BUILDING INSPECTIONS DEPARTMENT
RESIDENTIAL CHECKLIST
(Are You Ready For An Inspection?)

Attached is the Greenwood City/County Building and Codes Department Residential Checklist that reflects the ***2021 edition of the International Residential Code. Note: This document is not intended to include all the code changes as outlined in the 2021 IRC.***

The purpose of this list is to provide home builders within Greenwood County a list of items that are checked by type of inspection and by trade. Again, it is not intended to be all-inclusive. We anticipate updating this list on an annual basis as needed. Handouts are available at our office or on our website at www.gwdcity.com. Once you are on the main Greenwood County Website page you will click on Departments and then Building Inspections.

It is impossible to develop a complete list of all items that can be inspected without duplicating all the adopted codes. The intent of this handout is to be used as a guide, not to replace the codes. It is the responsibility of the licensed builders, owner builders, and the subcontractors to insure the homes they are constructing are in full compliance with the adopted codes and ordinances.

Inspection Procedure

The following sequence of inspections are currently enforced. It is the responsibility of the builder to contact the department to request an inspection. **Inspection requests must be called in before 4:00 PM to be scheduled for the next business day**. Please have your permit number when calling. A $50.00 re-inspection fee will be imposed if the scheduled inspection is not ready. It is the responsibility of the builder to provide access and means for inspection. Work shall not be done beyond the point indicated in each successive inspection unless approved by the Inspector or Building Official. No building shall be occupied until all inspections have been completed and approved and a Certificate of Occupancy has been issued.

Footing Inspection: When the footing/foundation is complete. Prior to pouring concrete.

Plumbing Under-Slab: Plumbing test is on with fittings exposed. This may be done in conjunction with the Footing Inspection.

Rough-In Inspection: Prior to installation of sheetrock and insulation. The house is dried-in, framing, mechanical, plumbing and electrical roughed-in at this time. Meter base and outside disconnect in place. Grounding rods in place.

Electrical Panel Inspection: Breakers are installed and Panel Cover is removed

Final Inspection: Prior to occupancy, building is complete and all prior inspections approved. A Certificate of Occupancy will be issued the following business day once the final inspection has been approved.

Please feel free to call our office (864.227.8424) and speak with an inspector if you have any questions or concerns prior to performing the task. It is much cheaper to ask questions before the work is done to prevent any delays in the building process or costly repairs. Additional inspections can be requested at no charge and as time permits.

Under Slab Inspection Checklist

1. Slab inspections are required whenever any utility (plumbing, electrical, mechanical duct or condensate) is located underneath a slab.
2. Plumbing must be under a water pressure test. DWV's must have a minimum 10 foot head of water from the highest fitting connection
3. All work must be exposed and cannot be covered prior to inspection. This will include straight runs and all fittings.
4. All drains must be properly sized, fitted and sloped.
5. Use of proper primer and solvents must be used and primer must be seen on all connections.
6. Sleeve protection piping must be in place under slabs and/or through foundation walls at inspection. This is for water supply and DWV lines.

Building Slab Inspection Checklist

1. A 4-inch thick base of course gravel or stone must be in place with a minimum of 10 mil polyethylene or other approved vapor retarder with joints lapped not less than 6 inches prior to pouring slab. *(10 mil vapor barrier now required in heated garages, but not utility buildings, driveways, patios that are not likely to be enclosed or heated at a later date)*
2. Concrete shall be a minimum of 3.5 inches thick and air entrained, 2500 psi compressive strength.
3. The area within the foundation walls shall have all vegetation, top soil and foreign material removed.
4. Any fill shall be compacted according to section R506.2.1.
5. Garage floors must be sloped to facilitate the movement of liquids.
6. Termite treatment is required prior to pour.
7. **Slabs poured prior to inspection or without vapor retarder may be subject to removal.**
8. Where provided, reinforcement shall be supported from the center to upper one third of the slab for the duration of the concrete placement.

Foundation Inspection Checklist

1. ½" anchor bolts shall be required within 12 inches of each corner and the end of each sill plate and every 6 feet. Anchor straps shall be installed according to manufacturer's installation instructions. (R403.1.6)
2. All wood that rests on concrete or is embedded within concrete and are less than 8 inches from grade must be pressure treated.
3. Minimum wall thickness is based on supported walls. (R606.4.1)
4. Foundation drainage must conform to section R405.1
5. If masonry foundation walls enclose habitable or usable space, walls must be dampproofed in accordance with Section R406.
6. Decay and Termite protection shall adhere to Section R317.
7. Crawl space access must be a minimum of 18 inches X 24 inches or, if equipment is located within the crawl space area, the access must be as large as the equipment.
8. Crawlspace shall be properly vented, and openings shall not be less than 1 square foot for each 150 square feet of under floor space. Each corner shall have a ventilation opening located within 3 feet.
9. All masonry construction shall follow procedures as established in (Section R606.7 and R606.7.1) Hollow piers shall be capped with 4 inches of solid masonry or concrete or shall have the top course filled with concrete or grout.

Framing Rough in Inspection Checklist

1. All sub trade rough-ins (Framing, electrical, plumbing, and mechanical) must be completed and inspected at this time.
2. The structure must be "dried in" with all doors and windows installed. Stacking of sheetrock against walls is not recommended as this may impede a potential inspection process by the inspector.
3. The Building Thermal Envelope shall be durably sealed to limit infiltration per the 2009 International Energy Code (2009 IECC). The Energy Code Checklist must be completed and submitted at the Final Inspection.
4. Each structure must have at least one exit door that measures 32 inches wide by 78 inches high. Each sleeping room must have an emergency egress window or exit door. The window sash must have a minimum clear opening at least 20 inches wide, 24 inches tall, be within 44 inches of the floor and have a net clear opening of at least 5.7 square feet for second story windows and at least 5.0 square feet for grade floor openings.
5. If stairs are installed, they must be a minimum of 36 inches wide and all landings are required to be 36 inches X 36 inches. Headroom in stairways must be a minimum of 6 feet 8 inches.
6. Stairs exceeding 12' 3" in vertical rise between floors are not permitted.
7. Handrails must be installed according to section R311.5.6.
8. All glazing installed in hazardous locations must be tempered. (**Sections R308.4.1;R308.4.2; R308.4.3;R308.4.4; R308.4.5; R308.4.6 and R306.4.7**)
9. All structural members, sizes, spans and method of attachment must be in accordance with the code. (Section R502 and Section R802.)
10. All engineered trusses, laminated beams; I-joists shall be installed according to manufacturer's installation instructions.
11. All engineered trusses, laminated beams, I-joists shall not be bored, notched or otherwise be altered without approval of a design professional.
12. All truss drawings shall be provided at the time of inspection.
13. Use of "hurricane clips" used will be installed according to manufacturer's specifications or as otherwise required by Table R802.11.
14. Wall bracing is installed according to Design Category C and Table 602.10.
15. The garage must be separated from the residence and the attic area by not less than ½ inch gypsum (sheetrock) board on the garage side.
16. Doors that separate garages shall be a minimum of 1& 3/8 inch thick wood or metal.
17. Habitable rooms above garages must be separated by not less than 5/8 inch gypsum (sheetrock) board on the ceiling side of the garage.
18. Attic areas shall be properly ventilated (R806.2) and an access opening of no less than 22 inches X 30 inches shall be located in a hallway or other readily accessible location.
19. If equipment is located within the attic space, an access the size of the equipment is required.
20. Fire blocking shall be in accordance with Section R302.11
21. All exterior siding material will require a weather resistant membrane over studs or sheathing of all exterior walls.
22. All porches, exterior windows and doors shall be flashed according to manufacturer's specifications. Wall sheathing should be at least 6 inches from grade.
23. A drip edge will need to be provided at eaves and rakes of asphalt shingle roofs if required by the manufacturer. (State Modification 2015-22)

Electrical Rough- In Checklist

1. All grounds must be made up in boxes and panel. Wiring must be run to all locations.
2. Service loads must be calculated in accordance with the code.
3. A four wire system with an exterior service disconnect is required. The sub-panel must isolate neutrals from the grounds.
4. All new residential buildings shall have an emergency disconnect means readily accessible outdoor location.

5. A grounding electrode system is required at each structure served. **A minimum of two grounding electrodes is now required and shall not be less than (6) six feet apart.**
6. Panel box locations must meet clearance requirements (30 inches wide, 36 inches deep and 6 feet, 6 inches high) and cannot be located in bathrooms or clothes closets.
7. Panels and overcurrent protection devices (breakers) shall be permanently and legibly marked.
8. Any unused opening must be effectively closed.
9. Receptacle spacing on walls shall not be more than 12 feet apart, within 6 feet of a door and on any wall over two feet in length.
10. A minimum of two, 20 amp circuits are required in the kitchen for small appliances, one in the laundry room and one for the bathrooms. Minimum wire size is 12-gauge.
11. Kitchen countertop receptacle spacing is every two feet on center, with one receptacle required for an island or peninsula countertop over certain sizes. (E3801.4.2 & 3801.4.3)
12. GFCI receptacles in all damp or wet locations in bathrooms, garages, including the receptacle that serves the garage door opener, kitchens, outdoors, crawlspaces, unfinished basements and bar sinks. (If outdoors in wet locations, must be protected with weatherproof covers)
13. A receptacle is required at the front and back door of each dwelling and within 6 feet, 6 inches of grade **including balconies, decks and porches** that are accessible from the inside and must be GFCI protected.
14. Crawl space receptacles must be GFCI protected. (E3902.4)
15. Laundry room circuit is required to be GFCI protected. (E3902.9)
16. Dishwasher circuit is to be GFCI protected. (E3902.10)
17. A switch controlled lighting outlet is required in every habitable room, bath, hallway, stairway, attached garage, in attics or crawl spaces with appliances, basements and each exterior grade exit.
18. All wiring shall be protected from abrasion and physical damage. All bored holes within 1 ¼ inches of the edges of studs are required to be protected.
19. All metal pipes, water and gas that are likely to become energized must be properly bonded.
20. Fixtures or devices used in wet or damp locations must be listed for that specific use.
21. Smoke detectors are required and must be installed utilizing hard wiring and battery back- up.
22. Smoke detectors are required in each sleeping room on each level and in the hallway immediately adjacent to each bedroom. ***Carbon Monoxide detectors are now required within dwelling units that contain fuel-fired appliances or that have attached garages and must follow the same installation requirements as smoke detectors. Where a fuel burning appliance is located within the bedroom or attached bathroom, a carbon monoxide alarm shall be installed within the bedroom.***
23. If smoke detectors in bedrooms are supplied by circuits that serve the bedroom outlets, the devices are required to be Arc-Fault protected.
24. Disconnects for HVAC or water heater must be located in accordance with Table E4001.5
25. All metal piping systems, including gas piping capable of becoming energized shall be bonded to the service equipment enclosure or one or more of the grounding electrodes used. All points of attachment must be accessible.
26. An intersystem bonding termination is required for communication systems, cable TV, etc.
27. Arc-Fault Circuit Interrupters (AFCI) are required in all branch circuits that supply 120 volt, single phase 15 and 20 amp outlets installed in **all other rooms** not listed that are GFCI protected. All other rooms include; Family Rooms, Dining Rooms, Living Rooms, Parlors, Libraries, Dens, Bedrooms, Sunrooms, Recreation rooms, Closets, Hallways and similar rooms or areas. Exempt from this requirement is Kitchen and Laundry rooms.
28. Tamper Resistance Outlets are required in all 125 volt 15 and 20 amp receptacles in areas specified in Section E3901.1 (Exceptions; E4002.14)
29. The *NFPA 70: 2020 National Electrical Code* is a referenced standard and should be used in conjunction with the IRC.

Plumbing Rough –In Checklist

1. PVC piping is not allowed to be used for any water distribution or supply inside the structure.
2. DWV systems shall be tested by water or air with no evidence of leaking. (Section P2503.5.1)
3. Water supply pipes shall be tested in accordance with Section P2503.6
4. A cut off valve shall be supplied for the cold water supply on all water heaters.
5. Water heater pressure relief valve discharge pipe shall extend to the outside of the building.
6. All bored holes located with 1.25 inches of edges of studs shall be protected (Section P2603.2.1)
7. Pipes through footings or foundations shall be protected utilizing a pipe sleeve that is two sizes greater than the pipe passing through or a relieving arch.
8. Vents must terminate a minimum of 6 inches above the roof and roof "boots" shall be installed.
9. Vent terminals shall not be installed within 10 feet of openings into the building unless it is a minimum of two feet above the opening.
10. One main stack must run to the exterior of the structure.
11. Water heaters located in garages must be protected from impact of automobiles.
12. **Access to circulation pumps for Whirlpool Bathtubs must be provided per manufacture's specifications. A copy is to be provided to the inspector on site.**
13. The *2021 International Plumbing Code* is a referenced standard and should be used in conjunction with the IRC.

Mechanical Rough-In Checklist

1. Gas piping shall be run to all locations and shall be pressure tested. A minimum pressure of 10 psi is required. Mechanical gauges used to measure pressure shall have a range such that the highest end of the scale is not more than five times the test pressure.
2. If gas lines are used to supply gas logs or fireplaces, these lines must be run at rough in.
3. Gas lines will not be inspected until all gypsum has been installed and no further chance of damage to piping exists (Exception: Continuous hard piping.)
4. Gas lines provided for appliances shall have sediment traps except for decorative appliances.
5. Foundation or manufactured slabs for outdoor mechanical systems shall be raised a minimum of 3 inches above grade.
6. Fuel fired appliances are prohibited in sleeping rooms, bathrooms and storage closets. (Some manufacturer's offer exceptions to this rule, please consult manufacturer's installation instructions if in doubt.)
7. Appliances having an ignition source shall be elevated a minimum 18 inches from floor in garages.
8. HVAC supply boots and metal duct piping must be insulated in non-conditioned spaces to prevent condensation.
9. Duct coverings shall not penetrate a fire blocked wall or floor.
10. HVAC returns must be installed and are prohibited in kitchens, bathrooms, garages and within 10 feet of fuel fired appliances. (Section M1602)
11. Ductwork must be properly supported; raised off ceiling joists in attics and minimum clearance of 4 inches from grade in crawlspaces.(Duct tape cannot be considered a strap)
12. Install drain pan and condensate line under the attic appliance and ensure no foreign material is the pan.
13. Appliances installed shall conform to manufacturer's installation procedures and manuals shall be left with the appliance.
14. All chimneys and vents shall be inspected for proper sizes and clearances. Chimneys shall extend 2 feet higher than any portion of a building within 10 feet, but not less than 3 feet above the highest point where it passes through the roof.
15. Any mechanical venting system shall terminate not less than 2 feet higher than any air inlet within 10 feet.
16. Clothes dryer exhaust can be vented a **maximum of 35 feet away from the dryer location** to the exterior wall or roof termination. (SC modification IRC 2015-27)

17. Bathroom exhaust fans must be installed in each bathroom and water closet and vent duct must terminate to the outdoors. **Vent cannot terminate into an attic, soffit, ridge vent, or crawl space.**
18. The *2021 International Mechanical Code* and the *2021 International Fuel Gas Code* are referenced standards and should be used in conjunction with the IRC.

Final Utilities Inspection Checklist

1. Ensure that all electrical appliances, receptacles, lighting fixtures are installed.
2. Breaker panel must be marked legibly and cover placed on panel.
3. All grounding electrodes must be properly secured with approved grounding clamps.
4. Upon inspection and approval, a yellow tag will be adhered to the outside of the meter box and Duke Energy will be notified that the inspection has been approved.
5. Gas meter sets require that all gas piping be installed and properly grounded with pressure gauge installed and pressure not less than 3 psig for a minimum duration of not less than 10 minutes.
6. Upon inspection and approval of gas lines, a tag will be placed on the gas line and Piedmont Natural Gas will be notified that the inspection has been approved.

Final Inspection Checklist

Warning: No building is to be occupied prior to the issuance of a signed and dated "Certificate of Occupancy" by the inspector and the Building Official.

1. Emergency 911 letters must be permanently placed in a position to be plainly legible and visible from the street or road fronting the property. Numbers shall contrast with the background upon which they are attached and be a minimum of 4 inches in height.
2. Grade must fall 6 inches within the first 10 feet or have adequate swale.
3. Porches, decks, balconies, ramps over 30 inches above grade plane require guards. (Minimum 36 inches tall) Elevated screen porches require guards.
4. Steps or stairs with 4 or more risers require handrails. Handrail height is a minimum of 34 inches and a maximum of 38 inches and must be graspable.
5. A minimum 3-foot X 3 foot landing is required for all exterior doors.
6. All appliances and HVAC equipment must be installed and in operating mode upon final inspection.
7. Seal all foundation penetrations.
8. Openings between the garage and residence (doors) shall be self-latching and equipped with a self-closing or automatic-closing device. (R302.5.1)