



DEVELOPMENT SERVICES
DEPARTMENT OF BUILDING INSPECTIONS

SIGNIFICANT CHANGES IN THE 2021 RESIDENTIAL CODES

Adopted in Virginia on Jan 18, 2024, and becomes fully effective Jan 18, 2025

General Building

- >R302.2 Townhouse common walls require separation to continue to exterior or have approved blocking.
- >R314.3 New location requirement for smoke alarms in hallway serving a bedroom and adjacent rooms where ceiling is more than 24" higher than hallway ceiling.
- >R326 New section dedicated to "habitable attics."
- >R506.2.3 10mil poly is required for slab vapor barrier.
- >R704.2.1 Soffits are required to have additional mid-span support where over 16" in width.

Mechanical/Energy

- >N1101.13 Energy efficiency shall comply with this section. This allows for alternative methods of compliance. Non-prescriptive methods will be evaluated upon proper documentation submitted to our office by *approved designers*.
- >N1101.14 New requirements for envelope certificate information. This certificate shall be required to be posted at the interior mechanical room or *other approved* location.
- >N1102.1.3 (Table) Flat ceilings shall have R60 or equivalent insulation. Franklin County will modify to the 2024 code and maintain R-49 in flat ceilings provided it extends non-compressed out to the edge of the exterior sheathing.
- > N1102.2.3 (R402.2.3) For air-permeable insulation in vented attics, a baffle shall be installed adjacent to soffit and eave vents.
- >N1102.2.8 Unconditioned basements defined.
- >N1103.1.3 Primary heat source can no longer be electric resistive (baseboard) unit(s).
- >N1103.3.5 All ducts, regardless of location within thermal envelope, are required to be pressure tested.
- >N1103.6.3 Mechanical ventilation systems shall be tested. This does not include bath fan exhausts.
- >N1104 All lighting fixtures shall be *high efficacy* rated.
- >N1104.2 Light fixtures shall be controlled by a dimmer or occupancy sensor switch. (*Exc. Hallways, bathrooms, attics, utility areas containing electrical panels, hvac equipment, water heaters, and exterior or safety lighting.*)



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>N1102.4.6 (R402.4.6) Electrical and communication outlet boxes (air-sealed boxes). On Exterior walls.

Electrical/Plumbing/Fuel Gas

>G2447.2 No commercial gas appliances allowed in dwellings/residential structures.

>P25003.5.1 DWV tests to be 10' static water test or vacuum test.

>P2905.3 Developed length of hot water piping shall not exceed 100'.

*** All interior hot water lines $\frac{3}{4}$ " and larger must be properly insulated.

>E3601.8 Emergency disconnect(s) required at readily accessible location outside of structure for services.

NEC 445.18 (D) & 702.12 (A) Emergency disconnect required for all permanently installed generators. A means to turn off the power at the generator will need to be provided. The breaker inside the generator cannot be used as this, as it is not readily accessible. (Keys are allowed, however, the owner may not be on the property, thus not readily accessible.)

NEC 702.7 Signs will need to be installed adjacent to the emergency service disconnecting means indicating the locations of all disconnecting means for any permanently installed onsite power sources such as:

1. Generators
2. Storage battery systems

Signs must be suitable for exterior environment as per NEC 110.21 (B). Sharpies and stick-on labels will not be accepted.

>E3606.5 Service surge protection device(s) required for each service panel.

>E3901.4 New requirements for receptacles on counter spaces. (*Please note the NEC has issued a TIA stating that future publications may eliminate the requirement for island/peninsula receptacles due to possible safety hazards. Bedford County will allow these receptacles to be optional*)

>E3902 GFCI protection required on all 250v receptacles such as clothes dryers. (HVAC equipment is excluded)

>E625.54 GFCI protection required for all receptacles for EV charging equipment regardless of ampere rating.

>E3902.5 GFCI protection required on all basement receptacles (finished or unfinished).

>E3902.10 GFCI protection required on all receptacles in *indoor* areas considered damp/wet locations.



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>E3905.8 Outlet boxes in ceilings of habitable rooms where a ceiling fan *may* be located are required to be suitable for supporting a fan.

>E4002.11 New definition of *bathtub and shower* space restrictive zone. 3' horizontal and 8' vertical space adjacent to tub/shower shall not have receptacles.

Solar installations

>R324.6.2 Rooftop setbacks simplified. 18" setback at either side of horizontal ridge.

>NEC690.13A Locked disconnect required if equipment does not have a dead front guarding live conductors.

>NEC690.15 Disconnecting means section revised.

>NEC690.41(B) PV system dc circuits that exceed 30v/8a required to have dc ground fault protection.

>NEC690.56(C) Label required for rapid shutdown device location.

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If emergency/backup systems are incorporated with the solar PV system -or- are already installed, plans must be stamped/sealed by a VA Registered Design Professional.