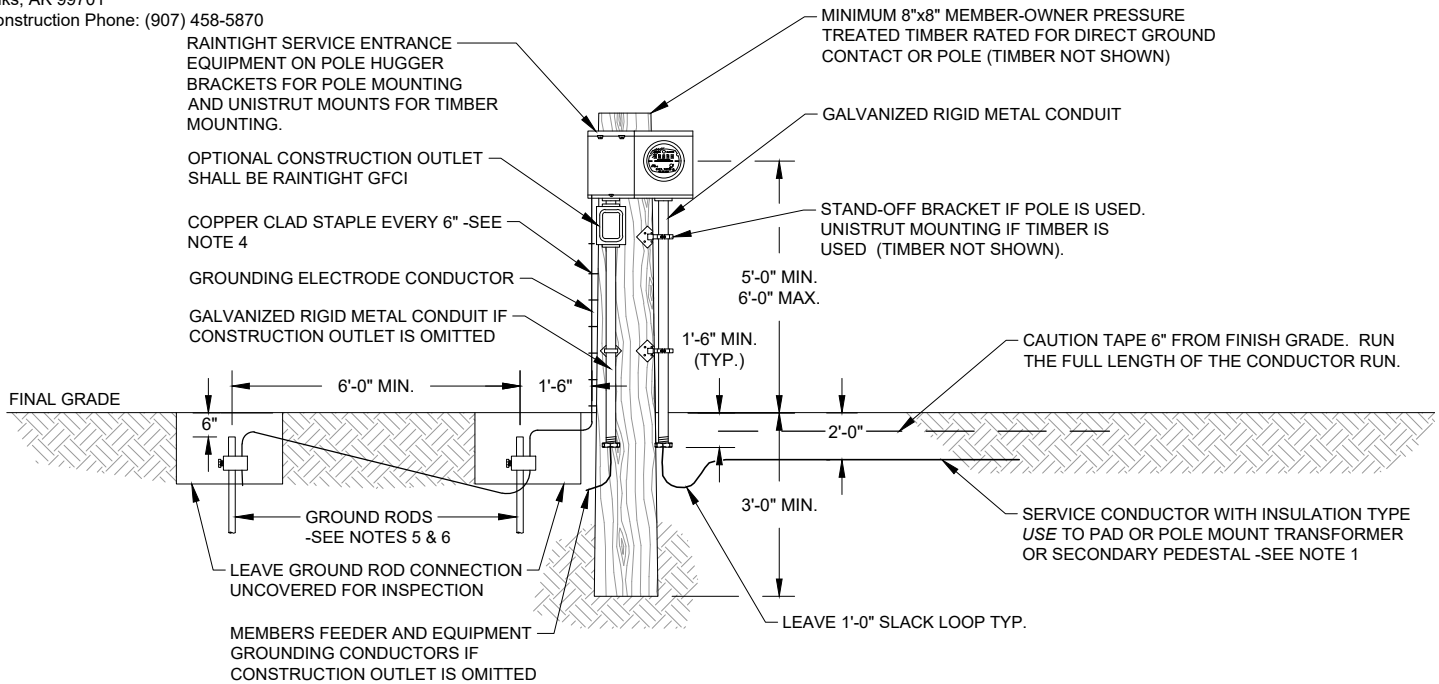


# Underground Service (Not to Exceed 300 Amps)

REVISED 03/2020

**Golden Valley Electric Association, Inc.**  
758 Illinois Street  
Fairbanks, AK 99701  
New Construction Phone: (907) 458-5870



**NOTE: TRENCH MUST BE INSPECTED BY GVEA PRIOR TO BACKFILL.**

**NOTES:**

1. It is highly recommended that all conductors or cables under drivable areas be placed in conduit. 10'-0" minimum distance from meter to transformer.
2. The use of split-bolts is not allowed.
3. See the Fairbanks City NEC Amendments for additional requirements for service installations in the Fairbanks City Limits.
4. If the grounding electrode conductor is exposed to physical damage it shall be run in conduit securely fastened to the structure. See NEC 250.64(B).
5. If grounding requirements of NEC 250.50 cannot be met, and made electrodes are utilized as the sole type of grounding electrodes, then the resistance requirements of NEC 250.53(A)(2) shall be met. Electrodes may be directly bonded together with grounding electrode conductor, individually routed to the neutral bus, or connected to an optional terminal bus as stated in note 18 on page 25 of the Commercial Services Book. **A ground rod is required by GVEA even if a metal water pipe or other electrodes listed in NEC 250.50 are used.**
6. Approved copper-clad ground rod, 8'-0" x 5/8" diameter minimum, with approved connector, driven into undisturbed earth. Leave exposed for inspection.
7. Sealing locknuts or hubs shall be used on all conduits that penetrate enclosures in an exterior installation.
8. Self-contained 300 Amp service is single-phase only. See page 15 of the Commercial Services Book for details.
9. Location of any customer facilities approved by GVEA does not take into consideration underground obstructions; it is the owner's responsibility to call other utilities for underground locates and to identify any underground obstructions prior to placing any new equipment.
10. The member's contractor shall provide a tented and heated area for pulling and terminating conductors for underground installations when the temperature is less than +20°F. The heating source will be an indirect fired system. Contact GVEA's New Construction section for more information.

WIRE/CONDUIT SIZE TABLE				
WIRE SHALL BE COPPER				
SERVICE SIZE	MINIMUM WIRE SIZE (USE, XHHW, OR RHW)*	MINIMUM CONDUIT SIZE (RMC OR IMC)	MINIMUM GROUNDING ELECTRODE CONDUCTOR SIZE	MINIMUM EQUIPMENT GROUNDING CONDUCTOR SIZE
100 Amp	#2 Copper	1 1/4"	#4 Copper	#8 Copper
200 Amp	#3/0 Copper	2"	#4 Copper	#6 Copper
300 Amp	300 kcmil Copper	2"	#2 Copper	#4 Copper

\* Conductor insulation shall be type XHHW or RHW for installations in conduit, or type USE for direct burial installations.