



PROJECT

SIGNIFICANT CHANGES TO THE STATE MINIMUM CONSTRUCTION CODES

DATE

12/9/2025

CLIENT

MONROE COUNTY, GA

Effective January 1, 2026

The new codes and amendments are as follows:

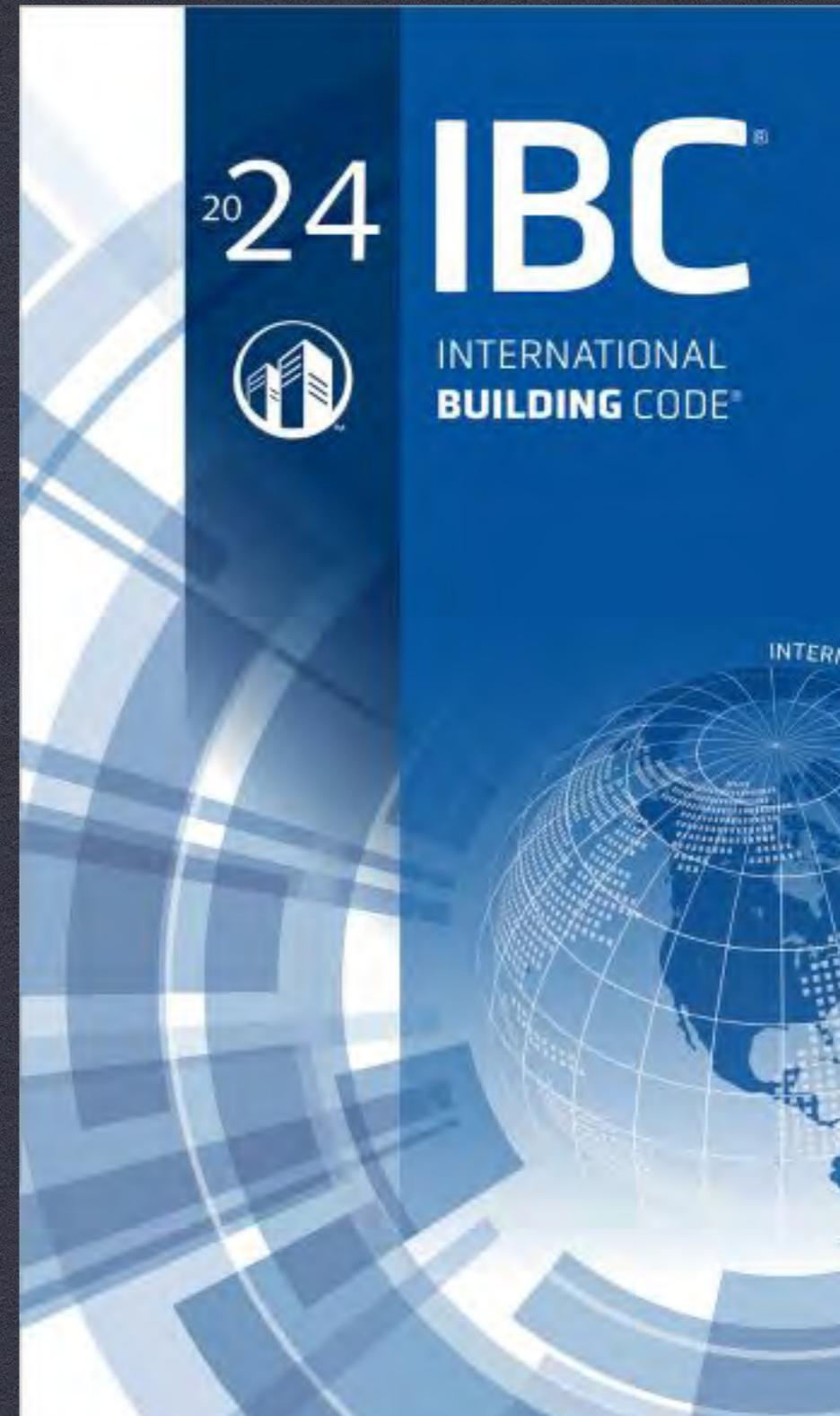
- 2024 International Residential Code (IRC) with Georgia Amendments
- 2024 International Building Code (IBC) with Georgia Amendments
- 2024 International Mechanical Code (IMC) with Georgia Amendments
- 2024 International Fuel Gas Code (IFGC) with Georgia Amendments
- 2024 International Plumbing Code (IPC) with Georgia Amendments
- 2024 International Swimming Pool and Spa Code (ISPSC) with Georgia Amendments
- 2026 Georgia Amendments to the 2023 National Electrical Code (NEC)

Codes Reference Guide

- * A copy of the Reference Guide is located in each state amendment packet
- * Start here when researching code requirements

CODES REFERENCE GUIDE		
Area	Primary	Supplement
Occupancy Classification	LSC	IBC
Building Construction Types including allowable height, allowable building areas, and the requirements for sprinkler protection related to minimum building construction types.	IBC	LSC
Means of Egress	LSC	NONE
Standpipes	IBC	IFC
Interior Finish	LSC	NONE
HVAC Systems	IMC	NONE
Vertical Openings	LSC	NONE
Sprinkler Systems minimum construction standard	LSC	NONE
Fire Alarm Systems	LSC	NONE
Smoke Alarms and Smoke Detection Systems	State Statute and LSC	NONE
Portable Fire Extinguishers	IFC	NONE
Cooking Equipment	LSC and NFPA 96	NONE
Fuel Fired Appliances	IFGC	NFPA 54
Liquid Petroleum Gas	NFPA 58	NFPA 54
Compressed Natural Gas	NFPA 52	NONE

2024
INTERNATIONAL
BUILDING CODE
AND GEORGIA AMENDMENTS



Chapter 1 Scope & Administration

- * Chapter 1 is deleted entirely without substitution. It must be adopted locally to be enforceable

The screenshot displays the Georgia State Minimum Standard Building Code 2018 website. The main content area is titled "Chapter 1 Scope and Administration" and includes an "Amendment" label. A prominent note states: "UpCodes note: The Georgia State Amendments to the International Building Code - stated that Chapter 1 is deleted entirely without substitution and to remain in the Code as a reference guide for local governments to use in development of their own Administrative Procedures." The left sidebar contains a navigation menu with options such as Home, Libraries, Copilot, Search, Projects, Bookmarks, Feedback, and Help Desk. The top navigation bar includes "My Bookmarks" and a search bar for the Georgia State Minimum Standard Building Code 2018.

Occupancy Classifications

- * **304.1 Business Group B** - Lithium-ion or lithium metal battery testing, research & development was added
- * Facilities that have laboratory type functions are deemed appropriate for B classification due to the fire protection requirements of the IFC for lithium batteries.

Occupancy Classifications

- * **306.2 Moderate-Hazard Factory Industrial, Group F-1 -**
 - * Energy storage systems (ESS) and equipment containing lithium-ion or lithium metal batteries
 - * Lithium-ion batteries
 - * Vehicles powered by lithium-ion or lithium metal batteries
 - * Beverages: over ~~16~~ 20 percent alcohol content

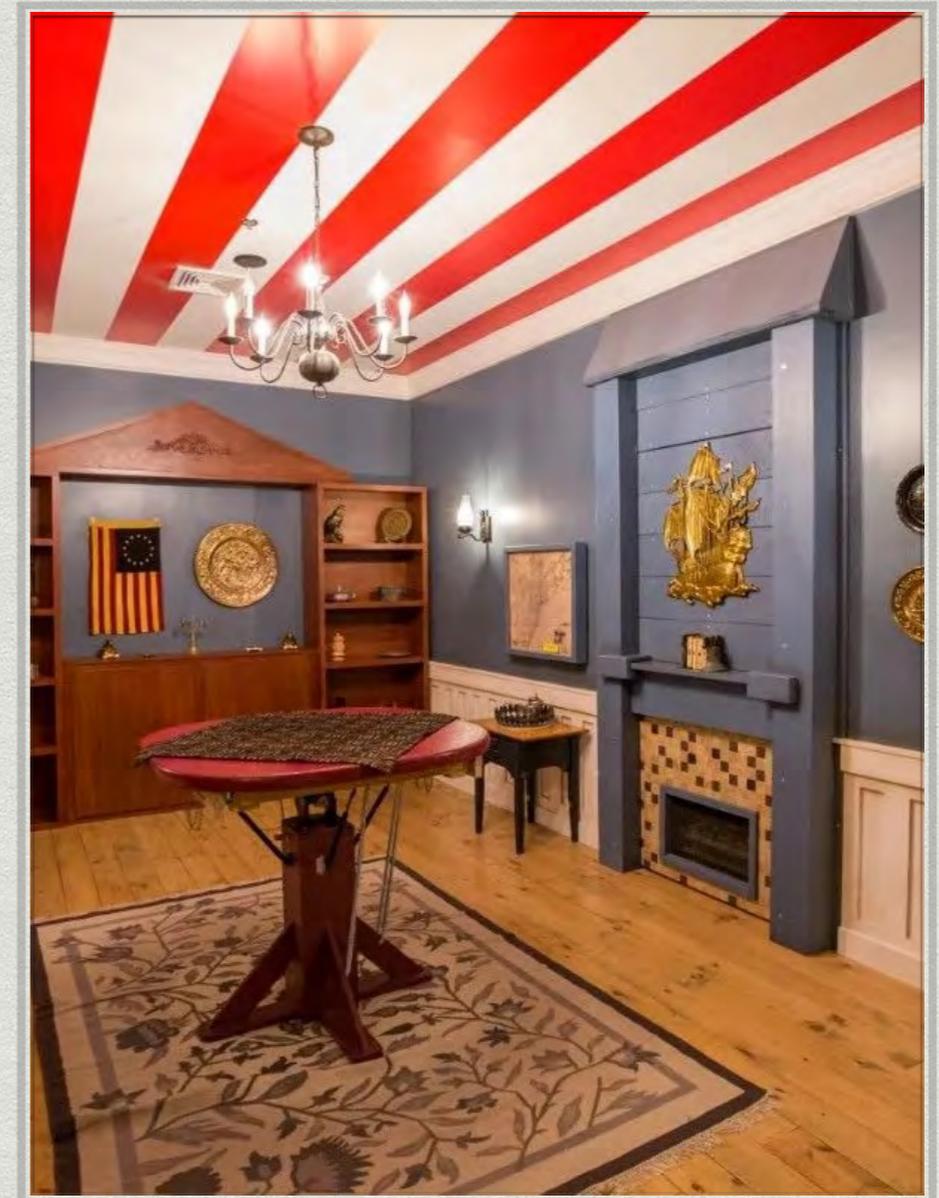
Occupancy Classifications

- * **306.3 Low-Hazard Factory Industrial, Group F-2**
 - Beverages: up to and including ~~16~~ 20 percent alcohol content

Special Requirements Based on Occupancy & Use

* 411 Special Amusement Areas

- * 50 or more = Assembly
- * Less than 50 = Business
- * Must be sprinklered, have fire alarm, exits marked, have Class A interior finish
- * **-OR-** be without walls or roof, or have a means of egress that is unlocked, readily identifiable, and always available



Incidental Uses

Storage rooms and waste and linen collection rooms considered as incidental use areas in ambulatory care facilities must now be provided with **both** automatic sprinkler protection and separation from the remainder of the building with minimum one-hour fire barriers and/or horizontal assemblies.

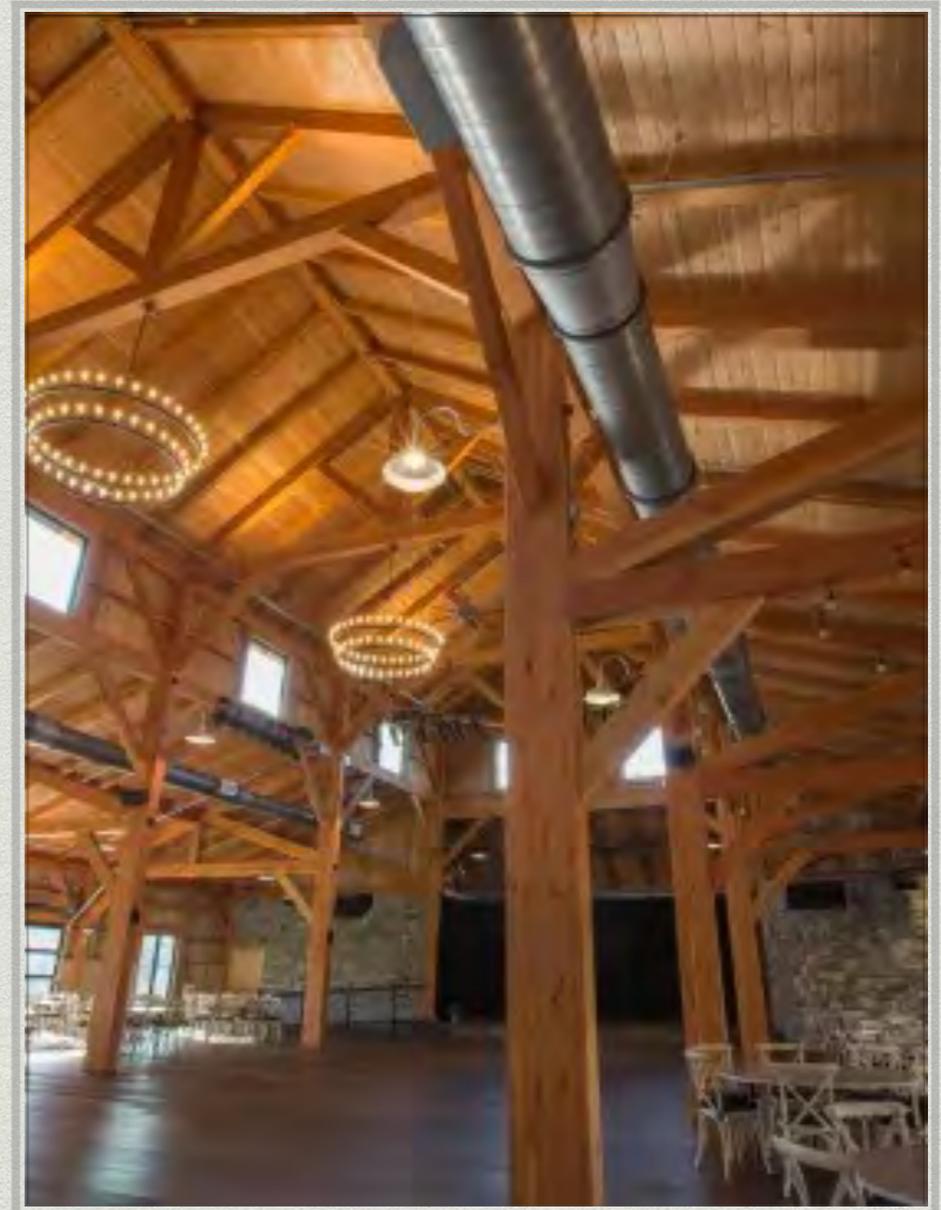
TABLE 509.1 Incidental Uses

Room or Area	Separation and/or Protection
Furnace room where any piece of equipment is over 400,000 Btu per hour input	1 hour or provide automatic sprinkler system
Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower	1 hour or provide automatic sprinkler system
Refrigerant machinery room	1 hour or provide automatic sprinkler system
Hydrogen fuel gas rooms, not classified as Group H	1 hour in Group B, F, M, S and U occupancies; 2 hours in Group A, E, I and R occupancies.
Incinerator rooms	2 hours and provide automatic sprinkler system
Paint shops, not classified as Group H, located in occupancies other than Group F	2 hours; or 1 hour and provide automatic sprinkler system
In Group E occupancies, laboratories and vocational shops not classified as Group H	1 hour or provide automatic sprinkler system
In Group I-2 occupancies, laboratories not classified as Group H	1 hour and provide automatic sprinkler system
In ambulatory care facilities, laboratories not classified as Group H	1 hour or provide automatic sprinkler system
Laundry rooms over 100 square feet	1 hour or provide automatic sprinkler system
In Group I-2, laundry rooms over 100 square feet	1 hour <u>and provide automatic sprinkler system</u>
Group I-3 cells and Group I-2 patient rooms equipped with padded surfaces	1 hour <u>and provide automatic sprinkler system</u>
In Group I-2, physical plant maintenance shops	1 hour <u>and provide automatic sprinkler system</u>
In ambulatory care facilities or Group I-2 occupancies, waste and linen collection rooms with containers that have an aggregate volume of ≥ 8.67 cubic feet or greater	1 hour <u>and provide automatic sprinkler system</u>
In other than ambulatory care facilities and Group I-2 occupancies, waste and linen collection rooms over 100 square feet	1 hour or provide automatic sprinkler system
In ambulatory care facilities or Group I-2 occupancies, storage rooms greater than ≥ 50 square feet	1 hour <u>and provide automatic sprinkler system</u>
Electrical installations and transformers	See Sections 110.26 through 110.34 and Sections 450.8 through 450.48 of NFPA 70 for protection and separation requirements.

For SI: 1 square foot = 0.0929 m², 1 pound per square inch (psi) = 6.9 kPa, 1 British thermal unit (Btu) per hour = 0.293 watts, 1 horsepower = 746 watts, 1 gallon = 3.785 L, 1 cubic foot = 0.0283 m³.

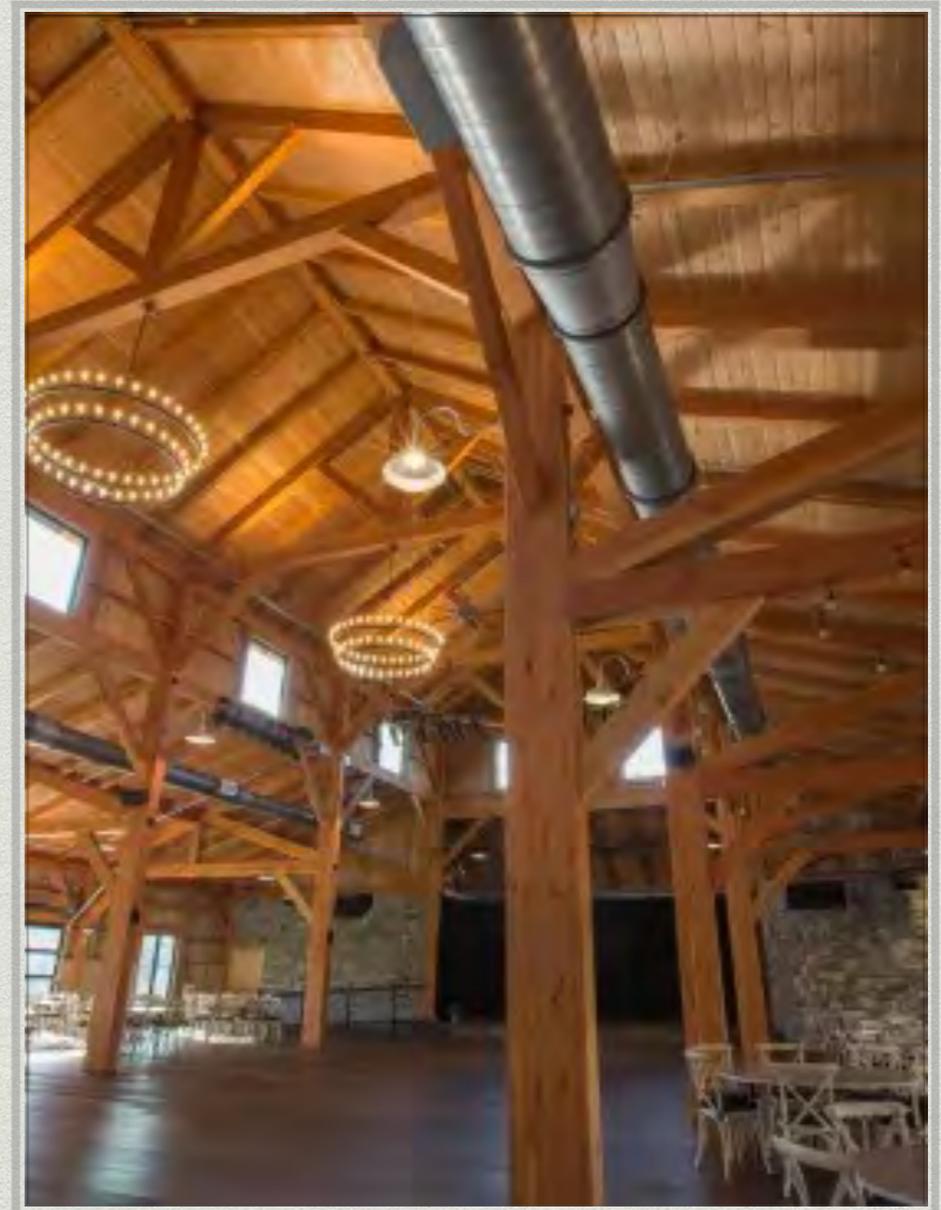
Type IV Construction

- * **Type IV Construction - Unprotected Ceilings**
- * The code previously allowed unprotected ceilings to be limited to only 20% of the floor area
- * Code change now allows 100% of the floor area



Type IV Construction

- * **Type IV Construction - Wall Separation Distance**
- * The separation distance between an unprotected mass timber element of a wall and another unprotected portion of a wall is 15 ft.
- * Previously, ceilings were included in this requirement



Type I & II Construction

Vapor Retarders

Class I



- $VR < 0.1$ perm
- Impermeable
- Foil and polyethylene sheets

Class II



- $0.1 \text{ perm} < VR < 1 \text{ perm}$
- Semi-impermeable
- Extruded polystyrene and Kraft fiberglass batts

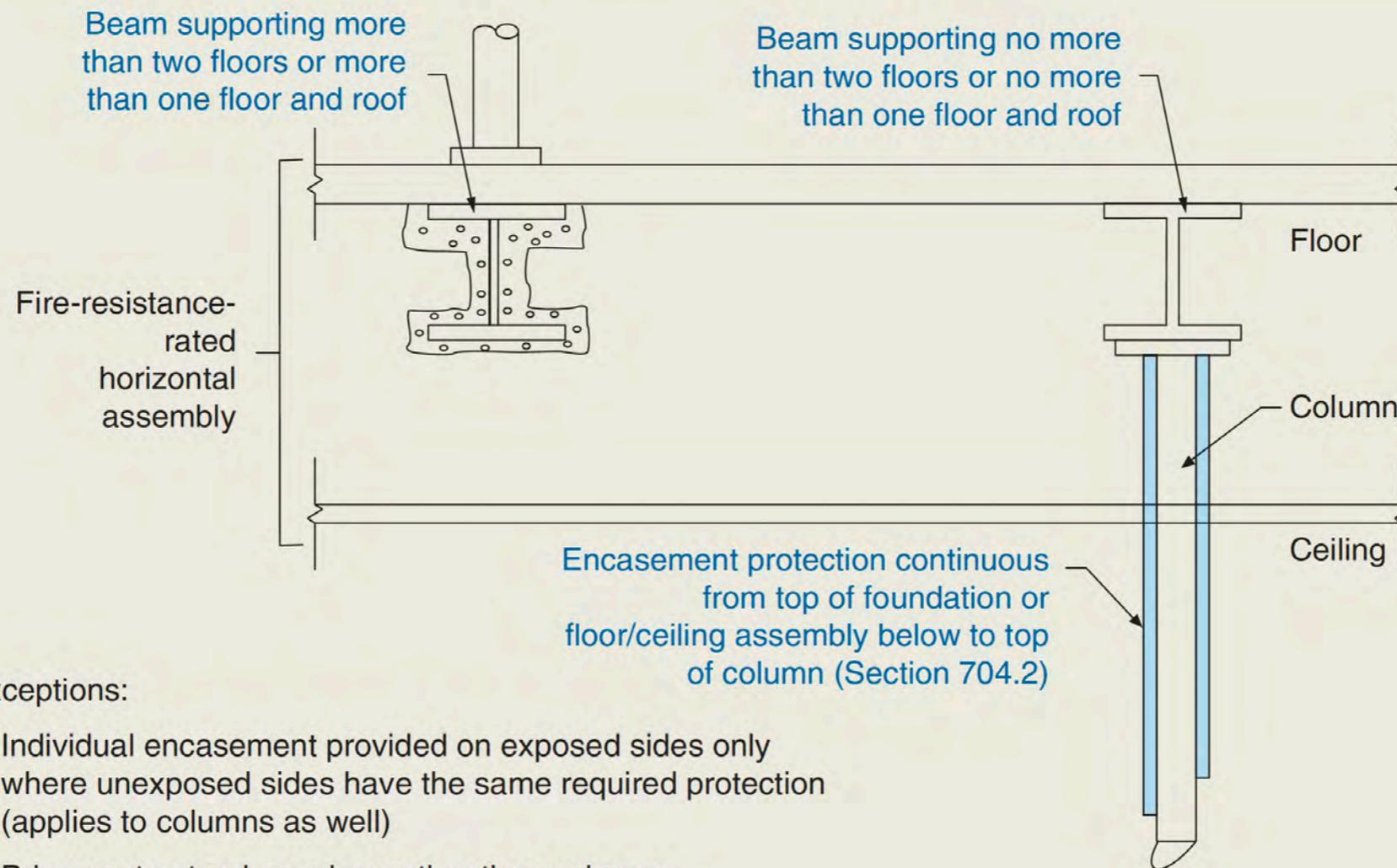
Class III



- $1 \text{ perm} < VR$
- Semi-impermeable
- Latex paint, 30# felt and plywood

- * Types I & II construction are considered noncombustible.
- * The list of exceptions to allow combustible materials now includes vapor retarders. Vapor retarders are required in all climate zones.

704.2 - Protection of Structural Members

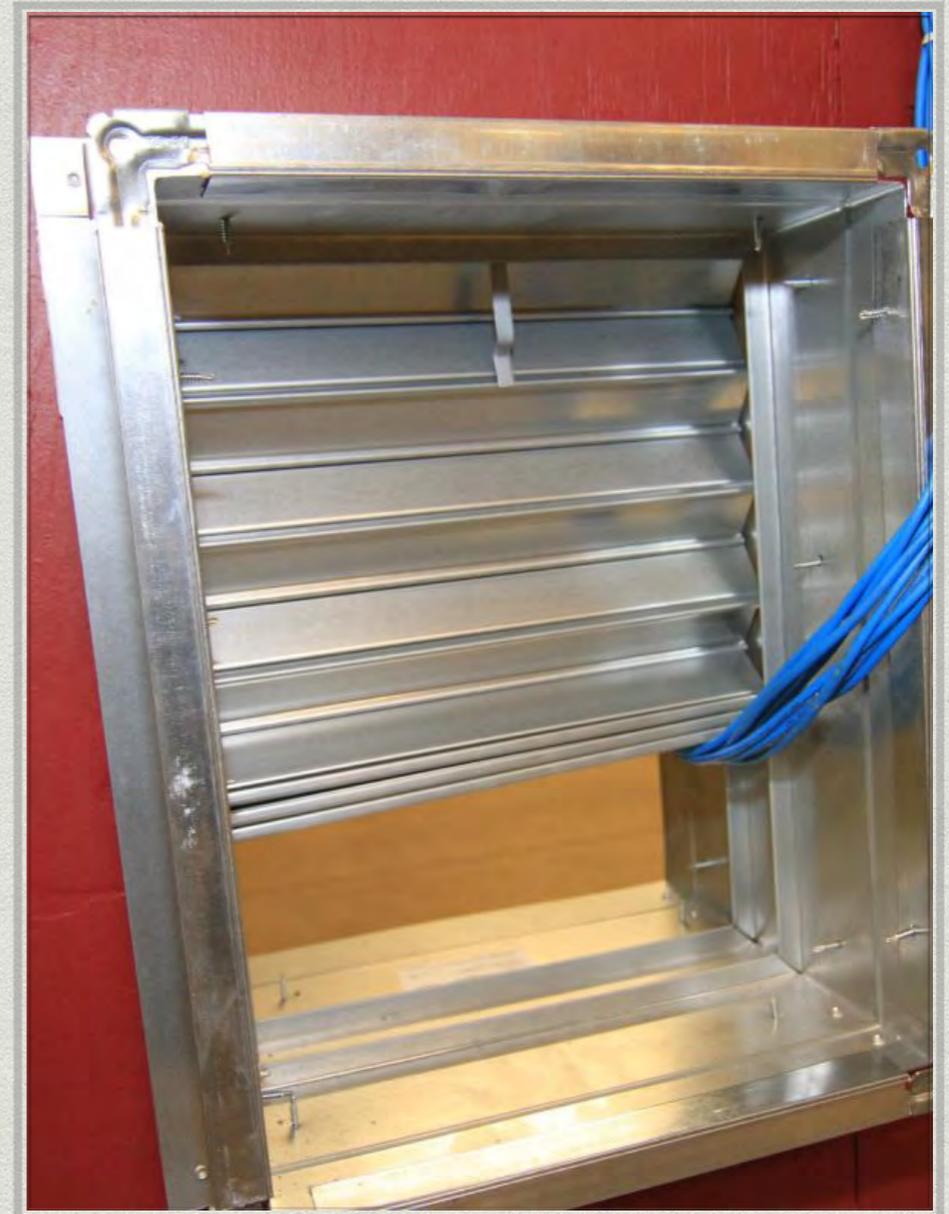


Exceptions:

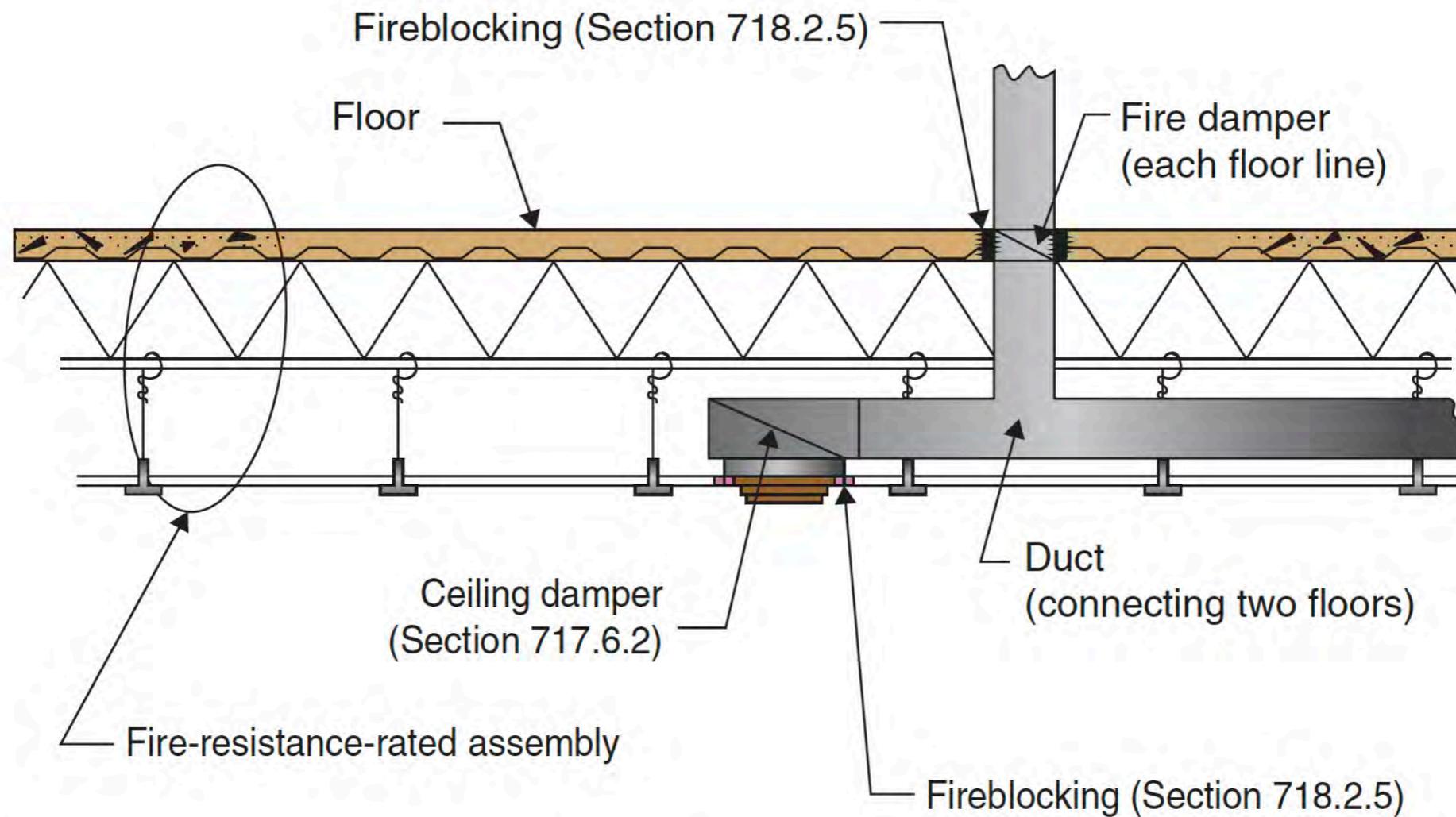
- Individual encasement provided on exposed sides only where unexposed sides have the same required protection (applies to columns as well)
- Primary structural members other than columns supporting no more than two floors or no more than one floor and roof can be protected by a membrane of an assembly in which they are located

717.2.4.1- Controls in Air Duct Systems

- * Wiring and cabling is not permitted to be run through fire dampers, smoke dampers, combination fire/smoke dampers, and ceiling radiation dampers to allow for proper operation of the device during inspection and fire events.



717.6.1-Through Penetrations



Air duct penetration of a horizontal assembly.

- * 1. Protect with shaft enclosure -or- 2. Provide fire damper at the floor line

718.2.1 - Fireblocking Materials

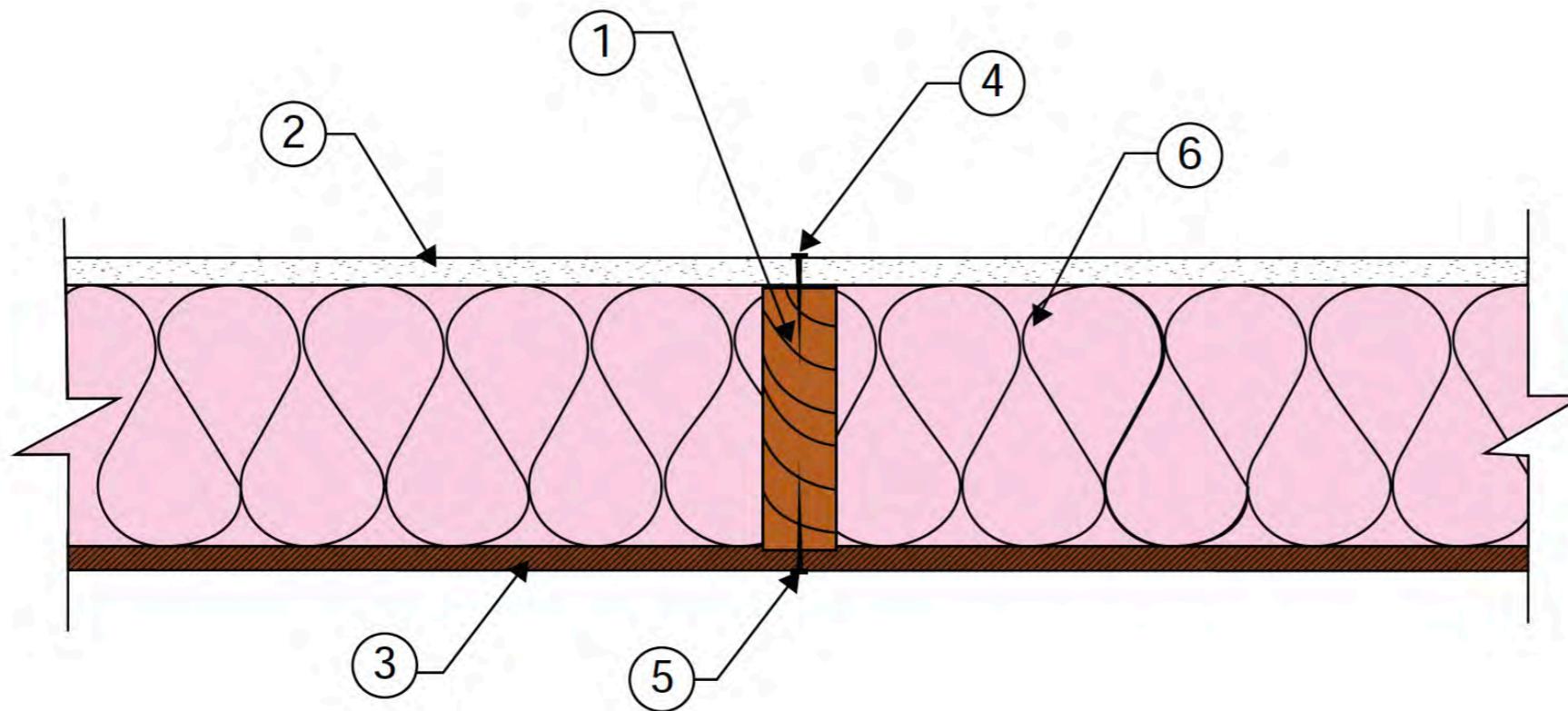
- * 19/32" Fire-retardant-treated wood structural panel has been added to the list of materials that are approved for fireblocking
- * One thickness of 19/32-inch FRTW structural panel demonstrates both equivalent fire resistance and flame spread properties to 1/2-inch gypsum board.



Table 721.1(2) Prescriptive Wall Assemblies

WS6-1.6 One-Hour Fire-Resistance-Rated Wood-Frame Wall Assembly (Rated From Gypsum Wallboard Side)

2 × 6 wood stud wall—100% design load—ASTM E119/NFPA 251



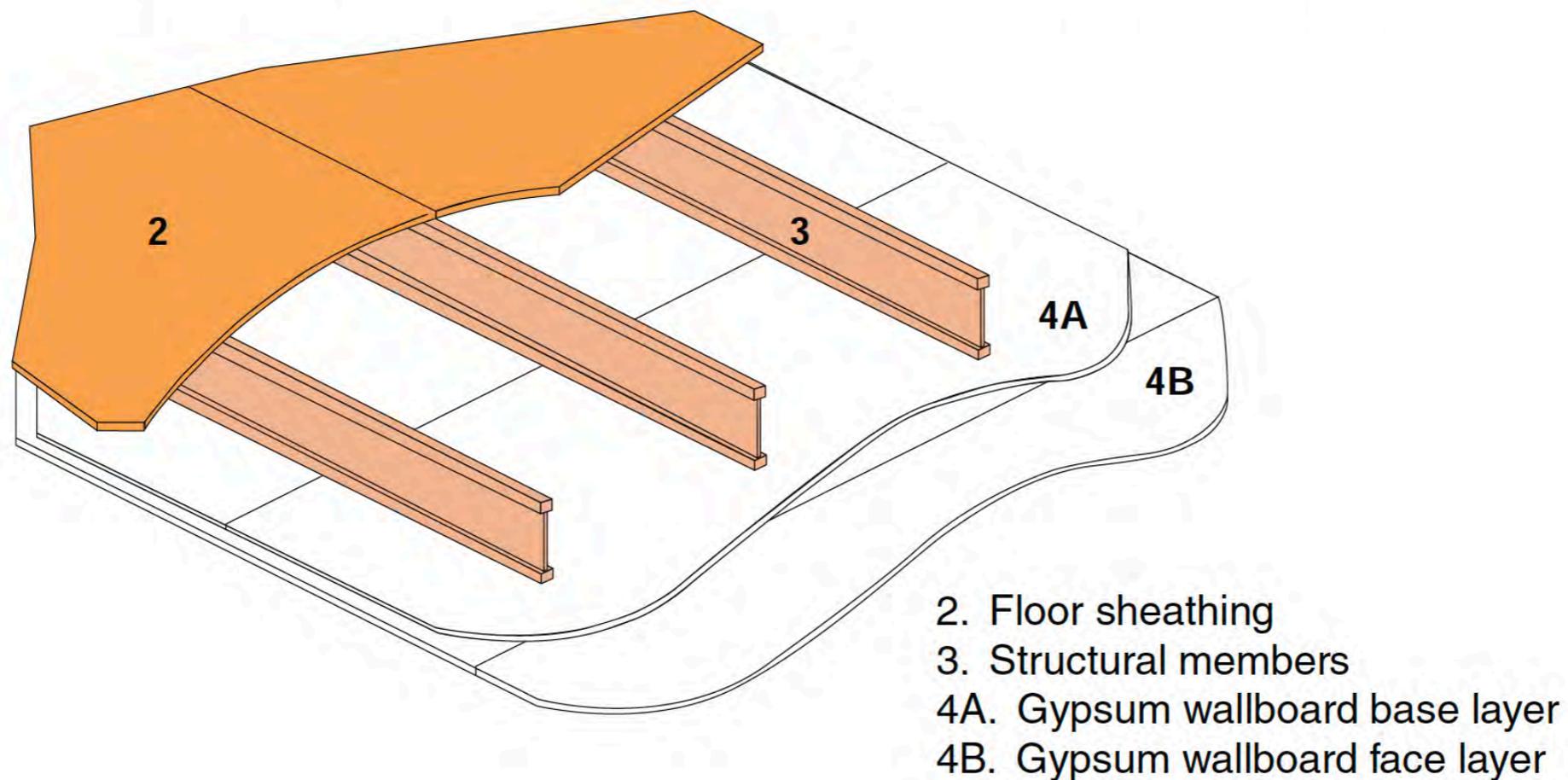
1. Framing
2. Interior sheathing
3. Exterior sheathing
4. Gypsum fasteners
5. Panel fasteners
6. Insulation

* 5/8" Type X GWB

Table 721.1(3) Prescriptive Floor/Ceiling Assemblies

WIJ-1.5 One-Hour Fire-Resistance-Rated Ceiling Assembly

Floor/ceiling—100% design load—1-hour rating—ASTM E119/NFPA 251



* 2 Layers of 1/2" Type C GWB

1208 - Dwelling Unit Size



- * Dwelling units shall have a minimum of 190 square feet of habitable space.

1404 - Exterior Wall Materials

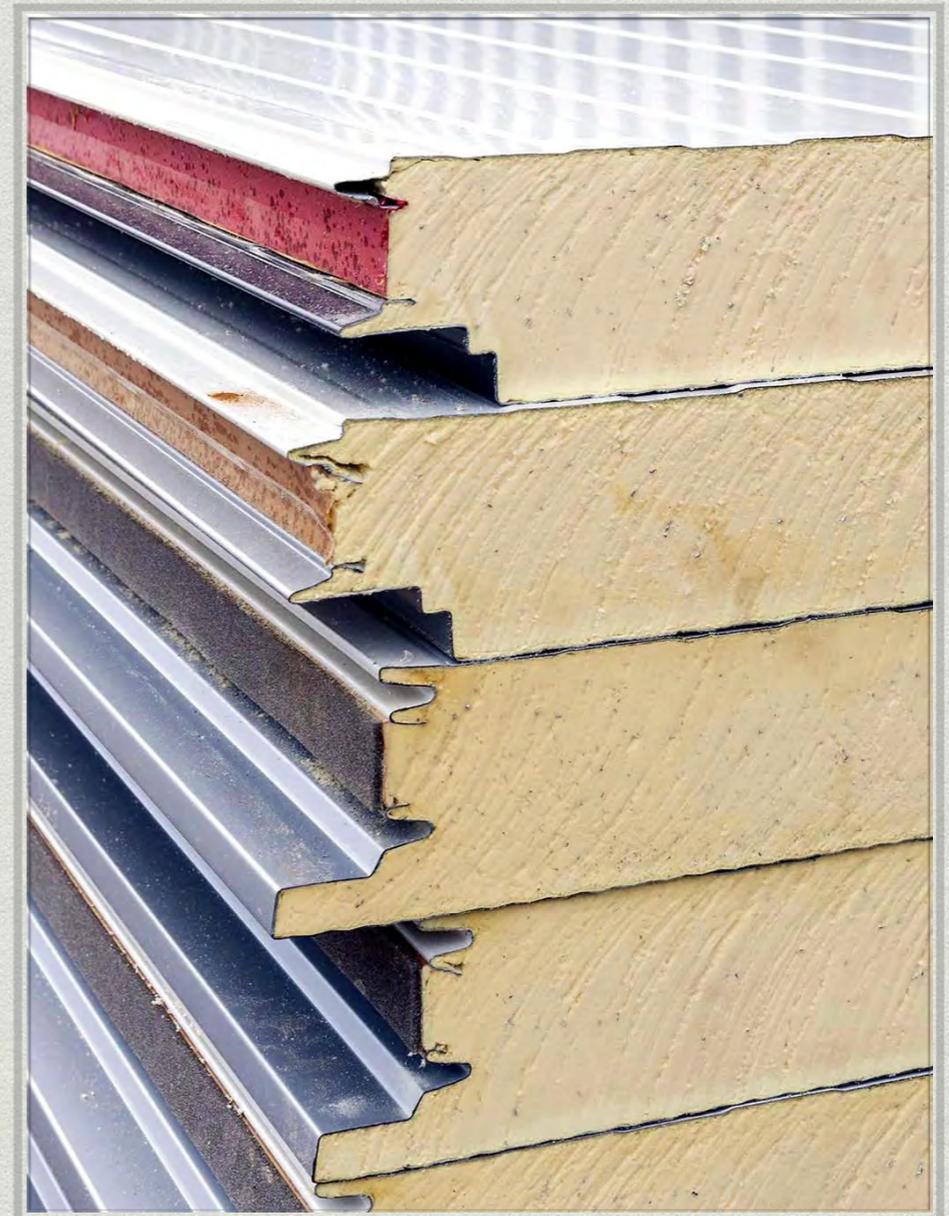
- * 2 new materials for exterior wall construction were added, one as a substrate, one as a cladding material
- * **Fiber-mat reinforced cementitious backer units** - allowed by ASTM standards and ICC Evaluation Services
- * **Insulated Vinyl Siding** - accepted by IRC and IECC but only now accepted by IBC

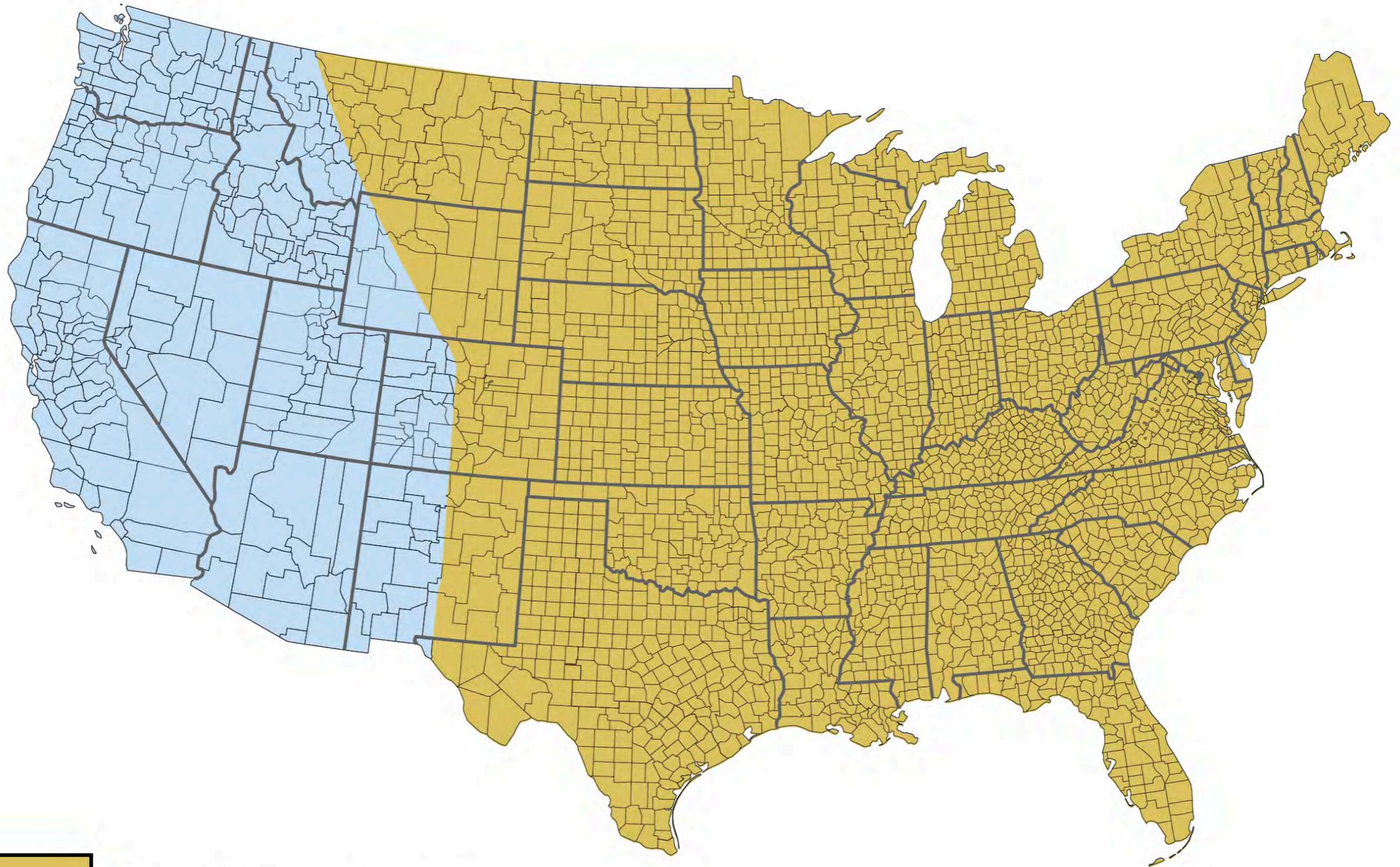


1409

Insulated Metal Panel (IMP)

A factory manufactured panel consisting of metal facings and an insulation core intended for use as a system forming an exterior wall, an exterior wall covering, a roof covering, a roof covering, or roof assembly of a building.





Tornado-prone region



Areas outside tornado-prone region

TORNADO LOADS

1609.5

1609.5 - Tornado Loads

- * **1609.5 Tornado loads.** The design and construction of Risk Category III and IV buildings and other structures located in the tornado-prone region as shown in Figure 1609.5 shall be in accordance with Chapter 32 of ASCE 7, except as modified by this code.

1609.5 - Tornado Loads

- * **Risk Category I – Low Hazard**

- * Barns, sheds, temporary structures

- * **Risk Category II – Normal Hazard**

- * Typical residential, office, retail, standard warehouses, light industrial buildings

1609.5 - Tornado Loads

- * **Risk Category III — Substantial Hazard to Life**

- * Assemblies with >300 occupants, Educational with >250 occupants, other Institutional and Educational buildings

- * **Risk Category IV — Essential / Critical Facilities**

- * Hospitals, ambulatory care, fire and police stations, EOCs, 911, facilities with toxic materials, water storage and pump stations for fire protection



SPECIAL INSPECTIONS

CHAPTER 17

Chapter 17 - Special Inspections

- * New required inspections were added to the table for metal building systems, reinforcing bar welding, and test of concrete construction
- * These added requirements contain both periodic and continuous inspections

Chapter 17 - Special Inspections

- * The Design Professional prepares a Statement of Special Inspections and includes it in the construction documents
- * Qualified Special Inspector (Approved by AHJ) performs inspections
- * Special Inspector provides Final Report of Special Inspections

1807.2.5 Guards on Retaining Walls

- * **Where required.** At retaining walls located within 36 inches of walking surfaces, a guard shall be required between the walking surface and the open side of the retaining wall where the walking surface is located more than 30 inches measured vertically to the surface or grade below at any point within 36 inches horizontally to the edge of the open side. Guards shall comply with Section 1607.9.

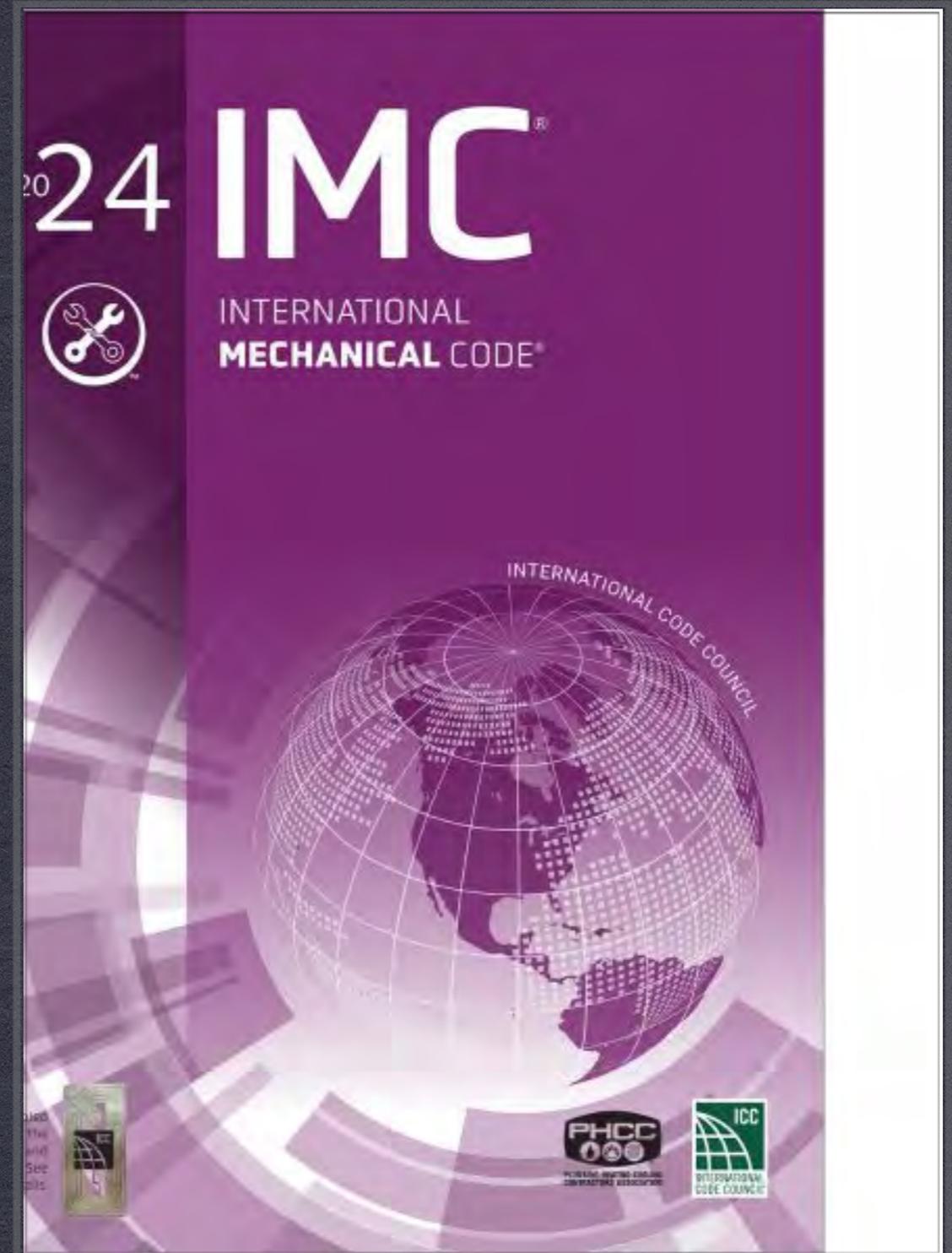


2210 - Metal Building Systems

- * **2210.1 General.** The design, fabrication and erection of a metal building system shall be in accordance with the provisions of this section.



2024 INTERNATIONAL MECHANICAL CODE AND GEORGIA AMENDMENTS



306.3 Appliances in Attics

Exceptions:

3. In Residential Occupancies, attics containing appliances or mechanical equipment (requiring) service shall be accessible by pull-down stairs or other permanent steps and at a minimum be sized to allow the removal of the largest appliance.

306.5 Equipment & Appliances on Roofs or Elevated Structures

- * Where equipment is located on roof higher than 16' above grade, an interior or exterior means of access shall be provided
- * This side railing shall extend above the roof edge not less than 30 42 inches
- * Toe spacing between 7 and 12 inches
- * Top landing required. Must be clear and unobstructed, min. 30" deep and the width of the hatch



401.2 Ventilation Required

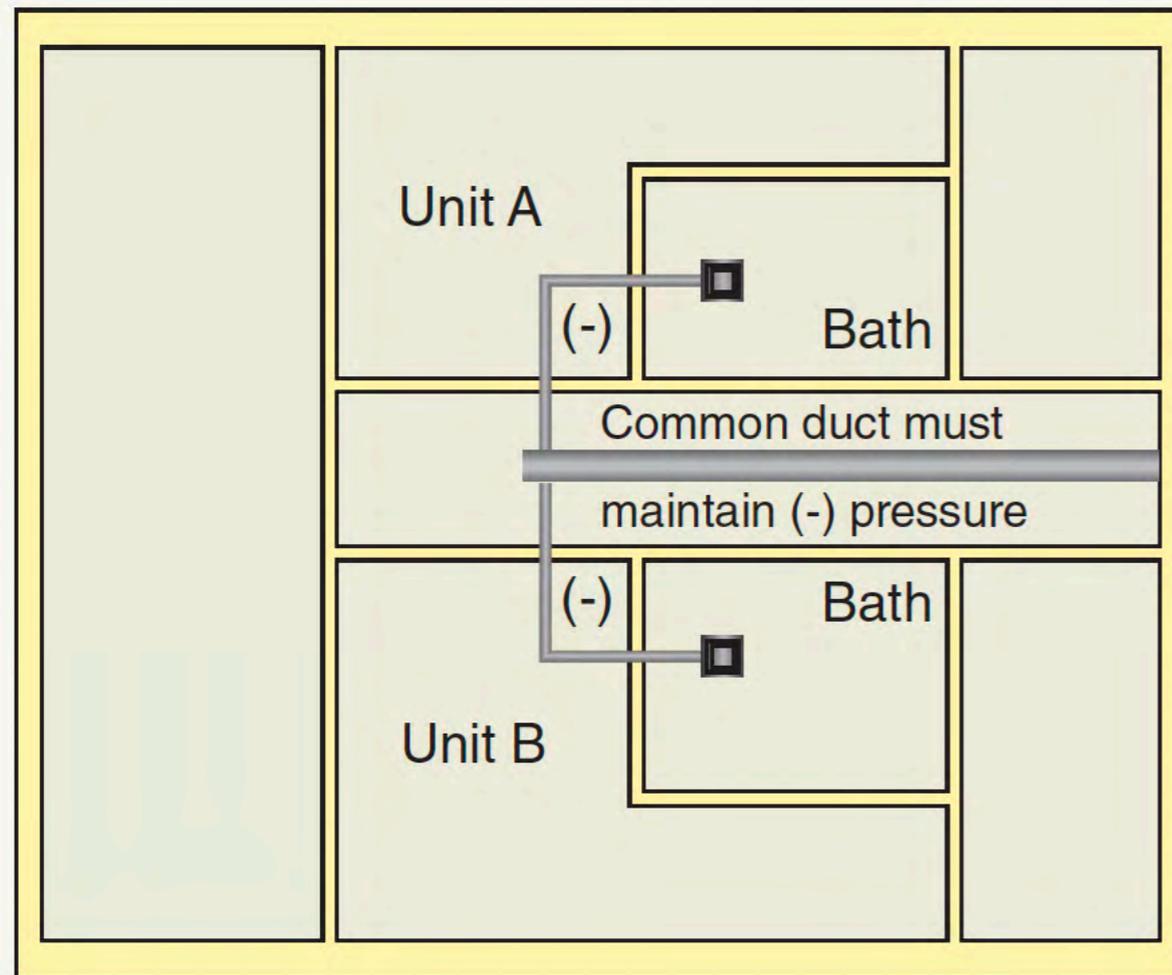
- * If a dwelling unit blower-door test results in < 3 ACH, it must have mechanical ventilation per section 403.
 - * 2018 IMC threshold was < 5 ACH

403.3.1.1-Minimum Ventilation Rates-Toilet Rooms

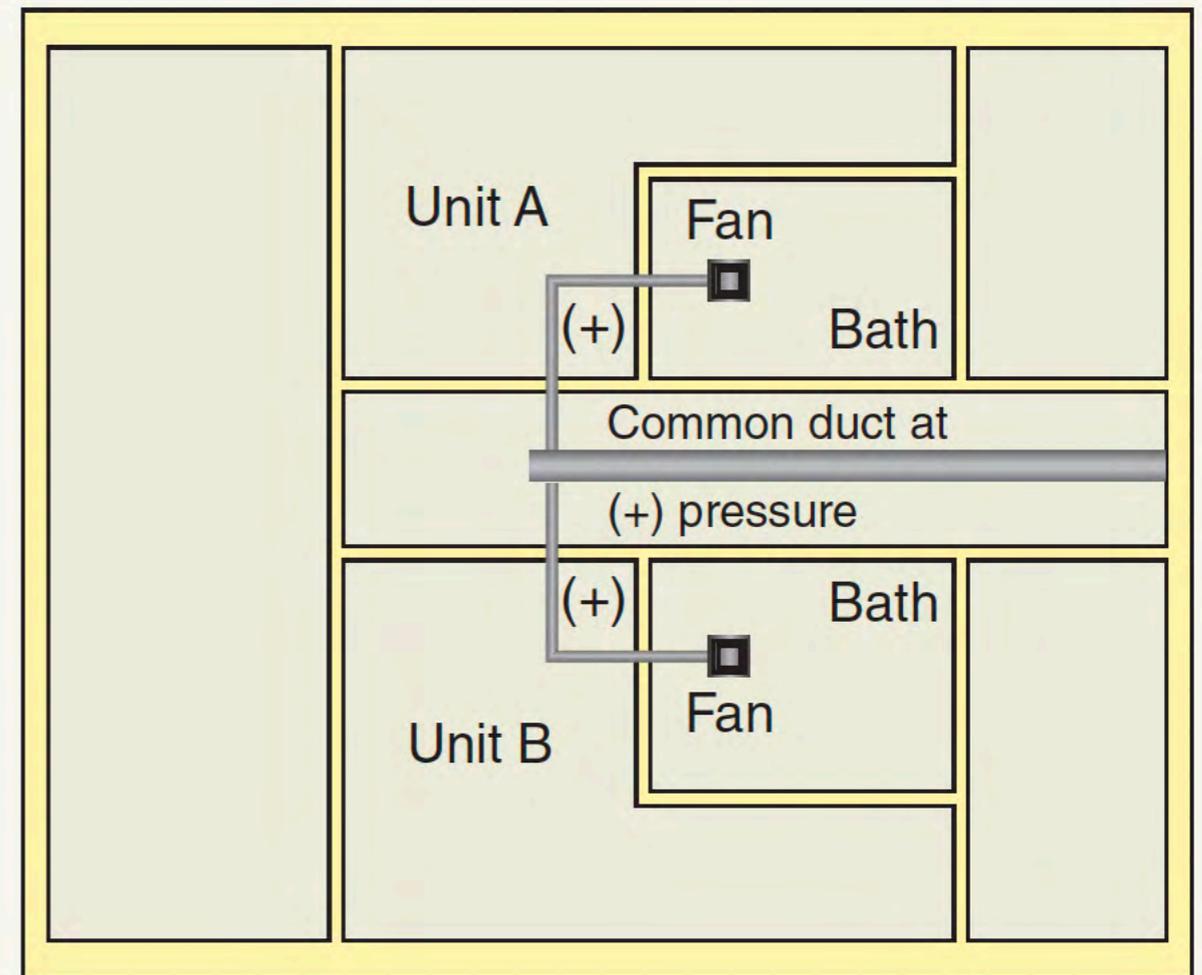
- * New exhaust requirements were added for rooms with adult changing stations
- * These stations are now becoming more common in airports, malls, rest areas, etc.
- * The change ensures proper ventilation, odor control, and sanitation



501.6-Common Ducts



Compliant configuration



Non-compliant configuration

Note: both comply with dampers at the corridor penetrations

- * Ducts from dwellings or sleeping units cannot discharge into a common duct unless the duct maintains a negative pressure

505.3.1 Exhaust Ducts

- * Exhaust ducts for domestic range hoods installed in commercial applications.
 - * Includes I-1 & I-2 occupancies
 - * Shall be vented to the outside
 - * Shall be Type B or smooth wall duct



505.7, 505.8 I-1 and I-2 Occupancies

- * **Group I-1, I-2.** In accordance with IBC 420.9, 407.2.7 respectively
 - * Min 500 cfm air flow rate
 - * Mechanical ventilation required
 - * Exhaust to the outdoors or be listed ductless range hood with charcoal filters



505.9 Domestic Cooking Exhaust Equipment

- * Commercial installations of domestic systems shall comply with NFPA 101 and 96 standards



Grease Duct Test

- * **506.3.2.5.** Change provides options for testing requirements. Removes 100-watt incandescent bulb criterion
- * **506.3.2.5.1 Light Test.** Passing an open lamp not less than 1,600 lumens through the entire ductwork
- * **506.3.2.5.2 Water Spray Test.** Simulate a cleaning operation with water pump capable of 1,200 psi to apply water to the inside surface of the duct



507.1 Commercial Kitchen Hoods

- * Listed and labeled appliances that already manage heat, smoke or moisture safely can be installed without a Type II Hood
- * Wood fueled ovens, commercial electric dishwashers, electric cooking appliances that meet certain UL standards and installed in accordance with the manufacturer's instructions are new exceptions to the exhaust hood requirements



606.2.1 Supply Air Systems

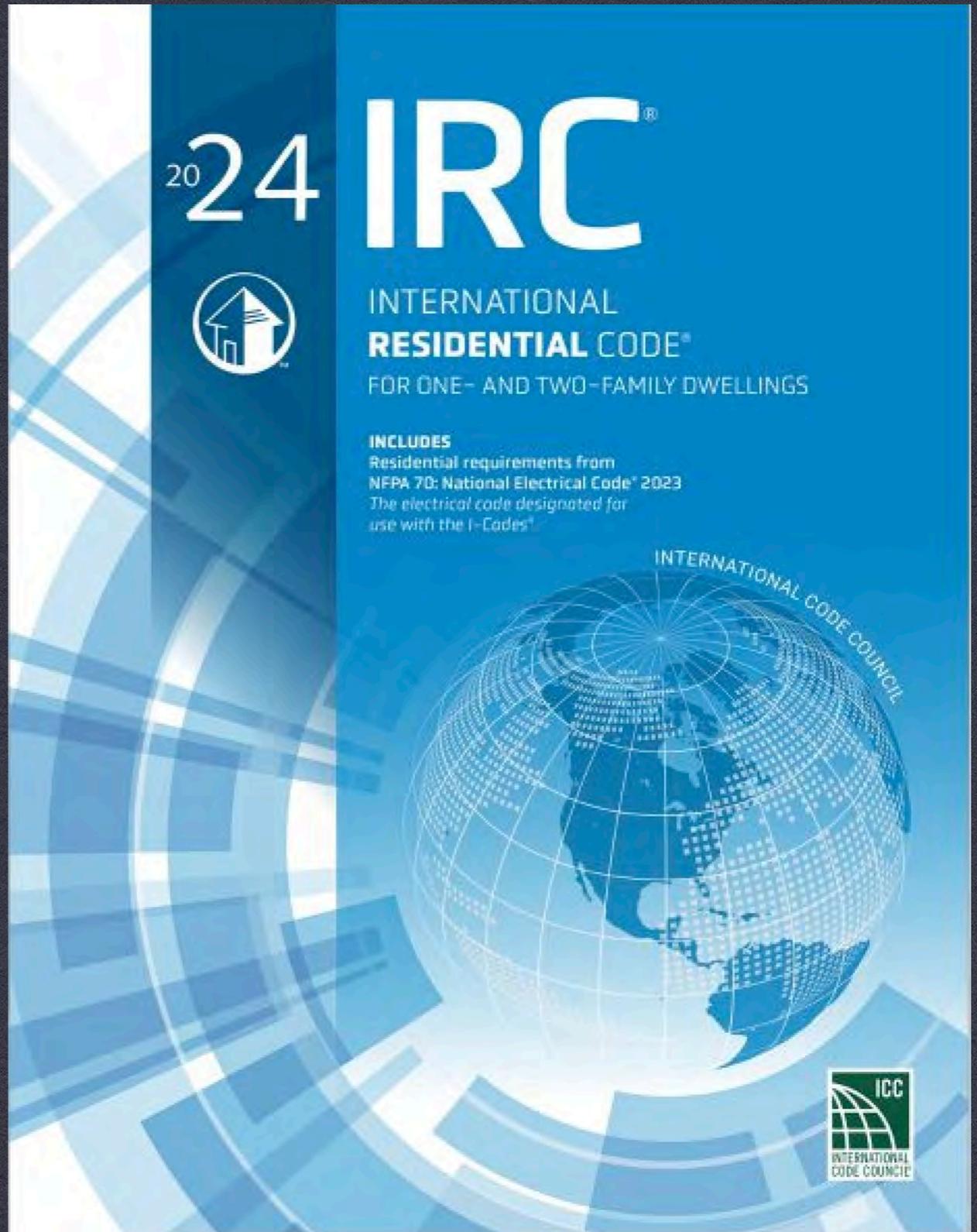
- * Section name changed from “return air systems”
- * Smoke detectors are required in the supply air systems with a design capacity greater than 2,000 cfm

917.1 Cooking Appliances

Exception:

Listed and labeled commercial cooking appliances may be installed in dwelling units and domestic kitchens when designed by a GA licensed PE and accepted by the AHJ.

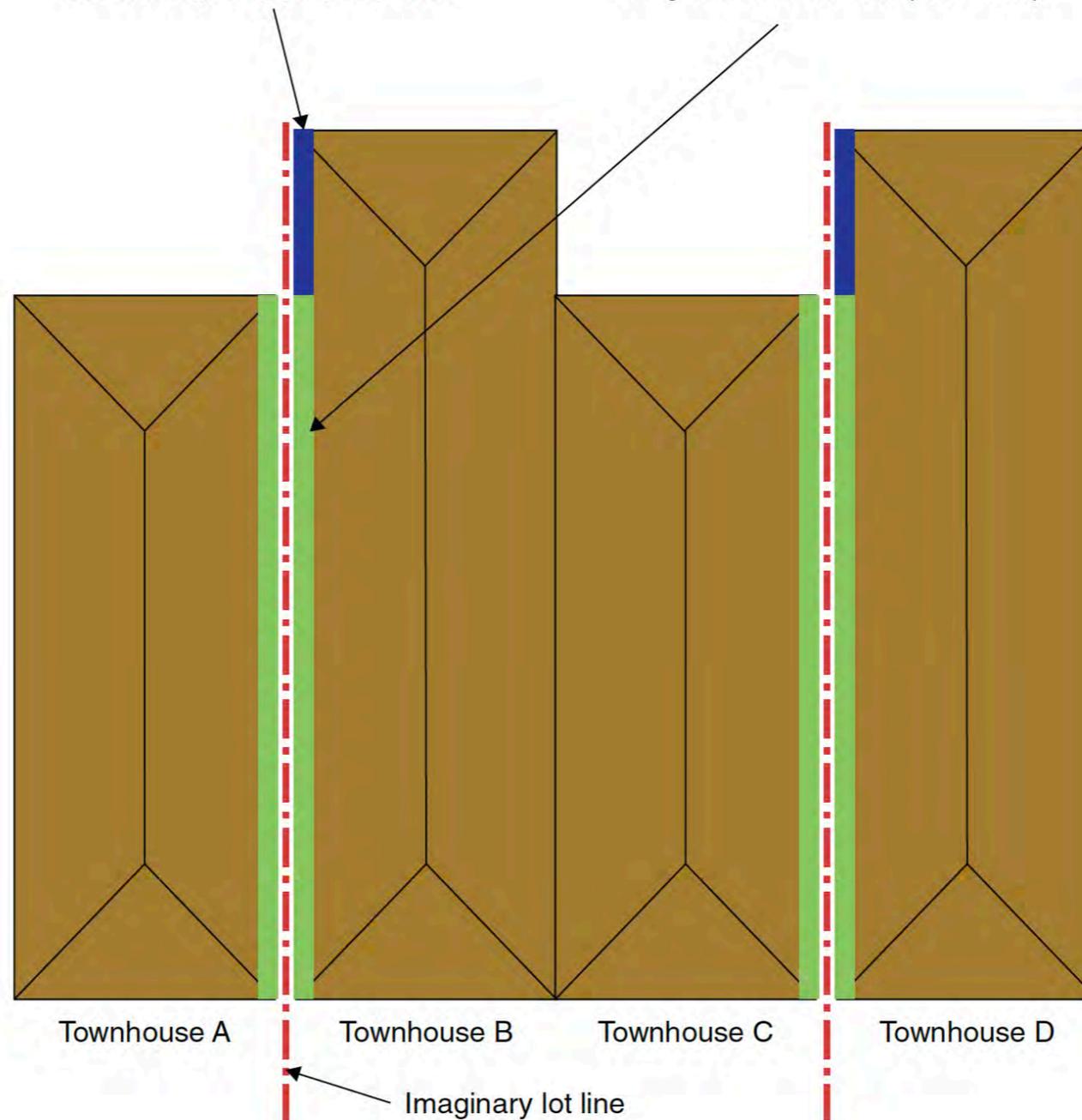
2024 INTERNATIONAL RESIDENTIAL CODE AND GEORGIA AMENDMENTS



302.1 - Exterior Walls

Exterior wall with 1-hour rated per Table R302.1(1). This portion of the wall is only regulated based on the fire separation distance to the real or imaginary property line.

Section R302.2 walls - either individual walls for each unit (R302.2.1) or built as a single "common" wall (R302.2.2).



302.2 Townhouses

- * Each townhouse is considered a separate building and must be separated by rated walls meeting the exterior wall requirements of R302.1
- * **Exception:** a common 2-hr wall meeting ASTM E119/UL263 only if:
 - * it has no plumbing, mechanical in the cavity
 - * Fire rated from both sides
 - * Extends tight to exterior walls and roof
 - * Electrical boxes per R302.4



302.3 - Two-Family Fire Separation



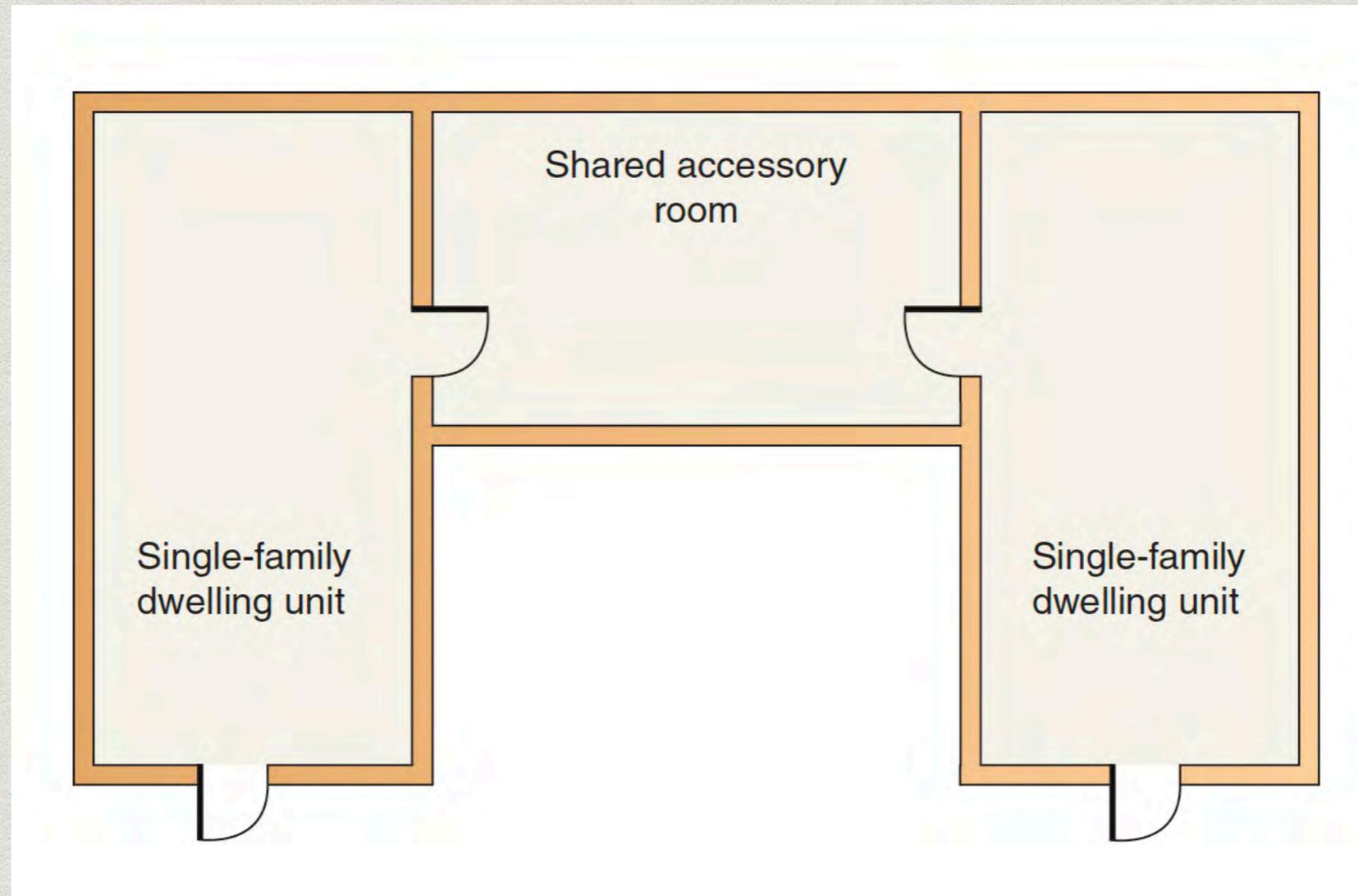
- * Both horizontal and vertical separations are recognized
- * 1-hr fire-resistance-rating is required between dwelling units
- * Supporting walls and structural members below must have **equal or greater fire rating**

302.3.5 - Vertically Stacked Dwelling Units

- * Where one dwelling unit is located above another and an automatic sprinkler system is not provided:
 - * Limit the transfer of smoke from one unit to the other (ex. smoke partitions)
 - * Notification appliance connected to the smoke alarm of the other dwelling unit shall be installed in each dwelling unit



302.3.6 - Shared Accessory Room Separation



- * Separation is required similar to a garage.
 - * 1/2" GWB or equivalent separation from dwelling units and attics
 - * 5/8" Type X GWB or equivalent separation from habitable rooms above or below



FLOOD HAZARD AREAS

306.2

306.2 - Flood Hazard Areas

- * **Accessory structures** one story and 600 sq ft or less can have floors below the base flood elevation if they're only for parking or storage
- * Must be built to flood-resistant construction standards

310 - Smoke Alarms

- * Shall be installed according to their listing and manufacturer's instructions
- * New requirement for sleeping lofts
- * Not be installed less than 10' from cooking appliances





SLEEPING LOFTS

315

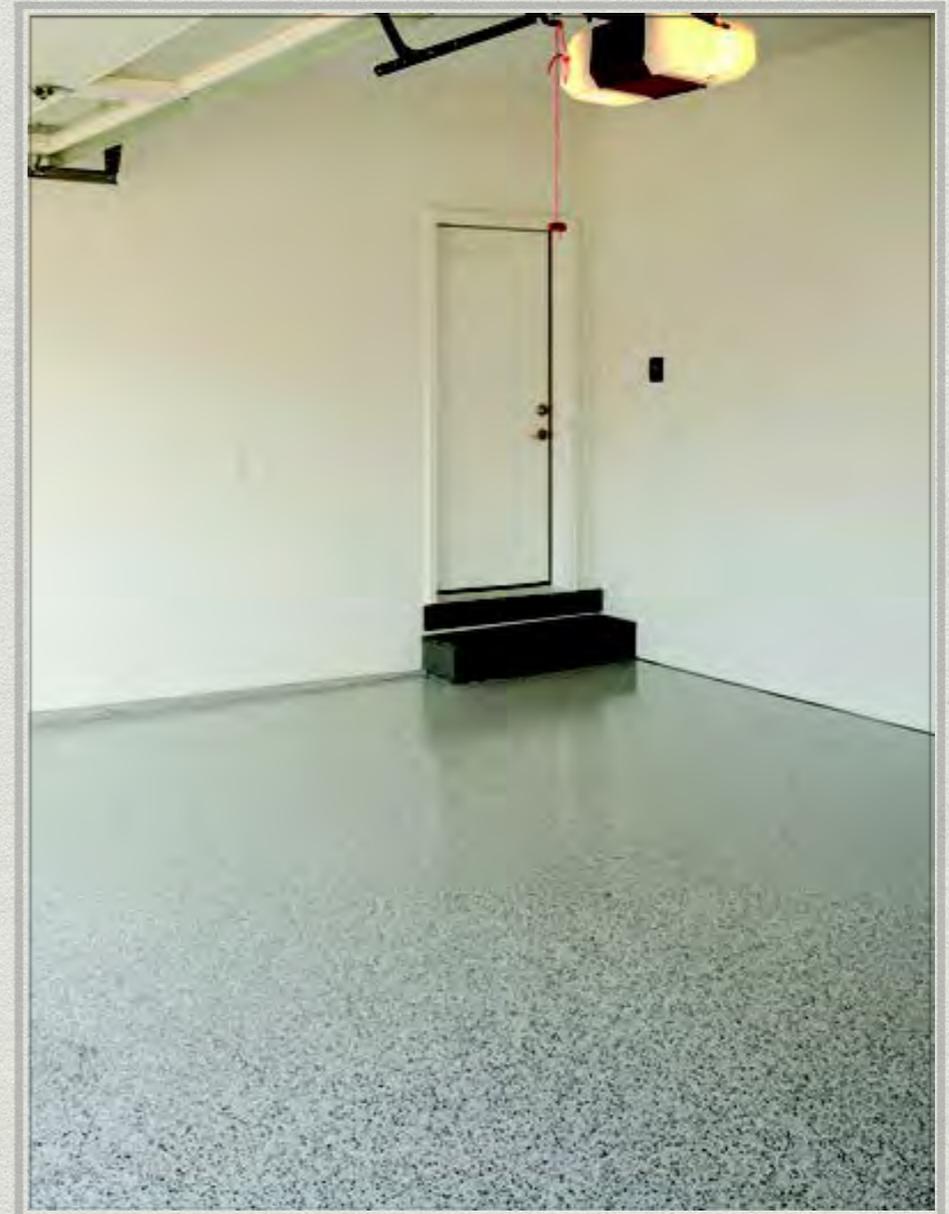
315 - Sleeping Lofts

- * A space designated for sleeping on an intermediate level or levels between the floor and ceiling of a story, open on one or more sides to the room in which the space is located, and in accordance with Section R315.
- * <70 sq ft
- * Ceiling height shall not exceed 7' for more than 1/2 of the sleeping loft floor area
- * Has relaxed criteria for means of egress



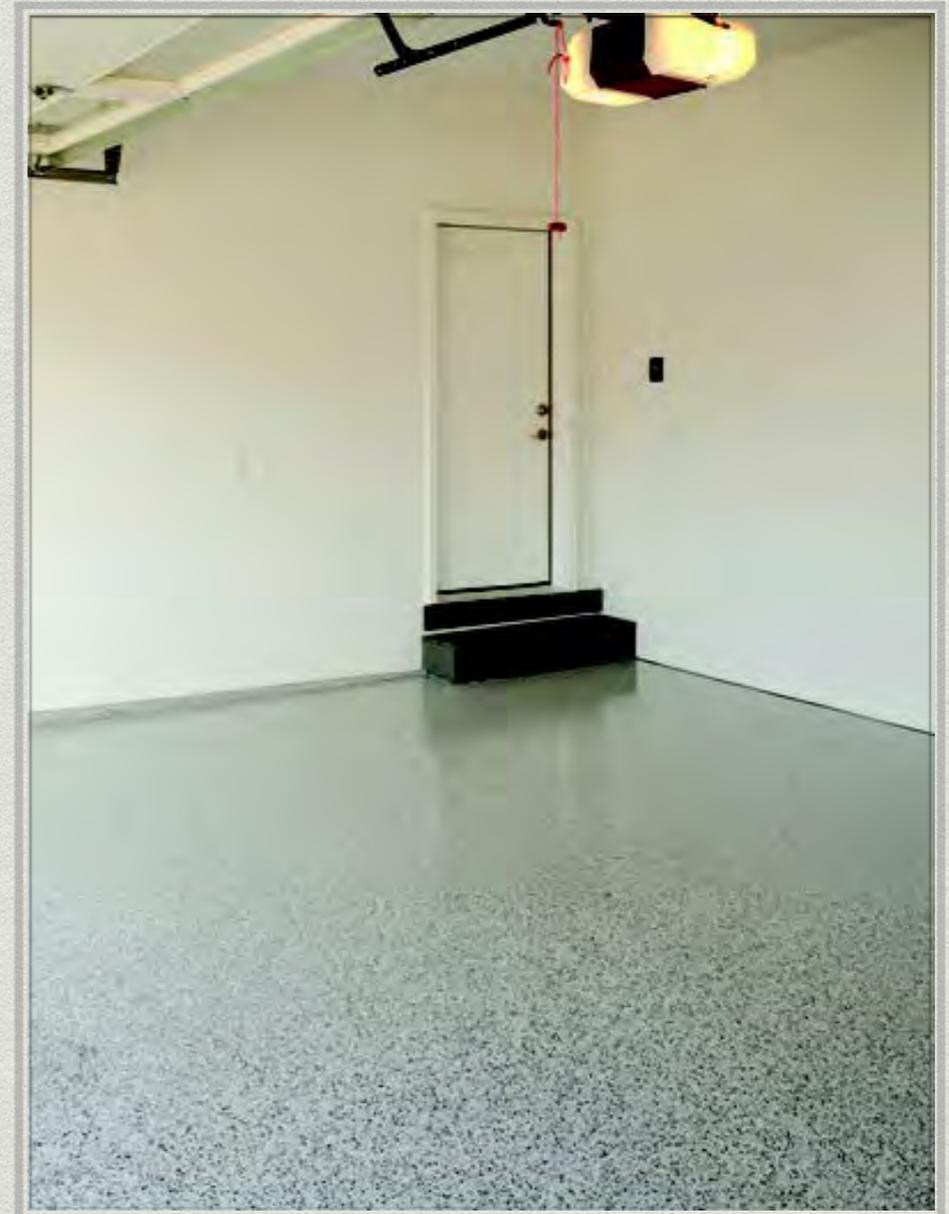
318.7.6 - Stairway Landings

- * All stairway landing requirements were combined into this one section
- * Each **flight of stairs** requires a landing at the top and bottom
- * New exception requires a landing at the base of short stairs leading to a deck or porch



318.7.6 - Stairway Landings

- * Top landing of interior stairway shall be permitted on the other side of a door (pictured)
- * Landing is not required for exterior stairway of not more than 2 risers if the door does not swing over the stairway



326.5 Exterior hose bibs, sill cocks or outside hydrants

- * Not less than two required
- * One must be located on the side or rear

326.6 Construction Worker Toilet Facilities

- * Toilet facilities shall be provided for construction workers and be maintained in a sanitary condition.





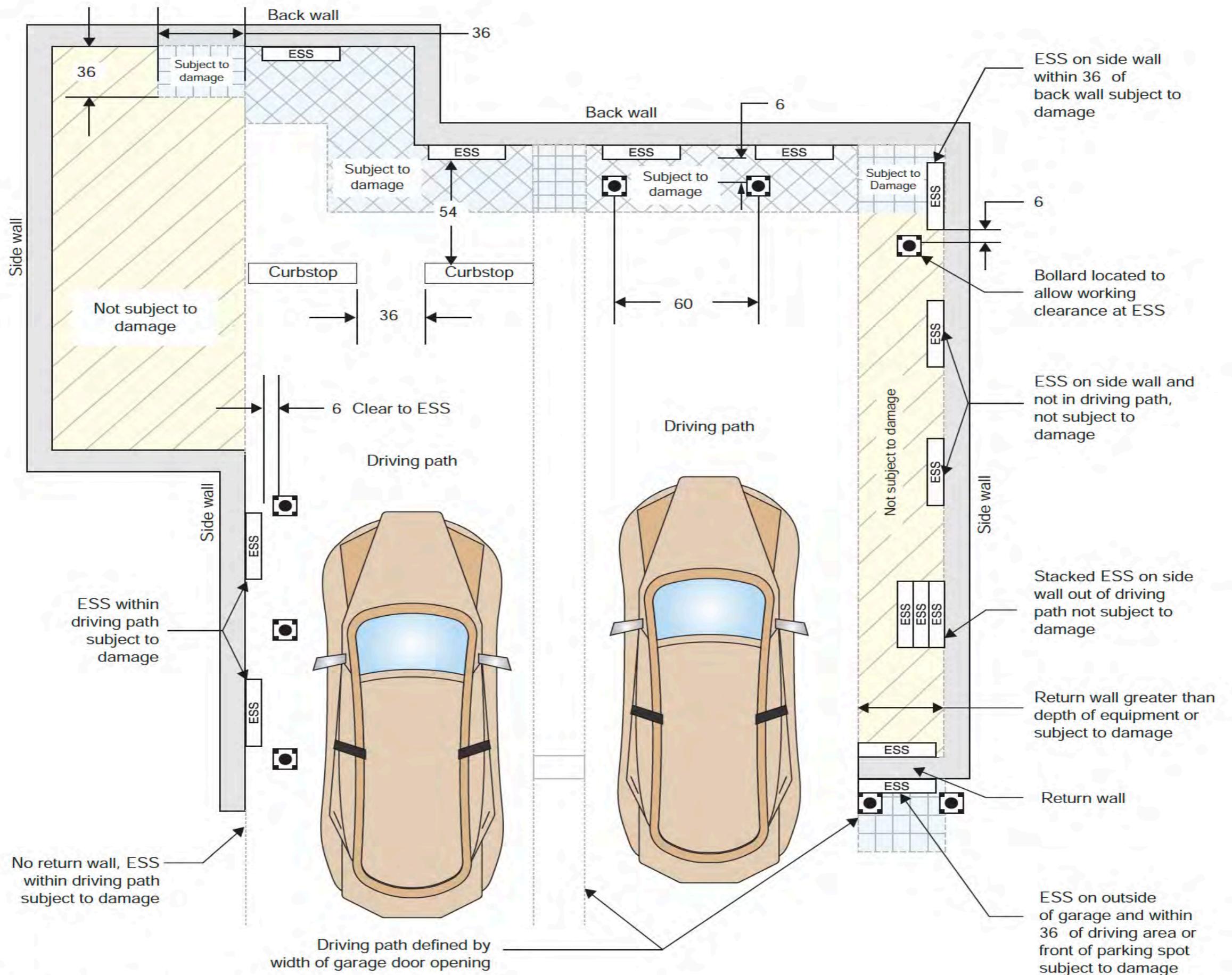
ENERGY STORAGE SYSTEMS (ESS)

330.4 - Energy Storage System Locations

- * Detached garages / detached accessory structures
- * Attached garages with proper fire separation from the dwelling unit living space
- * Outdoors or on the exterior side of exterior walls not less than 3' from doors and window (ex. For listed units)
- * Enclosed utility closets, basements, storage or utility spaces with finished or noncombustible walls and ceilings.
 - * 5/8" Type X provided on unfinished ceilings
 - * Self-closing, self-latching solid doors
 - * All penetrations must be sealed







For SI: 1 inch = 25.4 mm.

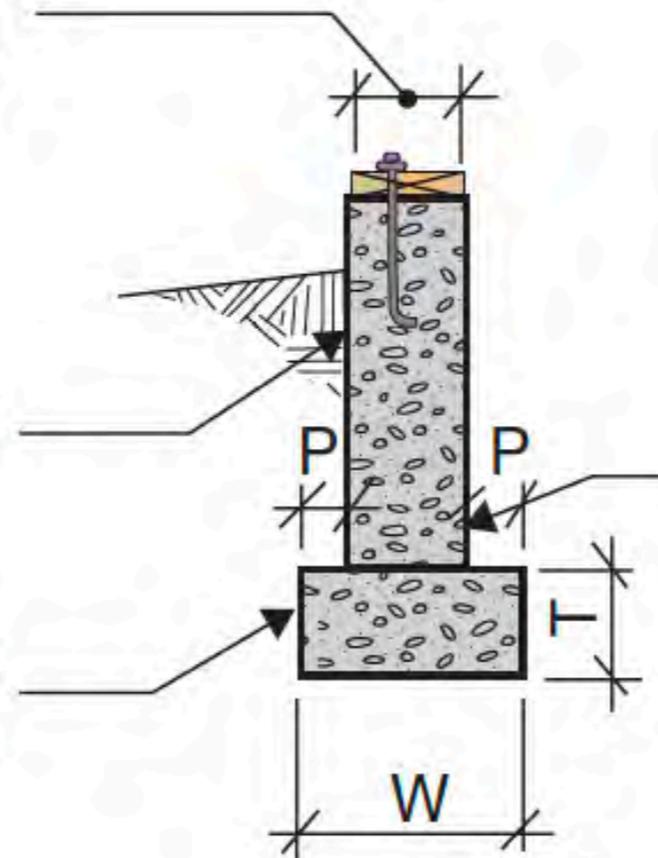
FIGURE R330.8.1—ESS VEHICLE IMPACT PROTECTION

Figure 403.1(1) - Concrete Stem Walls

Concrete stem wall thickness per Section R404.1.3

Concrete stem wall

Concrete footing placed prior to stem



Interior

Provide lateral restraint at the base of walls supporting more than 48" of unbalance backfill in accordance with R404.1.3.2

- * Stem walls are now treated the same as basement walls. When there is more than 48" of unbalanced backfill, lateral support at the base of the wall is required

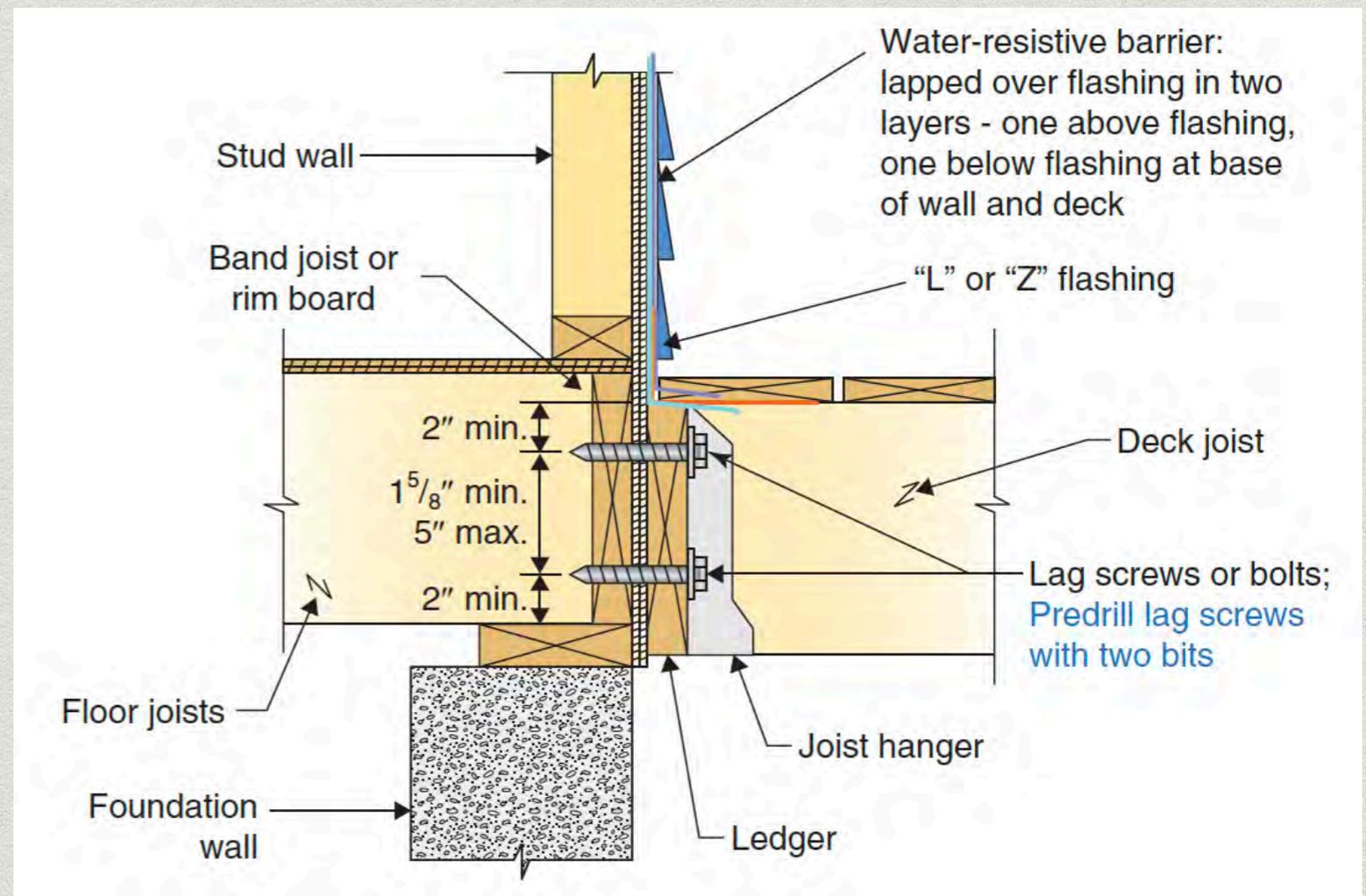
Figure 403.1(1) - Concrete Stem Walls

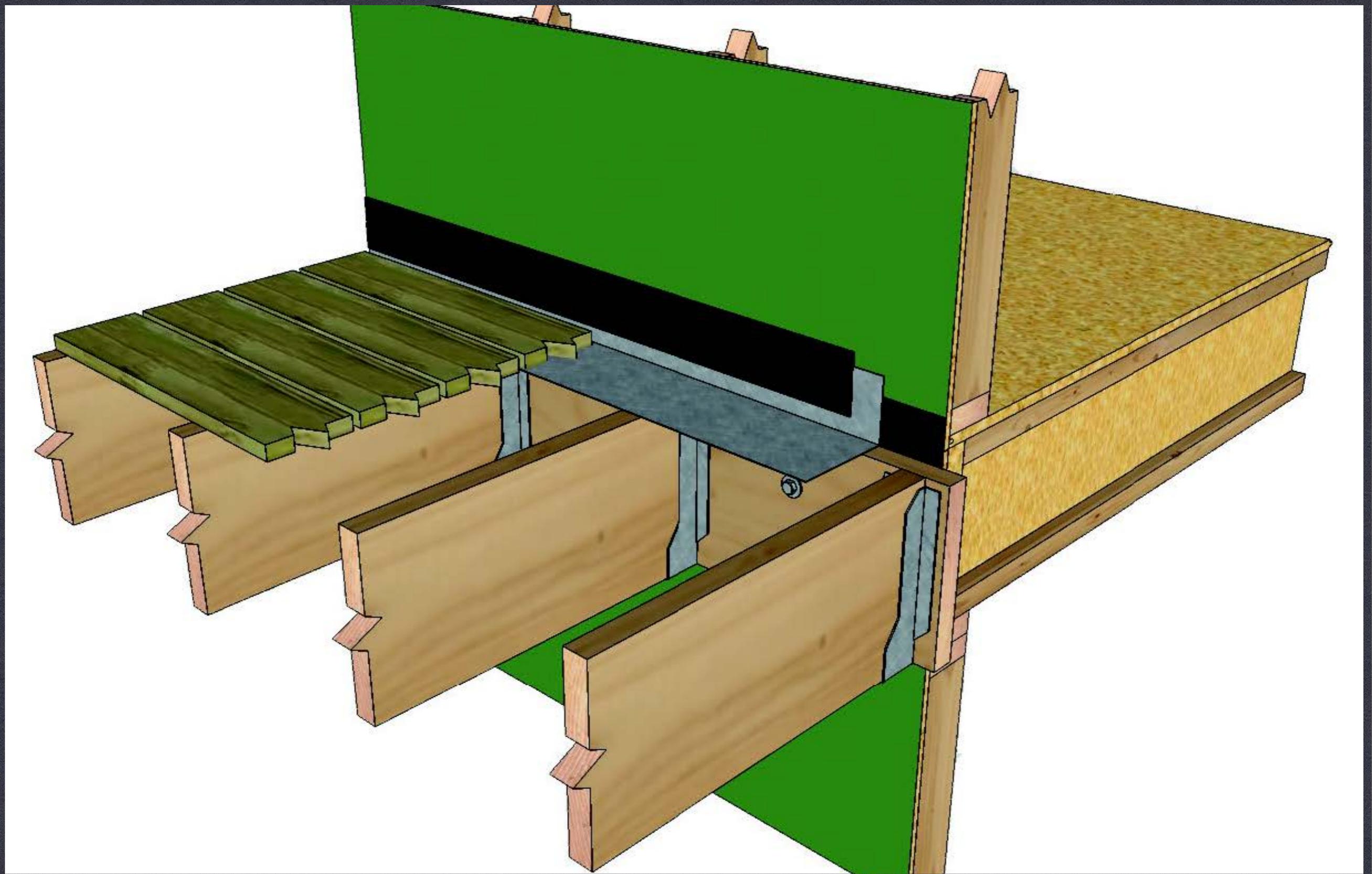
- * If the stem wall has 48" or more of unbalanced backfill, lateral support at the bottom of the wall is achieved by:
 - * Connection to a slab on grade
 - * Engineering design



507.9.1.3 - Ledger to Band Joist Details

- * When lag screws are used to attach a deck ledger to the band joist, 2 holes must be predrilled
- * 1/2" clearance hole in the ledger and sheathing
- * 5/16" - 3/8" pilot hole is drilled through the band joist
- * Lags must extend beyond the inside face of the band joist





LEDGER FLASHING & WATER-RESISTIVE BARRIERS

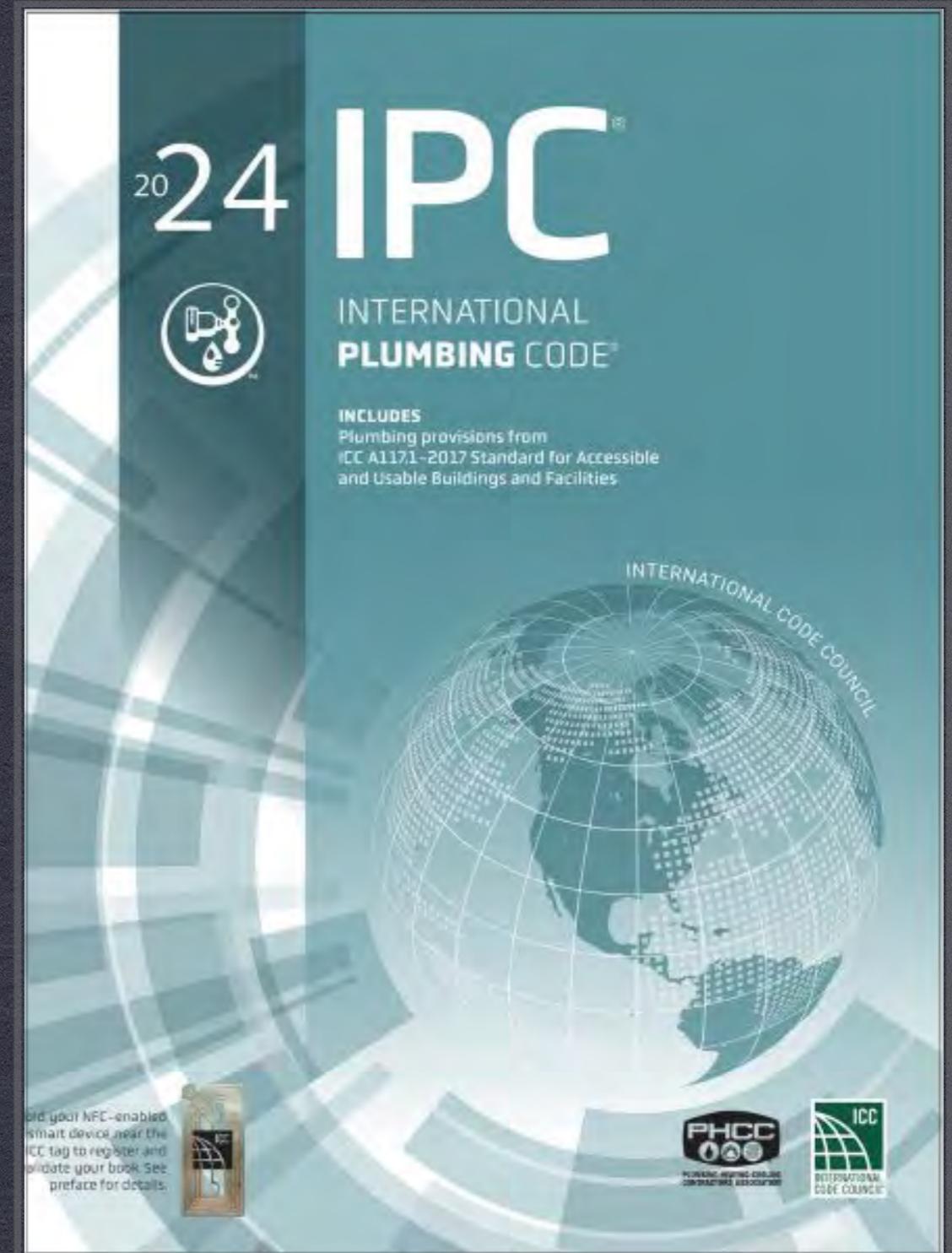
507.9.1.5 - 8

1502.6, 1503.6 - Makeup Air

- * Clothes dryers that exhaust more than 200 cu ft per minute require makeup air
- * Can be through transfer openings or from outside air
- * Kitchen Cooking Exhaust over 400 cu ft/min requires makeup air



2024 INTERNATIONAL PLUMBING CODE AND GEORGIA AMENDMENTS

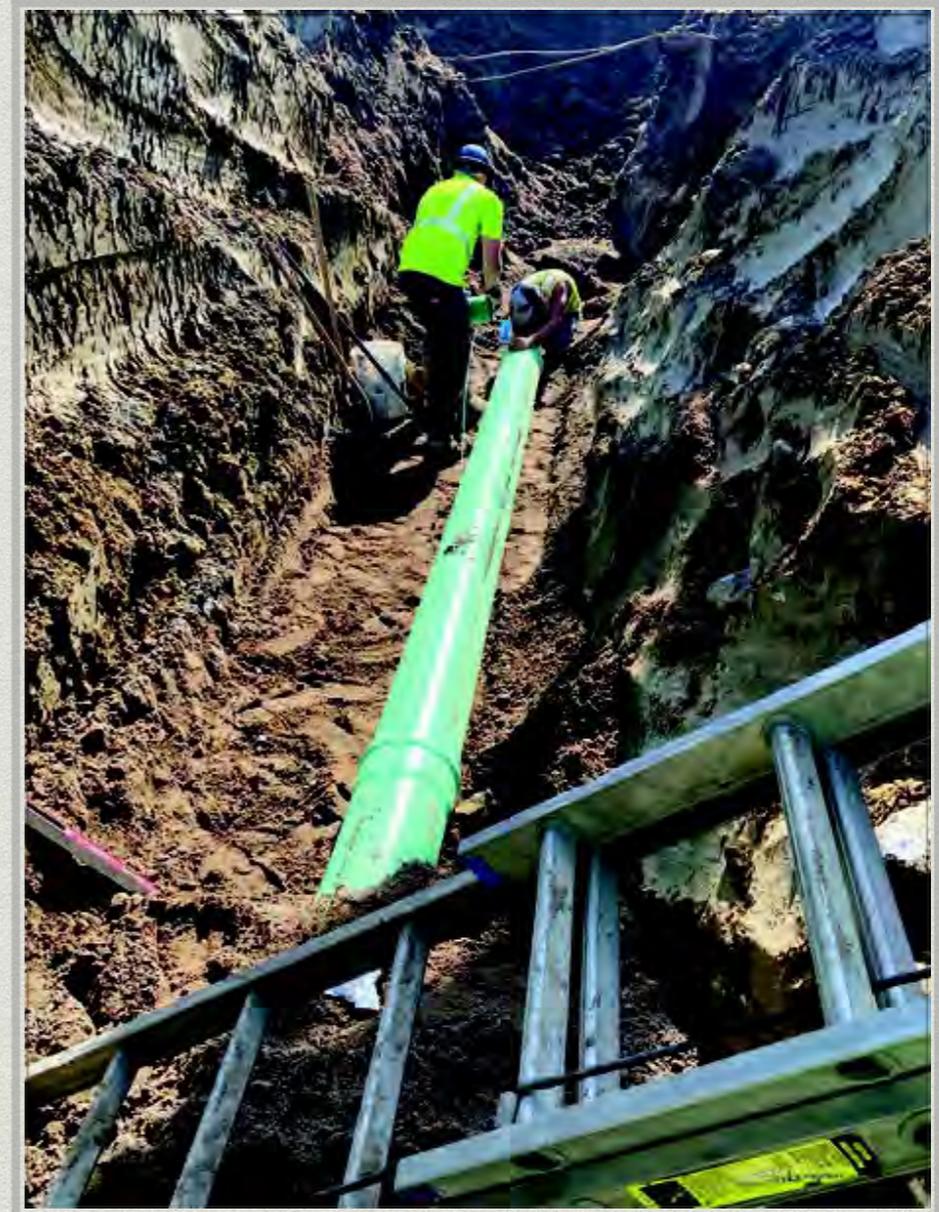


300 - Applicability Standards

- * Georgia amendments remove Chapter 1 from all codes, but creates a new section 300 to bring back in certain standards.
- * Scope, intent, severability, maintenance, reuse rules

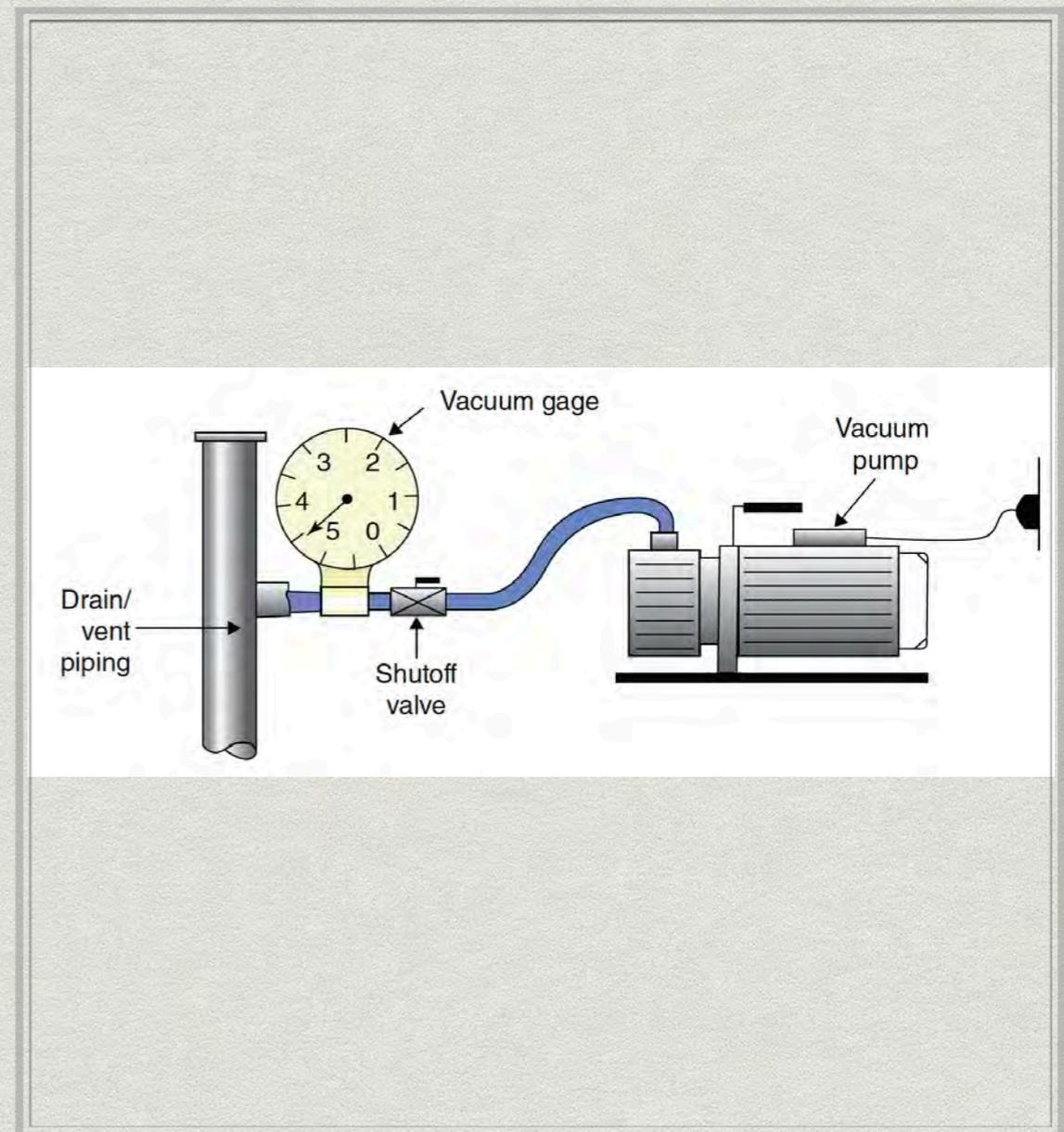
306.2.4 Tracer Wire

- * 14 AWG copper wire with insulation rating for direct burial is required to be installed adjacent to and over the full length of plastic sewer piping



312.4 Vacuum Testing for DWV Piping

- * DWV piping can now be tested using -5 psi for 15 minutes
- * Most plastic piping cannot be tested using compressed air
- * Vacuum testing is helpful where freezing is a concern or water supply is not readily available



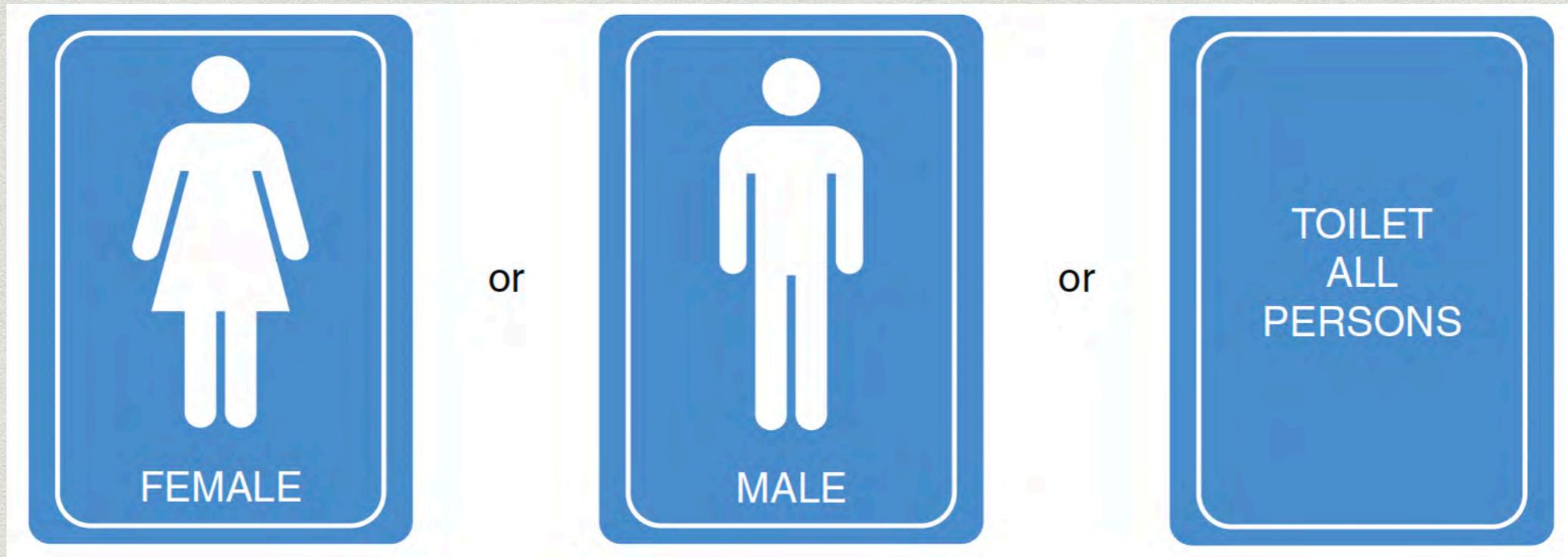
401.4 Prohibited Locations

- * No floor drains or other plumbing fixtures except electric water heaters shall be installed in a room containing air handling machinery when such room is used as a plenum.
- * Exception: Deep-seal trap floor drains consisting of a min. 4" seal and supplied with a trap primer

Table 403.1 Minimum Number of Required Plumbing Fixtures

- * Delete the requirements for service sink entirely without substitution.

403.4 Signage for Toilet Facilities



* Not Allowed:

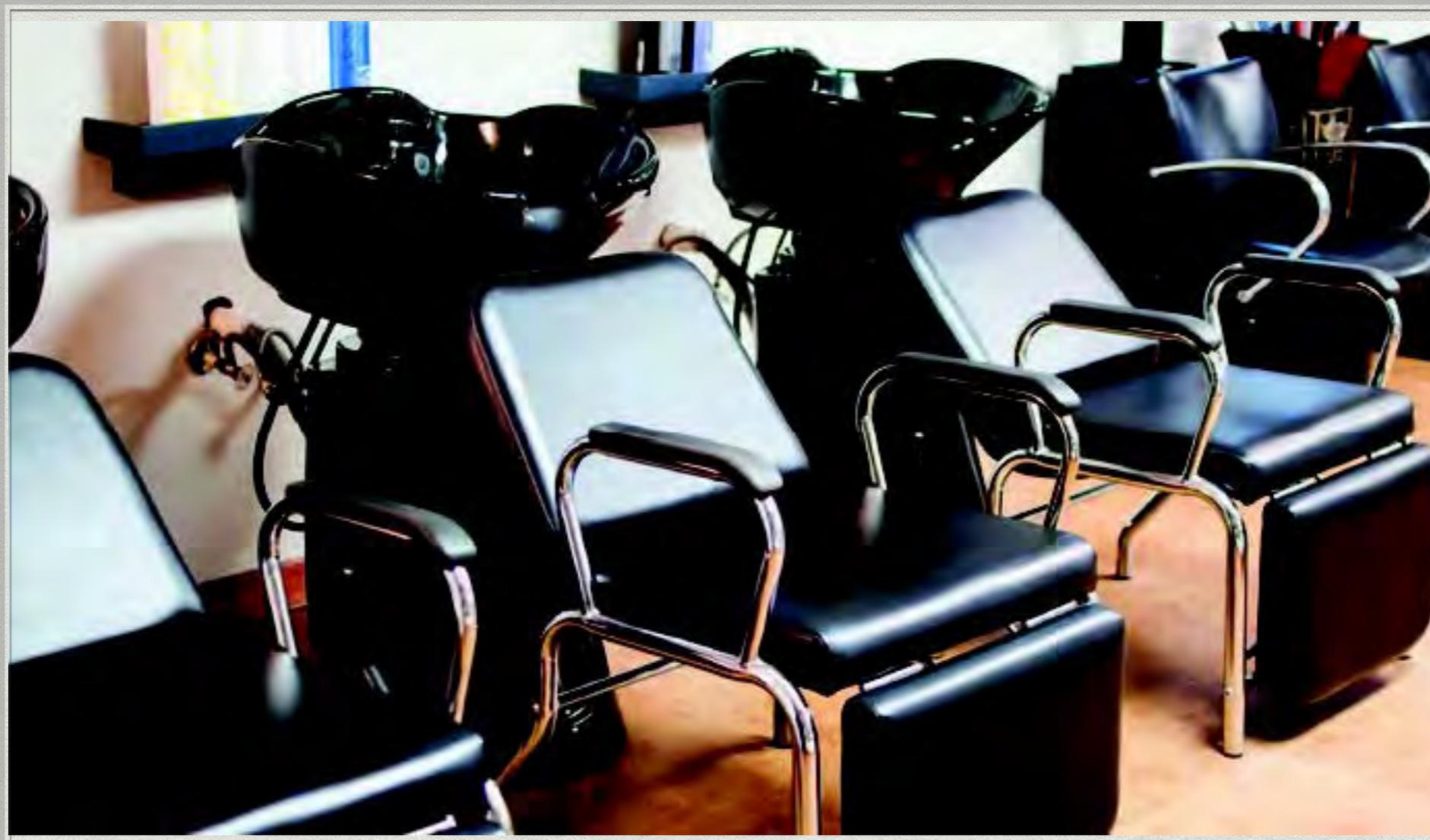
- * “Male/Female”
- * “Unisex”
- * 2 side-by-side gender icons

* Allowed:

- * “All-Gender Restroom”
- * “Restroom” or “Toilet” with gender-neutral symbol
- * A single inclusive or neutral symbol

412.10 - Head Shampoo Sinks

Sinks



- * An additional type of water heater conforming to ASSE 1084 can now be used so that a separate temperature limiting device is not needed to limit the water to 120 degrees

419.6 - Soap Dispensers

- * New code section was added to require soap dispensers for all public lavatories



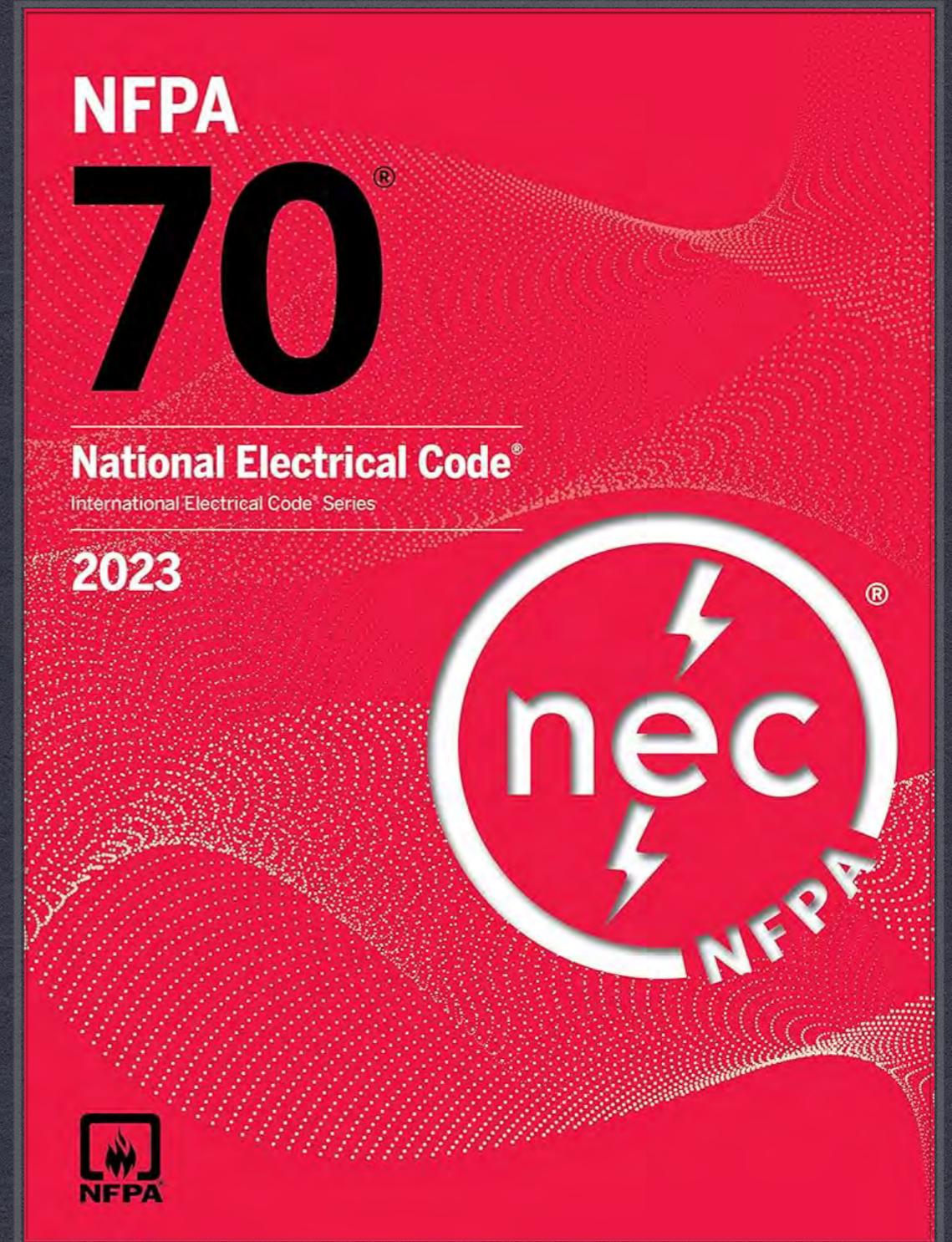
506 Water Heater Capacity

- * Georgia amendments have a table for water heater capacities based on bedrooms and bathrooms

TABLE 506
MINIMUM CAPACITIES FOR RESIDENTIAL WATER HEATERS^{1, 2, 3}

Fuel		Gas	Elec	Gas	Elec	Gas	Elec	Gas	Elec
# of Bedrooms		1		2		3		
1 to 1½ Baths	FHR (gal)	40	40	45	45	48	48
# of Bedrooms		2		3		4		5	
2 to 2½ Baths	FHR (gal)	47	47	60	60	62	62	70	70
# of Bedrooms		3		4		5		6	
3 to 3½ Baths	FHR (gal)	60	60	67	67	70	70	72	72

**2023
NATIONAL
ELECTRICAL
CODE
AND GEORGIA AMENDMENTS**



90.4(C) Alternative Methods

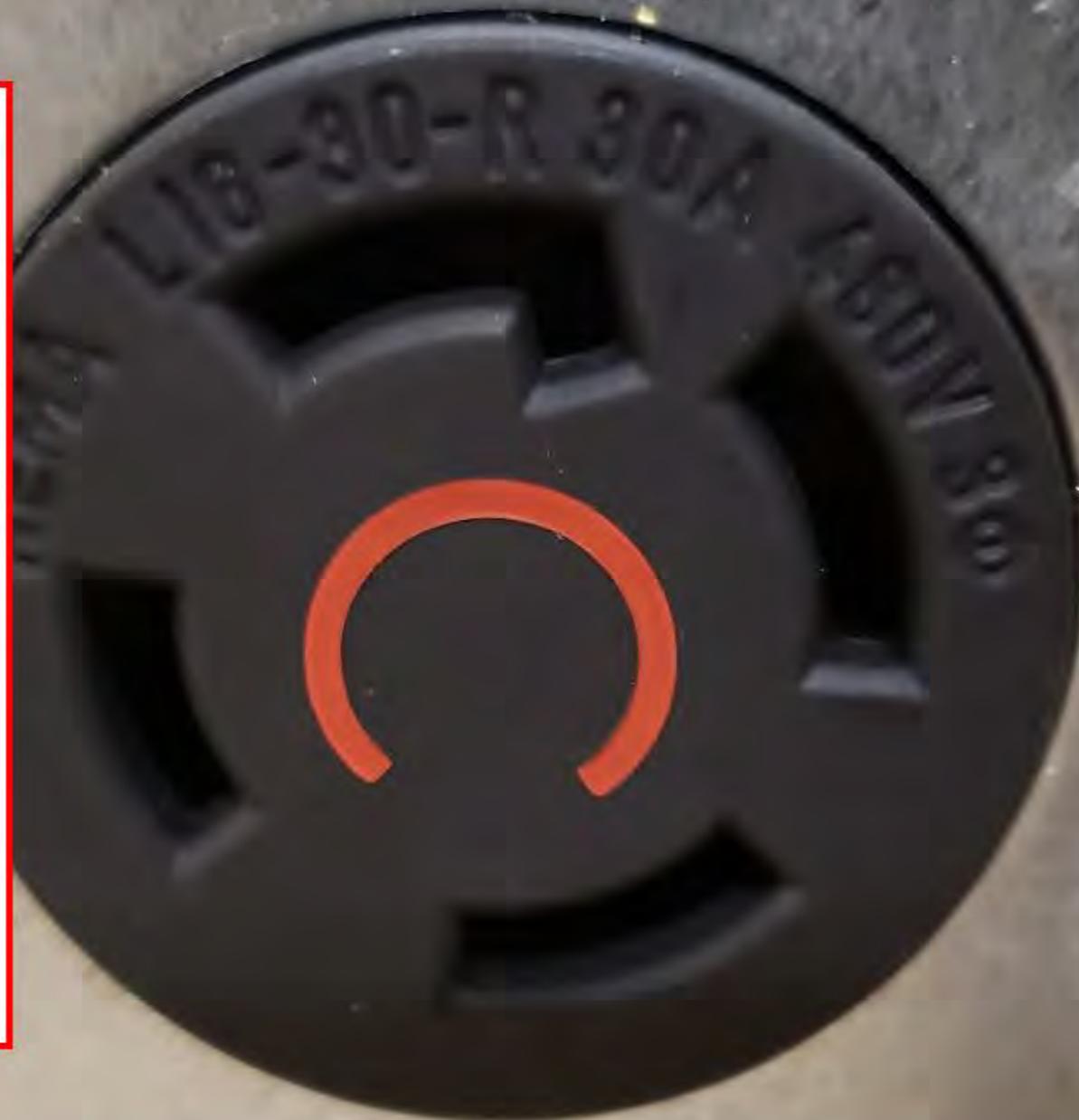
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Luminaires are not listed [410.6] but are constructed of listed parts. This is a violation, but the AHJ *could* allow via special permission.

By special permission, the AHJ may waive rules or allow alternative methods if equivalent safety can be ensured.

90.4(D) New Products, Constructions, and Materials

Section 406.9 requires all receptacles in wet locations to be listed as “weather-resistant.” Section 90.4(D) *could* be used to waive the requirement, as it may not be possible to comply with.

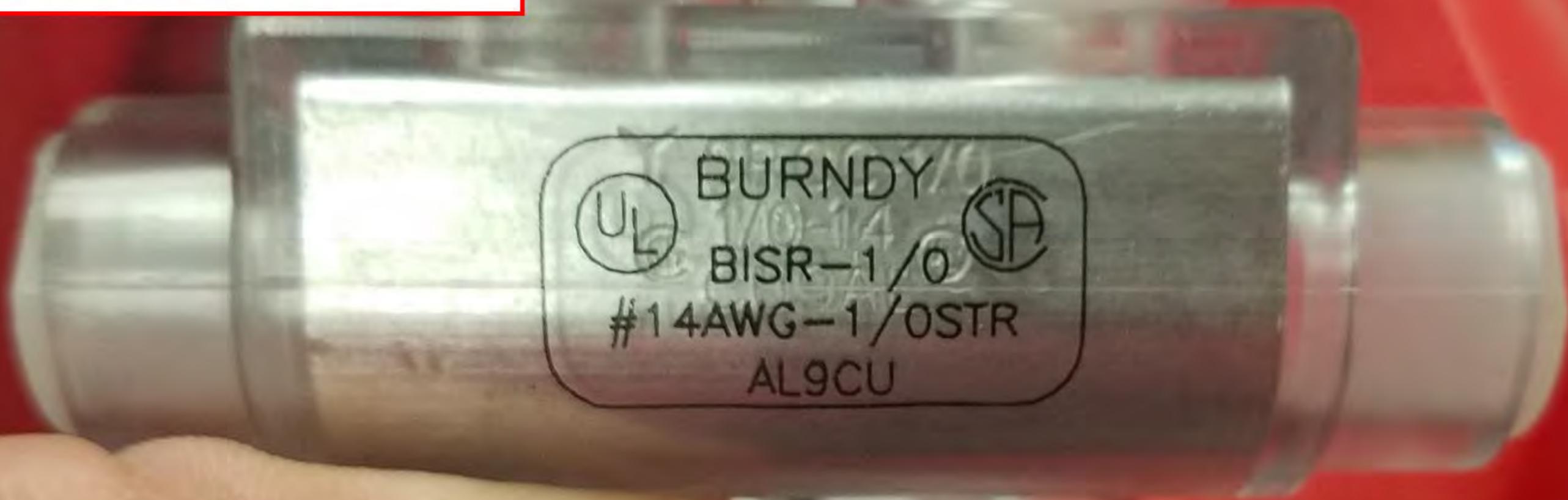


If the *NEC* requires new materials or products that are not available when it is adopted, complying with the previous version’s requirements could be allowed.

110.14 Electrical Connections

- The examples of dissimilar metals were removed.
- Added the word “electrical” for connection (as opposed to mechanical) for clarity

“AL9CU” indicates a 90°C termination for copper or aluminum conductors.



BURNDY
BISR-1/0
#14AWG-1/0STR
AL9CU

Devices like pressure terminals or splicing connectors must be identified for the material of the conductor and be properly installed and used.

This termination need only be rated for copper and for aluminum (not intermixed) as no al-cu contact occurs.

Connections of dissimilar metals must only occur in terminations that are identified for them.

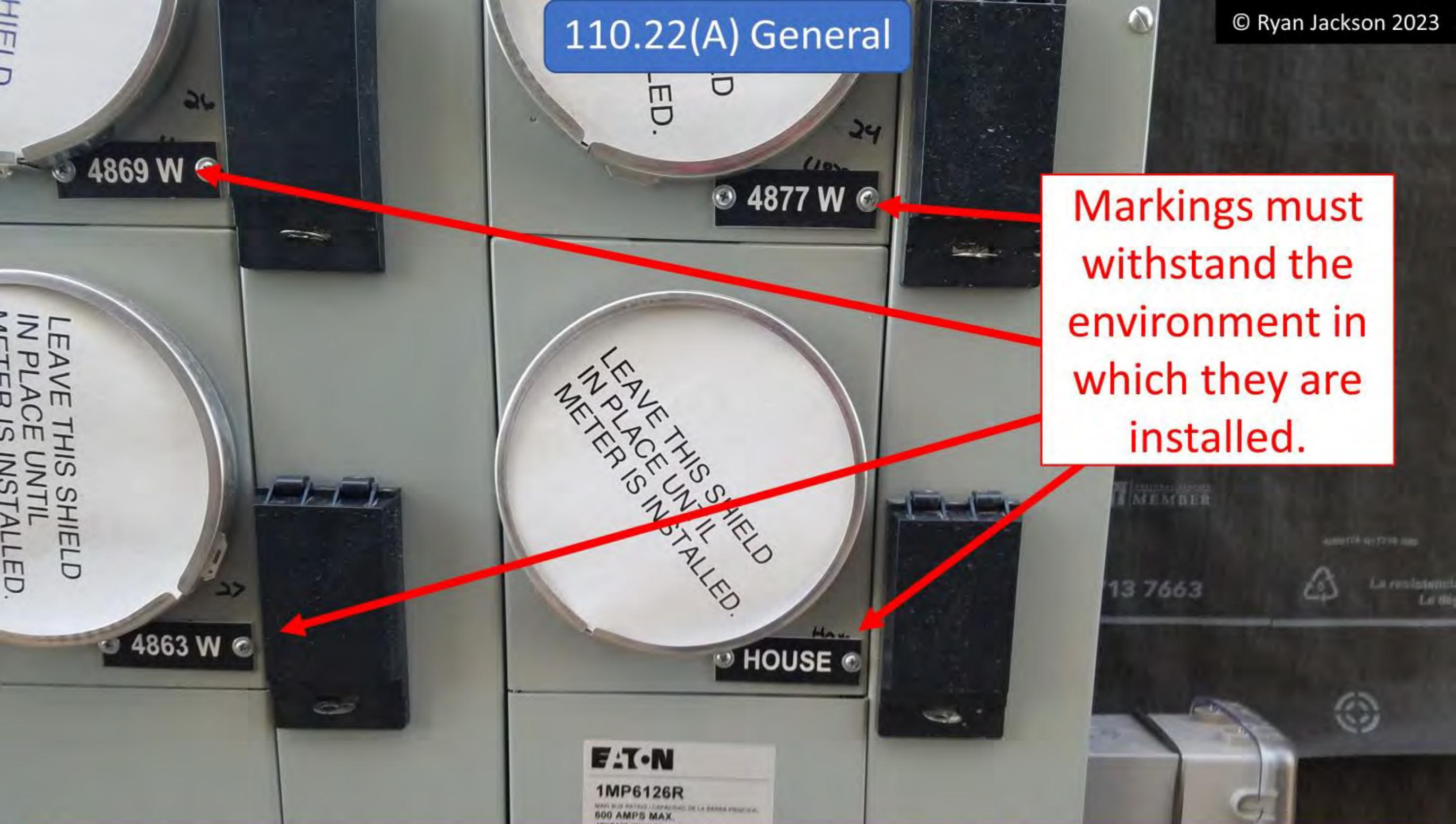
110.22 Identification of Disconnecting Means

- The requirement for marking the supply circuit of a disconnecting means was clarified.

110.22(A) General

Markings must withstand the environment in which they are installed.

Every disconnecting means must be legibly marked to indicate its purpose unless the purpose is obvious due to its location.



**XTG 206
MAIN DISCONNECT~**

**FED FROM
PNL:3H27 CKT 13**

ON
1

For other than one- and two-family dwellings, the markings must indicate their power source and its location, unless both are obvious.

Marking of source and its location are required, marking of purpose is not.

For other than one- and two-family dwellings, the markings must indicate their power source and its location, unless both are obvious.



110.26 Spaces About Electrical Equipment

- The requirements regarding egress obstruction were clarified, the limited access allowances were refined, the working space must now be flat, and service equipment now requires dedicated electrical space. Similar changes were made to 110.34 for systems operating at greater than 1,000V.

110.26 Spaces Around Electrical Equipment

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Working space, and access to and egress from it are required around all electrical equipment to allow for safe operation and maintenance.

110.26 Spaces Around Electrical Equipment

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Violation!



Open equipment doors must not obstruct access to and from the working space.

110.26 Spaces Around Electrical Equipment

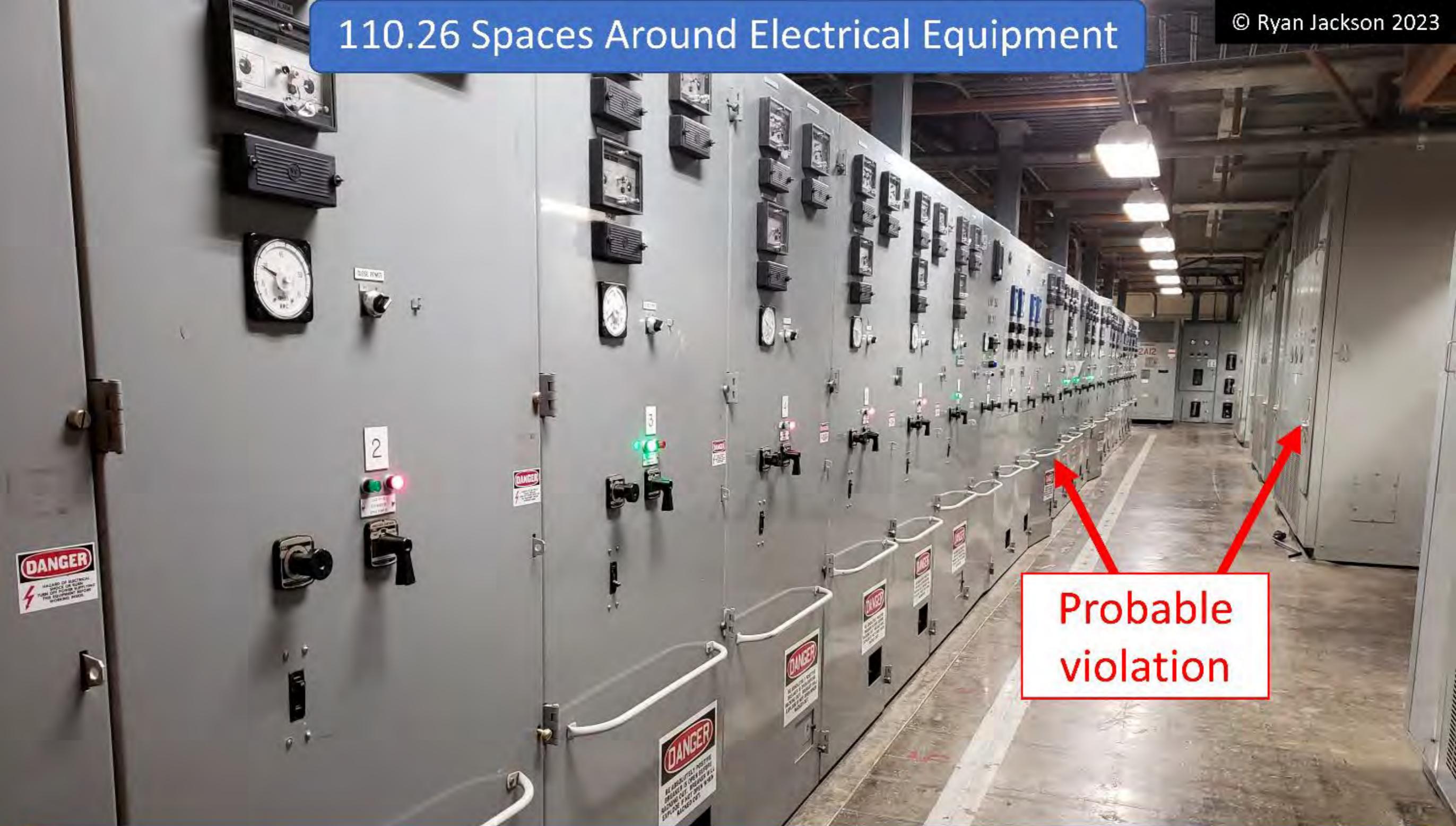
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Violation!

Access/egress is considered obstructed if one or more open equipment doors reduces access to or egress from the working space to less than 24" wide and 6'6" high.

110.26 Spaces Around Electrical Equipment

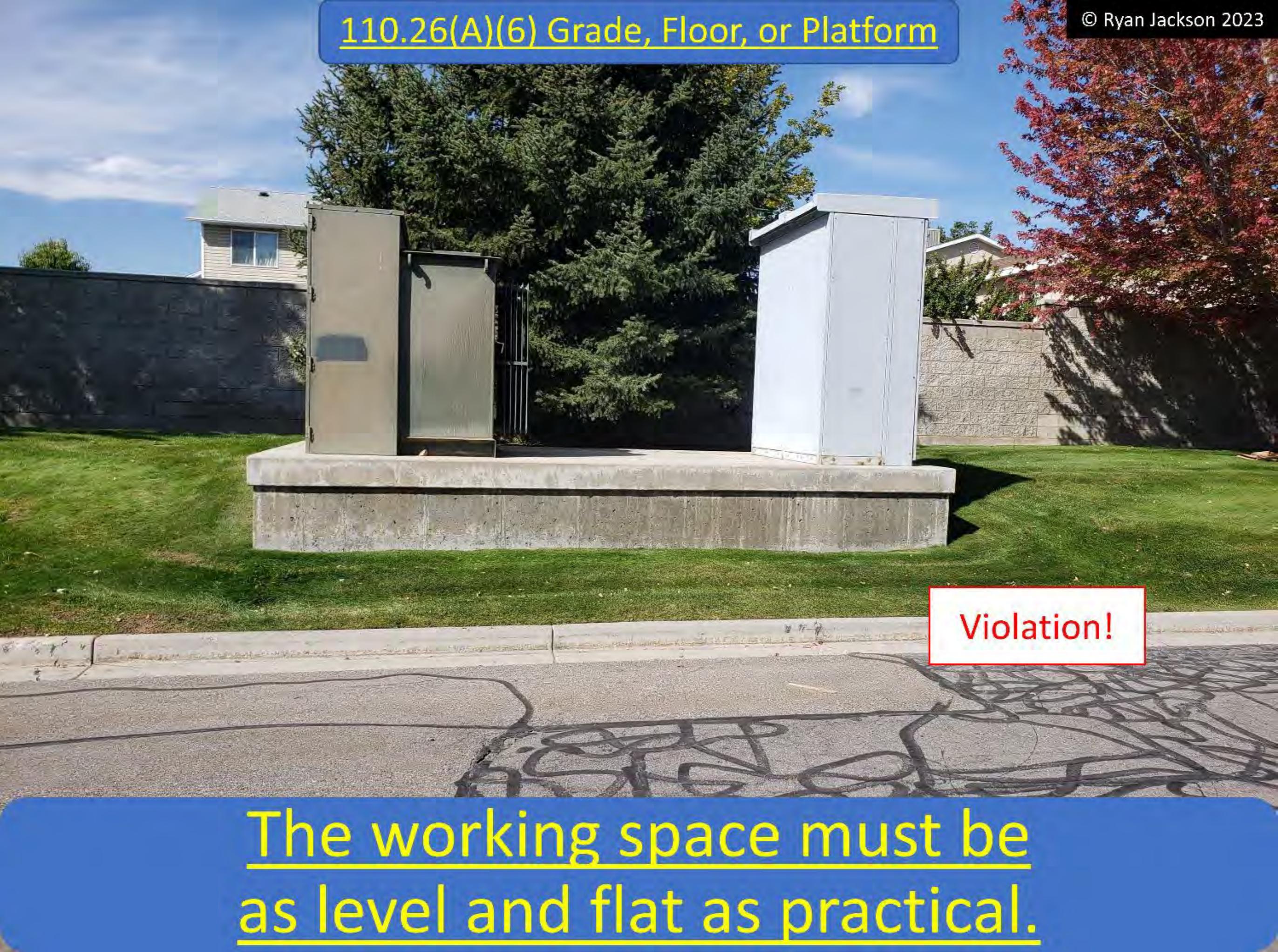
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Access/egress is considered obstructed if one or more open equipment doors reduces access to or egress from the working space to less than 24" wide and 6'6" high.

110.26(A)(6) Grade, Floor, or Platform

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Violation!

The working space must be as level and flat as practical.

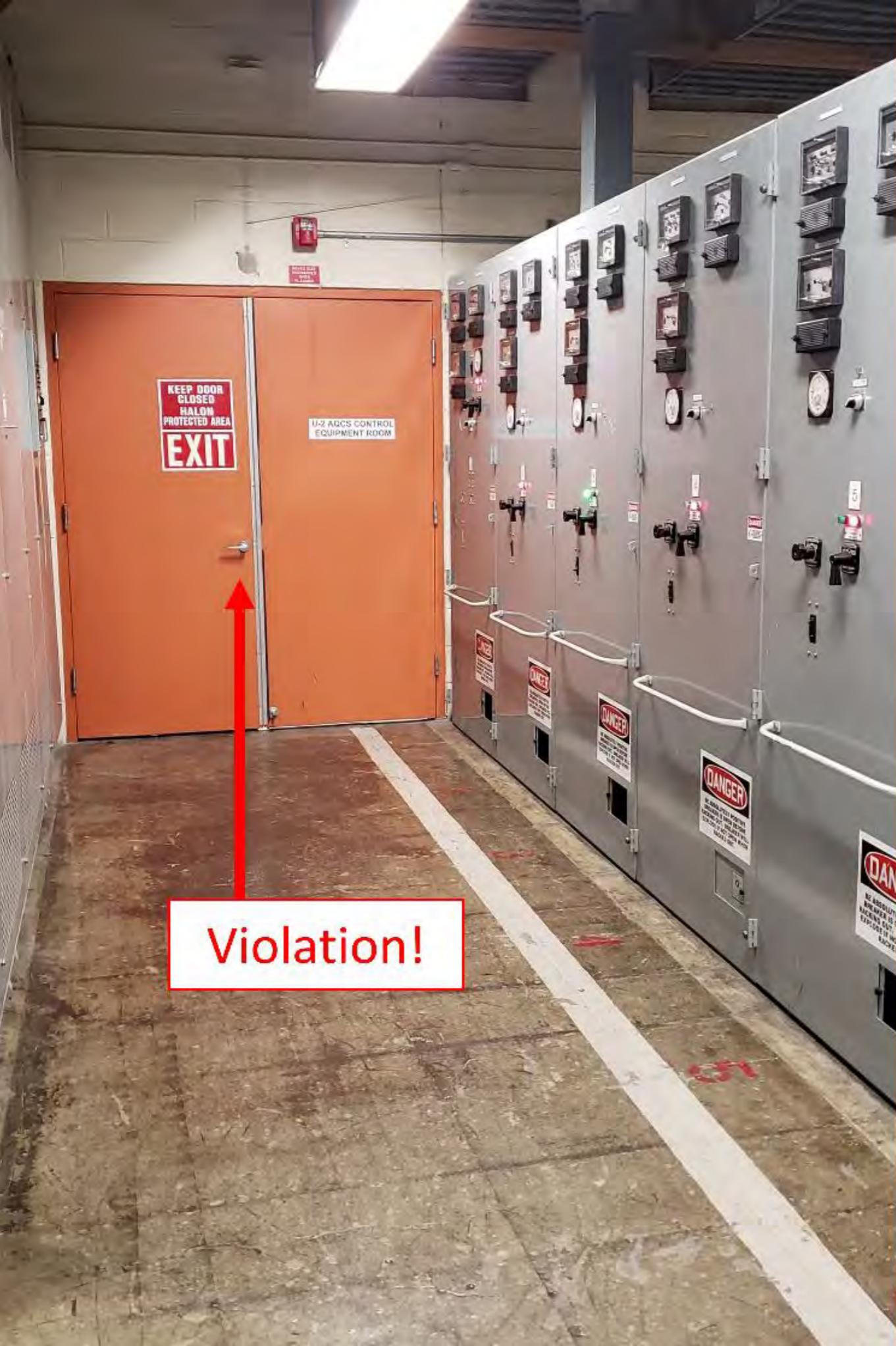
110.26(C)(3) Personnel Doors

If equipment rated 800A or more contains overcurrent devices, switching devices, or control devices, any personnel door intended for entrance or exiting to and from the working space must open at least 90 degrees in the direction of egress and have listed panic or fire exit hardware if it is within 25' of the equipment.



110.26(C)(3) Personnel Doors

If equipment rated 800A or more contains overcurrent devices, switching devices, or control devices, any personnel door intended for entrance or exiting to and from the working space must open at least 90 degrees in the direction of egress and have listed panic or fire exit hardware if it is within 25' of the equipment.



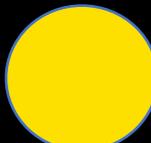
Violation!

110.26(E) Dedicated Electrical Space

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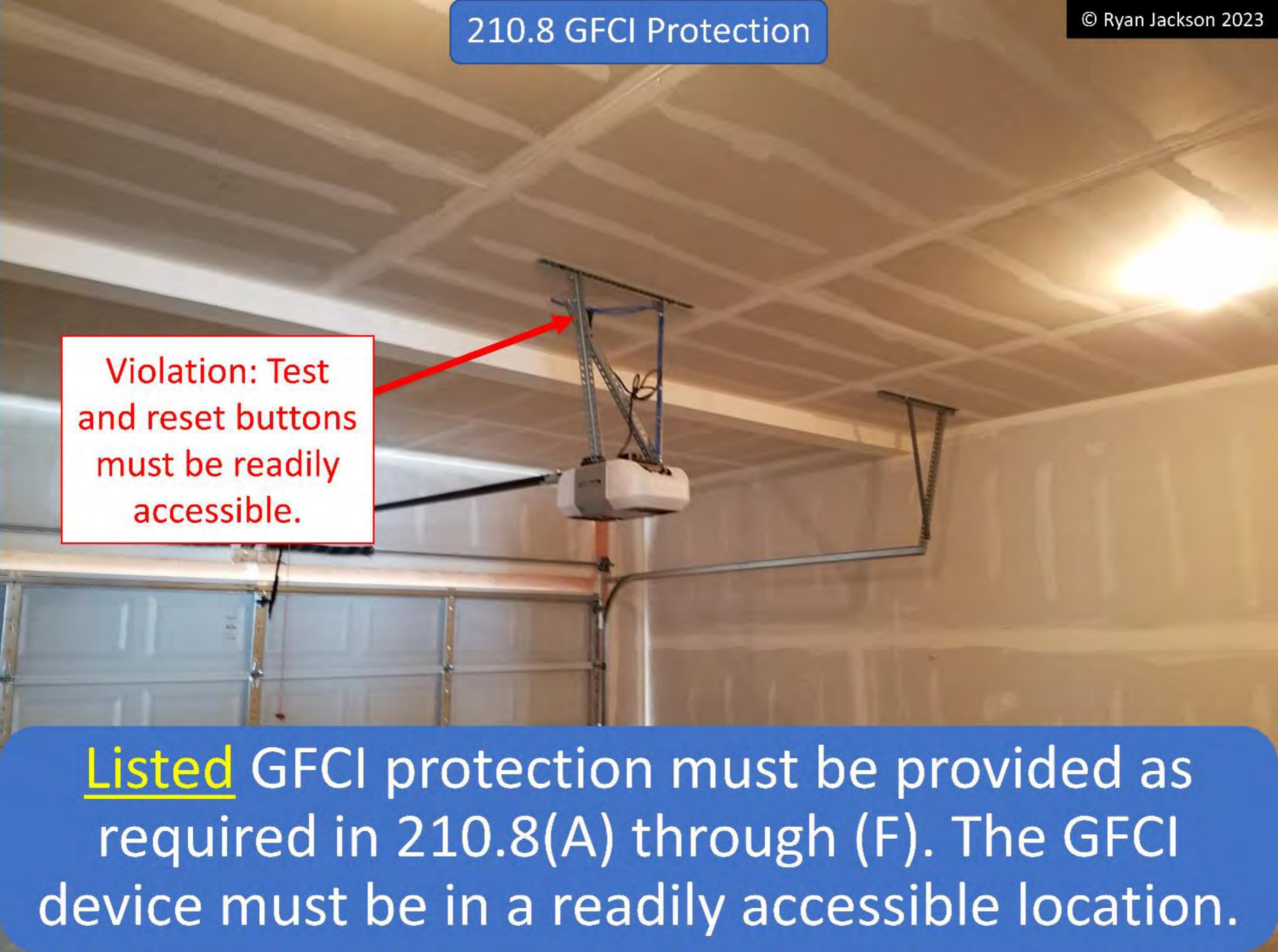
Only electrical equipment is allowed.

Switchboards, switchgear, panelboards, service equipment, and motor control centers must be provided with dedicated electrical space.



210.8 Ground-Fault Circuit-Interrupter (GFCI) Protection for Personnel

- The requirements for GFCI protection were greatly expanded.
- (And then they were removed)



Violation: Test and reset buttons must be readily accessible.

Listed GFCI protection must be provided as required in 210.8(A) through (F). The GFCI device must be in a readily accessible location.

210.8 GFCI Protection

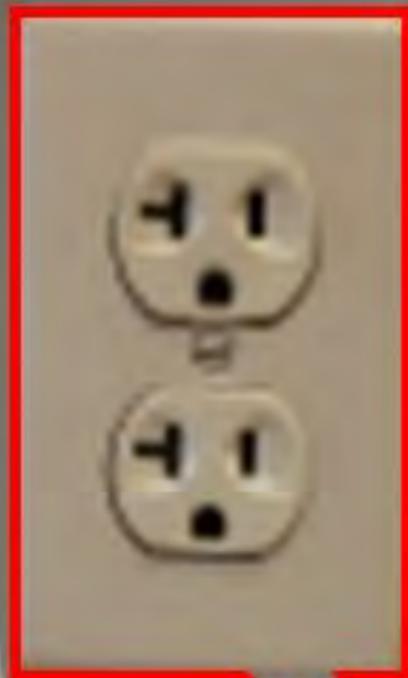
For GFCI protection, the distance is the shortest path a supply cord would take, without piercing a floor, wall, ceiling, or fixed barrier.

Receptacle requires GFCI protection if within 6' of bathroom sink [210.8(A)(8)].



210.8(A) Dwelling Unit Receptacles

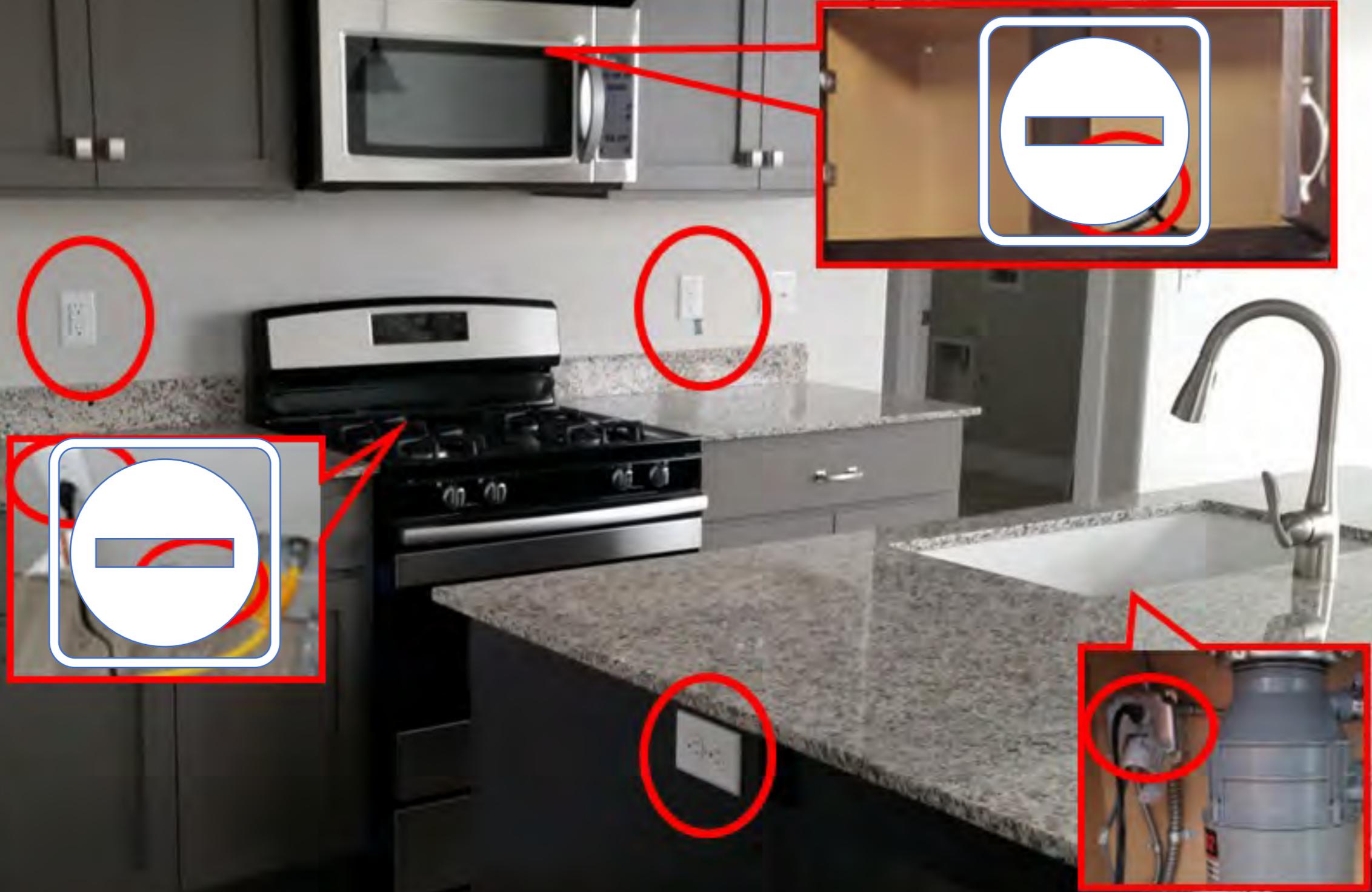
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Both require
GFCI protection
[210.8(A)(11)].

All 125V-250V receptacles supplied by a single-phase branch circuit rated 150V or less to ground must be GFCI-protected if located in the following locations.

210.8(A)(6) Kitchens



GFCI protection is required for receptacles in the kitchen.

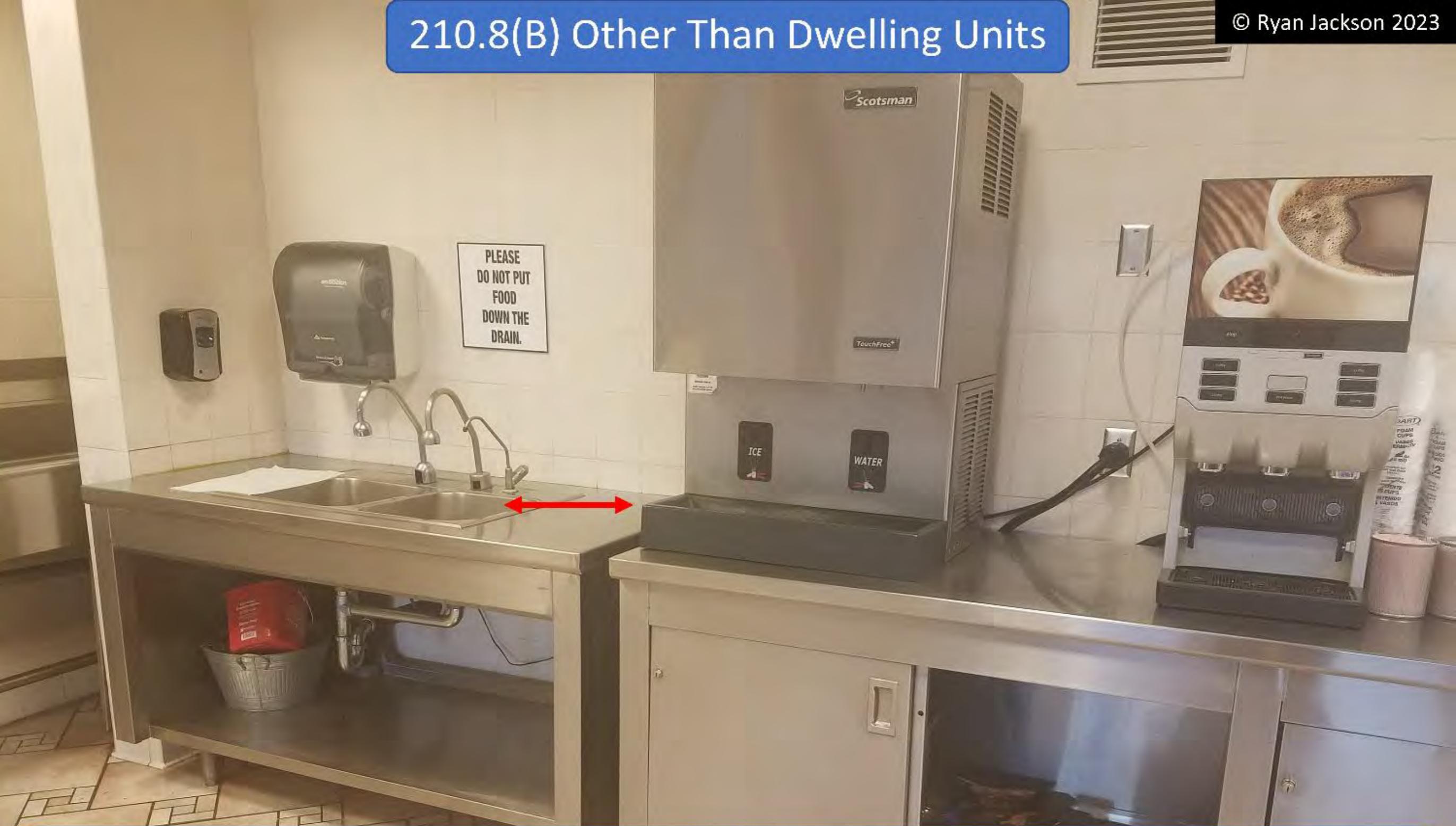
210.8(B) Other Than Dwelling Units

All 125V through 250V receptacles supplied by branch circuits rated 150V or less to ground and 50A or less; and all receptacles supplied by 3-phase branch circuits rated 150V or less to ground and 100A or less must be GFCI-protected if installed in any of the following locations:





(4) Buffett serving areas with permanent provisions for cooking or serving food or drinks.



(7) GFCI protection is required for receptacles or cord-and-plug-connected fixed or stationary appliances within 6' of the top inside edge of a sink.



(8) GFCI protection is required for receptacles in indoor damp or wet locations.



Does not apply to *closed* containers or vessels.

(13) Aquariums, bait wells, and similar open aquatic containers if the receptacle is within 6' of the top inside edge of the rim or conductive surfaces supporting it.



210.8(D) Specific Appliances

- (1) Automotive vacuum machines.
- (2) Drinking water coolers and bottle filling stations.
- (3) High-pressure spray washers.
- (4) Tire inflation machines.
- (5) Vending machines.
- (6) Sump pumps.



210.8(D) Specific Appliances

(7) Dishwashers.

(8) Electric ranges.

(9) Counter-mounted cooking units.

(10) Countertop-mounted cooking units.

(11) Clothes dryers.

(12) Microwave ovens.

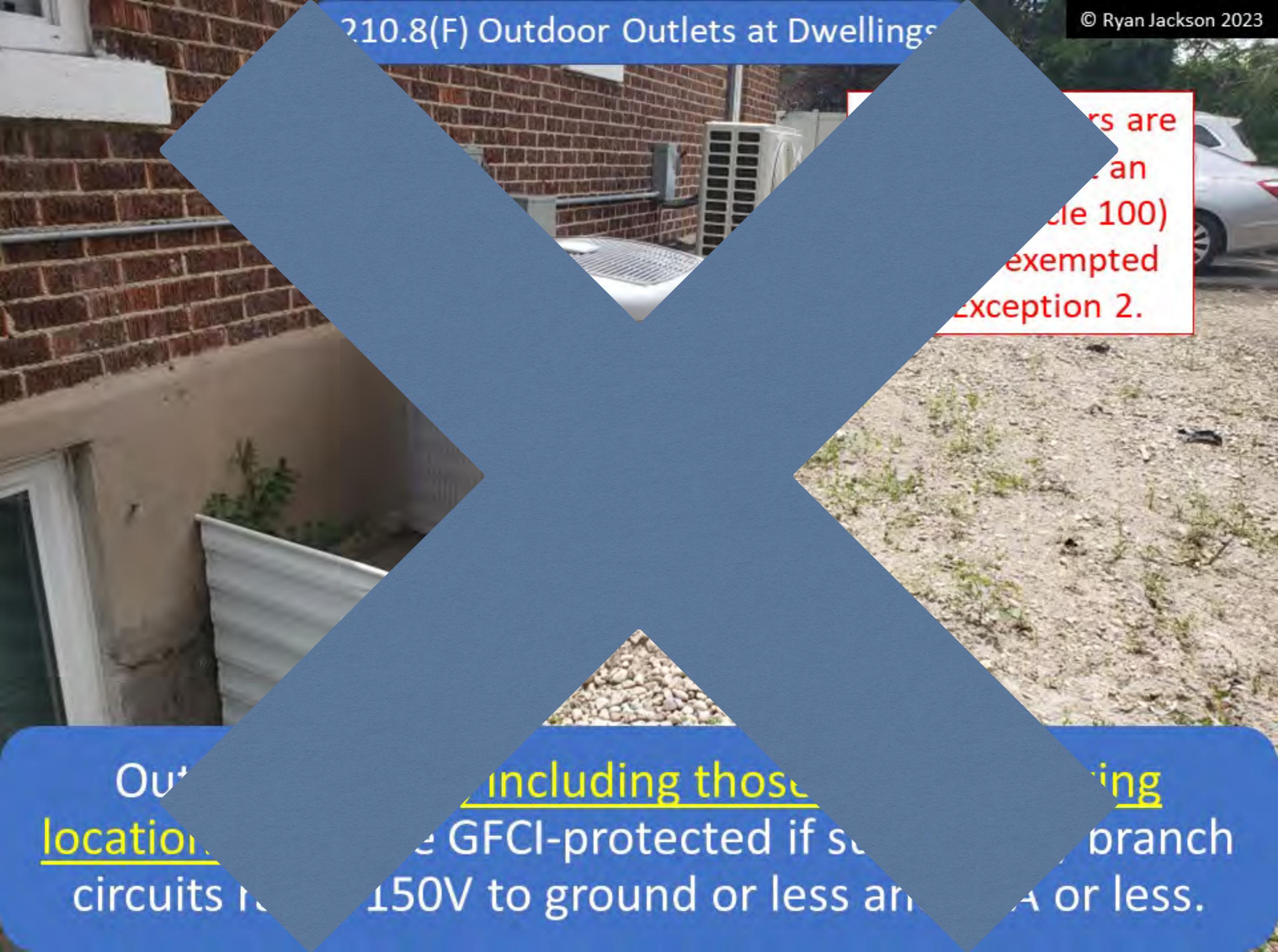
210.8(D) Specific Appliances

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The outlet for these appliances must be GFCI-protected if supplied by a branch circuit rated 150V or less to ground and 60A or less, 1- or 3-phase.

210.8(F) Outdoor Outlets at Dwellings



Outlets are
an
(100)
exempted
Exception 2.

Outlets, including those located in
location shall be GFCI-protected if supplied by branch
circuits rated 150V to ground or less and 15A or less.



(1) Garages with a floor at or below grade level.

(2) Accessory buildings.

(3) Boathouses.

210.8(F) Outdoor Outlets at Dwellings

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Requirement includes multifamily dwellings.

If equipment in these locations is replaced, the outlet for the equipment must be GFCI-protected.

210.12 Arc-Fault Circuit-Interrupter (AFCI) Protection

- The requirements for AFCI protection were editorially revised, 10A circuits were addressed, and new locations were added.

210.12 Arc-Fault Circuit
Interrupter (AFCI) Protection



AFCI protection, provided by a method described in 210.12(A), is required in the locations specified in (B) through (E).

210.12(B) Dwelling Units

In dwelling units, all single-phase, 120V, 10A, 15A or 20A branch circuits must be AFCI-protected if they serve outlets or devices in (1) ~~kitchens~~, (2) family rooms, (3) dining rooms, (4) living rooms, (5) parlors, (6) libraries, (7) dens, (8) bedrooms, (9) sunrooms, (10) recreation rooms, (11) closets, (12) hallways, (13) ~~laundry areas~~, or (14) similar areas.





This is not a fire alarm system it is a single- or multiple-station smoke alarm. The branch circuit for these *must* be AFCI-protected [210.12(A)].

Info Note 2: 760.41(B) and 760.121(B) contain fire alarm system circuit requirements.

210.12(C) Dormitory Units

In dormitory units, all single-phase, 120V, 10A, 15A or 20A branch circuits must be AFCI-protected if they serve outlets or devices in (1) bedrooms, (2) living rooms, (3) hallways, (4) closets, (5) bathrooms, or (6) similar areas.





AFCI protection is required for all 120V, 10A, 15A and 20A branch circuits supplying outlets or devices in (1) guest rooms and guest suites of hotels and motels.



(2) Sleeping rooms of nursing homes and limited-care facilities. (3) Sleeping rooms of police, fire, ranger, or ambulance stations and similar.

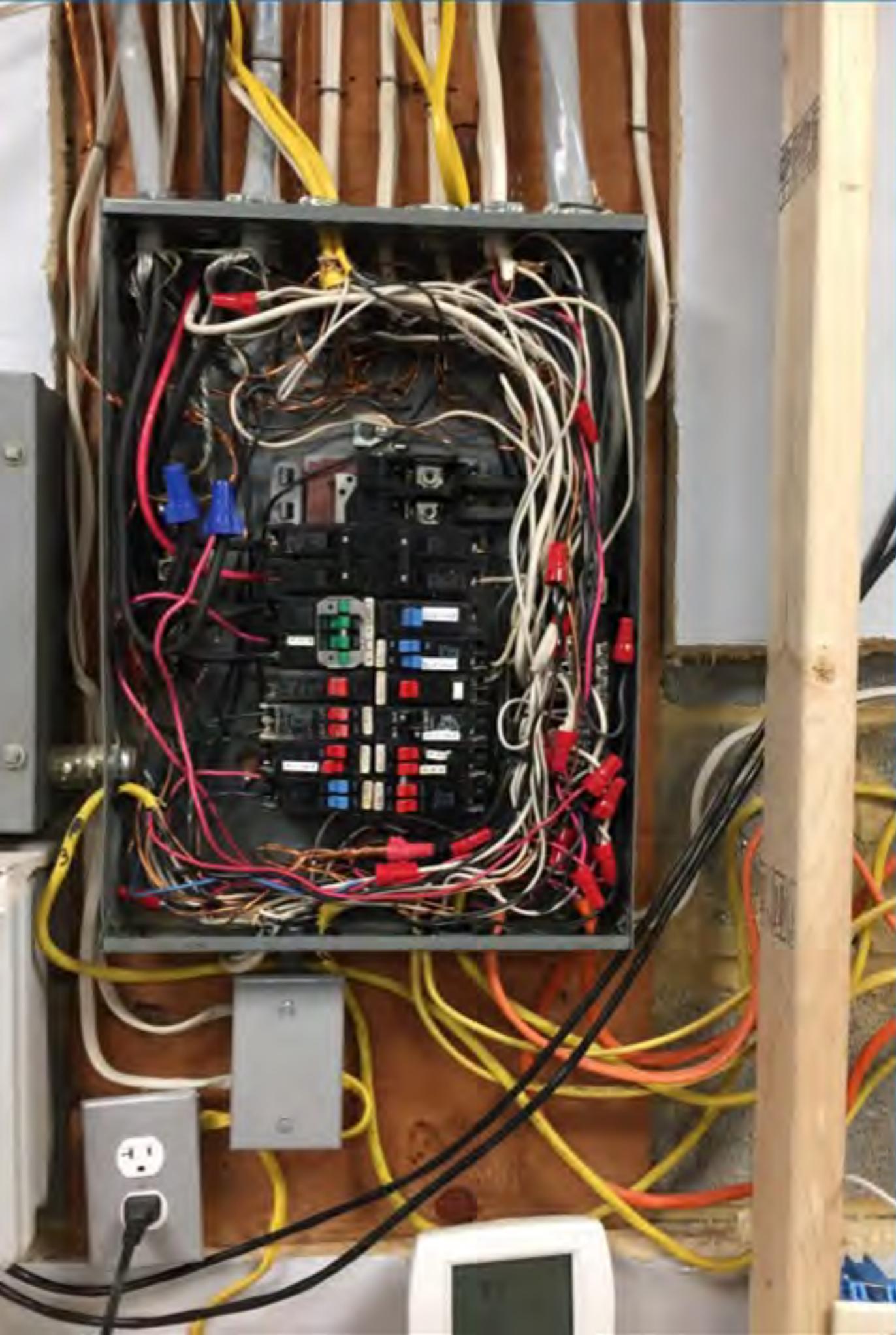


210.12(E) Branch Circuit Wiring Extensions, Modifications, or Replacements

In locations where AFCIs are required, any replaced, extended, or modified branch circuit must be AFCI-protected by (1) a method allowed in 210.12(A) or (2) receptacle at the first outlet of the circuit.

210.12(E) Branch Circuit Wiring Extensions, Modifications, or Replacements

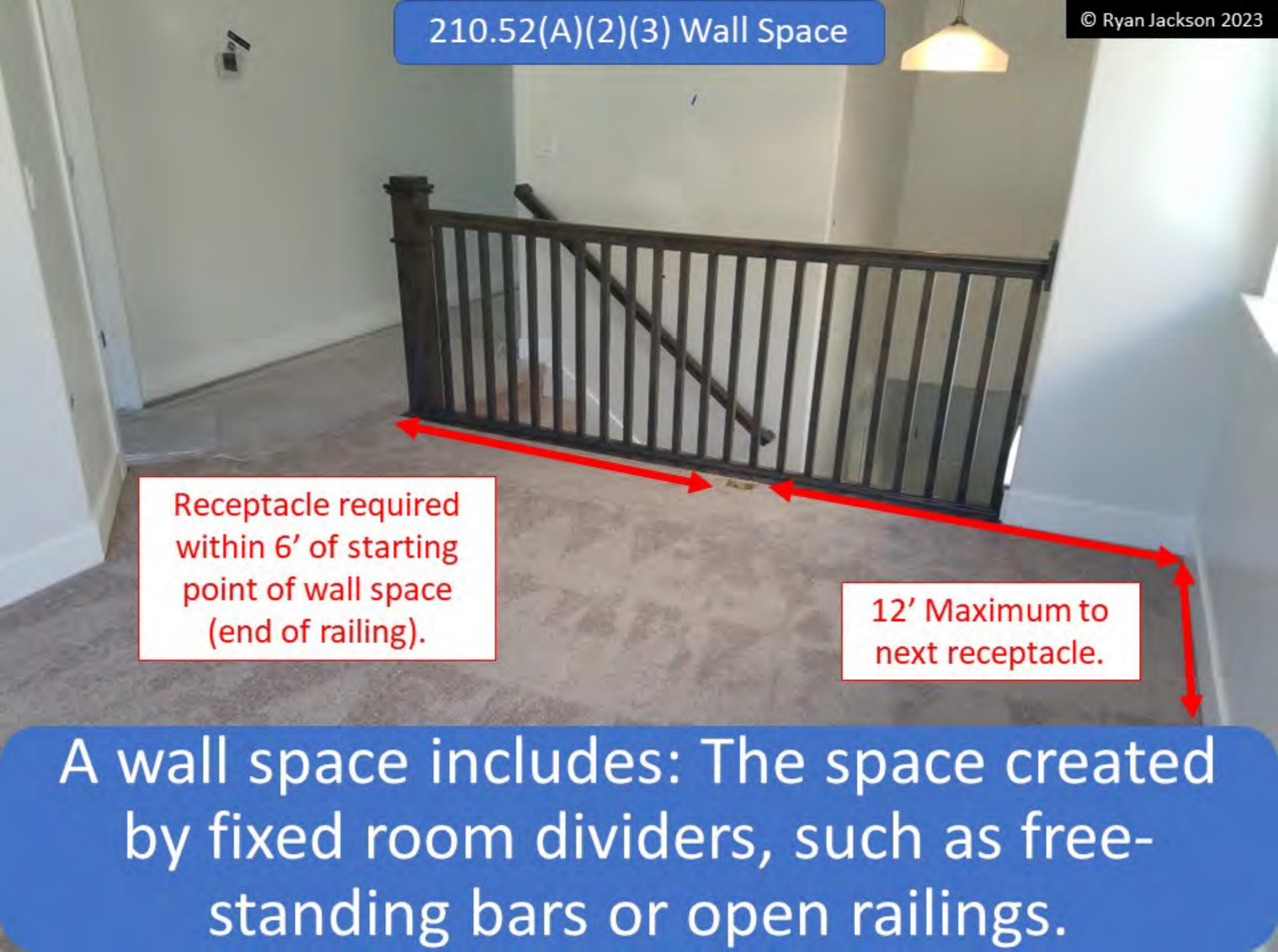
Ex: Extensions less than 6' in length (not counting wires in enclosures) do not require AFCI protection if outlets or devices, other than splicing devices, are not added.



210.52 Dwelling Unit Receptacle Outlets

210.52(A)(2)(3) Wall Space

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Receptacle required within 6' of starting point of wall space (end of railing).

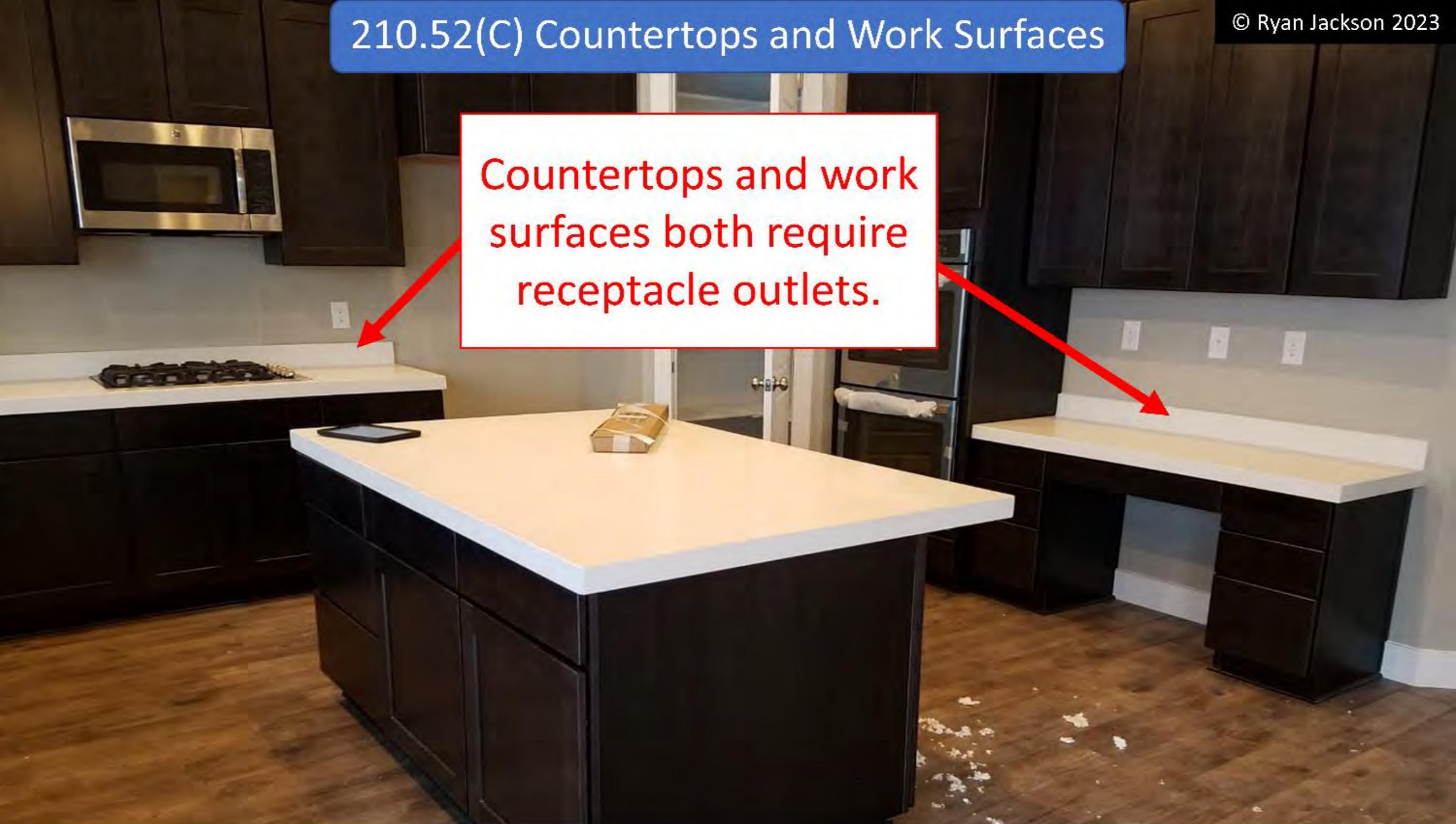
12' Maximum to next receptacle.

A wall space includes: The space created by fixed room dividers, such as free-standing bars or open railings.

210.52(C) Countertops and Work Surfaces

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Countertops and work surfaces both require receptacle outlets.



Countertops or work surfaces 12" or wider in kitchens, pantries, breakfast rooms, dining rooms, and similar must have receptacle outlets as indicated in (1)-(3).

210.52(C) Countertops and Work Surfaces

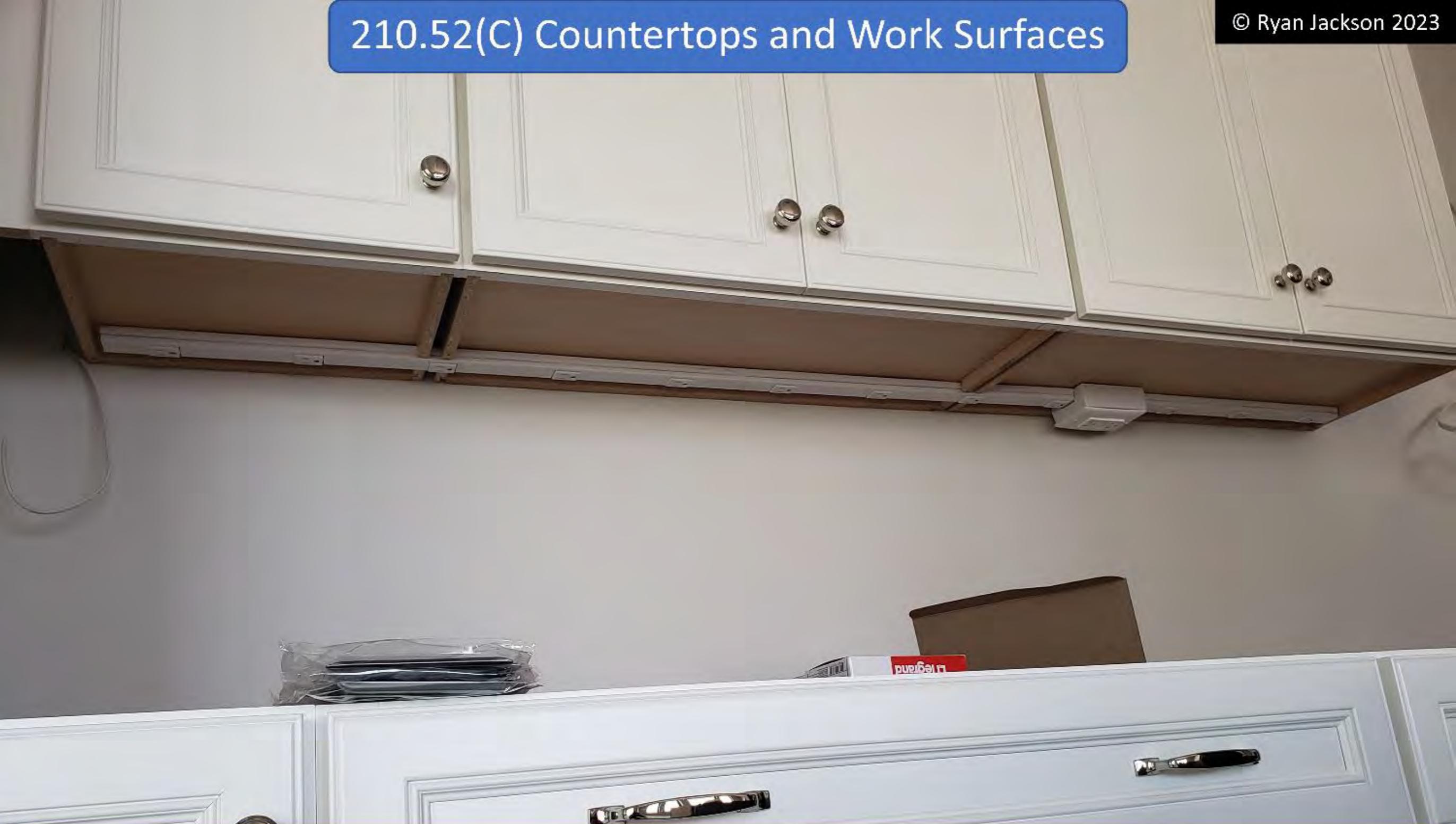
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This receptacle does not count for this wall space.

Receptacle outlets installed for kitchen countertops and work surfaces covered in 210.52(C) do not count as the wall space receptacles covered in 210.52(A).

210.52(C) Countertops and Work Surfaces

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If a multioutlet assembly is used, each 12" length of assembly is considered one receptacle outlet if it contains at least two receptacles.

210.52(C)(1) Wall Space

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Receptacle outlets must be provided so no point along the wall is more than 24" horizontally from a receptacle. Their elevation must comply with 210.52(C)(3).

210.52(C)(1) Wall Space

Receptacle required within 24".

Receptacle required within 24".

Less than 18" (sink to corner), no receptacles required behind sink.

Ex 1: A receptacle is not required behind a sink or cooktop in accordance with NEC Figure 210.52(C)(1).

210.52(C)(1) Wall Space

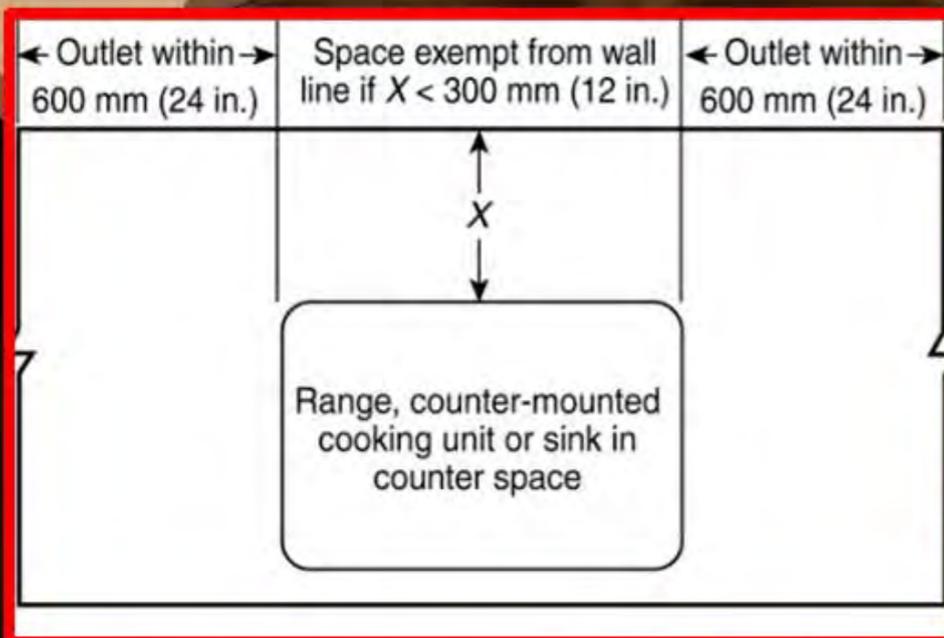
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18" or more (sink to corner), receptacle outlet required behind sink.

Ex 1: A receptacle is not required behind a sink or cooktop in accordance with NEC Figure 210.52(C)(1).

210.52(C)(1) Wall Space

Ex 2: If a receptacle is required but cannot be installed in the space next to the sink or cooking appliance in Figure 210.52(C)(1), one must be provided as close as practicable to the countertop and the total number of outlets required by this section must be provided.

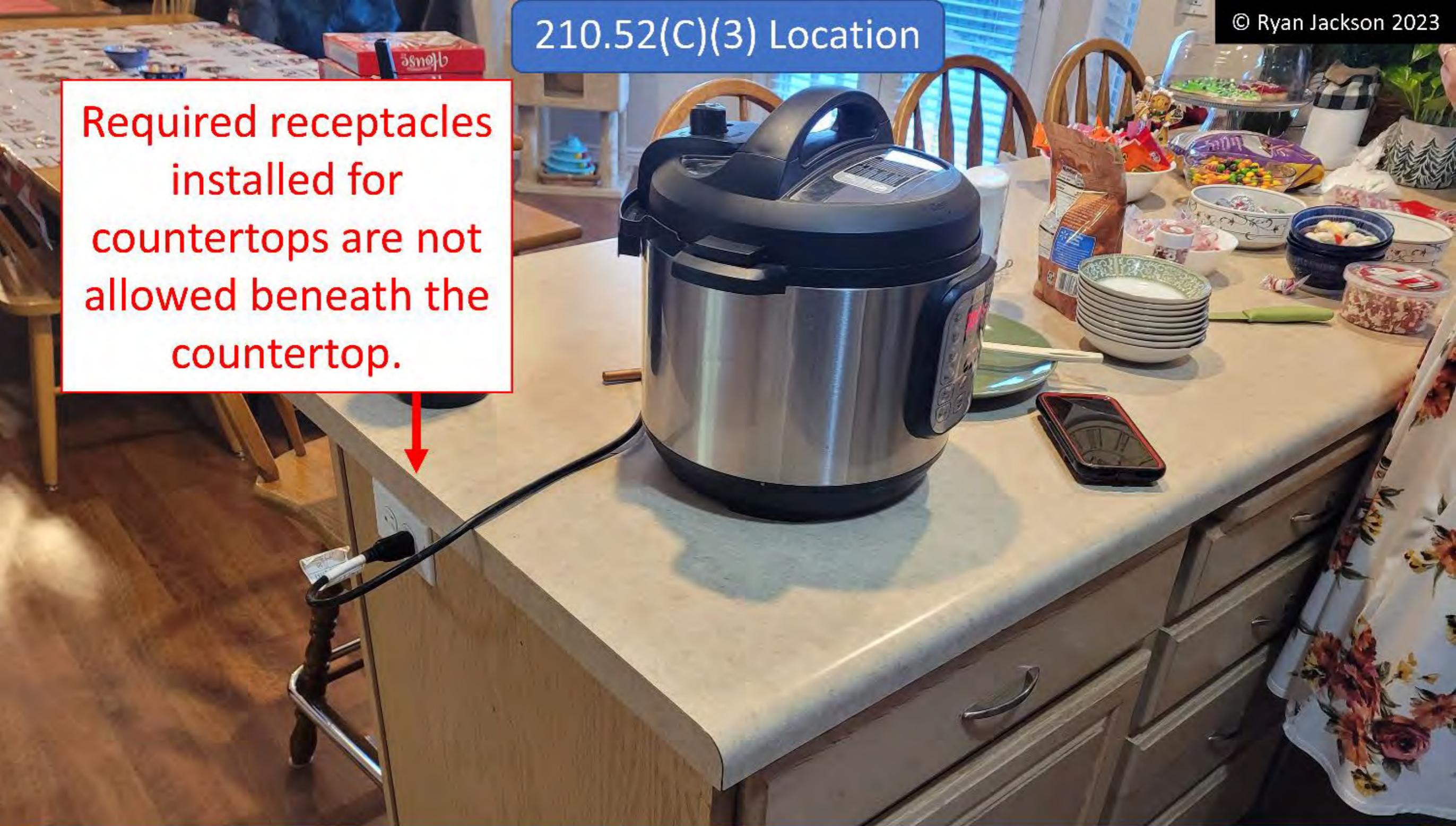


An unused raceway or a spare circuit routed to the island or peninsula complies.

If a receptacle outlet is not installed, accommodations to add one later must be provided.

210.52(C)(3) Location

Required receptacles installed for countertops are not allowed beneath the countertop.



Receptacle outlets must be in one of the following locations: (1) Up to 20" above the countertop or work surface.

210.52(C)(3) Exception

- * Construction for the physically impaired
- * On islands and peninsular countertops where the surface is flat and no means to mount a receptacle above
 - * The receptacle outlet shall be permitted to be mounted not more than 12" below the countertop surface

Surge Protection 225.42, 230.67

- (1)
Dwelling units
- (2)
Dormitory units
- (3)
Guest rooms and guest suites of hotels and motels
- (4)
Areas of nursing homes and limited-care facilities used exclusively as patient sleeping rooms
- **GA AMENDMENT:** *Exception: One- and two-family dwellings are exempt.*

230.67(A) SPD

An SPD is required for all services supplying:

- (1) Dwelling units,
- (2) Dormitory units,
- (3) Guest rooms/suites of hotels/motels, and
- (4) Patient sleeping rooms of nursing homes and limited-care facilities.



230.71(B) Two to Six Disconnects



(1) Separate enclosures with a single service disconnect in each.

230.85(C) Replacement

This section must be complied with if service equipment is replaced.
Ex: This section does not apply if a meter socket enclosure, service conductors, or raceways and fittings are the only items being replaced.

