COLUMBIA COUNTY
GEORGIA
Development Services

Requirements for Residential Electrical Service Changes

Applicable Codes:

2023 National Electrical Code
2018 International Residential Code with Georgia Amendments

1. Replacing the Main Breaker only:
   a. Upgrade Smoke Detectors and Carbon Monoxide Detectors to meet current code
   b. Upgrade grounding electrode system to meet current code
2. When replacing the meter enclosure and/or service mast only:
   a. Upgrade Smoke Detectors and Carbon Monoxide Detectors to meet current code
   b. Upgrade grounding electrode system to meet current code
3. When replacing the main busbar or main electrical service panel only:
   a. Upgrade Smoke Detectors and Carbon Monoxide Detectors to meet current code
   b. Upgrade grounding electrode system to meet current code
4. When changing out the service entrance cable or when installing a generator with service rated transfer switch and/or upgrading the electrical service to install a solar PV system; the following is required per the 2023 National Electrical Code:
   a. Install Exterior Emergency Disconnect NEC 230.85 (May be required to install service disconnect with overcurrent protection, upgrade to 4-wire system and/or separate grounded conductors (neutrals) and grounding conductors in sub-panel.)
   b. Install Type I or Type II surge protector. NEC 230.67
   c. Upgrade grounding electrode system. NEC 250.52, 250.53, 250.104
   d. Ensure Smoke Detectors and Carbon Monoxide Detectors are installed to meet current code per 2018 IRC with Georgia Amendments. Please see attached.
   e. Install Intersystem Termination Device per NEC 250.94
5. Any elective service upgrade or relocation of any portion of the electrical service shall meet the same requirements as item # 4 above.

** This list is not all inclusive and does not suit every situation. **

If you have any questions, please contact:

Preston Crews 706-840-6293 pcrews@columbiacountyga.gov
Vickie Guay 706-533-2745 vguay@columbiacountyga.gov

(Rev 01/01/25)

COLUMBIA COUNTY
Development Services

COLUMBIA COUNTY
BUILDING PERMIT APPLICATION

OFFICE USE ONLY		
___ IN PERSON ___ EMAIL ___ ONLINE APPLICATION # _____ LDP APPLICATION # _____	RECEIVED DATE:	BY:
	ENTERED DATE:	BY:
	REVIEWED DATE:	BY:

1. PROJECT ADDRESS:				
2. LEGAL DESCRIPTION - LOT:	**BLOCK:**	**MAP/PARCEL:**	**SUBDIVISION:**	
3. APPLICANT NAME:			**CONTRACTOR** ☐ **AUTHORIZED AGENT** ☐ **HOMEOWNER** ☐	
4. EMAIL:			**5. CONTACT # :**	
6. COST OF WORK:			**7. CHANGING FOOTPRINT OF STRUCTURE?** **YES** ☐ **NO** ☐	
8. DESCRIBE WORK:				

PROPERTY OWNER

NAME: _____

CONTACT NUMBER: _____ CONTACT EMAIL: _____

ADDRESS: _____

TRADES REQUIRED	TYPE OF PERMIT	ADDITIONAL INFORMATION	CONTACT PERSON	PERMIT INFO
	____ NSF ____ TWNHM ____ MH ____ POOL ____ ACCESSORY BLDG ____ ALTERATION ____ OTHER	TOTAL SQ FT: UNDER ROOF _____ WATER TYPE _____ SEWER TYPE _____	**BUILDER / GENERAL CONTRACTOR** NAME: _____ CONTACT #: _____ ADDRESS: _____	CID # _____ PERMIT FEE: _____ PERMIT # _____
ELECTRICAL ☐ YES ☐ NO	____ SERVICE CHANGE ____ GENERATOR ____ SOLAR ____ HOUSE / TRADE ____ TEMP POLE ____ STANDALONE	IF SUB / TRADE – BLDG PERMIT # _____ # AMPS: _____	**ELECTRICIAN** NAME: _____ CONTACT #: _____ ADDRESS: _____	CID # _____ PERMIT FEE: _____ PERMIT # _____
PLUMBING ☐ YES ☐ NO	____ GAS ____ SUB / TRADE ____ STANDALONE	IF SUB / TRADE – BLDG PERMIT # _____	**PLUMBER** NAME: _____ CONTACT #: _____ ADDRESS: _____	CID # _____ PERMIT FEE: _____ PERMIT # _____
MECHANICAL ☐ YES ☐ NO	____ GAS ____ SUB / TRADE ____ STANDALONE	IF SUB / TRADE – BLDG PERMIT # _____	**MECHANICAL** NAME: _____ CONTACT #: _____ ADDRESS: _____	CID # _____ PERMIT FEE: _____ PERMIT # _____
IRRIG/SPRKLR ☐ YES ☐ NO	____ SUB / TRADE ____ STANDALONE	IF SUB / TRADE – BLDG PERMIT # _____	**IRRIGATION SPRINKLER** NAME: _____ CONTACT #: _____ ADDRESS: _____	CID # _____ PERMIT FEE: _____ PERMIT # _____

REVISED 02/2023

* THE ISSUANCE OF THIS PERMIT AUTHORIZES IMPROVEMENTS OF THE REAL PROPERTY DESIGNATED HEREIN WHICH IMPROVEMENTS MAY SUBJECT SUCH PROPERTY TO MECHANICS' AND MATERIALMENS' LIENS PURSUANT TO PART 3 OF ARTICLE 8 OF CHAPTER 14 OF TITLE 44 OF THE OFFICIAL CODE OF GEORGIA ANNOTATED. IN ORDER TO PROECT ANY INTEREST IN SUCH PROPERTY AND TO AVOID ENCUMBRANCES THEREON, THE OWNER OR ANY PERSON WITH AN INTEREST IN SUCH PROPERTY SHOULD CONSIDER CONTACTING AN ATTORNEY OR PURCHASING A CONSUMER'S GUIDE TO THE LIEN LAWS WHICH MAY BE AVAILABLE AT BUILDING SUPPLY HOME CENTERS.

* THE ISSUANCE OR GRANTING OF A PERMIT SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE ADOPTED CODES OR OF ANY OTHER ORDINANCE OF THIS JURISDICTION. PERMITS PRESUMING TO GIVE AUTHORITY TO VIOLATE OR CANCEL THE PROVISIONS OF THE ADOPTED CODES OR OTHER ORDINANCES OF THIS JURISDICTION SHALL NOT BE VALID. THE ISSUANCE OF A PERMIT BASED ON CONSTRUCTION DOCUMENTS AND OTHER DATA SHALL NOT PREVENT THE BUILDING OFFICIAL FROM REQUIRING THE CORRECTION OF ERRORS IN THE CONSTRUCTION DOCUMENTS AND OTHER DATA. THE BUILDING OFFICIAL IS AUTHORIZED TO PREVENT OCCUPANCY OR USE OF A STRUCTURE WHERE IN VIOLATION OF THE ADOPTED CODES OR ANY OTHER ORDINANCES OF THIS JURISDICTION. THE BUILDING OFFICIAL IS AUTHORIZED TO SUSPEND OR REVOKE A PERMIT ISSUED UNDER THE PROVISIONS OF THE ADOPTED CODES WHEREVER THE PERMIT IS ISSUED IN ERROR OR ON THE BASIS OF INCORRECT, INACCURATE OR INCOMPLETE INFORMATION, OR IN VIOLATION OF ANY ORDINANCE OR REGULATION OR ANY OF THE PROVISIONS OF THE ADOPTED CODES.

* A MEMBER OF THE COLUMBIA COUNTY TAX ASSESSORS STAFF MAY VISIT YOUR PROPERTY TO CARRY OUT THE DUTY OF MAKING AN APPRAISAL OF THE FAIR MARKET VALUE OF TAXABLE PROPERTY PURSUANT TO PART 1 OF ARTICLE 5 OF CHAPTER 5 OF TITLE 48 OF THE OFFICIAL CODE OF GEORGIA ANNOTATED. FOR ADDITIONAL INFORMATION CONTACT 706-312-7474.

* THIS PERMIT BECOMES NULL AND VOID IF WORK OR CONSTRUCTION AUTHORIZED IS NOT COMMNCED WITHIN 180 DAYS OR IF CONSTRUCTION OR WORK IS SUSPENDED OR ABANDONED FOR A PERIOD OF 180 DAYS AT ANY TIME AFTER WORK IS COMMENCED.

* COLUMBIA COUNTY RESERVES THE RIGHT TO REVOKE ANY PERMIT DETERMINED TO CONTAIN FALSIFIED INFORMATION OR ISSUED IN ERROR.

* NOTICE TO CONTRACTORS: ANY CONTRACTOR CONSTRUCTING RESIDENCES OR ANY OTHER TYPE OF CONSTRUCTION IN THE ABOVE STATED SUBDIVISION WILL BE HELD ACCOUNTABLE AND RESPONSIBLE FOR ANY DAMAGES BY REASONS OF SAID CONSTRUCTION TO CURBS, GUTTERS, MAN HOLES, CATCH BASINS, WATER MAINS, ETC.

* INSPECTION REQUESTS SHOULD BE MADE THROUGH EMAIL TO: INSPECTIONS@COLUMBIACOUNTYGA.GOV. ALL REQUESTS RECEIVED BY 4:30 WILL BE SCHEDULED FOR THE NEXT BUISNESS DAY. ANY REQUESTS RECEIVED AFTER 4:30 PM WILL BE SCHEDULED FOR THE SECOND BUSINESS DAY. A FEE WILL BE CHARGED FOR THE SECOND AND EACH SUBSEQUENT REINSPECTION. ANY OUTSTANDING FEES MUST BE SETTLED PRIOR TO THE RELEASE OF A CERTIFICATE OF OCCUPANCY/COMPLETION.

* I UNDERSTAND THAT IT IS MY RESPONSIBILITY TO COMPLY WITH ALL LOCAL, STATE AND FEDERAL LAWS AND THAT THE ISSUANCE OF THIS PERMIT IS NOT DEEMED AN AFFIRMATION BY COLUMBIA COUNTY OF SUCH COMPLIANCE. I CERTIFY THE INFORMATION PROVIDED IS TRUE AND ACCURATE AND CONTAINS NO FALSE OR FRAUDULENT INFORMATION.

* I HEREBY CERTIFY THAT I HAVE READ AND EXAMINED THIS PERMIT AND KNOW THE SAME TO BE TRUE AND CORRECT. I UNDERSTAND THAT THE GRANTING OF A PERMIT DOES NOT WAIVE THE PROVISIONS OF ANY OTHER STATE OR LOCAL LAW REGULATING CONSTRUCTION OR THE PERFORMANCE OF CONSTRUCTION. I AGREE TO REQUEST ALL INSPECTIONS REQUIRED BY COLUMBIA COUNTY.

SIGNATURE OF APPLICANT / CONTRACTOR / AUTHORIZED AGENT / OWNER DATE

PRINT NAME

Homeowner Disclosure Agreement
Development Services Division
630 Ronald Reagan Drive, Evans GA 30809
(706) 868-3420

Development Services
Disclosure Agreement
Columbia County Code of Ordinances Section 18-252

Columbia County ordinances require that residential construction work shall be performed by registered residential builders. I have applied for a do-it-yourself registration. The registration allows me, as the owner of my property, to act as my own residential builder even though I have not registered as a residential builder. I must supervise the construction myself. I may build or improve a single-family residence for use and occupancy only by myself and my family. It may not be built for sale or rent. If I sell or rent a building, I have built myself within two years after the construction is complete, it will be presumed (subject to my right to rebut same) that I built the home for sale or rent, which is a violation of the ordinance. I may not hire an unregistered person or entity to perform services for me as a residential builder. It is my responsibility to make sure that people employed by me have the registration certificates required by Columbia County's contractor registration ordinances. My construction must comply with all applicable laws, ordinances, building codes, and zoning regulations.
The undersigned states and affirms that he/she is the owner of the property under the legal description of property to be used for the proposed construction or alteration as described on the permit application and that the building is not being built or altered to be offered for sale or lease, nor is the building being used by the general public for street address:

_____
Address:

_____
Signature of Property Owner Date

_____
Printed Name of Property Owner Date

Subscribed and Sworn Before Me on This the _____ Day of _____, 20 _____.

_____
Notary Public

- ☐ I, as the property owner will reside in the above-mentioned address.
- ☐ I, as a family member of the property owner will reside in the above-mentioned address.
  Relationship to the property owner: _____

_____
Signature of family member Date

_____
Printed Name of family member Date

Subscribed and Sworn Before Me on This the _____ Day of _____, 20 _____.

_____
Notary Public

Licensing & Permits Department

Proof of Ownership:_____ Verified by:_____

Revised 12/2023

other surface below on the exterior of the building, the operable window shall comply with one of the following:

1. Operable window openings will not allow a 4-inch-diameter (102 mm) sphere to pass through where the openings are in their largest opened position.
2. Operable windows are provided with window fall prevention devices that comply with ASTM F2090.
3. Operable windows are provided with window opening control devices that comply with Section R312.2.2.

R312.2.2 Window opening control devices. Window opening control devices shall comply with ASTM F2090. The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the net clear opening area of the window unit to less than the area required by Section R310.2.1.

SECTION R313
AUTOMATIC FIRE SPRINKLER SYSTEMS

R313.1 Townhouse automatic fire sprinkler systems. An automatic residential fire sprinkler system shall be installed in *townhouses*.

Exception: An automatic residential fire sprinkler system shall not be required where *additions* or *alterations* are made to existing *townhouses* that do not have an automatic residential fire sprinkler system installed.

R313.1.1 Design and installation. Automatic residential fire sprinkler systems for *townhouses* shall be designed and installed in accordance with Section P2904 or NFPA 13D.

R313.2 One- and two-family dwellings automatic fire sprinkler systems. An automatic residential fire sprinkler system shall be installed in one- and two-family *dwellings*.

Exception: An automatic residential fire sprinkler system shall not be required for *additions* or *alterations* to existing buildings that are not already provided with an automatic residential sprinkler system.

R313.2.1 Design and installation. Automatic residential fire sprinkler systems shall be designed and installed in accordance with Section P2904 or NFPA 13D.

SECTION R314
SMOKE ALARMS

R314.1 General. Smoke alarms shall comply with NFPA 72 and Section R314.

R314.1.1 Listings. Smoke alarms shall be *listed* in accordance with UL 217. Combination smoke and carbon monoxide alarms shall be *listed* in accordance with UL 217 and UL 2034.

R314.2 Where required. Smoke alarms shall be provided in accordance with this section.

R314.2.1 New construction. Smoke alarms shall be provided in *dwelling units*.

R314.2.2 Alterations, repairs and additions. Where *alterations*, *repairs* or *additions* requiring a permit occur, the individual *dwelling unit* shall be equipped with smoke alarms located as required for new *dwellings*.

Exceptions:

1. Work involving the exterior surfaces of *dwellings*, such as the replacement of roofing or siding, the *addition* or replacement of windows or doors, or the addition of a porch or deck.
2. Installation, alteration or repairs of plumbing or mechanical systems.

R314.3 Location. Smoke alarms shall be installed in the following locations:

1. In each sleeping room.
2. Outside each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each additional *story* of the *dwelling*, including *basements* and *habitable attics* and not including crawl spaces and uninhabitable *attics*. In *dwellings* or *dwelling units* with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full *story* below the upper level.
4. Smoke alarms shall be installed not less than 3 feet (914 mm) horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by this section.

R314.3.1 Installation near cooking appliances. Smoke alarms shall not be installed in the following locations unless this would prevent placement of a smoke alarm in a location required by Section R314.3.

1. Ionization smoke alarms shall not be installed less than 20 feet (6096 mm) horizontally from a permanently installed cooking *appliance*.
2. Ionization smoke alarms with an alarm-silencing switch shall not be installed less than 10 feet (3048 mm) horizontally from a permanently installed cooking *appliance*.
3. Photoelectric smoke alarms shall not be installed less than 6 feet (1828 mm) horizontally from a permanently installed cooking *appliance*.

R314.4 Interconnection. Where more than one smoke alarm is required to be installed within an individual dwelling unit in accordance with Section R314.3, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual *dwelling unit*. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.

R314.5 Combination alarms. Combination smoke and carbon monoxide alarms shall be permitted to be used in lieu of smoke alarms.

R314.6 Power source. Smoke alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and, where primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection.

Exceptions:

1. Smoke alarms shall be permitted to be battery operated where installed in buildings without commercial power.
2. Smoke alarms installed in accordance with Section R314.2.2 shall be permitted to be battery powered.

R314.7 Fire alarm systems. Fire alarm systems shall be permitted to be used in lieu of smoke alarms and shall comply with Sections R314.7.1 through R314.7.4.

R314.7.1 General. Fire alarm systems shall comply with the provisions of this code and the household fire warning *equipment* provisions of NFPA 72. Smoke detectors shall be *listed* in accordance with UL 268.

R314.7.2 Location. Smoke detectors shall be installed in the locations specified in Section R314.3.

R314.7.3 Permanent fixture. Where a household fire alarm system is installed, it shall become a permanent fixture of the occupancy, owned by the homeowner.

R314.7.4 Combination detectors. Combination smoke and carbon monoxide detectors shall be permitted to be installed in fire alarm systems in lieu of smoke detectors, provided that they are *listed* in accordance with UL 268 and UL 2075.

SECTION R315
CARBON MONOXIDE ALARMS

R315.1 General. Carbon monoxide alarms shall comply with Section R315.

R315.1.1 Listings. Carbon monoxide alarms shall be *listed* in accordance with UL 2034. Combination carbon monoxide and smoke alarms shall be *listed* in accordance with UL 2034 and UL 217.

R315.2 Where required. Carbon monoxide alarms shall be provided in accordance with Sections R315.2.1 and R315.2.2.

R315.2.1 New construction. For new construction, carbon monoxide alarms shall be provided in dwelling units where either or both of the following conditions exist.

1. The *dwelling unit* contains a fuel-fired *appliance.*
2. The *dwelling unit* has an attached garage with an opening that communicates with the dwelling unit.

R315.2.2 Alterations, repairs and additions. Where *alterations, repairs* or *additions* requiring a permit occur, the individual *dwelling unit* shall be equipped with carbon monoxide alarms located as required for new *dwellings*.

Exceptions:

1. Work involving the exterior surfaces of *dwellings*, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of a porch or deck.
2. Installation, alteration or repairs of plumbing or mechanical systems.

R315.3 Location. Carbon monoxide alarms in *dwelling units* shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms. Where a fuel-burning *appliance* is located within a bedroom or its attached bathroom, a carbon monoxide alarm shall be installed within the bedroom.

R315.4 Combination alarms. Combination carbon monoxide and smoke alarms shall be permitted to be used in lieu of carbon monoxide alarms.

R315.5 Interconnectivity. Where more than one carbon monoxide alarm is required to be installed within an individual *dwelling unit* in accordance with Section R315.3, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual *dwelling unit.* Physical interconnection of carbon monoxide alarms shall not be required where *listed* wireless alarms are installed and all alarms sound upon activation of one alarm.

Exception: Interconnection of carbon monoxide alarms in existing areas shall not be required where *alterations* or *repairs* do not result in removal of interior wall or ceiling finishes exposing the structure, unless there is an *attic*, crawl space or basement available that could provide access for interconnection without the removal of interior finishes.

R315.6 Power source. Carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and, where primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for overcurrent protection.

Exceptions:

1. Carbon monoxide alarms shall be permitted to be battery operated where installed in buildings without commercial power.
2. Carbon monoxide alarms installed in accordance with Section R315.2.2 shall be permitted to be battery powered.

R315.7 Carbon monoxide detection systems. Carbon monoxide detection systems shall be permitted to be used in lieu of carbon monoxide alarms and shall comply with Sections R315.7.1 through R315.7.4.

R315.7.1 General. Household carbon monoxide detection systems shall comply with NFPA 720. Carbon monoxide detectors shall be *listed* in accordance with UL 2075.

R315.7.2 Location. Carbon monoxide detectors shall be installed in the locations specified in Section R315.3. These locations supersede the locations specified in NFPA 720.

R315.7.3 Permanent fixture. Where a household carbon monoxide detection system is installed, it shall become a

permanent fixture of the occupancy and owned by the homeowner.

R315.7.4 Combination detectors. Combination carbon monoxide and smoke detectors installed in carbon monoxide detection systems in lieu of carbon monoxide detectors shall be *listed* in accordance with UL 2075 and UL 268.

SECTION R316
FOAM PLASTIC

R316.1 General. The provisions of this section shall govern the materials, design, application, construction and installation of foam plastic materials.

R316.2 Labeling and identification. Packages and containers of foam plastic insulation and foam plastic insulation components delivered to the job site shall bear the *label* of an *approved agency* showing the manufacturer's name, the product listing, product identification and information sufficient to determine that the end use will comply with the requirements.

R316.3 Surface burning characteristics. Unless otherwise allowed in Section R316.5, foam plastic, or foam plastic cores used as a component in manufactured assemblies, used in building construction shall have a flame spread index of not more than 75 and shall have a smoke-developed index of not more than 450 when tested in the maximum thickness and density intended for use in accordance with ASTM E84 or UL 723. Loose-fill-type foam plastic insulation shall be tested as board stock for the flame spread index and smoke-developed index.

Exception: Foam plastic insulation more than 4 inches (102 mm) thick shall have a flame spread index of not more than 75 and a smoke-developed index of not more than 450 where tested at a thickness of not more than 4 inches (102 mm), provided that the end use is *approved* in accordance with Section R316.6 using the thickness and density intended for use.

R316.4 Thermal barrier. Unless otherwise allowed in Section R316.5, foam plastic shall be separated from the interior of a building by an *approved* thermal barrier of not less than $^{1}/_{2}$-inch (12.7 mm) gypsum wallboard, $^{23}/_{32}$-inch (18.2 mm) wood structural panel or a material that is tested in accordance with and meets the acceptance criteria of both the Temperature Transmission Fire Test and the Integrity Fire Test of NFPA 275.

R316.5 Specific requirements. The following requirements shall apply to these uses of foam plastic unless specifically *approved* in accordance with Section R316.6 or by other sections of the code or the requirements of Sections R316.2 through R316.4 have been met.

R316.5.1 Masonry or concrete construction. The thermal barrier specified in Section R316.4 is not required in a masonry or concrete wall, floor or roof where the foam plastic insulation is separated from the interior of the building by not less than a 1-inch (25 mm) thickness of masonry or concrete.

R316.5.2 Roofing. The thermal barrier specified in Section R316.4 is not required where the foam plastic in a roof assembly or under a roof covering is installed in accordance with the code and the manufacturer's instructions and is separated from the interior of the building by tongue-and-groove wood planks or wood structural panel sheathing, in accordance with Section R803, that is not less than $^{15}/_{32}$ inch (11.9 mm) thick bonded with exterior glue, identified as Exposure 1 and with edges supported by blocking or tongue-and-groove joints or an equivalent material. The smoke-developed index for roof applications shall not be limited.

R316.5.3 Attics. The thermal barrier specified in Section R316.4 is not required where all of the following apply:

1. *Attic* access is required by Section R807.1.
2. The space is entered only for purposes of repairs or maintenance.
3. The foam plastic insulation has been tested in accordance with Section R316.6 or the foam plastic insulation is protected against ignition using one of the following ignition barrier materials:
   - 3.1. $1^{1}/_{2}$-inch-thick (38 mm) mineral fiber insulation.
   - 3.2. $^{1}/_{4}$-inch-thick (6.4 mm) wood structural panels.
   - 3.3. $^{3}/_{8}$-inch (9.5 mm) particleboard.
   - 3.4. $^{1}/_{4}$-inch (6.4 mm) hardboard.
   - 3.5. $^{3}/_{8}$-inch (9.5 mm) gypsum board.
   - 3.6. Corrosion-resistant steel having a base metal thickness of 0.016 inch (0.406 mm).
   - 3.7. $1^{1}/_{2}$-inch-thick (38 mm) cellulose insulation.
   - 3.8. $^{1}/_{4}$-inch (6.4 mm) fiber-cement panel, soffit or backer board.

The ignition barrier is not required where the foam plastic insulation has been tested in accordance with Section R316.6.

R316.5.4 Crawl spaces. The thermal barrier specified in Section R316.4 is not required where all of the following apply:

1. Crawl space access is required by Section R408.4.
2. Entry is made only for purposes of repairs or maintenance.
3. The foam plastic insulation has been tested in accordance with Section R316.6 or the foam plastic insulation is protected against ignition using one of the following ignition barrier materials:
   - 3.1. $1^{1}/_{2}$-inch-thick (38 mm) mineral fiber insulation.
   - 3.2. $^{1}/_{4}$-inch-thick (6.4 mm) wood structural panels.

3.3. $^3/_8$-inch (9.5 mm) particleboard.

3.4. $^1/_4$-inch (6.4 mm) hardboard.

3.5. $^3/_8$-inch (9.5 mm) gypsum board.

3.6. Corrosion-resistant steel having a base metal thickness of 0.016 inch (0.406 mm).

3.7. $^1/_4$-inch (6.4 mm) fiber-cement panel, soffit or backer board.

R316.5.5 Foam-filled exterior doors. Foam-filled exterior doors are exempt from the requirements of Sections R316.3 and R316.4.

R316.5.6 Foam-filled garage doors. Foam-filled garage doors in attached or detached garages are exempt from the requirements of Sections R316.3 and R316.4.

R316.5.7 Foam backer board. The thermal barrier specified in Section R316.4 is not required where siding backer board foam plastic insulation has a thickness of not more than 0.5 inch (12.7 mm) and a potential heat of not more than 2000 Btu per square foot (22 720 kJ/m^2) when tested in accordance with NFPA 259 and it complies with one or more of the following:

1. The foam plastic insulation is separated from the interior of the building by not less than 2 inches (51 mm) of mineral fiber insulation.
2. The foam plastic insulation is installed over existing *exterior wall* finish in conjunction with re-siding.
3. The foam plastic insulation has been tested in accordance with Section R316.6.

R316.5.8 Re-siding. The thermal barrier specified in Section R316.4 is not required where the foam plastic insulation is installed over existing *exterior wall* finish in conjunction with re-siding provided that the foam plastic has a thickness of not more than 0.5 inch (12.7 mm) and a potential heat of not more than 2000 Btu per square foot (22 720 kJ/m^2) when tested in accordance with NFPA 259.

R316.5.9 Interior trim. The thermal barrier specified in Section R316.4 is not required for exposed foam plastic interior trim, provided that all of the following are met:

1. The density is not less than 20 pounds per cubic foot (320 kg/m^3).
2. The thickness of the trim is not more than 0.5 inch (12.7 mm) and the width is not more than 8 inches (204 mm).
3. The interior trim shall not constitute more than 10 percent of the aggregate wall and ceiling area of any room or space.
4. The flame spread index does not exceed 75 when tested in accordance with ASTM E84 or UL 723. The smoke-developed index is not limited.

R316.5.10 Interior finish. Foam plastics used as interior finishes shall comply with Section R316.6 and shall meet the flame spread index and smoke-developed index requirements of Sections R302.9.1 and R302.9.2.

R316.5.11 Sill plates and headers. Foam plastic be spray applied to sill plates and headers or installed in the perimeter joist space without the thermal barrier specified in Section R316.4 shall comply with all of the following:

1. The thickness of the foam plastic shall be not more than $3^1/_4$ inches (83 mm).
2. The density of the foam plastic shall be in the range of 0.5 to 2.0 pounds per cubic foot (8 to 32 kg/m^3).
3. The foam plastic shall have a flame spread index of 25 or less and an accompanying smoke-developed index of 450 or less when tested in accordance with ASTM E84 or UL 723.

R316.5.12 Sheathing. Foam plastic insulation used as sheathing shall comply with Section R316.3 and Section R316.4. Where the foam plastic sheathing is exposed to the *attic* space at a gable or kneewall, the provisions of Section R316.5.3 shall apply. Where foam plastic insulation is used as *exterior wall* sheathing on framed wall assemblies, it shall comply with Section R316.8.

R316.5.13 Floors. The thermal barrier specified in Section R316.4 is not required to be installed on the walking surface of a structural floor system that contains foam plastic insulation where the foam plastic is covered by not more than a nominal $^1/_2$-inch-thick (12.7 mm) wood structural panel or equivalent. The thermal barrier specified in Section R316.4 is required on the underside of the structural floor system that contains foam plastic insulation where the underside of the structural floor system is exposed to the interior of the building.

R316.6 Specific approval. Foam plastic not meeting the requirements of Sections R316.3 through R316.5 shall be specifically *approved* on the basis of one of the following *approved* tests: NFPA 286 with the acceptance criteria of Section R302.9.4, FM 4880, UL 1040 or UL 1715, or fire tests related to actual end-use configurations. Approval shall be based on the actual end-use configuration and shall be performed on the finished foam plastic assembly in the maximum thickness intended for use. Assemblies tested shall include seams, joints and other typical details used in the installation of the assembly and shall be tested in the manner intended for use.

R316.7 Termite damage. The use of foam plastics in areas of "very heavy" termite infestation probability shall be in accordance with Section R318.4.

R316.8 Wind resistance. Foam plastic insulation complying with ASTM C578 and ASTM C1289 and used as *exterior wall* sheathing on framed wall assemblies shall comply with SBCA FS 100 for wind pressure resistance unless installed directly over a sheathing material that is separately capable of resisting the wind load or otherwise exempted from the scope of SBCA FS 100.