



CITY OF BUENA VISTA
Department of Planning & Community Development
Building Inspections Office
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Residential Footing and Foundation Inspection Checklist

This Inspection Checklist reflects code requirements of the 2015 International Residential Code (IRC) and ACI 318.

- Job address shall be posted in a visible location. (R319)
- Permit and approved plans are on site and accessible to the inspector. (109.5 and 110.5)
- Permit information is correct (address, permit number, description of work, etc.). (110.1)
- Plans have been reviewed for any special inspection requirements. (R401.4)

***NOTE:** If special inspections are required, the special inspector must submit a copy of their site visit report to the Building Department each time they are on the job site. Make sure the special inspector is certified to perform the required type of inspection.*

- Check approved plans for identification of flood hazard area and associated requirements for construction. (R109.3 & R322)
- Confirm approval by the City's Community & Economic Development Office that the approved plans meet the allowable building height and/or setback restrictions; assure that the footings and foundation are not located within the setbacks.
- Protected areas and required erosion control measures that need to be maintained and/or protected will be marked per the approved plans.

Footings

- A safe and clear walking path to site and formwork. (113.1)
- The footings are constructed per the approved plans. (R403)
- All loose soil, mud, or water is removed from the bottom of the footing. Debris, water and/or ice removed from spaces to be occupied by concrete. (R403.1 & ACI 318 26.5.2)
- Steel reinforcement is properly placed and is the correct grade (40 or 60 are most common). (R403.1.3.5.3, & ACI 318 20.6.1.1 – 20.6.1.4)
 - 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. (R403.1.3.5.4)
- 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 per approved drawings. (R1001.2)

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- Footings shall be level. If the bottom of the footing slopes more than 1 foot in 10 feet, it must be stepped. (R403.1.5)
- Minimum 1" clear spacing between parallel reinforcing bars. (ACI 318 25.2.2)
- Footings must project at least 2 inches beyond the face of the foundation wall, but not more than the thickness of the footing. (R403.1.1.)
- Footings cannot bear on frozen soil. (ACI 318)
- Reinforcement thoroughly clean of loose scale, rust, ice, mud, oil or other deleterious coatings. (ACI 318)
- Top of the wall must project a minimum of 6" above finished grade. (R404.1.6)
- Foundations in flood prone areas per Table R301.2.4 and specified by the City, shall be designed per R322, and elevation determined per FEMA maps and/or surveyed/sealed by design professional (R322.2.1, [AO zones]). Flood resistant materials must be used.
- Surface drainage away from foundation walls min. 6" for the first 10 feet. On narrow lots provide slope to drains or to approved (2%) sloped swales. (R401.3 exception.)
- The joists within the building footprint be a minimum of 18" above finished grade in the crawl space or be treated wood or wood of natural resistance to decay. (R317.1)
- The beams within the building footprint must be a minimum of 12" above grade in the crawl space or are treated wood or wood of natural resistance to decay. (R317.1)
- The foundation wall is at the thickness shown on the approved plans. (109.10)
- The reinforcement steel grade, size, cover, spacing, and splicing is per the approved plan. (ACI318) θ 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)
- Anchor bolts must be sized and spaced per R403.1.6, or per the structural plans for shear walls. (R602.11)
- The required holdowns are placed per approved plans and manufacturers installation requirements. (R602.11) NOTE: Holdown straps and embedded bolts for holdowns may not be wet set.
- 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)
- Foundation retaining walls unsupported at the top and retaining greater than 48" of unbalanced fill shall be designed by an RDP. (R404.4)
- Waterproofing/Damp proofing of foundation exterior walls may be required (R406)
- Cold weather requirements. (ACI 318 26.5.4) Concrete being placed during freezing or near-freezing weather complies with the following:
 - Adequate equipment provided for heating concrete materials and protecting concrete during freezing or near-freezing weather.
 - Concrete materials and reinforcement, forms, fillers and ground with which concrete is to

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come in contact is free from frost.

- Frozen materials or materials containing ice not being used.
- Hot weather requirements. (ACI 318 26.5.5) 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.
- Field bending of steel. (ACI Table(s) 25.3.1 and 25.3.2) Minimum diameter of bend 6 times the diameter.

GENERAL INFORMATION:

- Code Sections provided are from the 2015 Virginia Residential Code and the ACI standard.
- This checklist is intended for use to prepare for an inspection.
- It is only a general list and is not intended to address all possible conditions
- Please refer to the current *Virginia Uniform Statewide Building Code* for additional code provisions.