

City of Hampton Residential Plan Review Checklist

The following is a checklist of items that must be indicated on residential building plans. The references noted are taken from the Virginia Residential Code 2012. This is **NOT** a complete list. It is designed as a guideline, indicating information typically absent from plans submitted for plan review. It is not a substitute for, nor does it include, everything required for a complete set of building plans. Checking your set of plans against this list of commonly omitted items should help ease the plan review process and reduce comments.

I. General:

Three copies of plans with professionally developed standards must be submitted for new buildings or additions and shall meet the following submittal standards. For interior alterations, two copies are required and all standards below may not apply. Plans must either bear the seal of an Architect or Engineer licensed in the state of Virginia, or be signed by the individual responsible for the design including his/her occupation and address, per title 54 Code of Virginia. They must be drawn to professional standards in ink or mechanically printed. **Hand drawings can be submitted and will adhere to the same standards presented.**

- Standard sheet size 8 ½"x11" and above. Plans scaled ¼" per foot (or alternate 1/8" per foot if details can be seen clearly. Scale should be identified on drawings.
- Scaled site survey by Registered Land Surveyors.
- A finished floor elevation is required for new construction or substantial improvements.
- If the property is in the Chesapeake Bay Preservation Area, further review will be required, which may lengthen the permitting process.
- Plans shall be drawn to **SCALE** using standard drafting nomenclature and shall be of sufficient clarity to indicate the nature and extent of the work proposed. It shall show in detail that it will conform to the provisions of the code as specified in section 112 USBC.
- Plan presentation shall include: foundation plan, floor plan, framing (wall, floor, roof), shop drawings for pre-engineered lumber (specific to address), exterior elevation views, cross section views, and standard details. All items listed shall have sufficient detail.
- Ensure that the proposed site plan and building footprint plan are consistent.
- Format and number each page and corresponding details.

II. Architectural:

- Identify each room or space for its intended use or occupancy.
- Exterior wall fire separation requirements as per R302.1 & R302.2 of the USBC
- Glazing in hazardous locations as specified in section R308.4 shall be safety-typed according to the requirements of CPSC 16-CFR, Part 1201.
- Openings between a garage and residence shall be equipped with either solid wood doors not less than 1-3/8" in thickness, or 20-minute fire-rated doors.
- Show a minimum of ½" gypsum board applied to the garage side to separate the garage from the residence and its attic. This is required for separation, per section 309.
 - ❖ Where a floor-ceiling assembly is separating a habitable space from the garage, a minimum of 5/8" type-X gypsum is required.
- Show that each sleeping area has:
 - ❖ One window that can be opened or an exterior door approved for emergency egress or rescue (Section R310).
 - ❖ Egress windows must have:
 - 20" width minimum net clear opening
 - 24" height minimum net clear opening
 - net clear opening of 5.7 square feet
 - 5.0 at grade level

Note: Meeting the minimum width or height will require the other dimension to be larger to meet the required 5.7 square feet (Section R310).

- Show bathroom exhaust fans are vented to the outside, or provide the minimum required open-able windows (Section 303.3).
- Show the minimum clear width of hallways and stairs to be not less than 36" (Section R311.3 & 311.5.).
- Show minimum compliance with R311.2.1 for interior passage.
- Provide a stair section showing a maximum riser height of 8-1/4" and a minimum tread length of 9". Show minimum headroom in all parts of the stairway of not less than 6'-8" measured vertically from the sloped plane adjoining the tread nosing or from the floor surface of the landing or platform (Section 311.5) USBC.
- Indicate handrails within the minimum and maximum heights of 34" and 38" measured vertically from the nosing of the treads on at least one side of stairways of three or more risers. (section R311.5) USBC.
- Indicate guardrails on porches, balconies or raised floor surfaces located more than 30" above the floor or grade below. Show guardrails not less than 36" in height, and a spacing between the pickets or balusters less than 4". Section R312
- Show location of Smoke Detectors (Section R313):
 - ❖ One in each sleeping area
 - ❖ Immediately outside of sleeping area
 - ❖ On each story of dwelling
 - ❖ Indicate all detectors are interconnected
 - ❖ Specify that alarms will receive primary power from the building wiring and have a battery backup
- Indicate minimum insulation values as follows: R-19 in crawl space floor, R-10 in slab (2ft), R-15 in exterior walls and R-38 in attic (N 1102.1).
- Show location and size of attic access. Minimum required is 22"x30" (Section R807.).
- Indicate pitch of roof.
- Indicate required attic ventilation – 1/150 of roof area. See exceptions. (Section R806).

III. Footing and Foundations:

- Show that shear wall panels are at every corner and at proper intervals (Section R602.10). Provide wall bracing method, plan, and calculation sheet.
- Indicate the depth to the bottom of the footing below grade (12" min. req.)
Section R403.1.4
- Indicate size of footing (width and thickness) in accordance with Table R403.1.
- Specify assumed soil bearing value (R401.2).
- Indicate the compressive strength of all concrete in accordance with Table 402.2 for a moderate area.
- If in flood zone, indicate flood vents as required by R324.2.2
- Brick skirt and 4" CMU must be tied together with ladder type reinforcing ties and then grouted together (per Section R606.2.1).
- Indicate the footing size of pier footings (width, length, depth, thickness).
- Show the unsupported height of masonry piers. Note: The unsupported shall not exceed 10 times their least dimension..., except that unfilled hollow piers may be used if their unsupported height is not more than four times their least dimension. Hollow piers shall be capped with 4 inches of solid masonry or concrete (Section R606.6.1).

A. Slab Construction

- Show perimeter insulation 1" thick extending minimum 24" from foundation block and under the slab (N 1102.1).
- Indicate type of vapor barrier under concrete (Section R506.2.3).
- Indicate thickened slab at load bearing walls - equivalent to that required for footings (Section R403.1.1).

B. Crawl Space Construction

- Show the location, size and number of foundation vents. Show calculations. Section R408
- Show location and minimum 18"x24" access panel. Section R408.4
- Indicate the clearance from the crawl space grade to the underside of the girders and floor joists. Note: Indicate protection against decay when girders are located closer than 12" to exposed ground and wood joists or the bottom of wood structural floor when closer than 18" as indicated in Section R319
- If property is located in a flood zone elevation certificate must be presented with flood vent specs. Flood vents must be reflected on the foundation plan and elevation views.

IV. Framing

- Indicate anchorage details for wood framing. If anchor bolts are used, specify minimum ½" diameter anchor bolts at 6' O.C. and embedded a minimum of 7" into grouted masonry or concrete. If foundation straps are used, specify manufacturer, type, size and maximum spacing of 6' O.C. (Section R403.1.6).
- Floor, roof and wall framing shall be capable of accommodating all loads imposed according to the code, and transmitting the resulting loads to the supporting elements down to the foundation (Section R501.2, 601.2 & 802.11).
- Specify species and grade of lumber to be used (Section 602.1 & 802.1).
- Specify header size and span for all headers as per Sections 502.5(1) & 502.5(2).
- Provide **specific** manufacturer span/load data sheets for **all** engineered wood products such as roof trusses, open-web trusses or truss-joists, micro-lam beams, para-lams, glu-lams, etc...

NOTE: *Manufacturer design guideline "cut sheets" **ARE NOT** acceptable. These are design guidelines only, and are not certified by the manufacturer or designed by an engineer that they are designed for your specific application.*

- Plans must indicate the size, spacing and direction of span of all structural elements: girders, floor joists, ceiling joists and rafters. Show and/or specify column anchorage details from beams down to the foundation.
- Indicate all lateral design details. If lapping structural sheathing across floor system, indicate the panel edge breaks. If using strapping, indicate the size, length, and spacing. Show hurricane clips on each end of all roof rafters to wall frame.
- Specify the type, grade and thickness of all structural woods panels used for wall and roof sheathing, and all sub-floor panels. These must comply with Table R503.2.1.1(1).
- Attic access must be 22" by 30" where roof is at least 30" above ceiling or where equipment is in attic (Section R807).

V. Decks

- SEE DECK AFFADAVIT AND HANDOUT