Building Code Action Committee-
General WG Items 1

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October 28, 2015
BCAC Group B ICC

This report includes the code change proposals that the Building Code Action Committee-General Work Group is considering in the 2016 Code Development Cycle.

IBC 16-4– Page 2
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IBC 16-4
Follow up to G211-15

BCAC Group B Proposals for 2018 edition

Delete Sections 1510.7 through Section 1510.7.4

~~**[BS] 1510.7 Photovoltaic panels and modules.** Rooftopmounted *photovoltaic panels* and *modules* shall be designed in accordance with this section.~~

~~**[BS] 1510.7.1 Wind resistance.** Rooftop-mounted *photovoltaic panels* and *modules* shall be designed for component and cladding wind loads in accordance with Chapter 16 using an effective wind area based on the dimensions of a single unit frame.~~

~~**[BS] 1510.7.2 Fire classification.** Rooftop-mounted *photovoltaic panels* and *modules* shall have the fire classification in accordance with Section 1505.9.~~

~~**[BS] 1510.7.3 Installation.** Rooftop-mounted *photovoltaic panels* and *modules* shall be installed in accordance~~
~~with the manufacturer's instructions.~~

~~**[BS] 1510.7.4 Photovoltaic panels and modules.** Rooftop- mounted *photovoltaic panels* and *modules* shall be *listed* and labeled in accordance with UL 1703 and shall be installed in accordance with the manufacturer's instructions~~

Modify Section 1512 as follows:

SECTION 1512
~~PHOTOVOLTAIC PANELS AND MODULES~~ SOLAR ENERGY SYSTEMS

1512.1 Photovoltaic panels and modules and solar thermal collectors. *Photovoltaic panels* and *modules* and solar thermal collectors installed upon a roof or as an integral part of a roof assembly shall comply with the requirements of ~~this code and the *International Fire Code*~~ Section 3111.

9/24/2015 notes:

Reason: The expansion of Section 3111 in the International Building Code by Proposal G211-15 in the Group A cycle covers all that is within Section 1510.7 and its subsections, as well as providing all the applicable requirements for photovoltaic panels and modules in one location of the code. There are additional requirements that apply to rooftop-mounted photovoltaic panels and modules that are not covered in Section 1510.7, including roof access, signage, routing of conductors, and additional electrical requirements. By locating all applicable requirements in one location in the chapter for Special Construction, all applicable requirements will be addressed. In addition, Section 3111 also covers all the applicable requirements for solar thermal systems, which include the solar thermal collectors mounted on the roof. Revising Section 1512.1 provides the appropriate pointer to the requirements in Section 3111.

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CHAPTER 17

SPECIAL INSPECTIONS AND TESTS

9/24/2015 notes: Chapter Title should be changed to include listing and labeling?? Scope (1701.1) should contain listing and labeling also. Many parts of 1703 are not applicable to listing and labeling agencies. The listing and labeling criteria in other I-codes, such as the IMC should be incorporated in the IBC. Chapter 17 should be applicable to special inspections, not listing and labeling.

SECTION 1701
GENERAL

1701.1 Scope.
The provisions of this chapter shall govern the quality, workmanship and requirements for materials covered. Materials of construction and tests shall conform to the applicable standards listed in this code.

1701.2 New materials.
New building materials, equipment, appliances, systems or methods of construction not provided for in this code, and any material of questioned suitability proposed for use in the construction of a building or structure, shall be subjected to the tests prescribed in this chapter and in the approved rules to determine character, quality and limitations of use.

1701.3 Listing and labeling
The listing, labeling, and approval of products for the purpose of documenting compliance with this code and the applicable standards shall be in compliance with Section 1703.

SECTION 1702
DEFINITIONS

1702.1 Definitions.
The following terms are defined in Chapter 2:

APPROVED
APPROVED AGENCY.
APPROVED FABRICATOR.
CERTIFICATE OF COMPLIANCE.
DESIGNATED SEISMIC SYSTEM.

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FABRICATED ITEM.
INTUMESCENT FIRE-RESISTANT COATINGS.
LABEL
LABELED
LISTED
MAIN WINDFORCE-RESISTING SYSTEM.
MASTIC FIRE-RESISTANT COATINGS.
SPECIAL INSPECTION.
Continuous special inspection.
Periodic special inspection.
SPECIAL INSPECTOR.
SPRAYED FIRE-RESISTANT MATERIALS.
STRUCTURAL OBSERVATION.

SECTION 1703
APPROVALS

1703.1 Approved agency.
An approved agency shall provide all information as necessary for the building official to determine that the agency meets the applicable requirements specified in Sections 1703.1.1 through 1703.1.3.

1703.1.1 Independence.
An approved agency shall be objective, competent and independent from the contractor responsible for the work being inspected. The agency shall also disclose to the building official and the registered design professional in responsible charge possible conflicts of interest so that objectivity can be confirmed.

1703.1.2 Equipment.
An approved agency shall have adequate equipment to perform required tests. The equipment shall be periodically calibrated.

1703.1.3 Personnel.
An approved agency shall employ experienced personnel educated in conducting, supervising and evaluating tests and special inspections.

1703.2 Written approval.
Any material, appliance, equipment, system or method of construction meeting the requirements of this code shall be approved in writing after satisfactory completion of the required tests and submission of required test reports.

1703.3 Record of approval.

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For any material, appliance, equipment, system or method of construction that has been approved, a record of such approval, including the conditions and limitations of the approval, shall be kept on file in the building official's office and shall be available for public review at appropriate times.

1703.4 Performance.
Specific information consisting of test reports conducted by an approved agency in accordance with the appropriate referenced standards, or other such information as necessary, shall be provided for the building official to determine that the product, material or assembly meets the applicable code requirements.

1703.4.1 Research and investigation.
Sufficient technical data shall be submitted to the building official to substantiate the proposed use of any product, material or assembly. If it is determined that the evidence submitted is satisfactory proof of performance for the use intended, the building official shall approve the use of the product, material or assembly subject to the requirements of this code. The costs, reports and investigations required under these provisions shall be paid by the owner or the owner's authorized agent.

1703.4.2 Research reports.
Supporting data, where necessary to assist in the approval of products, materials or assemblies not specifically provided for in this code, shall consist of valid research reports from approved sources.

1703.5 Labeling.
Products, materials or assemblies required to be labeled shall be labeled in accordance with the procedures set forth in Sections 1703.5.1 through 1703.5.4.

1703.5.1 Testing.
An approved agency shall test a representative sample of the product, material or assembly being labeled to the relevant standard or standards. The approved agency shall maintain a record of the tests performed. The record shall provide sufficient detail to verify compliance with the test standard.

1703.5.2 Inspection and identification.
The approved agency shall periodically perform an inspection, which shall be in-plant if necessary, of the product or material that is to be labeled. The inspection shall verify that the labeled product, material or assembly is representative of the product, material or assembly tested.

1703.5.3 Label information.

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The label shall contain the manufacturer's identification, model number, serial number or definitive information describing the performance characteristics of the product, material or assembly and the approved agency's identification.

1703.5.4 Method of labeling.
Information required to be permanently identified on the product, material or assembly shall be acid etched, sand blasted, ceramic fired, laser etched, embossed or of a type that, once applied, cannot be removed without being destroyed.

1703.6 Evaluation and follow-up inspection services.
Where structural components or other items regulated by this code are not visible for inspection after completion of a prefabricated assembly, the owner or the owner's authorized agent shall submit a report of each prefabricated assembly. The report shall indicate the complete details of the assembly, including a description of the assembly and its components, the basis upon which the assembly is being evaluated, test results and similar information and other data as necessary for the building official to determine conformance to this code. Such a report shall be approved by the building official.

1703.6.1 Follow-up inspection.
The owner or the owner's authorized agent shall provide for special inspections of fabricated items in accordance with Section 1704.2.5.

1703.6.2 Test and inspection records.
Copies of necessary test and special inspection records shall be filed with the building official.

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RB112 – 13 **Copyright ©2015 International Code Council, Inc.**
R308.4.2

Proponent: Charles S. Bajnai, Chesterfield County, VA, ICC Building Code Action Committee (bajnaic@chesterfield.gov)

Revise as follows:

R308.4.2 Glazing adjacent doors. Glazing in an individual fixed or operable panel adjacent to a door where the nearest vertical edge of the glazing is within a 24-inch (610 mm) arc of either vertical edge of the door in a closed position and where the bottom exposed edge of the glazing is less than 60 inches (1524 mm) above the floor or walking surface shall be considered a hazardous location.

Exceptions:

1. Decorative glazing.
2. When there is an intervening wall or other permanent barrier between the door and the glazing.
3. Glazing in walls on the latch side of and perpendicular to the plane of the door in a closed position
4. Where access through the door is to a closet or bathroom ~~or storage area 3 feet (914 mm) or less in depth. Glazing in this application shall comply with section R308.4.3~~.
5. Glazing that is adjacent to the fixed panel of patio doors.

Reason: This proposal is submitted by the ICC Building Code Action Committee (BCAC) The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 6 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: http://www.iccsafe.org/cs/BCAC/Pages/default.aspx

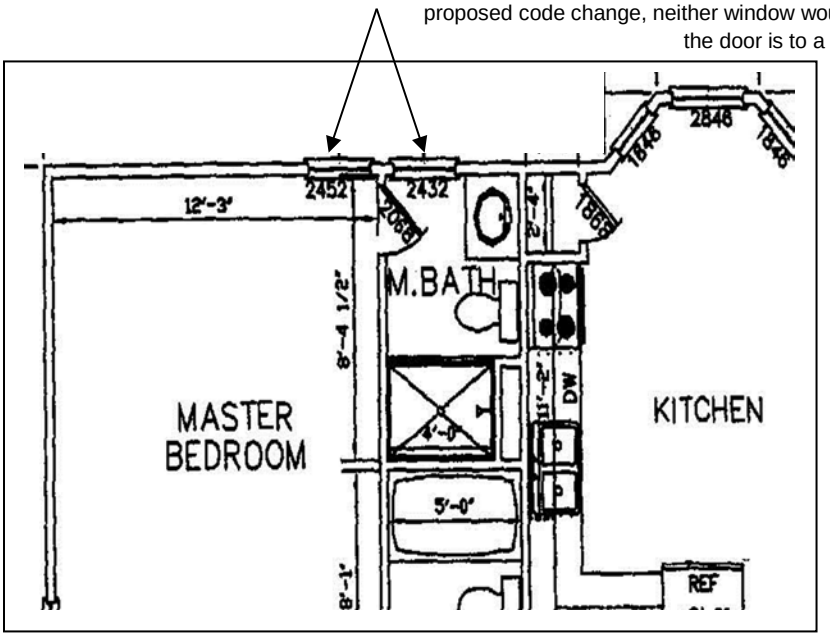
1. There is some confusing language in this section trying to acknowledge that the requirements in Section R308.4 may overlap and how to handle them. Adding this sentence in R308.4 says that you have to comply with all of the

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requirements in this section – even if you get an exception in one part, you might still have to comply by a different rule. That is what the second sentence in Exception 4 of R308.4.2 is trying to do.

2. Currently the code requires safety glazing in windows within 24" arc of the hinge side of a door for walls perpendicular to the door swing.

Currently both of these windows would have to be safety glazed. By this proposed code change, neither window would have to be safety glazed because the door is to a bathroom



Because the situation is familiar to the home occupants, and most of the time the bathroom or closet would be serving one or two people on a very limited basis, the threat of danger is not present.

Cost Impact: This proposal may decrease the cost of construction.

REPORT OF THE PUBLIC HEARING

RB112-13

Committee Action: **Disapproved**

Committee Reason: The committee disapproved this proposal because they felt it did not meet the intent of the code and would create a more unsafe condition.

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RB402-13

R806.1, R806.2, R806.3, R806.4, R806.5

Proposed Change as Submitted

Proponent: Charles S. Bajnai, Chesterfield County, VA,, representing ICC Building Code Action Committee and Virginia Building and Code Officials Association (bajnaic@chesterfield.gov), Joseph Lstiburek, Building Science Corporation

Revise as follows:

SECTION R806

ROOF VENTILATION

~~**R806.1 Ventilation required.** Enclosed *attics* and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain or snow. Ventilation openings shall have a least dimension of 1/16 inch (1.6 mm) minimum and 1/4 inch (6.4 mm) maximum. Ventilation openings having a least dimension larger than 1/4 inch (6.4 mm) shall be provided with corrosion-resistant wire cloth screening, hardware cloth, or similar material with openings having a least dimension of 1/16 inch (1.6 mm) minimum and 1/4 inch (6.4 mm) maximum. Openings in roof framing members shall conform to the requirements of Section R802.7. Required ventilation openings shall open directly to the outside air.~~

> ~~**Exception:** Attic ventilation shall not be required when determined not necessary by the code official due to atmospheric or climatic conditions.~~

~~**R806.2 Minimum vent area.** The minimum net free ventilating area shall be 1/150 of the area of the vented space.~~

> ~~**Exception:** The minimum net free ventilation area shall be 1/300 of the vented space provided one or more of the following conditions are met:~~

> ~~1. In Climate Zones 6, 7 and 8, a Class I or II vapor retarder is installed on the warm-in-winter side of the ceiling.~~
>
> ~~2. At least 40 percent and not more than 50 percent of the required ventilating area is provided by ventilators located in the upper portion of the attic or rafter space. Upper ventilators shall be located no more than 3 feet (914 mm) below the ridge or highest point of the space, measured vertically, with the balance of the required ventilation provided by eave or cornice vents. Where the location of wall or roof framing members conflicts with the installation of upper ventilators, installation more than 3 feet (914 mm) below the ridge or highest point of the space shall be permitted.~~

R806.1 Ventilation. The requirements for vented and unvented attic space and enclosed rafter space shall be in accordance with this section.

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R806.2 Vented attics. Vented attics shall have a minimum net free ventilation area at least 1/300 of the area of the vented space. Between half and two thirds of the provided ventilation shall be installed at the eaves. The ventilation openings shall have a least dimension of 1/16 inch (1.6 mm) minimum and 1/4 inch (6.4 mm) maximum. Ventilation openings having a least dimension larger than 1/4 inch (6.4 mm) shall be provided with corrosion-resistant wire cloth screening, hardware cloth, or similar material with openings having a least dimension of 1/16 inch (1.6 mm) minimum and 1/4 inch (6.4 mm) maximum. Openings in roof framing members shall conform to the requirements of Section R802.7. Required ventilation openings shall open directly to the outside air.

~~**R806.3 Vent and insulation clearance.**~~ Where eave or cornice vents are installed, insulation shall not block the free flow of air. A minimum of a 1-inch (25 mm) space shall be provided between the insulation and the roof sheathing and at the location of the vent.

~~**R806.4**~~ **R806.2.1 Installation and weather protection.** Ventilators shall be installed in accordance with manufacturer's installation instructions. Installation of ventilators in roof systems shall be in accordance with the requirements of Section R903. Installation of ventilators in wall systems shall be in accordance with the requirements of Section R703.1.

~~**R806.5**~~ **R806.3 Unvented attic and unvented enclosed rafter assemblies**. Unvented *attic* assemblies (spaces between the ceiling joists of the top *story* and the roof rafters) and unvented enclosed rafter assemblies (spaces between ceilings that are applied directly to the underside of roof framing members/rafters and the structural roof sheathing at the top of the roof framing members/rafters) shall be permitted if all the following conditions are met:

1. The unvented *attic* space is completely contained within the *building thermal envelope.*
2. No interior Class I vapor retarders are installed on the ceiling side (*attic* floor) of the unvented *attic* assembly or on the ceiling side of the unvented enclosed rafter assembly.
3. Where wood shingles or shakes are used, a minimum $^1/_4$-inch (6 mm) vented air space separates the shingles or shakes and the roofing underlayment above the structural sheathing.
4. In Climate Zones 5, 6, 7 and 8, any *air-impermeable insulation* shall be a Class II vapor retarder, or shall have a Class III vapor retarder coating or covering in direct contact with the underside of the insulation.
5. Either Items 5.1, 5.2 or 5.3 shall be met, depending on the air permeability of the insulation directly under the structural roof sheathing.
    5.1. *Air-impermeable insulation* only. Insulation shall be applied in direct contact with the underside of the structural roof sheathing.
    5.2. Air-permeable insulation only. In addition to the air-permeable insulation installed directly below the structural sheathing, rigid board or sheet insulation shall be installed directly above the structural roof sheathing as specified in Table R806.5 for condensation control.
    5.3. Air-impermeable and air-permeable insulation. The *air-impermeable insulation* shall be applied in direct contact with the underside of the structural roof sheathing as specified in Table R806.5 for condensation control. The air-permeable insulation shall be installed directly under the *air-impermeable insulation.*
    5.4. Where preformed insulation board is used as the air-impermeable insulation layer, it shall be sealed at the perimeter of each individual sheet interior surface to form a continuous layer.

Reason: This proposal is submitted by the ICC Building Code Action Committee (BCAC) The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 6 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes. Related documentation and reports are posted on the BCAC website at: http://www.iccsafe.org/cs/BCAC/Pages/default.aspx.

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1. This section was rewritten to clarify vented and unvented attics. The current charging language in the first sentence of Section R806.1 says that all attics shall have cross ventilation, and yet Section R806.5 acknowledges unvented attics. The new Section R806.1 offers charging language for both conditions.

2. More importantly however, Section 806.2 now incorporates the concepts that were passed in Portland for the IBC, namely that more than half of the incoming ventilation for attics should come from low sources (eaves) and exit up high (roof vent, mechanical vents, gable end vents, etc.). A range is provided: ½ to 2/3 should be low at the eaves for proper chimney effect. Currently the code would allow 100% of the attic ventilation to be from ridge vents…where would the cross ventilation come from?

Cost Impact: The code change proposal will not increase the cost of construction.

RB402-13

R806.1-RB-BAJNAI-BCAC.doc

Committee Action Hearing Results

Committee Action: **Disapproved**

Committee Reason: This change would eliminate some venting configurations, such as gable end vents that have proved reliable for years. Also, there are some situations where eave vents cannot be installed. The committee likes the proposed reorganization and the proponent should rework and bring back.

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IRC 2-2
Staff

IRC Section 202

ATTIC, HABITABLE. A finished or unfinished area, not considered a *story*, complying with all of the following requirements:

1. The occupiable floor area is not less than 70 square feet (17 m^2), in accordance with Section R304,
2. The occupiable floor area has a ceiling height in accordance with Section R305, and
3. The occupiable space is enclosed above by the roof assembly of the story below ~~above~~, at the sides by knee walls (if applicable) ~~on the sides~~ and below by a ~~the~~ floor-ceiling assembly common with the story below.

Reason: The original proposal that created this section did not intend to allow dormers and other elements to project beyond the roofline of the story below the habitable attic. The reason statement for the original proposal depicted this, but the text did not express this sufficiently. ICC staff has received numerous interpretation requests on this issue. This proposal clarifies the intent of the code text.

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IRC 3-3 - Copyright ©2015 International Code Council, Inc.

ICC Staff item – clarify Figure R308.4.7 to reflect code text.

Current 2015 IRC code text.

R308.4.7 Glazing adjacent to the bottom stair landing. Glazing adjacent to the landing at the bottom of a stairway where the glazing is less than 36 inches (914 mm) above the landing and within a 60-inch (1524 mm) horizontal arc less than 180 degrees from the bottom tread nosing shall be considered to be a hazardous location.

Exception:

The glazing is protected by a *guard* complying with Section R312 and the plane of the glass is more than 18 inches (457 mm) from the *guard*.

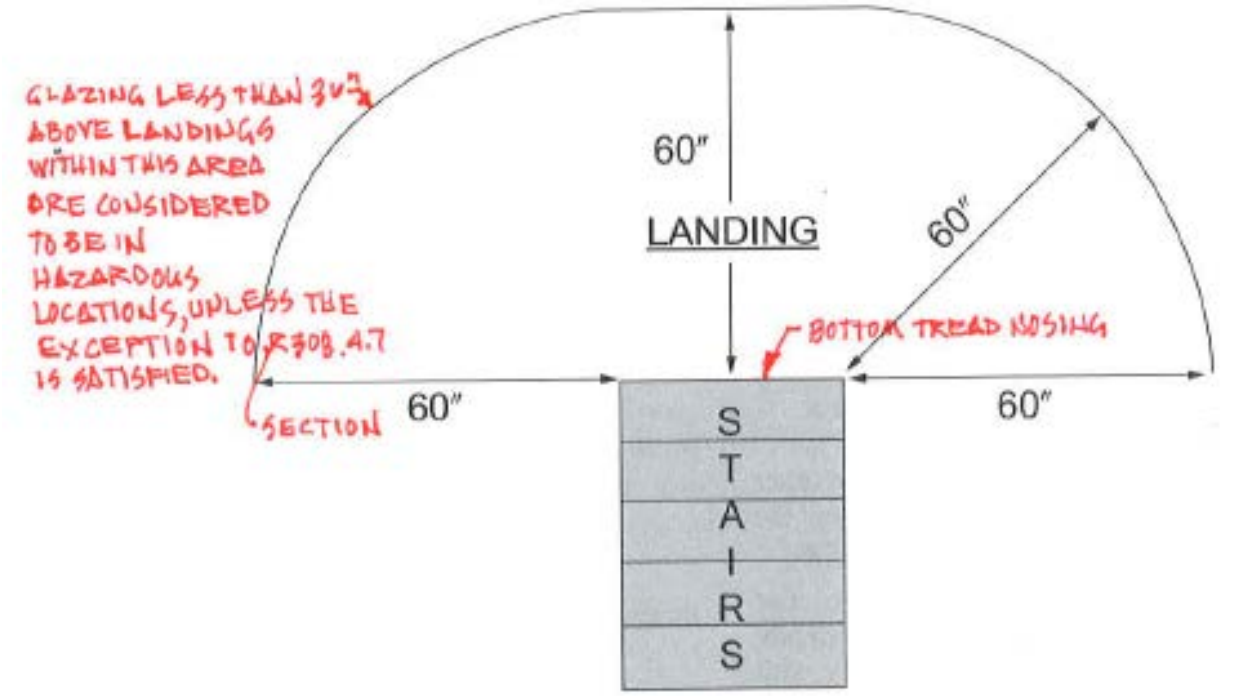


FIGURE R308.4.7
PROHIBITED GLAZING LOCATIONS AT BOTTOM STAIR LANDINGS

HAZARDOUS

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IBC 3-6 Copyright ©2015 International Code Council, Inc.

Staff - Clarify structurally separate exterior walls complying with R302.1 is an option to the common wall separation of R302.2.

9/24/2015 notes: The term "exterior" walls should not be used as it may inadvertently bring in other requirements such as energy and structural. The code as written is OK to allow two walls or a common wall to separate townhomes. Consider adding options to R302.2 for double wall and proprietary assembly. Staff to revise to add options to R302.2.

R302.1 Exterior walls. Construction, projections, openings and penetrations of exterior walls of dwellings and accessory buildings shall comply with Table R302.1(1); or dwellings equipped throughout with an automatic sprinkler system installed in accordance with Section P2904 shall comply with Table R302.1(2). Townhouses shall be separated by ~~exterior~~ wall assemblies complying with this section or by common walls complying with R302.2.

Exceptions:

1. Walls, projections, openings or penetrations in walls perpendicular to the line used to determine the fire separation distance.
2. Walls of dwellings and accessory structures located on the same lot.
3. Detached tool sheds and storage sheds, playhouses and similar structures exempted from permits are not required to provide wall protection based on location on the lot. Projections beyond the exterior wall shall not extend over the lot line.
4. Detached garages accessory to a dwelling located within 2 feet (610 mm) of a lot line are permitted to have roof eave projections not exceeding 4 inches (102 mm).
5. Foundation vents installed in compliance with this code are permitted.

R302.2 Townhouses. Common walls separating townhouses shall be assigned a fire-resistance rating in accordance with Sec-tion R302.2, Item 1 or 2. The common wall shared by two townhouses shall be constructed without plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be in accord-ance with Chapters 34 through 43. Penetrations of the membrane of common walls for electrical outlet boxes shall be in ac-cordance with Section R302.4.

1. Where a fire sprinkler system in accordance with Section P2904 is provided, the common wall shall be not less than a 1-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119 or UL 263.
2. Where a fire sprinkler system in accordance with Section P2904 is not provided, the common wall shall be not less than a 2-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119 or UL 263.

Reason: With the changes brought forth by RB79-13 it is being interpreted by some that common walls is the only option for separating townhomes since the reference to R302.1 has been deleted in R302.2. This was not the intent of RB79-15. As written, Section R302.2 does not require townhomes to be separated

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by common walls, rather, it contains requirements for common walls if that is the way the designer chooses to separate the townhomes. There is nothing prohibiting the use of two exterior walls to separate townhomes. RB79-15 is reproduced below for your information. Adding the proposed language to R302.1 will clarify this option is still available.

RB79-13

R302.2, R302.2.4

Proposed Change as Submitted

Proponent: Jeffrey M. Shapiro, representing IRC Fire Sprinkler Coalition (jeff.shapiro@intlcodeconsultants.com)

Revise as follows:

R302.2 Townhouses. Each *townhouse* shall be considered a separate building and shall be separated by fire-resistance rated wall assemblies meeting the requirements of Section R302.1 for exterior walls.

Exceptions:

1. Where a fire sprinkler system in accordance with Section P2904 is provided, a~~A~~ common 1-hour-fire-resistance-rated wall assembly tested in accordance with ASTM E 119 or UL 263 is permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with Chapters 34 through 43. Penetrations of electrical outlet boxes shall be in accordance with Section R302.4.
2. Where a fire sprinkler system in accordance with Section P2904 is not provided, a common 2-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119 or UL 263 is permitted for townhouses where such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with Chapters 34 through 43. Penetrations of electrical outlet boxes shall be in accordance with Section R302.4.

R302.2.4 Structural independence. Each individual *townhouse* shall be structurally independent.

Exceptions:

1. Foundations supporting *exterior walls* or common walls.
2. Structural roof and wall sheathing from each unit may fasten to the common wall framing.
3. Nonstructural wall and roof coverings.
4. Flashing at termination of roof covering over common wall.
5. *Townhouses* separated by a common ~~1-hour fire-resistance-rated~~ wall as provided in Section R302.2, Exceptions 1 or 2.

Reason: The 1-hour separation requirements in these sections were reduced from 2-hour ratings in prior editions of the IRC based on the assumption that fire sprinklers mandated by the IRC would be present in all townhouses. Because some jurisdictions are amending the IRC to remove the fire sprinkler requirement, it is essential that the IRC provide for townhouse separation fire ratings to be returned to 2-hours if sprinklers are not provided. No justification, other than sprinklers, was ever provided for allowing a 1-hour separation, and this reduced rating is inappropriate for non-sprinklered buildings.

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Cost Impact: The code change proposal will not increase the cost of construction.

Committee Action Hearing Results

Committee Action: **Approved as Submitted**

Committee Reason: The committee approved this proposed code change because they felt that a) it takes care of an important omission in the code related to fire sprinkler systems and b) it addresses the many ways in which jurisdictions adopt the code and modify sprinkler requirements.

Assembly Action: **None**

Individual Consideration Agenda

This item is on the agenda for individual consideration because a public comment was submitted.

Public Comment:

Jonathan Humble, representing American Iron and Steel Institute; Wayne Jewell, Green Oak Charter Township, representing self, requests Approval as Modified by this Public Comment.

Modify the proposal as follows:

R302.2 Townhouses. ~~Each *townhouse* shall be considered a separate building and shall be separated by fire-resistance rated wall assemblies meeting the requirements of Section R302.1 for exterior walls.~~ Common walls separating townhouses shall be assigned a fire resistance rating in accordance with Section R302.2 Item 1 or Item 2. The common wall shared by two *townhouses* shall be constructed without plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with Chapters 34 through 43. Penetrations of the membrane of common walls for electrical outlet boxes shall be in accordance with Section R302.4.

~~**Exceptions:**~~

1. Where a fire sprinkler system in accordance with Section P2904 is provided, ~~a~~ the common wall shall be not less than a 1-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119 or UL 263**.** ~~is permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with Chapters 34 through 43. Penetrations of electrical outlet boxes shall be in accordance with Section R302.4.~~
2. Where a fire sprinkler system in accordance with Section P2904 is not provided, ~~a~~ the common wall shall be not less than a 2-hour fire-resistance-rated wall assembly tested in accordance with ASTM E 119 or UL 263**.** ~~is permitted for townhouses where such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the underside of the roof sheathing. Electrical installations shall be installed in accordance with Chapters 34 through 43. Penetrations of electrical outlet boxes shall be in accordance with Section R302.4.~~

R302.2.4 Structural independence. Each individual *townhouse* shall be structurally independent.

Exceptions:

1. Foundations supporting *exterior walls* or common walls.
2. Structural roof and wall sheathing from each unit may fasten to the common wall framing.
3. Nonstructural wall and roof coverings.
4. Flashing at termination of roof covering over common wall.
5. *Townhouses* separated by a common 1-hour fire resistance-rated wall as provided in Section R302.2, Items ~~Exceptions~~ 1 or 2.

Commenter's Reason: This public comment proposes to further modify RB79-13 as follows:

Deletion of the original charging language:

When this proposal was developed there was no longer a need to retain the reference to Section R302.1 and Table R302.1 as the proposed language now covers the fire resistance requirements in R302.2. As a result, we propose to delete that language

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as part of this modification since it is redundant and rely on the new text to articulate the fire resistance requirements for common walls.

Addition of instructions:

We are proposing new charging language which allows the user to choose the design and construction of the common wall. This is consistent with the RB79-13 and the choice allowed in the exceptions.

Removal of duplicative language in the exceptions:

We also propose the removal of the construction limitations language from the two parts of RB79-13 as it is duplicative, and instead suggest it be relocated into the charging section, thus stating the limitations only once.

Exceptions to Parts:

We propose that the exceptions be labeled as items in order to coordinate with the other modification concerning the revised charging language where the user is allowed to choose a 1-hour or 2-hour rated wall design.

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IRC O-1

Add the following definition to Chapter 2 –

VEHICULAR GATE. A gate that is intended for use at a vehicular entrance or exit to the lot of a one- or two-family dwelling, and that is not intended for use by pedestrian traffic.

Add the following section –

R309.6 Vehicular gates intended for automation. Where automatic vehicular gates are installed on the lot of a one- or two-family dwelling, the vehicular gates intended for automation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200, and the vehicular gate openers shall be listed in accordance with UL 325.

Delete Appendix O in its entirety.

REASON: This proposal does not require the use of automatic vehicular gates, but where provided, sets necessary and appropriate minimum safety requirements. These requirements are currently in Appendix O. The design, construction, and installation of these automatic gates are regulated under ASTM F 2200 and all the protection features shall be provided. The automatic gate opener shall also comply with the safety and protection features found in ANSI/UL 325. This standard oversees the opening and closing applications in accordance with the NEC and covers the accessories of the gate, such as external entrapment protection devices that are used with the opener. The different types of openers included in the ANSI/UL 325 are the vehicular barrier operators, sliding gate operators, swing-gate operators, lift-gate operators and pivot-gate operators.

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IRC 1-1

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Jack Applegate-need to clarify storage sheds only.

Proponent: Jack Applegate representing The Building Department LLC**,** Edward Kulik, representing Building Code Action Committee (bcac@iccsafe.org)
Code Change Proposal IRC section R105

SECTION R105 #1
PERMITS

R105.1 Required. Any owner or owner's authorized agent who intends to construct, enlarge, alter, repair, move, demolish or change the occupancy of a building or structure, or to erect, install, enlarge, alter, repair, remove, convert or replace any electrical, gas, mechanical or plumbing system, the installation of which is regulated by this code, or to cause any such work to be performed, shall first make application to the *building official* and obtain the required *permit*.

R105.2 Work exempt from permit. Exemption from *permit* requirements of this code shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this *jurisdiction*. *Permits* shall not be required for the following:
Building:

1. One-*story* detached *accessory structures,* provided that the floor area does not exceed 200 square feet (18.58 m2). <u>Exception This exemption shall not apply to residential private garages.</u>
2. Fences not over 7 feet (2134 mm) high.
3. Retaining walls that are not over 4 feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge.
4. Water tanks supported directly upon *grade* if the capacity does not exceed 5,000 gallons (18 927 L) and the ratio of height to diameter or width does not exceed 2 to 1.
5. Sidewalks and driveways.
6. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
7. Prefabricated swimming pools that are less than 24 inches (610 mm) deep.
8. Swings and other playground equipment.
9. Window awnings supported by an exterior wall that do not project more

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than 54 inches (1372 mm) from the exterior wall and do not require additional support.

10. Decks not exceeding 200 square feet (18.58 m2) in area, that are not more than 30 inches (762 mm) above *grade* at any point, are not attached to a dwelling do not serve the exit door required by section R311.4.

Reason Statement: The IRC exception for building permits being required was increased from allowing a maximum of 120 sq. foot to a maximum of 200 sq. foot for a Residential Accessory structure with the intent to allow larger **storage sheds** than in the past due to the fact that they typically have a limited fuel load and rarely had structural corrections at the time of inspection.
The exception as written has allowed a larger size capable of fitting typical passenger cars and has caused confusion and misinterpretation and now some code officials are interpreting this to mean that a private garage is also exempt from permits. This is creating increased hazards due to the increased fuel loads associated with personal vehicles being stored in these structures without the intended fire separation when the accessory structures are detached but directly adjacent to dwellings, dwelling sleeping rooms etc. The same potential fire hazard occurs when the detached garage structures are being placed directly on or near the property line.
This code change would provide clarification to the existing code language.

Cost Impact: Will not increase the cost of construction, clarification only.

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IRC 3-4 - Copyright ©2015 International Code Council, Inc.
ICC Staff item – clarify detached dwelling units and townhouses.

From Gary Ehrlich:

Add new definition as follows:

DWELLING, DETACHED. A single dwelling unit, or a two-family dwelling containing two dwelling units, that is not attached or fastened to an adjacent dwelling and does not share common elements with an adjacent dwelling.

It occurs to me from a structural perspective that two adjacent buildings shouldn't actually "touch" unless they are connected in some way to transfer lateral or loads between buildings. At the very least I would think there should be a small gap (say 1/2" or 1"), otherwise any thermal expansion of either building could cause issues. (Especially if they have brick veneer or are otherwise masonry construction; you'd almost have to have an isolation joint there.) And the seismic folks would want a couple of inches of separation to avoid the dwellings banging against each other during an earthquake. In fact, we've run into problems with the ASCE 7 requirements for structural separation between buildings and rows of townhouses where the floor and roof diaphragms of adjacent units didn't quite align or where the units were offset horizontally in plan. I have heard of builders being required to leave 6 or 8 inches between units – and these were dwellings that the code would otherwise normally consider "attached".

From Allan Bilka:

I am good with adding such a definition. It accomplishes the same goal of clarification of what detached means in the context of the code.

The "detached" language in R101.2 also applies to townhouses. So I would suggest the following changes to the definition:

Add new definition as follows:

DWELLING, DETACHED. A single dwelling unit, a two-family dwelling containing two dwelling units, or a townhouse building containing three or more dwelling units, that is not attached or fastened to other adjacent dwellings, buildings or structures and does not share common elements with other adjacent dwellings, buildings or structures.

As far as the gap idea, I would suggest that be a separate proposal. I could see many arguments on both sides of the fence on this and many issues and alternate solutions that could be brought up. A similar proposal could also be made to the IBC, though taller buildings would likely be more problematic.

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