--3 PH	1000 MCM	445 A	4 SETS OF 4	EACH SET IN 4"
1600 AMP--3 PH	500 MCM	310 A	6 SETS OF 4	EACH SET IN 4"
2000 AMP--3 PH	1000 MCM	445 A	5 SETS OF 4	EACH SET IN 4"
2000 AMP--3 PH	500 MCM	310 A	7 SETS OF 4	EACH SET IN 4"
2400 AMP--3 PH	1000 MCM	445 A	6 SETS OF 4	EACH SET IN 4"
2400 AMP--3 PH	600 MCM	340 A	7 SETS OF 4	EACH SET IN 4"
3000 AMP--3 PH	1000 MCM	445 A	7 SETS OF 4	EACH SET IN 4"



GENERAL NOTES

ELECTRIC SERVICE STANDARD
CITY UTILITIES OF SPRINGFIELD MO.

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UNDERGROUND
 SERVICE ENTRANCE
 CONDUCTORS
 COMMERCIAL SERVICES
 1000-3000 AMPS
 THREE PHASE

REVISED:

SHEET
OF
4 4

STD. NO.

SU - GN1