

# THREE-PHASE UNDERGROUND SERVICE FROM OVERHEAD, 600A OR LESS





## CUSTOMER RESPONSIBILITIES


1. Provide and install an approved secondary junction box. The box size to be determined by Design Services. The junction box must include a polymer concrete cover with recessed hex head bolts. Align the junction box so that the ducts terminate at the bottom edges of the ends (the faces having the shorter dimension). The top of the box shall be flush with established final grade. (See Material & Approved Manufacturers on this page).
2. Provide and install a duct from the bottom edge of the junction box to the Company pole. Extend the duct up the pole 10 feet above the top of the elbow. The conduit installation shall meet the requirements of SR-205. Concrete encasement is required if a conduit run is more than 150 feet in length, or any length with a combination of 270 degrees (or more) of bends, not to exceed 360 degrees. The vertical sweeps at each end require concrete encasement for a distance of 10 feet from centerline of the conduit run termination.
3. The duct size shall be 4 inches for service entrance ratings of 0-600 Amps. All risers must be secured to pole with standoff brackets (See Material & Approved Manufacturers on this page).
4. Provide and install service cable (maximum of three conductors per phase and a neutral) from the service entrance to the junction box. Cut cables so that they extend to the opposite end of the junction box to provide length required for assembly of connections by Service Provider. Conductors shall not be smaller than 1/0 AWG nor larger than 600kcmil. Secure the lid to the box with the hex head bolts.
5. Identify at the junction box, the neutral conductor(s) (and power leg conductor(s) if service voltage is 240/120V delta), in accordance with National Electrical Code requirements.
6. Identify all conductors with phase tape to insure proper connection. Each neutral conductor from a service lateral is to be identified with an aluminum embossed permanent address tag at the box, 12 inches above the conduits.
7. Rigid Steel, IMC, and Rigid Aluminum conduit must have a protective tape applied. The tape is to be installed starting at 6 inches above final grade down beyond the (HDPE or PVC) coupling joint. Use 10 mil. protection tape in a half lap installation.
8. Refer to SR-108 for Right-of-way and Easement requirements.

## MATERIAL & APPROVED MANUFACTURERS

### FIGURE 1 - 17" x 30" Junction Box (20k Rated)

TEP Stores Number 7-07-5120  
 Armorcast Products Co., Cat. No. A6001640TAX18  
 Channell, Cat. No. BULKU1730180062002  
 New Basis, Cat. No. FCA173018H-00042  
 New Basis, Cat. No. FCA173018T-00006  
 Oldcastle, Cat. No. 17301471  
 Quazite, Cat. No. A12173018A017


### FIGURE 2 - 30" x 48" Junction Box (20k Rated)



TEP Stores Number 7-07-5121  
 Channell, Cat. No. BULKU3048180082002  
 New Basis, Cat. No. FCA304818T-00042  
 New Basis, Cat. No. FCA304818T-01002

Supplier for Approved Material:  
 Border States Electric

4" STAND-OFF BRACKET - Aluma-Form, Inc., Cat. No. 4-CSO-7-STK-4-4WT, Lag Screw, 1/2" x 4"

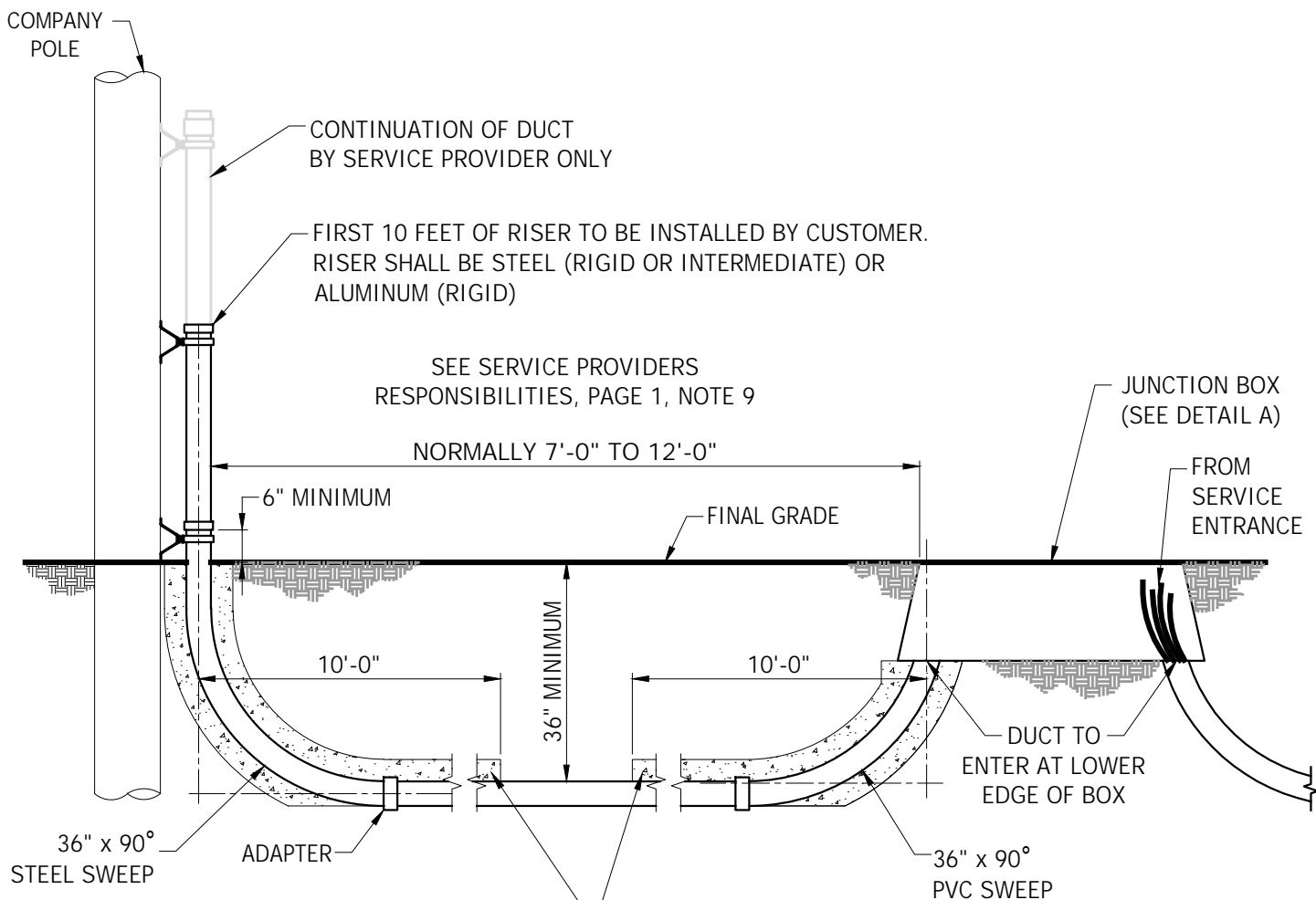
## SERVICE PROVIDER RESPONSIBILITIES

9. Specify location for junction box and on which quadrant pole riser is to be attached. Location of the junction box will normally be 7 to 12 feet from pole, but should be in a non-traffic area. If located in a traffic area, protective posts must be installed per SR-230.
10. Provide and install continuation of duct on Company pole and ground the metal riser.
11. Provide and install cable in the duct from transformer to junction box.
12. Provide and install connectors at junction box. The load terminals of these connectors shall be the point of delivery for this installation.
13. Maintain the junction box after the service is connected to the Company distribution system. 

 Tucson Electric Power	 SANTA CRUZ COUNTY	INITIATED BY	SC	REVISION NO.	13	SR-308 Pg. 1 of 3
		ESR COMM.	8-81	ESR COMM.	11-22	
				EFFECTIVE DATE	11-22	

USE: THREE-PHASE, 4-WIRE  
 SERVICE 208Y/120V,  
 240/120V DELTA, OR  
 480Y/277V, 600A OR LESS

### THREE-PHASE UNDERGROUND SERVICE FROM OVERHEAD, 600A OR LESS



3 INCH MINIMUM/5 INCH MAXIMUM CONCRETE ENCASEMENT, FOR ALL DUCT SIZES (SEE SR-205). CONCRETE ENCASEMENT IS REQUIRED IF A CONDUIT RUN IS MORE THAN 150 FEET IN LENGTH, OR ANY LENGTH WITH A COMBINATION OF 270° (OR MORE) OF BENDS, NOT TO EXCEED 360°.

THESE REQUIREMENTS APPLY TO COMMERCIAL AND INDUSTRIAL CUSTOMERS SERVED UNDERGROUND FROM AN OVERHEAD SYSTEM WITH THREE-PHASE SERVICE ENTRANCE EQUIPMENT RATED 600A OR LESS AND 480V OR LESS.

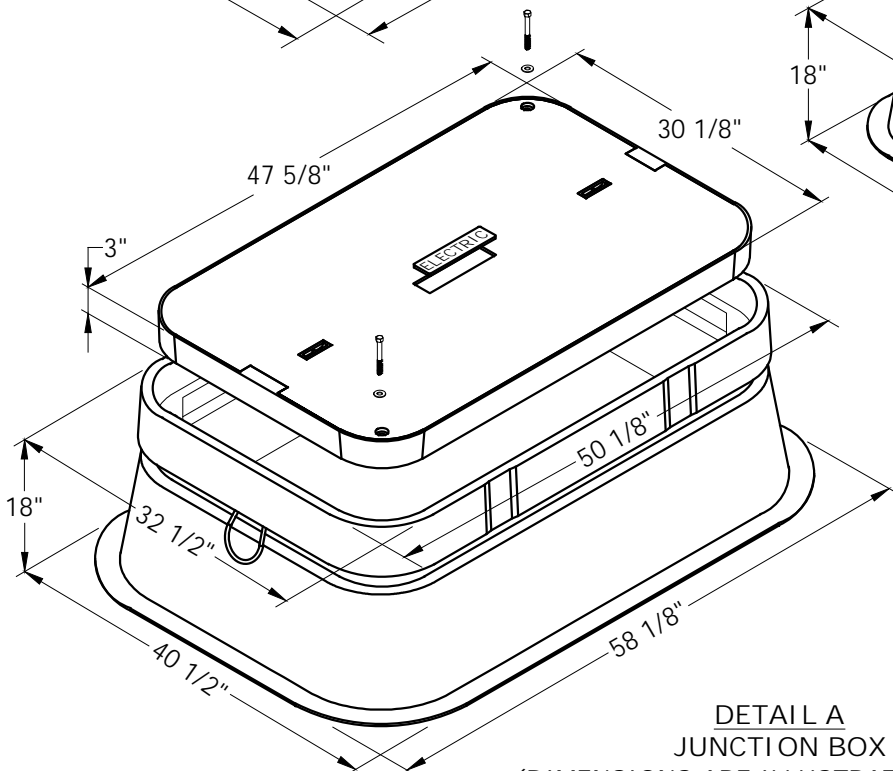
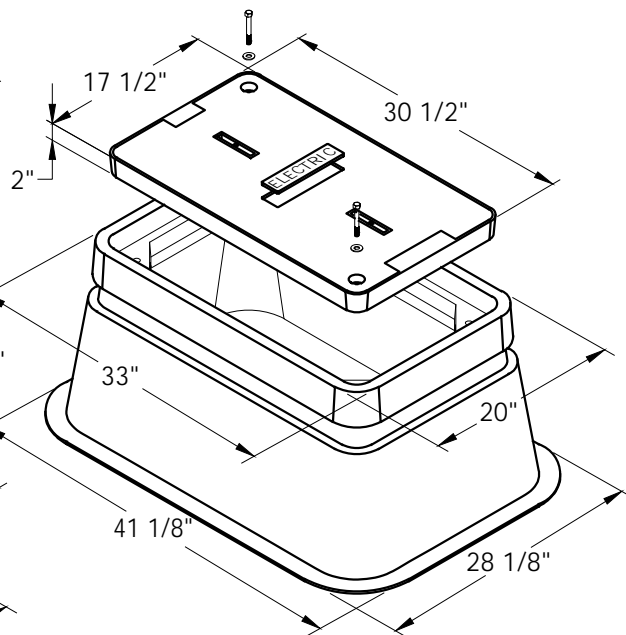
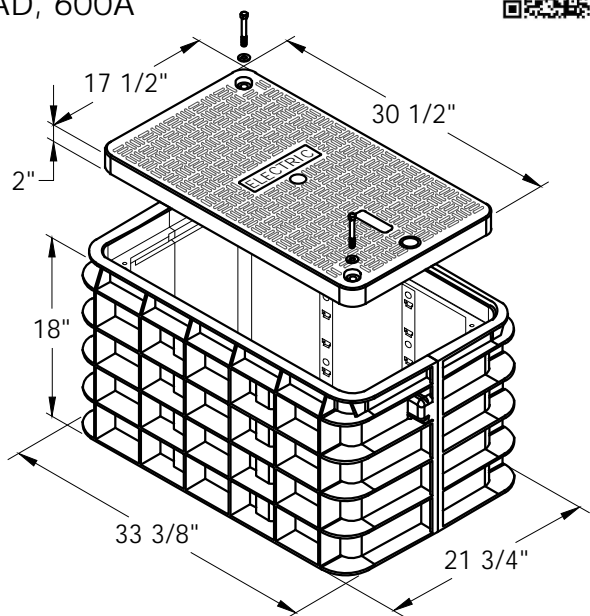
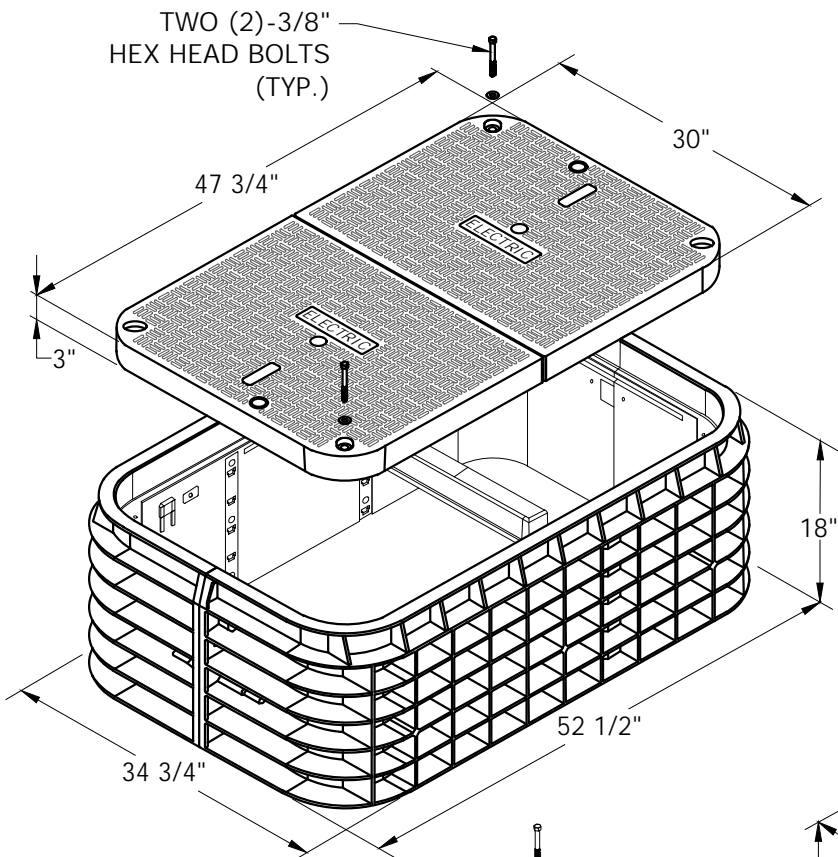


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### THREE-PHASE UNDERGROUND SERVICE FROM OVERHEAD, 600A



TWO (2)-3/8"  
HEX HEAD BOLTS  
(TYP.)



DETAIL A  
JUNCTION BOX  
(DIMENSIONS ARE ILLUSTRATIVE OF ONE  
APPROVED MANUFACTURER AND CAN VARY SLIGHTLY)