Catoosa County Contractors Meeting
October 24, 2018
Summary

Catoosa County held a Contractors meeting on October 24, 2018 at 10:00 am. Any changes that were presented took effect on October 24, 2018. The following is a summary for all who was in attendance and those who could not attend.

Current Codes:

Mandatory Codes:

- 2012 International Residential Code (IRC)
- 2012 International Building Code (IBC)
- 2012 International Plumbing Code (IPC)
- 2012 International Mechanical Code (IMC)
- 2012 International Fuel Gas Code (IFGC)
- 2009 International Energy Conservation Code (IECC)
- 2017 National Electric Code (NEC / NFPA 70)
- 2012 Life Safety Code (NFPA 101)
- 2010 ADA Standards for Accessible Design
- Rules and Regulations of The Safety Fire Commissioner Chapter 120-3-3 Rules and Regulations for The State Minimum Fire Safety

Permissive Codes:

- 2012 International Property Maintenance Code (IPMC)
- 2012 International Existing Building Code (IEBC)
- 2012 International Swimming Pool and Spa Code (ISPSC)

Building Inspection Procedures:

- Obtain a Building Permit before site preparation begins
- All inspections require a 24 hour notice *(This does not mean that your inspection will occur the next day)*
- You *MUST* call the office at 706.965.4226 to schedule an inspection. Do *NOT* call an inspector to schedule an inspection. Have address and permit number handy when calling to schedule an inspection.
- Subcontractors are required to come into the office and sign the permit and pay any subcontractor fees. Subcontractors are required to have a current Georgia State license if trade requires.
- If an inspection fails, you are subject to a $25.00 re-inspection fee. This fee must be paid before scheduling any further inspections.

Required Inspections:

1. **BMP Inspection**
    a. Georgia DOT Approved Type A Silt Fence
    b. Construction entrance with Geo-Textile Fabric under rock
    c. Port-O-John on site at time of inspection
    d. **Note: BMP, Temp. Pole and Footing can be inspected at the same time if in a permitted common development.**

2. **Stop Work Order**
    a. If a footing is dug before the BMP inspection, you are subject to a 30 day Stop Work Order
        i. 1st Offence: 24 Hour Stop Work Order
        ii. 2nd Offence: 7 Day Stop Work Order
        iii. 3rd Offence: 30 day Stop Work Order

3. **First Inspection**
    a. Temp. Pole and Footing inspection will be the first inspections performed by the building inspector. The footing inspection must be completed prior to concrete placement. A 20' electrode must be inside the footing per the National Electric Code.

4. **Under Slab Plumbing Inspection**
    a. The under slab DWV system is to be filled with water through a 10' stack to provide 10' of head pressure.
    b. If the temperature is predicted to be below freezing an air test (5 psi minimum) may be used instead of water. An air test is at the discretion of the inspector. **Verify that an air test will be acceptable before inspection.**

5. **Foundation Inspection**
    a. This inspection has always been required, but has not been enforced until now. The following will be inspected on this inspection:
        i. **Anchor bolt/Hurricane strap placement**
        ii. **Damp-Proofing**
        iii. **Drainage**

6. **Slap inspection**
    a. Check for vapor barrier
    b. Check for wire mesh

7. **Basement Wall/Poured Wall**
    a. Check for Damp-Proofing
    b. Check for Drainage
    c. Check form installation

8. **Rough-In Inspections (prefer to do all trades on same inspection)**
    a. Framing
    b. Electrical
    c. Plumbing
    d. Mechanical
    e. Gas

9. **Insulation**
    a. Ceiling = R38
    b. Walls = R13
    c. Floors = R19

10. **House Wrap**
    a. This inspection has always been required, but has not been enforced until now. The following will be inspected on this inspection:
        i. House wrap installed (entire house, not just living space areas)
        ii. Window flashing tape
        iii. Note: this can be inspected at rough-in inspections r before, if ready, but siding must not be installed until house wrap inspection has passed.

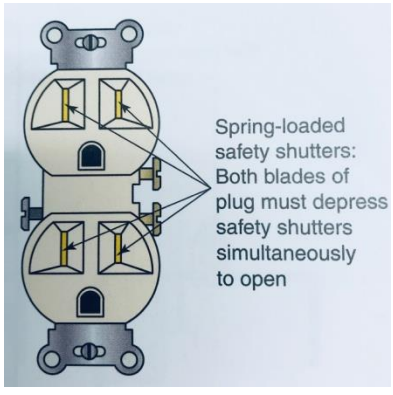
11. **Pre-Final**
    a. All switches, receptacles and lighting fixtures must be installed or
    b. All conductors must have wire nuts installed
    c. Electrical panel must be made up and have permanent breakers installed
    d. If Pre-Final passes the inspector will put a sticker on the meter base stating it is approved for power and our office will notify the proper utility
    e. Note: A final inspection must be requested within 60 days of the Pre-Final inspection.

12. **Final Inspection / Certificate Of Occupancy**
    a. The following will be checked on final inspection:
        i. Properly working GFCI circuits
        ii. Correct covers on outside receptacles
        iii. Correct breakers (AFCI and GFCI)
        iv. Properly working Fire/Smoke detectors
        v. Attic/Crawl space insulation
        vi. Anti-Tip Device installed on stove
        vii. Auto closure on doors from living area to garage
        viii. Code compliant handrail and guard at stairs
        ix. Locking access port caps at HVAC unit
        x. Yard should be seeded and straw covered or sod in place
        xi. Any additional condition that may not meet code
    b. A Certificate of Occupancy will **NOT** be issued to a building or residence that has not had all required inspections
    c. A Certificate of Occupancy will **NOT** be issued to a building or residence that has been permanently occupied prior to the final inspection
    d. A Certificate of Occupancy will **NOT** be issued unless a fully completed Georgia Residential Energy Code Compliance Certificate is on file for the residence.

Additional Code Requirements that will be enforced as of 10/24/18

1. **GFCI Receptacle Labels**
   a. NEC 2017 Section 406.4 (D)(2)(c): Where grounding-type receptacles are supplied through the ground-fault circuit interrupter, grounding type receptacles or their cover plates shall be marked "GFCI Protected" and visible after installation.

2. **Tamper Resistant Receptacles**
   a. **NFPA 70 (2017 National Electric Code)**
   406.12 Tamper-Resistant Receptacles. All 15 and 20 ampere 125 and 250 volt nonlocking-type receptacles in the areas specified in 406.12(1) through (7) shall be listed as tamper –resistant receptacles
      i. Dwelling units in all areas specified in 210.52 and 550.13
      ii. Guest rooms and guest suites of hotels and motels
      iii. Child care facilities
      iv. Preschools and elementary education facilities
      v. Business offices, corridors, waiting rooms and the like in clinics, medical and dental offices and outpatient facilities
      vi. Subset of assembly occupancies described in 518.2 to include places of waiting, transportation, gymnasiums, skating rinks and auditoriums
      vii. Dormitories



3. **Weather-Resistant Receptacles**
   a. **NFPA 70 (2017 National Electric Code)**
      406.9 Receptacles in Damp or Wet Locations.
      (A) Damp Locations. (Paragraph 3) A receptacle shall be considered to be in a location protected from the weather where located under roofed open porches, canopies, marquees, and the like, and will not be subjected to a beating rain or water run off. All 15 and 20 ampere, 125 and 250 volt nonlocking receptacles shall be a listed **weather-resistant type.**

4. **Weather-Proof Receptacle Covers**
   a. **NFPA 70 (2017 National Electric Code)**
      406.9 Receptacles in Damp or Wet Locations.
      (A) Damp Locations. A receptacle installed outdoors in a location protected from the weather or in other damp locations shall have an enclosure for the receptacle that is weather-proof when the receptacle is covered (attachment plug cap not inserted and receptacle covers closed)
      (B) Wet Locations
      (1) Receptacles of 15 and 20 Amperes in a Wet Location. Receptacles of 15 and 20 ampere, 125 and 250 volts installed in a wet location shall have an enclosure that is weatherproof whether or not the attachment plug cap is inserted. An outlet box hood installed for this purpose shall be listed and shall be identified as “extra-duty.”

5. **Locking Access Port Caps**
    a. **2012 IRC Section M1411.6**

    Locking access port caps. Refrigerant circuit access ports located outdoors shall be fitted with locking-type tamper-resistant caps or shall be otherwise secured to prevent unauthorized access.

6. **Drip Edge**
    a. **2012 IRC R905.2.8.5 Drip Edge.**

    A drip edge shall be provided at eaves and gables of shingle roofs. Adjacent pieces of drip edge shall be overlapped a minimum of 2". Drip edges shall extend a minimum of 0.25" below the roof sheathing and extend up the roof a minimum of 2".

7. **Over Notching**
    a. **R502.8 Drilling and notching.** Structural floor members shall not be cut, bored or notched in excess of the limitations specified in this section.

    b. **R502.8.1 Sawn lumber.** Notches in solid lumber joists, rafters and beams shall not exceed one-sixth of the depth of the member, shall not be longer than one-third of the depth of the member and shall not be located in the middle one-third of the span. Notches at the ends of the member shall not exceed one-fourth the depth of the member. The tension side of members 4 inches (102 mm) or greater in nominal thickness shall not be notched except at the ends of the members. The diameter of holes bored or cut into members shall not exceed one-third the depth of the member. Holes shall not be closer than 2 inches (51 mm) to the top or bottom of the member, or to any other hole located in the member. Where the member is also notched, the hole shall not be closer than 2 inches (51 mm) to the notch.

    c. **R502.8.2 Engineered wood products.** Cuts, notches and holes bored in trusses, laminated veneer lumber, glue laminated members or I-joists are not permitted unless the effects of such penetrations are specifically considered in the design of the member.

    d. **R602.6 Drilling and notching - studs.** Any stud in an exterior wall or bearing partition may be cut or notched to a depth not exceeding 25 percent of its width. Studs in nonbearing partitions may be notched to a depth not to exceed 40 percent of a single stud width. Any stud may be bored or drilled, provided that the diameter of the resulting hole is no greater than 40 percent of the stud width, the edge of the hole is no closer than 5/8 inch (15.9 mm) to the edge of the stud, and the hole is not located in the same section as a cut or notch. See Figures R602.6(1).
        i. **Exceptions:**
            1. A stud may be bored to a diameter not exceeding 60 percent of its width, provided that such studs located in exterior walls or bearing partitions are doubled and that not more than two successive studs are bored.
            2. Approved stud shoes may be used when installed in accordance with the manufacturers recommendation.

    e. **R602.6.1 Drilling and notching of top plate**. When piping or ductwork is placed in or partly in an exterior wall or interior load-bearing wall, necessitating cutting, drilling or notching of the top plate by more than 50 percent of its width, a galvanized metal tie of not less than 0.054 inches thick (1.37mm) (16ga) and 11/2 inches (38mm) wide shall be fastened to each plate across and to each side of the opening with not less than eight 16d nails at each side or equivalent. See Figure R602.6.1.
        i. **Exception:** When the entire side of the wall with the notch or cut is covered by wood structural panel sheathing

f. **R802.7 Cutting and notching**. Structural roof members shall not be cut, bored or notched in excess of the limitations specified in this section.

g. **R802.7.1 Sawn lumber.** Notches in solid lumber joists, rafters and beams shall not exceed one-sixth of the depth of the member, shall not be longer than one-third of the depth of the member and shall not be located in the middle one-third of the span. Notches at the ends of the member shall not exceed one-fourth the depth of the member. The tension side of members 4 inches (102 mm) or greater in nominal thickness shall not be notched except at the ends of the members. The diameter of the holes bored or cut into members shall not exceed one-third the depth of the member. Holes shall not be closer than 2 inches (51mm) to the top or bottom of the member, or to any other hole located in the member. Where the member is also notched, the hole shall not be closer than inches (51 mm) to the notch.

   i. **Exception:** Notches on cantilevered portions of rafters are permitted provided the dimension of the remaining portion of the rafter is not less than 4-inch nominal 102 mm) and the length of the cantilever does not exceed 24 inches (610 mm).

h. **R802.7.2 Engineered wood products.** Cuts, notches and holes bored in trusses, structural composite lumber, structural glue-laminated members or I-joists are prohibited except where permitted by the manufacturer's recommendations or where the effects of such alterations are specifically considered in the design of the member by a registered design professional.

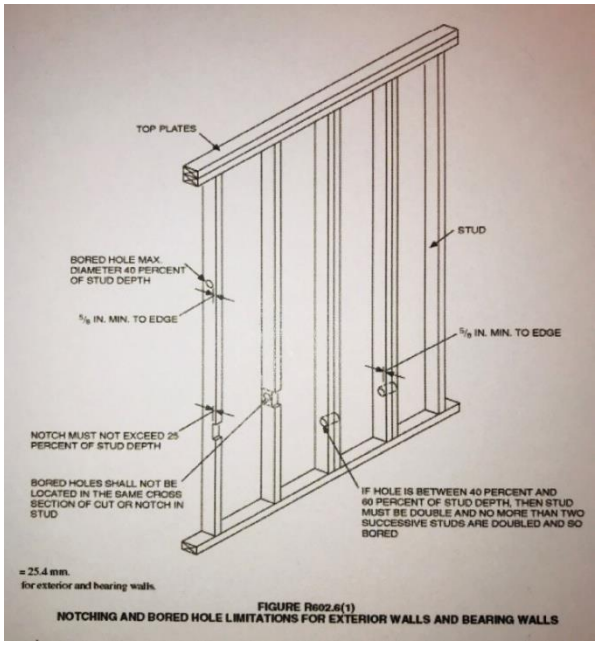


FIGURE R602.6(1)
NOTCHING AND BORED HOLE LIMITATIONS FOR EXTERIOR WALLS AND BEARING WALLS

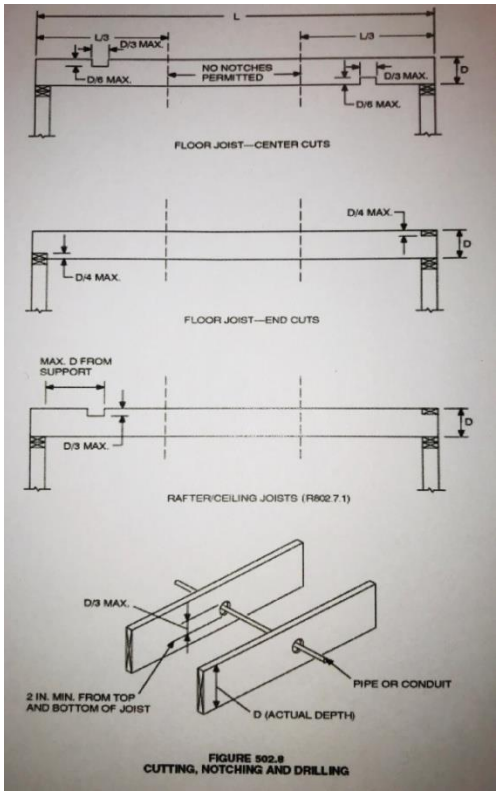


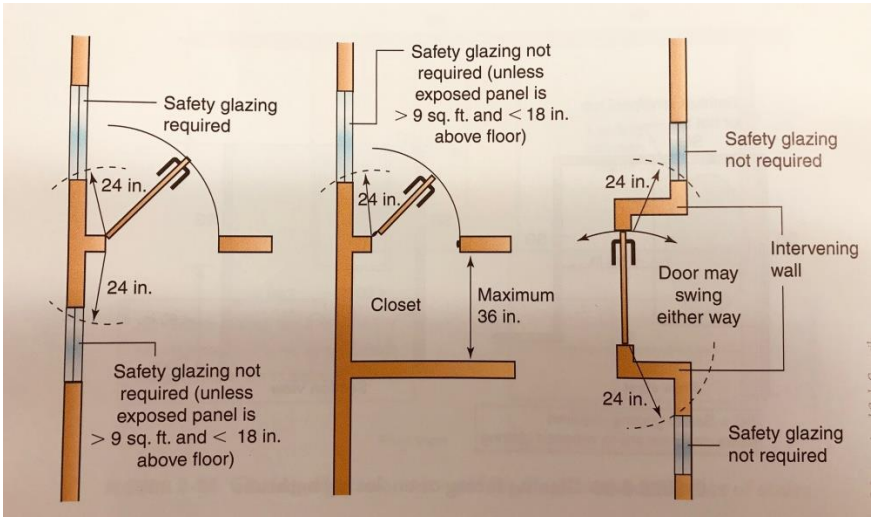
FIGURE 502.8
CUTTING, NOTCHING AND DRILLING

8. **Do Not Move In Before Final Inspections/Certificate of Occupancy Issued**
    a. NO Certificate of Occupancy will be issued on permits that did not have all required inspections.
    b. NO Certificate of Occupancy will be issued to a building or residence that has been permanently occupied prior to the final inspection**.**

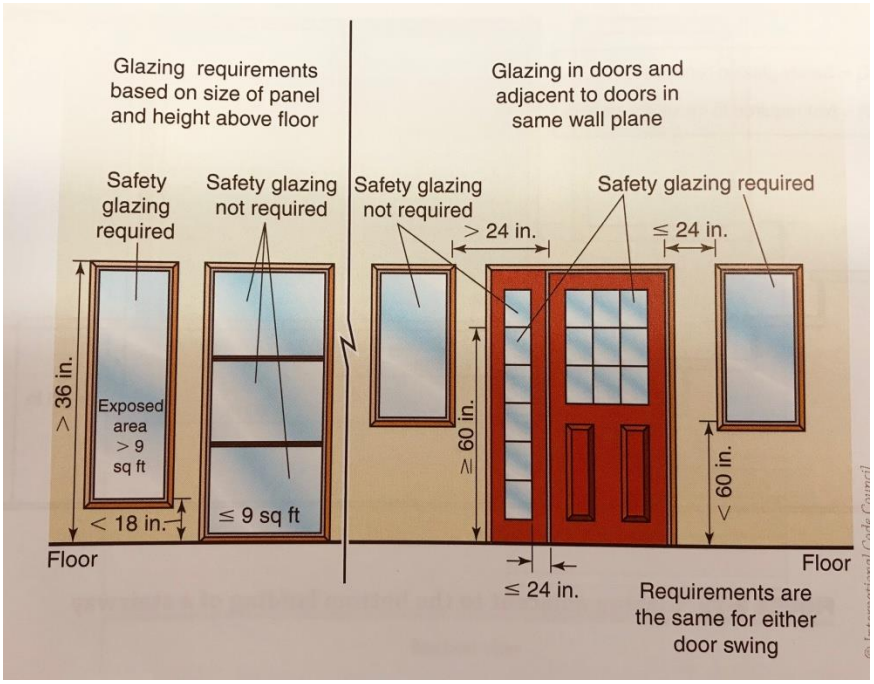
Topics that were discussed after the meeting or that were not part of the original presentation.

1. **Locations requiring safety glazing (tempered glass)**

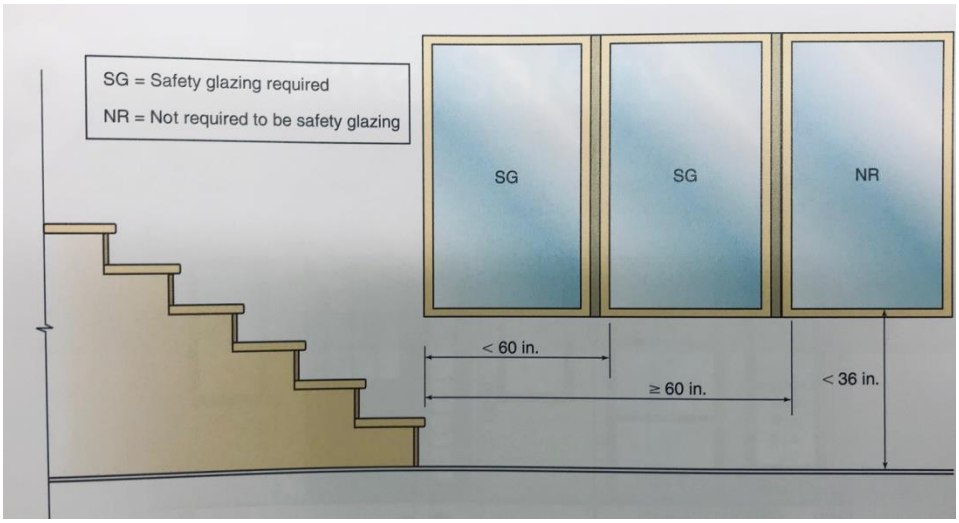
a.



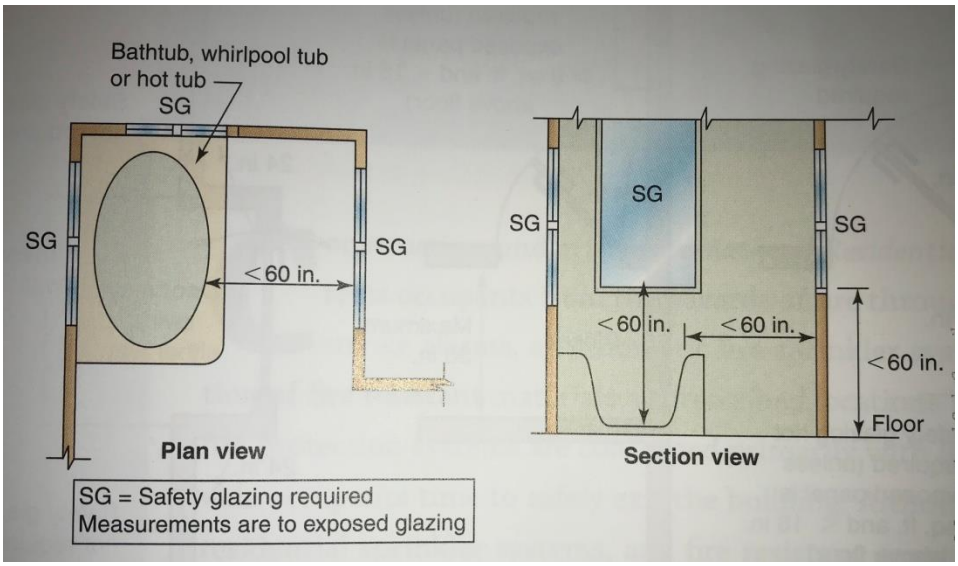
b.



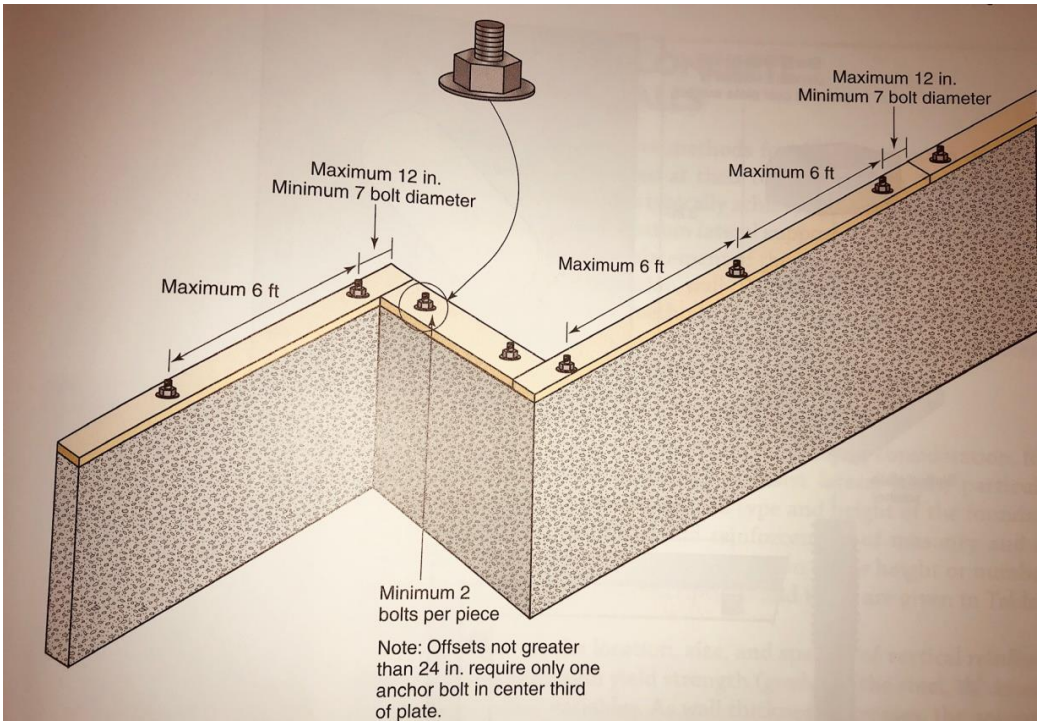
c.


SG = Safety glazing required
NR = Not required to be safety glazing
SG
SG
NR
< 60 in.
≥ 60 in.
< 36 in.

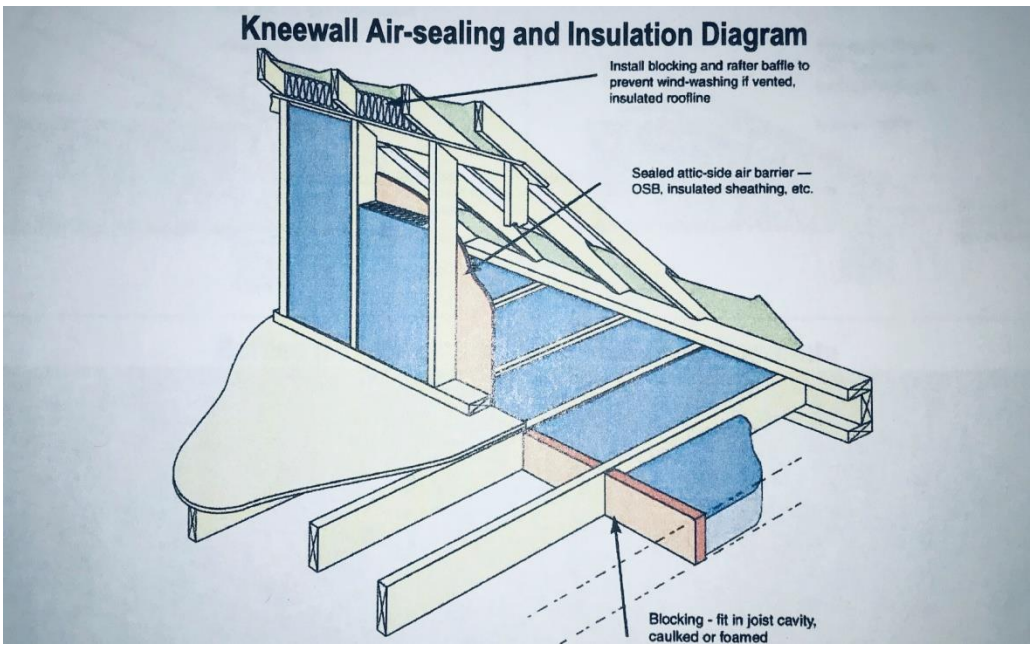
e.


Bathtub, whirlpool tub
or hot tub
SG
SG
SG
<60 in.
Plan view
SG = Safety glazing required
Measurements are to exposed glazing
SG
SG
SG
<60 in.
<60 in.
<60 in.
Floor
Section view

2. **Anchor bolt/Musdsill Anchor Applications**
    a. **R403.1.6 Foundation anchorage.** Sill and walls supported directly on continuous foundation shall be anchored to the foundation in accordance with this section. Wood sole plates at all exterior walls on monolithic slabs, wood sole plates of braced wall panels at building interiors on monolithic slabs and all wood sill plates shall be anchored to the foundation with anchor bolts spaced a maximum of 6 feet (1829 mm) on center. Bolts shall be at least 1/2 inch (12.7 mm) in diameter and shall extend a minimum of 7 inches (178 mm) into concrete or grouted cells of concrete masonry units. A nut and washer shall be tightened on each anchor bolt. There shall be a minimum of two bolts per plate section with one bolt located not more than 12 inches (305 mm) or less than seven bolt diameters from each end of the plate section. Interior bearing wall sole plates on monolithic slab foundations that are not part of a braced wall panel shall be positively anchored with approved fasteners. Sill plates and sole plates shall be protected against decay and termites where required by Sections R317 and R318.



3. **Attic kneewall insulation requirements**
    a. An attic kneewall is defined as any vertical or near vertical wall in the building envelope that has conditioned space on one side and attic space on the other side. All attic kneewalls must be insulated and air-sealed. Attic kneewalls may be insulated using R-13+R-5 insulated sheathing, R-15+R-3 insulated sheathing, or R-19 compressed into a 2×6 cavity. The attic-side of the kneewall must have a rigid air barrier (with seams sealed). The top and bottom of the kneewall stud cavity must be blocked and sealed to encapsulate insulation. Note: If REScheck is used, minimum insulation value for attic kneewalls is R-18 with attic-side air barrier.



4. **Residential wiring per 2017 National Electric Code (NFPA70)**
    a. **Kitchen, Dining and Breakfast Room:** At least two (2) 20 amp branch circuits for all receptacle outlets. No lighting and other receptacles on those circuits. AFCI protection required and GFCI protection for receptacles serving countertops.
    b. **Dishwasher:** Can be direct wired or cord and plug (receptacle must be accessible). GFCI protection required (hard wired or receptacle wired) and AFCI protection required.
    c. **Microwave:** Dedicated 20 amp circuits. AFCI protection required (GFCI if on countertop)
    d. **Range Hood:** AFCI required if connected by receptacle or from junction box. Dedicated circuit required if cord and plug connected.
    e. **Bedrooms, Living Room and Family Room:** AFCI protection required and can be 15 or 20 amp circuit.
    f. **Laundry Room:** Dedicated 20 amp circuit for washer. Other laundry receptacles can be added to that circuit but no other outlets. AFCI not required but GFCI required for all receptacles.
    g. **Garage:** One receptacle in each bay not higher than 5 ½‘ AFF. Dedicated 20 amp circuit required for garage receptacles, but outside receptacles can share. AFCI protection is not required but GFCI protection is required on all receptacles.
    h. **Bathrooms:** Dedicated 20 amp circuit for bathroom receptacles. GFCI protection required. AFCI protection not required.

i. **Lighting circuits:** Circuits can be 15 or 20 amp and must be AFCI protected. Can share receptacle circuits that are not shown as dedicated above.

j. **Crawl Space:** Type NM (Romex) smaller than #8 must be run through bored holes or have running boards if clearance is greater than 54". Receptacle and light required if there is equipment. Receptacle and light must be GFCI protected. Fixture must not be exposed unguarded lamp.

k. **Unfinished Basement:** A GFCI protected receptacle is required in unfinished basement spaces. AFCI protection is not required for that receptacle. A luminaire is also required.

l. **Services:** Service panels must have barriers over Line terminals. The residential conductor size Table 310.15(B)(7) is no longer in the code. It has been replaced by the 83% rule.

    i. **Clarification: 310.15(B)(7) Single-Phase Dwelling Services and Feeders.** Now, 208Y/120-volt electrical systems serving one-family dwellings and the individual dwelling units of two-family and multifamily dwellings are also included in the provisions of NEC 310.15(B)(7).

    Code Change Summary: Changes were made to allow the feeder and service conductors for specific dwelling type occupancies fed from a 208Y/120-volt system to be calculated in accordance with 310.15(B)(7). For quite some time, Section 310.15(B)(7) provided a bit of additional relief when determining the minimum feeder or service conductor size needed to supply one-family dwellings and the individual dwelling units of two-family and multifamily dwellings supplied by 120/240-Volt, single-phase electrical systems. After determining the minimum size service or feeder required to supply the dwelling (using the load calculations in Article 220), Section 310.15(B)(7) allowed that value to be multiplied by 83%.

    Example: A 120/240-Volt, single-phase electrical service for a single-family dwelling with a calculated load (from Article 220) of 98 amps, supplied by THWN copper overhead service entrance conductors.

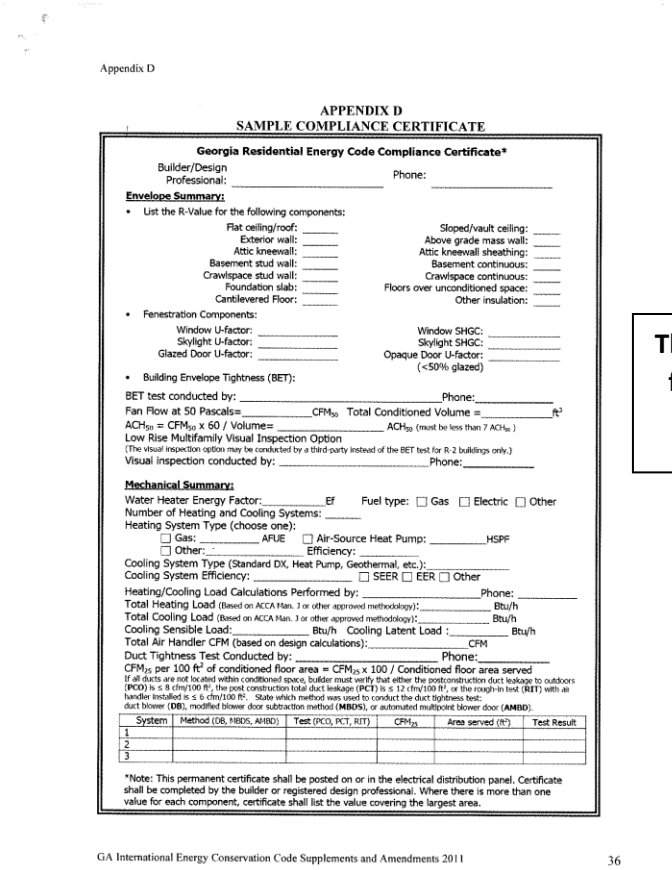
    - A 100-amp electrical service will be used to supply the 98-amp load for the dwelling.
    - 100 amps X 83% = 83 amps. This is the minimum required service conductor.

    Take 83 amps and use the 75°C column in Table 310.15(B)(16) to determine that the 100-amp service requires 4 AWG copper, type THWN overhead service entrance conductors. The idea behind this permitted reduction of the feeder or service conductor size is based on the principle of load diversity. The more loads connected to the service means the less likely it is that all loads will be in operation at the same time. In the 2017 NEC, everything above is still true, but now, 208Y/120-volt electrical systems are also included. This will mainly benefit large apartment complexes and multifamily dwellings that are often supplied from the 208Y/120-volt secondary side of a three-phase utility transformer. For these types of installations, single-phase 208Y/120-volt feeder conductors are run from a large bank of meters at the three-phase service to each individual dwelling unit or apartment.

5. International Energy Conservation Code (IECC) Compliance Certificate

a. 401.3 Certificate

A permanent certificate shall be posted on or near the electrical distribution panel or air handler. The certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels. The certificate shall be completed by the builder or registered design professional. The certificate shall list the predominant *R*-values of insulation installed in or on ceiling/roof, walls, foundation (slab, *basement wall*, crawlspace wall and/or floor) and ducts outside conditioned spaces; *U*-factors for fenestration and the solar heat gain coefficient (SHGC) of fenestration. Where there is more than one value for each component, the certificate shall list the value covering the largest area. The certificate shall list the types and efficiencies of heating, cooling and service water heating equipment. The certificate shall also list the calculated heating load, sensible cooling load, latent cooling load and cfm for space conditioning. The certificate shall also list the duct tightness and envelope tightness test results. Buildings classified as R-2 occupancy shall indicate that the visual inspection option was used or provide envelope tightness test results. Where a gas-fired unvented room heater, electric furnace, or baseboard electric heater is installed in the residence, the certificate shall list "gas-fired unvented room heater," "electric furnace" or "baseboard electric heater," as appropriate. An efficiency shall not be *listed* for gas-fired unvented room heaters, electric furnaces or electric baseboard heaters.



Appendix D

APPENDIX D
SAMPLE COMPLIANCE CERTIFICATE

Georgia Residential Energy Code Compliance Certificate*

Builder/Design Professional: _____ Phone: _____

Envelope Summary:

- List the R-Value for the following components:

Flat ceiling/roof:	____	Sloped/vault ceiling:	____
Exterior wall:	____	Above grade mass wall:	____
Attic kneewall:	____	Attic kneewall sheathing:	____
Basement stud wall:	____	Basement continuous:	____
Crawlspace stud wall:	____	Crawlspace continuous:	____
Foundation slab:	____	Floors over unconditioned space:	____
Cantilevered Floor:	____	Other insulation:	____

- Fenestration Components:

Window U-factor:	_____	Window SHGC:	_____
Skylight U-factor:	_____	Skylight SHGC:	_____
Glazed Door U-factor:	_____	Opaque Door U-factor: (<50% glazed)	_____

- Building Envelope Tightness (BET):

BET test conducted by: _____ Phone: _____
Fan Flow at 50 Pascals= _____ CFM_{50} Total Conditioned Volume = _____ ft^3
ACH_{50} = CFM_{50} x 60 / Volume= _____ ACH_{50} (must be less than 7 ACH_{50})
Low Rise Multifamily Visual Inspection Option
(The visual inspection option may be conducted by a third-party instead of the BET test for R-2 buildings only.)
Visual inspection conducted by: _____ Phone: _____

Mechanical Summary:

Water Heater Energy Factor: _____ Ef Fuel type: ☐ Gas ☐ Electric ☐ Other
Number of Heating and Cooling Systems: _____
Heating System Type (choose one):
☐ Gas: _____ AFUE ☐ Air-Source Heat Pump: _____ HSPF
☐ Other: _____ Efficiency: _____
Cooling System Type (Standard DX, Heat Pump, Geothermal, etc.): _____
Cooling System Efficiency: _____ ☐ SEER ☐ EER ☐ Other
Heating/Cooling Load Calculations Performed by: _____ Phone: _____
Total Heating Load (Based on ACCA Man. J or other approved methodology): _____ Btu/h
Total Cooling Load (Based on ACCA Man. J or other approved methodology): _____ Btu/h
Cooling Sensible Load: _____ Btu/h Cooling Latent Load : _____ Btu/h
Total Air Handler CFM (based on design calculations): _____ CFM
Duct Tightness Test Conducted by: _____ Phone: _____
CFM_{25} per 100 ft^2 of conditioned floor area = CFM_{25} x 100 / Conditioned floor area served
If all ducts are not located within conditioned space, builder must verify that either the postconstruction duct leakage to outdoors (**PCO**) is ≤ 8 cfm/100 ft^2, the post construction total duct leakage (**PCT**) is ≤ 12 cfm/100 ft^2, or the rough-in test (**RIT**) with air handler installed is ≤ 6 cfm/100 ft^2. State which method was used to conduct the duct tightness test: duct blower (**DB**), modified blower door subtraction method (**MBDS**), or automated multipoint blower door (**AMBD**).

System	Method (DB, MBDS, AMBD)	Test (PCO, PCT, RIT)	CFM_{25}	Area served (ft^2)	Test Result
1					
2					
3					

*Note: This permanent certificate shall be posted on or in the electrical distribution panel. Certificate shall be completed by the builder or registered design professional. Where there is more than one value for each component, certificate shall list the value covering the largest area.

GA International Energy Conservation Code Supplements and Amendments 2011 36

The Compliance Certificate should be filled in completely by the certified person that conduction the test.

The following was a summary of the October 24, 2018 Catoosa County Contractors meeting. Hopefully this summary has cleared up some questions and outlined what changes will be enforced as of the date of the meeting.

Please note that the inspection department has the right to enforce all the County adopted codes to the best of our ability without regard to prior notification.

Thank you to all the contractors that took time out of their busy schedule to attend and to those that was unable to attend may this summary provide the information that you missed by not being able to attend. It's the goal of this department to provide updates as new codes are enforced. As stated at the meeting when new codes are enforced this department will have the information available at our office.

In the future we will also try to send notifications by email. Please make sure our office has your updated email information.

Thank you,

James Davis
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Catoosa County Government
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Ringgold, GA 30736
(O) 706.965.3787
(E) james.davis@catoosa.com