

The information herein is the most common instructions to obtain the necessary permits for your project and is not representative of all the conditions you may encounter.

Contact and locate us...

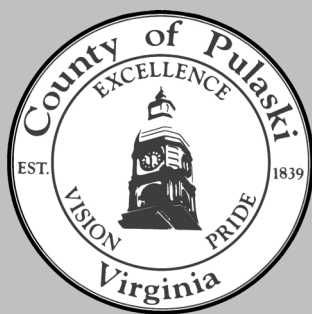
Building and Zoning Departments
Pulaski County Administration Building
First Floor
143 Third St. NW, Suite 1
Pulaski, VA 24301
540-980-7710 (telephone)
540-980-7717 (fax)

Environmental Health Department
Pulaski County Administration Building
Basement
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Pulaski, VA 24301
540-440-2166

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Always call 811 before you dig.

Virginia Department of Professional
and Occupational Regulation
1-804-367-8500
www.dpor.virginia.gov

Virginia Department of Transportation
540-381-7200



Who should apply for the permit?



Homeowners may obtain permits. However, it is strongly recommended your properly licensed contractor pull the permit as the responsible party so the county can better assist you in gaining compliance for defective work.

PERMITS REQUIRED

You must obtain permits for the construction of a new home. Listed below are the types of permits required.

- ☐ Building permit for architectural and structural elements.
- ☐ Temporary Power Pole, if needed
- ☐ Electrical permit for all electrical installations.
- ☐ Mechanical permit for heating and air conditioning systems (HVAC)
- ☐ Plumbing permit for plumbing installations
- ☐ Gas permit for gas installations
- ☐ Virginia Department of Transportation (VDOT) Entrance permit when your property is located on a state road, if entrance does not already exist
- ☐ Health Department permit for sites with wells and/or septic systems.
- ☐ Zoning Permit
- ☐ Disposal permit for new construction debris

DOCUMENTS REQUIRED

When applying for a permit, you must submit the following documents. To obtain these forms, please go to our website, www.pulaskicounty.org.

- ☐ Residential Permit application form
- ☐ Building plans
- ☐ Site plan to include home, decks and porches
- ☐ Construction permit for well and/or septic when applicable
- ☐ PSA application for mandatory garbage pickup; water and sewer connections when applicable
- ☐ Receipt of paid connection fees from other Water/Sewer provider (ie) Town of Dublin, Town of Pulaski, Pulaski County Sewerage Authority
- ☐ Flood elevation certificate if in flood zone
- ☐ American Electric Power Work Order Number for both temporary and permanent power (AEP: 1-800-956-4237)
- ☐ Agreement in Lieu of Erosion and Sediment Control Plan
- ☐ HVAC permits require the submission of a Residential Heat Loss and Heat Gain Certification and a Manual J calculation.

PERMIT PROCESS

When applying for the building permit, bring the required documentation listed above.

- ☐ Building Plan Review: Code compliance of the building plans is verified by the Pulaski County Building Code Official.
- ☐ **New home reviews may take up to 3 days.**
- ☐ Zoning Review: Compliance with Pulaski County's Unified Development Ordinance will take place during the same 3-day review period.
- ☐ Trade permits including mechanical, electrical and plumbing permits will be issued at the same time as your construction permit. Electrical and plumbing permits do not require a plan submission since code compliance is verified during inspections.

New Homes in Subdivisions

Contact your Homeowner's Association for building requirements and restrictions specific to your subdivision. If no Homeowner's Association has been formed, check your deed and/or survey plat for restrictions.

Height Restrictions (Zoning)

In most cases the maximum height of a residential building is 40 feet, measured from the average grade to the midpoint of the highest roof. Variations can apply with increase in setbacks from property line. Contact Zoning for more information. Homes over 35' will have special Building Code requirements.

BUILDING PLANS CHECKLIST

When applying for a permit, you must submit one copy of your building plans. The plans must meet the following requirements.

- Minimum sheet size 11x17 inches, no pencil.
- Name, address, occupation of the building designer
- If prepared by a Virginia registered architect or professional engineer, the plans must bear the original signature, seal and date.
- List of design criteria ie: live load, dead load, snow load (25 psf), wind speed (90 mph), soil bearing capacity (1,500 psf maximum assumable) and lateral earth pressure (60 pcf minimum assumable).
- Foundation plan and footing details, including depth below grade (24 inches minimum)
- Basement wall design
- Floor plans of all levels, all room functions labeled.
- Location of smoke and carbon monoxide alarms.
- Structural framing plans for each level identifying all members, sizes, span lengths and spacing.
- Structural details of connections.
- Typical wall section w/sheathing thickness and type.
- Wall bracing. For more information see our **wind bracing publications**.
- Roof framing plan indicating the size and spacing of the following: trusses, rafters, ceiling joists/rafter ties, ridge board and/or ridge beam.
- Insulation R-values and U-factors. See **Energy Compliance handout** for specific requirements.
 - Please check which of the following testing options you will be using:
 - Blower Door Test
 - Visual Inspection by Pre-Approved Third Party Inspector
- Residential Heat Loss and Heat Gain Certification and a Manual J calculation.
- Exterior elevations (front, side and rear) noting window and door dimensions and locations.
- Building height
- Jacuzzi/Whirlpool tub manufacturer's information showing loading requirements must be attached to the plans.
- Location of safety glazing.
- If you are using a new or unique product or material, you must submit a copy of its evaluation report from a nationally recognized listing agency, such as ICC-ES, ATI or UL, certifying it meets the requirements of the building code. Required for products such as EIFS, adjustable columns and structural composites.
- Manufacturer's design specifications for pre-fabricated fireplaces must be attached to the plans.

Footing Policy

When applicable, a soils analysis and an engineered footing design developed by a Virginia Registered Professional Engineer shall be submitted with the building permit application for new residential single family dwellings prior to approval of a permit. All lots must be checked by the Building Official; however, not all will require analysis.

Exceptions

- Footings for dwellings located outside the designated shrink swell soils policy area.
- Footings that meet the following minimum standard footing and foundation design.
- For additions to one and two family dwellings or slab-on-grade accessory structures and decks where there is no indication of a shrink-swell condition in the area.

-OR-

MINIMUM STANDARD FOOTING DESIGN

- Minimum footing depth to the bottom of the footing shall be 24".
- Minimum thickness of concrete footings shall be 8 inches.
- Two continuous #4 reinforcing bars shall be provided throughout all footings. All reinforcing steel shall be secured in place and lapped a minimum of 12 inches where spliced, and shall be supported and anchored with metal stakes and/or chairs which provide a minimum of 3 inches clearance from the sides and bottom of the excavation. Clay brick or CMU block shall NOT be used for support and or anchors.
- The minimum overlap at all footing steps shall be a minimum of 2 times the footing thickness.
- The minimum footing width shall be 16 inches and shall extend a minimum of 4 inches beyond each face of the wall it supports.
- Footings supporting interior piers shall be continuous and tied into exterior footings. This requirement shall not apply to basement column footings or isolated interior fireplace footings.

Erosion & Sediment Control

In lieu of submission of an erosion and sediment control plan for the construction of any single family dwelling, requirements shall be met that are based on the conservation standards contained in the Pulaski County Erosion and Sediment Control Ordinance, and shall represent the minimum practices necessary to provide adequate control of erosion and sedimentation on or resulting from this project.

As a minimum, all denuded areas on the lot shall be stabilized within seven days of final grading with permanent vegetation or a protective ground cover suitable for the time of the year.

For more information about soil erosion and sediment control measures and the Pulaski County Unified Development Ordinance please contact our office.

CODE COMPLIANCE AS OF 7/13/2015

2012 VA Uniform Statewide Building Code
2012 Virginia Residential Code
2012 Virginia Construction Code
2012 Virginia Plumbing Code
2011 Virginia Electrical Code
2012 National Electrical Code
2012 Virginia Fuel Gas Code
2102 Virginia Energy Conservation Code
2012 Virginia Fire Prevention Code

IMPORTANT 2012 CODE CHANGES

Section M1507.3 Whole House Mechanical Ventilation System (NEW)

Where a blower door test of the building indicates that the infiltration rate is less than 5 ACH50, the dwelling must be provided with whole-house mechanical ventilation. (See Section R303.4)

Section R303.4 Mechanical Ventilation (NEW)

This new section requires a whole-house ventilation system when a house has been tested with a blower door under prescribed criteria. If the flower door test required by Section N1102.4.1.2 indicates that the infiltration rate is less than 5 ACH50, the dwelling must be provided with whole-house mechanical ventilation.

This section applies whether or not the natural ventilation provisions of Section R303.1 are applied. In other words, the requirement of this section is in addition to the provisions of Section 303.1.

Note: Exception #1 to Section R303.1

Section R310.2.2 Drainage (NEW)

This new section requires window wells serving emergency escape and rescue openings to be designed to direct surface water to the foundation drainage system.

Section E607.5 Pipe Insulation

The International Energy Conservation Code requires 1" thick pipe insulation for automatic hot water temperature maintenance systems (circulated loop or heat traced). The first 8 feet of piping from a hot water source that does not have heat traps shall have 1/2 " thick insulation.

402.4.3 Wood Burning Fireplaces

New wood burning fireplaces shall have gasketed doors and outdoor combustion air (masonry site built)

312.2 and P2503.5.1

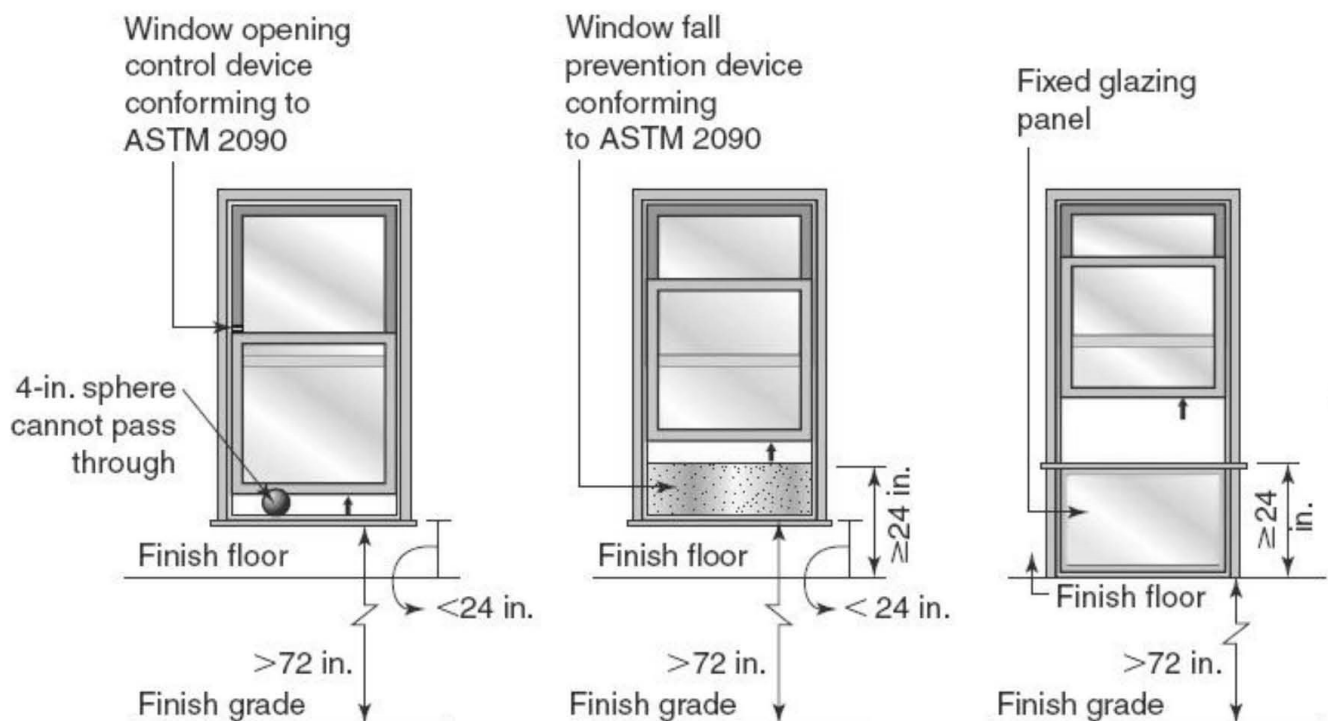
IPC and IRC add plastic piping, shall not be tested using air.

Chapter 8 Span Tables - Roof-Ceiling Construction

Changes made to ceiling joist and rafter span tables to reflect revisions to Southern Pine strength values.

R311.2.1 Interior Passage (Accessibility)

If the dwelling unit has a kitchen and a living or entertainment area on the same level as the egress door: Interior passage must be provided to at least 1 bedroom and at least 1 bathroom that contains water closet, lavatory, bathtub or shower. Where these rooms are provided on this level. Doors/Cased Openings must be: Min. 34"



Alternatives to minimum window sill height.

The information herein is the most common for how to gain compliance with the energy code for residential projects and is not representative of all the conditions you may encounter.

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First Floor

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Hours of Operation

Monday - Friday
7:30 am - 4:30 pm

Environmental Health Department

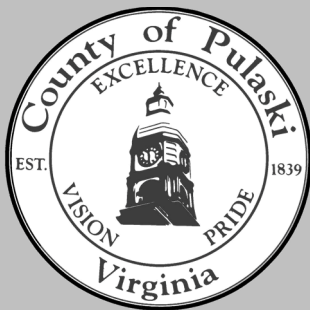
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NEW HOMES, ADDITIONS AND SUNROOMS

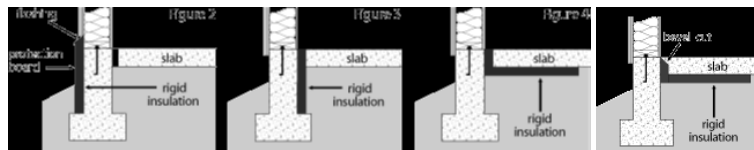
Consider the following when complying with the energy conservation requirements of the 2012 Virginia Residential Code.

- ◇ A **conditioned space** is an area within a building that is heated or cooled or has a fixed opening to an area that is heated or cooled.
- ◇ A **basement wall** is more than 50 percent below grade and encloses a conditioned space.
- ◇ Windows, skylights and glass doors are considered **glazing**.
- ◇ An **R-value** is a measurement of a material's thermal resistance (the higher, the better).
- ◇ A **U-factor** measures the ability of a material (glass) or assembly (window) to transfer heat (the lower the better).

DESIGN VALUES

Using the table below, install insulation or glazing with the R-values or U-factors shown, respectively. Higher insulation R-values are permitted provided their dimensions properly fit in the intended cavity. Glazing with lower U-factors than required are also permitted.

Element	New Homes, additions	Sunrooms
U-factor (maximum)		
Windows ¹	0.35	0.45
Doors ¹	0.35	0.45
Skylights ¹	0.55	0.70
R-value (minimum)		
Ceilings	38	19
Walls (wood framed)	15 or 13+1	15 or 13+1
Walls (concrete, CMU)	8/13	8/13
Floors	19	19
Basement Walls	10/13	10/13
Slab-on-grade ⁵	10, 2F	10, 2F
Crawl Space Walls ⁶	10/13	10/13



SLAB-ON-GRADE INSULATION REQUIREMENTS

(Insulation must extend from the slab edge to a length of 24" vertically and/or horizontally.)

REQUIRED INSPECTIONS FOR ENERGY COMPLIANCE

Air barrier: N1102.4.1.3

Tested air leakage is less than 5 ACH when tested with a door blower at a pressure of 50 pascals. Testing shall occur after rough-in installation of penetrations of the building envelope, including penetrations for utilities, plumbing, electrical, ventilation and combustion appliances.

◆ Blower Door Test:

- ◇ Exterior windows, doors, fireplace and stove doors shall be closed – but not sealed.
- ◇ Dampers shall be closed, but not sealed; including exhaust, intake, makeup air, back draft and flue dampers.
- ◇ Interior doors shall be open.
- ◇ Exterior openings for continuous ventilation systems and heat recovery ventilators shall be closed and sealed.
- ◇ Heating and cooling system(s) shall be turned off.
- ◇ HVAC ducts shall not be sealed.
- ◇ Supply and return registers shall not be sealed.

If you choose this option the only energy inspection that our offices will perform will be the inspection of the thermal building envelope which includes the following items: Insulation of slabs, walls, ceilings, under floors, conditioned crawl spaces, attics and all items from 1102.4.1.1.1 (Table)

◆ Visual Inspection Option:

Items listed in Table N1102.4.1.1 (R-402.4.1.1) must be inspected and field verified. All localities are requiring the visual inspection to be performed by an Approved Third Party Inspection Agency, Independent from the installers. Agency must be pre-approved. Must provide checklist of all items inspected per N1102.4.1.1 Must be submitted prior to issuance of the Certificate of Occupancy.

◆ Third Party Inspectors must be certified in one of the following categories.

- ◇ BPI – Building Performance Institute
- ◇ Resnet
- ◇ AEE – Association of Energy Engineers
- ◇ Other Approved Agencies

The Third Party Information MUST be submitted prior for approval of the Certification of the Third Party Agency.

◆ Final Inspection:

- ◇ All test results shall be submitted at the final inspection request. Door blower, duct, third party, etc.
- ◇ Insulators Certificate in place.
- ◇ Programmable thermostat installed.
- ◇ 50% of lights energy efficient.
- ◇ Above Code Programs – All certificates submitted to the Building Officials office – PRIOR to request for final inspection.

INSULATORS ARE REQUIRED TO OBTAIN A PERMIT FOR ENERGY CONSERVATION WORK.

◆ N1102/IECC R402

N1102.4.1.3 (R402.4.1.3) Leakage Rate - The building or dwelling shall not have a leakage rate exceeding 5 Air Changes per hour (ACH)

Note: new section in IRC, R303.4 Mechanical Ventilation requires whole-house mechanical ventilation WHEN LESS THAN 5 ACH is obtained as verified by Blower Door Testing.

- ◆ N1102.2.3/IECC R402.2.3 Eave Baffle - Required in attic where air-permeable insulation is used.

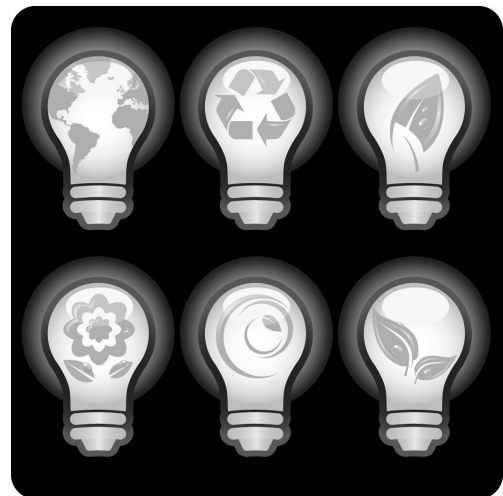


TABLE N1102.4.1.1 (R402.4.1.1)
AIR BARRIER AND INSULATION INSTALLATION

COMPONENT	CRITERIA a, b
Air barrier and thermal barrier	A continuous air barrier shall be installed in the building envelope. Exterior thermal envelop contains a continues air barrier. Breaks or joints in the air barrier shall be sealed. Air permeable insulation shall not be used as a sealing material.
Ceiling/attic	The air barrier in any dropped ceiling/soffit shall be aligned with the insulation and any gaps in the air barrier sealed. Access openings, drop down stair or knee wall doors to unconditioned attic spaces shall be sealed.
Walls	Cavities within corners and headers shall be insulated by completely filling the cavity with a material having a minimum thermal resistance of R-3 per inch. The junction of the foundation and sill plate shall be sealed. The junction of the op plate and top of exterior walls shall be sealed. Exterior thermal envelope insulation for framed walls shall be installed in substantial contact and continuous alignment with the air barrier. Knee walls shall be sealed.
Windows, skylights and doors	The space between window/door jambs and framing and skylights and framing shall be sealed.
Rim joists	Rim joists shall be insulated and include the air barrier.
Floors (including above-garage and cantilevered floors)	Insulation shall be installed to maintain permanent contact with underside of subfloor decking. The air barrier shall be installed at any exposed edge of insulation.
Crawl space walls	Where provided in lieu of floor insulation, insulation shall be permanently attached to the crawlspace walls. Exposed earth in unvented crawl spaces shall be covered with a Class I vapor retarder with overlapping joints taped.
Shafts, penetrations	Duct shafts, utility penetrations, and flue shafts opening to exterior or unconditioned space shall be sealed.
Narrow cavities	Batts in narrow cavities shall be cut to fit, or narrow cavities shall be filled by insulation that on installation readily conforms to the available cavity space.
Garage separation	Air sealing shall be provided between the garage and conditioned spaces.
Recessed lighting	Recessed light fixtures installed in the building thermal envelope shall be air tight, IC rated, and sealed to the drywall.
Plumbing and wiring	Batt insulation shall be cut neatly to fit around wiring and plumbing in exterior walls, or insulation that on installation ready conforms to available space shall extend behind piping and wiring.
Shower/tub on exterior wall ^c	Exterior walls adjacent to showers and tubs shall be insulated, and an air barrier shall be installed on the interior side of the exterior wall, adjacent to the shower or tub.
Electrical/phone box on exterior walls	The air barrier shall be installed behind electrical or communication boxes or air-sealed boxes shall be installed.
HVAC register boots	HVAC register boots that penetrate building thermal envelope shall be sealed to the subfloor or drywall
Fireplace	An air barrier shall be installed on fireplace walls. Fireplaces shall have gasketed doors or tight-fitting flue dampers.

- a. In addition, inspection of log walls shall be in accordance with the provisions of ICC-400.
- b. Structural integrity of headers shall be in accordance with the applicable building code.
- c. Air barriers used behind showers and tubs on exterior walls shall be of a permeable material that does not cause the entrapment of moisture in the stud cavity.

REQUIRED RESIDENTIAL INSPECTIONS

For New Homes, Additions and Renovations (all may not apply)

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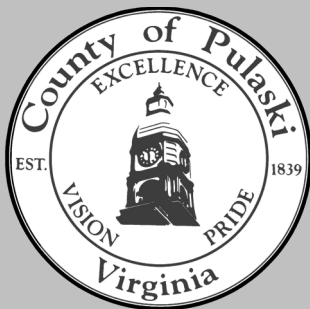
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Inspection Tips

Ladders, scaffolds and other equipment necessary to access construction must be provided to the inspector.

24 HOUR NOTICE IS NEEDED FOR ALL INSPECTIONS
INSPECTIONS ARE SCHEDULED AS AM OR PM ONLY
NO SPECIFIC ARRIVAL TIMES WILL BE GIVEN
PLEASE CALL 980-7710 TO SCHEDULE INSPECTIONS
YOU MUST KNOW YOUR PERMIT NUMBER WHEN YOU CALL

Additional inspections may be required if other than IRC prescriptive construction methods are used or as deemed necessary by the building official. **TIP:** Check these off as they are approved for your records.

- ☐ Post address and permit(s)
- ☐ Erosion and Sediment Controls in place
- ☐ Footings/buildings and zoning setback and ground electrode installation to footing rebar
- ☐ Retaining wall footings - additional inspections may be required depending on the type of foundation construction
- ☐ Temporary electrical service
- ☐ Foundation wall inspection - concrete or masonry
- ☐ Under slab plumbing water and DWV concealment and pressure test. DWV piping is to be tested with 10' of head to highest fixture or 5 psi air. Water piping must be tested at 80 psi. Systems must hold for 15 minutes without leakage.
- ☐ Slab preparation including insulation if required
- ☐ Foundation drainage
- ☐ Sill plate inspection
- ☐ Sewer and water service piping and exterior underground electric
- ☐ Drain, waste and vent (DWV) piping - 10' head to highest fixture (15 minutes)
- ☐ Interior water piping system - 80 psi
- ☐ Geo thermal piping system hydrostatic testing at 100 psi (15 minutes includes Header piping)
- ☐ Wall bracing
- ☐ Combination rough-in inspection Mechanical, Plumbing, Electrical, Framing and Air Leakage. 5 psi on 15# gauge (maximum) test on all fuel gas piping is required at time of rough-in. Shower pan test - P2503.6 required at rough-in inspection.
- ☐ Insulation
- ☐ Duct test (If builder (certified) is doing test we will witness test, if Third Party Certified, we do not witness test. **Person certified must perform the test**)
- ☐ House Wrap/Window Flashing Inspection
- ☐ Insulation - building envelope and mechanical
- ☐ Permanent electrical power (meter) to structure
- ☐ Blower door test (If builder (certified) is doing test we will witness test, if Third Party Certified, we do not witness test. **Person certified must perform the test**)
- ☐ Final - if on private septic and water, must have Completion Statement from the Health Department to schedule final inspection

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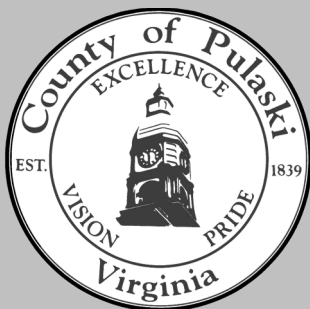
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Please note:

Every structure and building plan is different. Additional inspections may be required before a CO can be issued. This is determined based on the complexity of the building plans and the contractor's ability to complete any modifications granted by the Building Official in a timely and efficient manner.



Note: Structures are required to be built to meet the current edition of the Virginia Uniform Statewide Building Code.

General Final Inspection Requirements:

- ☐ Have obtained Operations Permit from Health Department for septic/well if applicable
- ☐ All deficiencies noted during previous inspections have been corrected.
- ☐ Address shall be posted on structure and visible from the street - numbers must be a minimum 4" high and 1/2" stroke on a contrasting background color.
- ☐ All gutters shall drain water away from structure.
- ☐ Crawl space: Access hole is correct size, check for proper ventilation, all debris is removed from area, ground surface shall be covered with a moisture barrier and insulation is installed under habitable floor area. All piping shall be installed.
- ☐ Cross connection protection shall be installed.
- ☐ Attics: Insulation installed to proper depth, opening constructed to correct size, if equipment installed: flooring shall be installed, as required, light and receptacle installed and working, all plumbing piping and mechanical vents terminate outside of building.
- ☐ Receptacles, switches, lights, fans etc. shall be operational.
- ☐ Smoke detectors checked for proper location, and testing.
- ☐ All handrails inside and outside shall be secure and at proper height.
- ☐ Windows to open and close easily. Bedroom windows are correct size for egress.
- ☐ Kitchen and bathroom plumbing checked to drain properly and to ensure there is no leakage
- ☐ HVAC system installed and operational
- ☐ Electric panel labeled
- ☐ Basement: Any future piping shall be capped with listed material, holes to outside shall be sealed, stairs shall be fire blocked, and basement shall be insulated.
- ☐ Outside electrical GFCI outlets installed and working.
- ☐ Garage: If water heater is installed in garage it must be protected from physical damage, electric garage door openers have safety stop installed and working, outlets are GFCI and operational.
- ☐ If a gas fireplace has been installed, will check for gas shut-off and to see that key is inserted
- ☐ Protect interior and exterior gas lines from physical damage
- ☐ All gas appliances must be working including fireplaces
- ☐ Decks and landings must be installed
- ☐ Paint exterior gas lines. There is no color requirement.
- ☐ Bedrooms: All circuits are protected by an arc fault breaker including bedroom closets.
- ☐ All smoke detectors/carbon monoxide detectors working properly including batteries.
- ☐ Hot water must be working and available at time of final inspection
- ☐ Screens must be installed unless outside air is provided through ventilation system
- ☐ Fire Extinguisher installed (permanently installed in kitchen)
- ☐ Insulation Certificates permanently installed in attics
- ☐ All Third Party/Special Inspections/Above Code inspection results submitted to Building Official
- ☐ Duct tests and blower door tests results submitted to Building Official
- ☐ Other items may be required as directed by the Building Official
- ☐ A temporary Certificate of Occupancy may be issued if the deficiencies are minor and not related to the safety and welfare of the tenants occupying the residence as determined by the Building Official.