



CONSTRUCTION CHECKLIST Residential Footing & Foundation

August 2004

This checklist is intended for use to prepare for an inspection. This is only a general list and is not intended to address all possible conditions. References are to the 2003 International Residential Code (IRC) (IRC sections referenced as (R) and American Concrete Institute (ACI) 318 as referenced by R612.

Please verify the following before calling for the footing or foundation inspection.

Permits and Plans

- Job address is posted in a visible location. (R321)
- Permit and approved plans are on site and accessible to the inspector. (R106.3.1 and R105.7).
- Permit information is correct (address, permit number, description of work, etc.) (R106.1.1)
- Plans have been reviewed for any special inspection requirements. (R109.2 and R401.4).
NOTE: If special inspections are required, note on the permit each time the special inspector is on the site. Make sure the inspector is certified to perform the required type of inspection.
- Check approved plans for identification of flood hazard area and associated requirements for construction. (R109.1.3 & R323)
- Check approved plans for building height restrictions. (Per the local jurisdiction)

Location on Property

- The footings and foundation are not located within the setbacks.
- Protected areas and erosion control measures that need to be maintained and/or protected are marked per the approved plans. (Per the local jurisdiction)

Footings

- The footings are constructed per the approved plans. (R403)
- All loose soil, mud, or water is removed from the bottom of the footing. (R401.5)
- The reinforcement steel is free of any loose scale, rust, mud, or oil. (R404.4.6 & ACI 318)
- Steel reinforcement is properly placed. (R404.4.6 & ACI 318)
 - To a minimum of 3" when cast against and permanently exposed to ground.
 - To a minimum of 2" for No. 6 through No. 18 bar when exposed to earth or weather.
 - To a minimum 1.5" for No. 5 or smaller bar when exposed to earth or weather.
- The reinforcement steel is spliced per approved plans with two ties per lap. (R404.4.6 & ACI 318)
- Footings for masonry chimneys are a minimum of 12" thick and extend not less than 6" outside the chimney wall and project below-grade as required. Reinforcement steel is a minimum 12" on center each way. (R1001.1.1)
- Footings are level or stepped if the ground slopes more than 1 foot in 10 feet. (R403.1.5)
- Minimum 1" clear spacing between parallel reinforcing bars. (R404.4.6 & ACI 318)
- Footings project beyond the face of the foundation wall at least 2 inches, but not more than the thickness of the footing. (R403.1.1.)
- Footings don't bear on frozen soil. (R403.1.4 & ACI 318)
- Debris, water and/or ice removed from spaces to be occupied by concrete. (R404.4.6 & ACI 318)
- Reinforcement thoroughly clean of ice, mud, oil or other deleterious coatings. (R404.4.6 & ACI 318)

Foundation

- Top of the wall will project a minimum of 6" above finished grade. (R404.1.6)

- The joists within the building footprint maintain a minimum 18" above grade in the crawl space or be treated wood or wood of natural resistance to decay. (R319.1)
- The beams within the building footprint maintain a minimum 12" above grade in the crawl space or are treated wood or wood of natural resistance to decay. (R319.1)
- The foundation wall is at the thickness shown on the approved plans.
- The reinforcement steel grade, size, cover, spacing, and splicing is per the approved plan. (R404.4.6 & ACI 318)
- When the concrete is poured, the anchor bolts will have a minimum 7" of cover, putting the bottom of anchor bolts within steel. (R403.1.6)
- The required holdowns are placed per approved plans. Note: Holdown straps and embedded bolts for holdowns may not be wet set. Requirements may vary per jurisdiction.
- Crawl space vents incorporated into foundation walls properly sized, spaced and installed. (R408)
- Walls exposed to weather are to have a minimum of 3000 psi concrete strength, and air entrained (5-7%). (Table R402.2)

General

- Cold weather requirements. (R404.4.6 & ACI 318) Concrete being placed during freezing or near-freezing weather complies with the following:
 1. Adequate equipment provided for heating concrete materials and protecting concrete during freezing or near-freezing weather.
 2. Concrete materials and reinforcement, forms, fillers and ground with which concrete is to come in contact is free from frost.
 3. Frozen materials or materials containing ice not being used.
- Hot weather requirements. (R404.4.6 & ACI 318) During hot weather, proper attention is given to ingredients, production methods, handling, placing, protection and curing to prevent excessive concrete temperatures or water evaporation that could impair the required strength or serviceability of the member or structure.