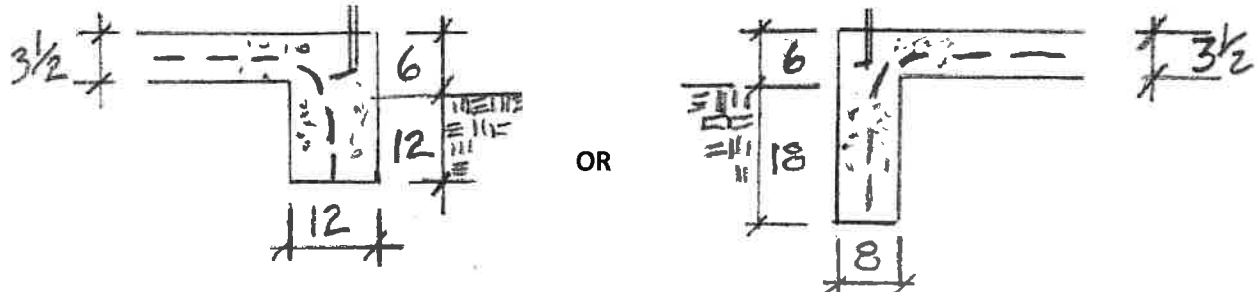
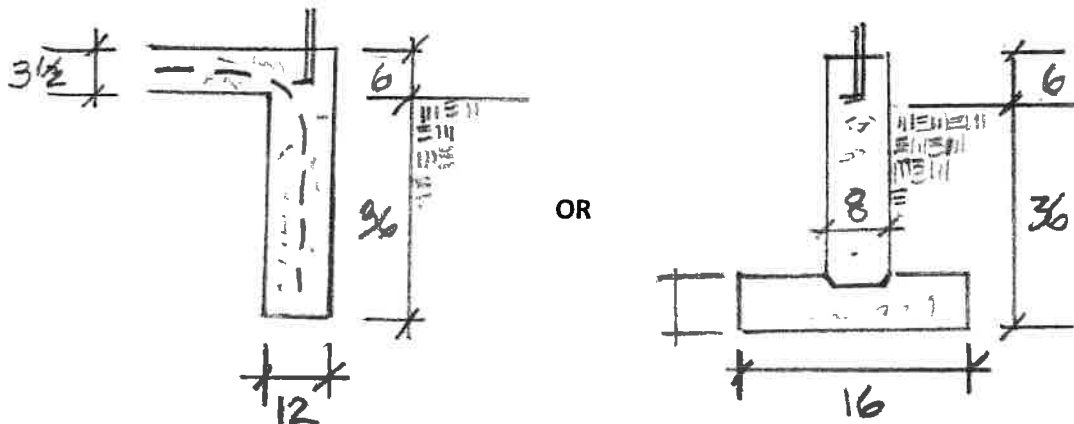


Option #1 is for single story detached accessory structures - garages & sheds UNDER 721 s.f. This is a monolithic concrete pour, meaning the footer and slab are poured together and finish 7" above final grade. Welded wire mesh or rebar grid must extend across the slab and turn down into the footing. $\frac{1}{2}$ " diameter anchor bolts are imbedded 7" into concrete and placed every 6'-0 in the center one-third of the plate and within 12" of the end of each plate. A washer 2 times the diameter of the bolt and a nut must be visible at framing inspection. Approved equivalent anchors or anchor straps are acceptable.



Option #2 is for all structures over 721 s.f. and/or two stories. Frost proof foundations require a 36" deep footing with a foundation wall that extends 7" above final grade. Structures with basement walls having more than 7'-0 of fill require $\frac{1}{2}$ " diameter anchor bolts placed every 4'-0 instead of every 6'-0. Anchor bolts shall be imbedded 7" into concrete, placed in the center one-third of the plate and within 12" of the end of each plate. The washer and nut must be visible at framing inspection. Structures with basements, habitable space or bedrooms require emergency escape opening window.



For portable storage buildings (skid type) see other handout. See back for grounding requirements.

Rev2/11/21ms

UFER grounding required for all new construction buildings and additions using Option #2.

E3608.1.2 Concrete-encased electrode. A concrete encased electrode consisting of not less than 20 feet (6096 mm) of either of the following shall be considered as a grounding electrode:

1. One or more bare or zinc-galvanized or other electrically conductive coated steel reinforcing bars or rods not less than 1/2 inch (13 mm) in diameter, installed in one continuous 20-foot (6096 mm) length, or if in multiple pieces connected together by the usual steel tie wires, exothermic welding, welding, or other effective means to create a 20-foot (6096 mm) or greater length. Where the steel reinforcing bars or rods are not less than 1/2 inch diameter, it shall be permitted to turn the reinforcing bars or rods up into the building cavity for connection to the grounding electrode conductor. The reinforcing bars or rods shall be isolated and protected from contact with the soil. The connection to the reinforcing bars or rods shall not be required to be accessible if listed clamps suitable for direct burial or exothermic welds are utilized.
2. A bare copper conductor not smaller than 4 AWG. Metallic components shall be encased by at least 2 inches (51 mm) of concrete and shall be located horizontally within that portion of a concrete foundation or footing that is in direct contact with the earth or within vertical foundations or structural components or members that are in direct contact with the earth.

Where multiple concrete-encased electrodes are present at a building or structure, only one shall be required to be bonded into the grounding electrode system. [250.52(A)(3)]

