

Code Technologies Committee Report Relocateable Modular Building– Group A changes:

There are 11 areas of study currently listed under CTC.

1. Balanced Fire Protection
 - 1.1. Vertical Opening
 - 1.2. Roof Vents
2. Carbon Monoxide Detectors
3. Nursing Care Facilities
4. Child Window Safety
5. Climbable Guards
6. Elevator Lobby
7. Emergency Evacuation with Elevators
8. ADA/IBC Coordination
9. Fire rated glazing
10. Relocateable Modular Building
11. Unenclosed Exit Stairs

Following are code change proposals submitted through CTC from Relocateable Modular Building study group and related changes.

Relocateable Modular Buildings

Code Change #	Section	CTC (x) or Related (o)	Position					Comments
			Oppose & Testify	Oppose	No Position	Support	Support & Testify	
G198	3112	X						
G199	3112	X						
G203	3410	X						
G204	3401.1	o						Moving
G233	3410.2	o						Relocateable bleachers

G198 – 12

202, 107.2.6 (NEW), 3101.1, 3112 (NEW)

Proponent: Carl F. Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee (CTC)

Revise as follows:

3101.1 Scope. The provisions of this chapter shall govern special building construction including membrane structures, temporary structures, *pedestrian walkways* and tunnels, automatic *vehicular gates*, *awnings* and *canopies*, *marquees*, signs, and towers, ~~and~~ *antennas*, and relocatable buildings.

SECTION 3112 **RELOCATABLE BUILDINGS**

3112.1 General. The provisions of this section shall apply to relocatable buildings. Relocatable buildings manufactured after the effective date of this code shall comply with the applicable provisions of this code.

3112.1.1 Compliance. A relocatable building transported to a new location, or a relocatable building that is undergoing *alteration or additions* shall comply with Section 3410.

3112.2 Supplemental information. Supplemental information specific to a relocatable building shall be submitted to the authority having jurisdiction, and shall, *as a minimum*, include all of the following:

1. Application for approval or permit
2. Manufacturer's name, address, contact information
3. Date of manufacture
4. Serial number of module
5. Manufacturer's design drawings
6. Type of construction in accordance with Section 602.
7. Occupancy type in accordance with Section 302.
8. Design loads including: roof live load, roof snow load, floor live load, wind load and seismic site class, use group and design category
9. Additional building planning and structural design data
10. Site plan indicating the location of the relocatable building
11. Site built structure or appurtenance attached to the relocatable building

3112.3 Manufacturer's Data Plate. The manufactures data plate shall be the basis for determining code compliance. Each relocatable module shall have a data plate that is posted in the location as noted on the drawings, and shall include the following information:

1. Manufacturer's name and address
2. Serial number
3. Date of manufacture
4. The quality assurance agency or approved inspection agency
5. Codes, and standards of construction
6. Design live roof load, design live floor load, snow load, wind and seismic design
7. Envelope thermal resistance values
8. Electrical service size
9. Fuel burning equipment and size
10. Special limitations if any

3112.4 Inspections. Inspections of a relocatable building shall be performed in accordance with Section 110.4 of this code during off-site construction, and the applicable sections of Section 110.3 during installation at the site.

Add new definition as follows:

**SECTION 202
DEFINITIONS**

RELOCATABLE BUILDING. A partially or completely assembled building constructed and designed to be reused multiple times and transported to different building sites.

Add new text as follows:

107.2.6 Relocatable buildings. Construction documents for relocatable buildings shall comply with this section and Section 3112.

Reason: The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as “areas of study”. Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/cc/ctc/index.html>. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

Unlike site-built buildings, which are typically intended to remain on their original site for the life of the building, relocatable modular buildings are designed and intended for relocation, reuse and/or repurposing. Many states have statutes that govern the building and relocating of relocatable modular buildings. For those that do not have state mandated requirements, much confusion and inconsistency exists about the requirements for relocatable modular buildings as existing buildings.

The Modular Building Institute (MBI) (www.modular.org) estimates that there are over 600,000 code compliant relocatable buildings in use in North America today. While it is impossible to determine the exact amount owned by the public at large, MBI estimates that public school districts across North America collectively own and operate about 180,000 relocatable classrooms with the industry owning and leasing an additional 120,000. Additionally, the industry owns and leases approximately 280,000 relocatable buildings for various other business occupancies, including construction site offices and temporary sales offices.

The Code Technology Committee Study Group on Relocatable Modular Buildings identified a number of unique characteristics of relocatable modular buildings that are unlike site-built buildings. Their findings are as follows:

- There are sections of the IBC that are applicable equally to both site-built and relocatable modular buildings, particularly for new construction.
- There are sections of the conflicting code sections that cannot be applied to both site-built and relocatable modular buildings, specifically related to construction documents, inspection, and relocation.

The IBC does not have specific requirements on how to treat these buildings. In the absence of clear definitions and requirements that are specific to both new and existing relocatable modular buildings, many code officials attempt to apply similar, but non-related sections of the building code intended for site built buildings to the relocatable modular industry. There are unique attributes to relocatable modular buildings that warrant their own requirements in a new chapter in this code.

CTC has submitted two proposals on the subject of relocatable modular buildings. One proposal for new construction (this proposal) and a second proposal to address the relocation of modular buildings (proposal to Chapter 34). This proposal includes:

- The definition has been distilled from industry publications and definitions found in state statutes that govern modular (industrialized) buildings. This definition was also approved in the 2012 IGCC.
- Identification and inclusion of relocatables into Special Construction, Chapter 31. This chapter applies to new relocatable buildings, and also new site built structures.

Moving this document forward through the ICC code development process will help the modular building industry comply with the intent of the code, provide a clear and consistent path for enforcement professionals, and for compliance by owners of relocatable buildings who wish to re-use or repurpose their existing buildings.

Cost impact: This code change proposal will not increase the cost of construction due to the re-usable/relocatable nature of such buildings.

G198-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

G199 – 12

202, Table 503, 1609.1.2, 2405.3, 2606.11, 2607.4, 2609.4, 3112 (NEW), 3102.1

Proponent: Vickie J. Lovell, InterCode Incorporated, representing National Greenhouse Manufacturers Association (vickie@InterCodeinc.com)

Add new text as follows:

SECTION 3112 **GREENHOUSES**

3112.1 General. The provisions of this section shall apply to structures defined as greenhouses that are designed and used primarily for the cultivation, maintenance, or protection of plants. Greenhouses are constructed for agricultural production, educational purposes, research, retail or business uses.

3112.2 Definitions. The following terms are defined in Chapter 2.

GREENHOUSE **ATTACHED GREENHOUSE**

3112.3 Occupancy. The occupancy provisions of this section shall apply to structures defined as greenhouses, and attached greenhouses.

3112.3.1 Group B. Greenhouses that are structurally attached to, but thermally isolated from college or university classrooms shall be classified as Group B.

3112.3.2 Group E. Greenhouses that are structurally attached to, but thermally isolated from elementary, middle or high school classrooms shall be classified as Group E.

3112.3.3 Group M. Greenhouses and attached greenhouses with access by the general access used primarily for the display and sale of plants shall be classified as Group M.

3112.3.4 Group U. Greenhouses that are any of the following shall be classified as Group U:

1. Greenhouses used primarily for the agricultural use for the production, cultivation, maintenance, or protection of plants.
2. Greenhouses that are accessory buildings to Group B, E, or M occupancies.
3. Utility or accessory greenhouses that are not classified in any specific occupancy.

3112.4 Type of Construction. Greenhouses shall be permitted to be constructed as Type I, II, III, IV or V construction. Combustible materials used in Type I and II construction shall be permitted in accordance with Section 603.

3112.5 Allowable Height and Area. The maximum allowable height and area for greenhouses shall comply with Table 3112.5. When an automatic sprinkler system is installed in accordance with Section 903.3.1.1, the values specified in Table 3112.5 for maximum building height is increased by 20 feet (6096mm) and the maximum number of stories is increased by one. These increases are permitted in addition to the building area increase in accordance with Sections 506.2 and 506.3.

3112.5.1 One-story unlimited area. The area of a one-story Group U agricultural building shall not be limited if the building is surrounded and adjoined by *public ways* or yards not less than 60 feet (18 288 mm) in width.

3112.5.2 Two-story unlimited area. The area of a two-story Group U agricultural building shall not be limited if the building is surrounded and adjoined by *public ways* or yards not less than 60 feet (18 288

mm) in width and is provided with an approved automatic sprinkler system throughout in accordance with Section 903.3.1.1.

**TABLE 3112.5
BASIC ALLOWABLE AREA FOR GREENHOUSES**

<u>I</u>		<u>II</u>		<u>III and IV</u>		<u>V</u>	
<u>A</u>	<u>B</u>	<u>A</u>	<u>B</u>	<u>III A and IV</u>	<u>III B</u>	<u>A</u>	<u>B</u>
ALLOWABLE AREA (square feet)^a							
<u>Unlimited</u>	<u>60,000</u>	<u>27,100</u>	<u>18,000</u>	<u>27,100</u>	<u>18,000</u>	<u>21,100</u>	<u>12,000</u>
MAXIMUM HEIGHT IN STORIES							
<u>Unlimited</u>	<u>12</u>	<u>4</u>	<u>2</u>	<u>4</u>	<u>2</u>	<u>3</u>	<u>2</u>
MAXIMUM HEIGHT IN FEET							
<u>Unlimited</u>	<u>160</u>	<u>65</u>	<u>55</u>	<u>65</u>	<u>55</u>	<u>50</u>	<u>40</u>

3112.6 Mixed use and occupancy. Attached greenhouses shall comply with the requirements for mixed occupancies and use requirements in Section 508.

3112.6.1 Fire Rating. The fire rating for the exterior wall of an attached greenhouse classified as Group E, B, or M shall comply with Table 602. Where Table 705.3 permits nonbearing exterior walls with unlimited area of unprotected openings, the fire resistance rating for the exterior walls is 0 hours.

3112.7 Materials. Materials used for the exterior of greenhouses shall comply with Sections 3112.11 through 3112.12.5

3112.8 Means of egress. Greenhouses shall provide means of egress in accordance with Chapters 10.

3112.9 Accessibility. Attached greenhouses with access by the general public in use Groups B, E, and M shall provide accessibility in accordance with Chapter 11.

3112.9.1 Use Group U. Greenhouses in use group U are exempt from Chapter 11 except as specified in this section.

3112.9.1.1 Employee work areas. Employees work areas shall comply with 1103.2.3 and 1104.3.1.

3112.9.1.2 Paved areas. Greenhouses with access to the general public shall be required to pave work areas and areas open to the general public in accordance with Section 1103.2.5.

3112.10 General Structural Design. Greenhouses with shall comply with the structural design requirements for live and dead loads appropriate for greenhouses in Chapter 16.

3112.10.1 Wind loads. All greenhouses are considered as Risk Category I as defined in Section 1604.5. Openings shall be permitted to be unprotected.

3112.11 Glass and Glazing. Glass and glazing used in greenhouses shall comply with Section 2405.

3112.11.1 Monolithic and multiple-layer sloped glazing systems. Glazing material, including annealed glass, is permitted to be installed without screens in the sloped glazing system of commercial greenhouses, or detached production greenhouses without public access, provided that the height of the greenhouse at the ridge does not exceed 30- feet (6096 mm) above grade.

3112.11.2 Greenhouse frames. Greenhouse frames shall be noncombustible if the height of the sloped glazing exceeds 30-feet (6096 mm) above grade.

3112.11.3 Energy. Greenhouses are exempt from fenestration requirements for U factor and SHGC, and envelope insulation of the International Energy Conservation Code.

3112.12 Light-transmitting Plastics. Light-transmitting plastics shall be permitted in lieu of plain glass in greenhouses and shall comply with Section 2606.

3112.12.1 Plastic wall panels. Greenhouses shall comply with Section 2607 for plastic wall panels. Greenhouses are not required to comply with the area limitations for plastic wall panels in Section 2607.4 but shall be limited as required for unprotected openings in accordance with 705.8

3112.12.2 Plastic glazing. Light transmitting plastic glazing shall comply with Section 2608.

3112.12.3 Plastic roof panels limitations. Greenhouses shall comply with Section 2609 for plastic roof panels. Greenhouses that have access by the general public are exempt from the area limitations of Table 2607.4 provided that the greenhouse has a minimum *fire separation distance* of 30 feet (1219 mm), or are equipped with an automatic sprinkler system in accordance with 903.3.1.1 and minimum fire separation distance of 4 feet (1219 mm). Group U greenhouses without access by the general public are exempt from the area limitations of Table 2607.4 provided that the greenhouse has a minimum fire separation distance of 4 feet (1219 mm).

3112.12.4 Shade and Curtain systems. Greenhouses that have access by the general public shall use material that is flame resistant with either of following:

1. Any textile shade or covering shall be flame resistant as determined by tests conducted in accordance with NFPA 701.
2. Any covering, other than textiles, shall have a *flame spread index* not greater than 25 when tested in accordance with ASTM E 84 or UL 723 in the form intended for use.

Any material is permitted to be used in a shade or curtain system in greenhouses without general public access.

3112.12.5 Plastic film. Plastic less than 30 feet (9144mm) above any floor, and plastic interior liners less than 20 mil (0.5 mm) in thickness used in greenhouses used in greenhouses without access by the general public is not required to comply with 3112.12.4.

3112.13 Membrane Structures. Greenhouses that are air-inflated or air-supported shall comply with Section 3103.1. Greenhouses that use an arch or truss to support plastic film shall not be considered a membrane structure.

Add new definitions as follows:

GREENHOUSE. A structure designed and used primarily for the cultivation, maintenance, or protection of plants. Greenhouses may or may not be accessible to the general public.

ATTACHED GREENHOUSE. A greenhouse that is structurally attached to another building, but thermally isolated from the adjoining building.

Revise as follows:

3102.1 General. The provisions of Sections 3102.1 through 3102.8 shall apply to air-supported, air-inflated, membrane covered cable and membrane-covered frame structures, collectively known as membrane structures, erected for a period of 180 days or longer. Those erected for a shorter period of time shall comply with the *International Fire Code*. Membrane structures covering water storage facilities, water clarifiers, water treatment plants, sewage treatment plants, ~~greenhouses~~ and similar facilities not used for human occupancy are required to meet only the requirements of Sections 3102.3.1 and 3102.7.

Membrane structures erected on a building, balcony, deck or other structure for any period of time shall comply with this section.

Revise as follows:

1609.1.2 Protection of openings. In *wind-borne debris regions*, glazing in buildings shall be impact resistant or protected with an impact-resistant covering meeting the requirements of an *approved* impact-resistant standard or ASTM E 1996 and ASTM E 1886 referenced herein as follows:

1. Wood structural panels with a minimum thickness of $7/16$ inch (11.1 mm) and maximum panel span of 8 feet (2438 mm) shall be permitted for opening protection in one- and two-story buildings classified as Group R-3 or R-4 occupancy.

Panels shall be precut so that they shall be attached to the framing surrounding the opening containing the product with the glazed opening. Panels shall be predrilled as required for the anchorage method and shall be secured with the attachment hardware provided. Attachments shall be designed to resist the components and cladding loads determined in accordance with the provisions of ASCE 7, with corrosion-resistant attachment hardware provided and anchors permanently installed on the building. Attachment in accordance with Table 1609.1.2 with corrosion resistant attachment hardware provided and anchors permanently installed on the building is permitted for buildings with a mean roof height of 45 feet (13 716 mm) or less where V_{asd} determined in accordance with Section 1609.3.1 does not exceed 140 mph (63 m/s).

2. Glazing in *Risk Category I* buildings as defined in Section 1604.5, ~~including greenhouses that are occupied for growing plants on a production or research basis, without public access~~ shall be permitted to be unprotected.

Exceptions:

1. through 3. (*Portions of text not shown remain unchanged*)

Revise as follows:

2405.3 Screening. Where used in monolithic glazing systems, heat-strengthened glass and fully tempered glass shall have screens installed below the glazing material. The screens and their fastenings shall: (1) be capable of supporting twice the weight of the glazing; (2) be firmly and substantially fastened to the framing members and (3) be installed within 4 inches (102 mm) of the glass. The screens shall be constructed of a noncombustible material not thinner than No. 12 B&S gage (0.0808 inch) with mesh not larger than 1 inch by 1 inch (25 mm by 25 mm). In a corrosive atmosphere, structurally equivalent noncorrosive screen materials shall be used. Heat-strengthened glass, fully tempered glass and wired glass, when used in multiple-layer glazing systems as the bottom glass layer over the walking surface, shall be equipped with screening that conforms to the requirements for monolithic glazing systems.

Exception: In monolithic and multiple-layer sloped glazing systems, the following applies:

1. Fully tempered glass installed without protective screens where glazed between intervening floors at a slope of 30 degrees (0.52 rad) or less from the vertical plane shall have the highest point of the glass 10 feet (3048 mm) or less above the walking surface.
2. Screens are not required below any glazing material, including annealed glass, where the walking surface below the glazing material is permanently protected from the risk of falling glass or the area below the glazing material is not a walking surface.
3. ~~Any glazing material, including annealed glass, is permitted to be installed without screens in the sloped glazing systems of commercial or detached noncombustible greenhouses used exclusively for growing plants and not open to the public, provided that the height of the greenhouse at the ridge does not exceed 30 feet (9144 mm) above grade.~~
4. (*no change to text*)
5. (*no change to text*)

Revise as follows:

~~2606.11 Greenhouses.~~ Light-transmitting plastics shall be permitted in lieu of plain glass in greenhouses.

2607.4 Area limitation and separation. The maximum area of a single wall panel and minimum vertical and horizontal separation requirements for exterior light-transmitting plastic wall panels shall be as provided for in Table 2607.4. The maximum percentage of wall area of any *story* in light-transmitting plastic wall panels shall not exceed that indicated in Table 2607.4 or the percentage of unprotected openings permitted by Section 705.8, whichever is smaller.

Exceptions:

1. In structures provided with approved flame barriers extending 30 inches (760 mm) beyond the *exterior wall* in the plane of the floor, a vertical separation is not required at the floor except that provided by the vertical thickness of the flame barrier projection.
2. Veneers of approved weather-resistant light-transmitting plastics used as exterior siding in buildings of Type V construction in compliance with Section 1406.
3. ~~The area of light-transmitting plastic wall panels in exterior walls of greenhouses shall be exempt from the area limitations of Table 2607.4 but shall be limited as required for unprotected openings in accordance with Section 704.8.~~

2609.4 Area limitations. Roof panels shall be limited in area and the aggregate area of panels shall be limited by a percentage of the floor area of the room or space sheltered in accordance with Table 2609.4.

Exceptions:

1. The area limitations of Table 2609.4 shall be permitted to be increased by 100 percent in buildings equipped throughout with an *automatic sprinkler system* in accordance with Section 903.3.1.1.
2. Low-hazard occupancy buildings, such as swimming pool shelters, shall be exempt from the area limitations of Table 2609.4, provided that the buildings do not exceed 5,000 square feet (465 m²) in area and have a minimum fire separation distance of 10 feet (3048 mm).
3. ~~Greenhouses that are occupied for growing plants on a production or research basis, without public access, shall be exempt from the area limitations of Table 2609.4 provided they have a minimum fire separation distance of 4 feet (1220 mm).~~
4. (no change to text)

**TABLE 503
ALLOWABLE BUILDING HEIGHTS AND AREAS^a**

**Building height limitations shown in feet above grade plane. Story limitations shown as stories above grade plane.
Building area limitations shown in square feet, as determined by the definition of "Area, building," per story**

(Portions of table not shown remain unchanged)

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m².

A = building area per story, S = stories above grade plane, UL = Unlimited, NP = Not permitted.

- a. See the following sections for general exceptions to Table 503:
 1. Section 504.2, Allowable building height and story increase due to automatic sprinkler system installation.
 2. Section 506.2, Allowable building area increase due to street frontage.
 3. Section 506.3, Allowable building area increase due to automatic sprinkler system installation.
 4. Section 507, Unlimited area buildings.
 5. See Section 3112 for allowable height and area for greenhouses.
- b. through d. (no change to text)

Reason: Because the primary purpose of a greenhouse is for the propagation of plants, and not for human comfort, many typical building requirements are not applicable or necessary for greenhouses. This proposal has been submitted to distinguish the use and purpose of greenhouses, which better defines the applicable code requirements, and appropriate exceptions to the code.

The word “greenhouse” used throughout the IBC is too general of a term. Definitions and descriptions of greenhouses have been proposed that make the distinctions between the purposes of greenhouses, which better defines their occupancy classification.

Existing requirements for fire safety, structural, allowable height and area, accessibility, and other provisions for greenhouses have been extracted from the current code, and relocated into this new section without any significant technical changes. In two locations, Table 1604.3, 1607.12.2.1, it was impractical to remove the word “greenhouses” due to context. Some new sections have been added that are not presently addressed in the code, but are based on common, accepted practice for greenhouse construction. Some applicable text has been derived from Appendix C Agricultural Buildings.

Greenhouses are a type of unique structure, not a type of use group. Greenhouses fall into categories depending on their use. Greenhouse use groups include B, E, M, and U.

Two distinguishing features between types of greenhouses for the purposes of code enforcement is the access by the public or not and whether they are attached to another structure. These situations have been addressed in numerous locations within the proposal.

Although employees, students, faculty, or members of the general public may occupy the space, the primary function of a greenhouse is to create a controlled environment for the propagation and cultivation of plants, and is intended to achieve the optimum environment for the protection of the plants from the outside environment. Below are photos of typical types of greenhouses.



Greenhouse for display and retail sales of plants intended for general public access



Production greenhouse for agricultural use without public access



Greenhouses used by universities for research and scientific studies, access is limited to students and faculty.

T503 Appendix C contains the height and area requirements for greenhouses.

A proposal has been submitted to Chapter 31, Special Construction, that provides the allowable height and area requirements for greenhouses.

202. Currently, there is no definition for greenhouse in the IBC, although there are numerous requirements for greenhouses in the IBC.

Greenhouses fall into categories depending on their use. Greenhouse can fall into different use groups including B, E, M, and U. A proposal has been submitted to Chapter 31 to distinguish the use and purpose of greenhouses, and better define the applicable code requirements and appropriate exceptions to the code.

Although employees, students, faculty, or the general public may occupy the space, the primary function of a greenhouse is to create a controlled environment for the propagation or maintenance of plants, and to achieve the optimum environment for the protection of the plants from the outside environment.

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

G199-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

G203 – 12

202, 3401.1, 3410.1, 3410.2 (NEW); [IEBC (B0 401.1, 409.1, 409.2 (NEW))]

Proponent: Carl F. Baldassarra, P.E., FSFPE, Chair, ICC Code Technology Committee (CTC)

Revise as follows:

RELOCATABLE BUILDING. A partially or completely assembled building constructed and designed to be reused multiple times and transported to different building sites.

3401.1 (IEBC [B] 401.1) Scope. The provisions of this chapter shall control the *alteration, repair, addition* and change of occupancy, and the relocation of existing buildings and structures.

Exception: Existing *bleachers*, grandstands and folding and telescopic seating shall comply with ICC 300.

3410.1 (IEBC [B] 409.1) Conformance. Structures moved into or within the jurisdiction shall comply with the provisions of this code for new structures.

Exception: Existing relocatable buildings moved into or within the jurisdiction shall be permitted to comply with the provisions of Chapter 13 of the International Existing Building Code.

3410.2 (IEBC [B] 401.2) Additions and Alterations. Additions and alterations made to relocatable buildings shall comply with the applicable provisions of Section 3403 and 3404 or the International Existing Building Code.

Reason: Unlike site-built buildings, which are typically intended to remain on their original site for the life of the building, relocatable modular buildings are designed and intended for relocation, reuse and/or repurposing. Many states have statutes that govern the building and relocating of relocatable modular buildings. For those that do not have state mandated requirements, much confusion and inconsistency exists about the requirements for relocatable modular buildings as existing buildings.

The Modular Building Institute (MBI) (www.modular.org) estimates that there are over 600,000 code compliant relocatable buildings in use in North America today. While it is impossible to determine the exact amount owned by the public at large, MBI estimates that public school districts across North America collectively own and operate about 180,000 relocatable classrooms with the industry owning and leasing an additional 120,000. Additionally, the industry owns and leases approximately 280,000 relocatable buildings for various other business occupancies, including construction site offices and temporary sales offices.

The Code Technology Committee Study Group on Relocatable Modular Buildings identified a number of unique characteristics of relocatable modular buildings that are unlike site-built buildings and compared them to the IBC and the IEBC. Their findings are as follows:

- There are provisions of the IBC that are not applicable/appropriate to relocatable modular buildings. Specifically, there is an unintended conflict between the IBC Section 3410, and the intent of the IEBC that cannot be realistically applied to relocatable modular buildings.
- There are sections of the conflicting code sections that cannot be applied to both site-built and relocatable modular buildings, specifically related to construction documents, inspection, and relocation.

Both the IBC and the IEBC are unclear on how to treat these buildings, particularly when they are relocated to a new site. In the absence of clear definitions and requirements that are specific to both new and existing relocatable modular buildings, many code officials attempt to apply similar, but non-related sections of the building code intended for site built buildings to the relocatable modular industry. There are unique attributes to relocatable modular buildings that warrant their own requirements in a new chapter in this code.

CTC has submitted two proposals on the subject of relocatable modular buildings. One proposal to Section 3112 for new construction and this proposal for existing buildings which are relocated. This proposal includes:

- The definition has been distilled from industry publications and definitions found in state statutes that govern modular (industrialized) buildings. This definition was also approved in the 2012 IGCC.
- An exception to IBC 3410 for relocatable buildings (currently treats all moved buildings as “new” buildings) with a pointer to Chapter 13 of IEBC. Moved relocatable modular buildings are to be treated as existing buildings.
- Relocatables undergoing additions or alterations shall comply with the appropriate section of the IEBC, which also applies to site built buildings. This section clarifies that there is no difference between the requirements for modular buildings and site built buildings when either undergoes construction for alteration or addition.

Moving this document forward through the ICC code development process will help the modular building industry comply with the intent of the code, provide a clear and consistent path for enforcement professionals, and for compliance by owners of relocatable buildings who wish to re-use or repurpose their existing buildings.

The ICC Board established the ICC Code Technology Committee (CTC) as the venue to discuss contemporary code issues in a committee setting which provides the necessary time and flexibility to allow for full participation and input by any interested party. The code issues are assigned to the CTC by the ICC Board as "areas of study". Information on the CTC, including: meeting agendas; minutes; reports; resource documents; presentations; and all other materials developed in conjunction with the CTC effort can be downloaded from the following website: <http://www.iccsafe.org/cs/cc/ctc/index.html>. Since its inception in April, 2005, the CTC has held twenty-two meetings – all open to the public.

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

G203-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

G204 – 12

3401.1

Proponent: David Bonowitz, David Bonowitz S.E., representing NCSEA Code Advisory Committee, Existing Buildings Subcommittee (dbonowitz@att.net)

Revise as follows:

3401.1 Scope. The provisions of this chapter shall control the *alteration, repair, addition, moving*, and change of occupancy of existing buildings and structures.

Exception: Existing *bleachers*, grandstands and folding and telescopic seating shall comply with ICC 300.

Reason: Chapter 34 includes Section 3410 for Moved Structures.

Cost Impact: The proposed changes will not increase the cost of construction.

G204-12

Public Hearing:	Committee:	AS	AM	D
	Assembly:	ASF	AMF	DF

G233 – 12

3410.2(NEW) [IEBC [B] 409.2 (NEW)]

Proponent: Dan Casella, Chair, ICC 300 Development Committee, Standard for Bleachers, Folding and Telescopic Seating and Grandstands

Revise as follows:

3410.1 (IEBC [B] 409.1) Conformance. Structures moved into or within the jurisdiction shall comply with the provisions of this code for new structures.

3410.2 (IEBC [B] 409.2) Bleacher systems. Bleachers, folding or telescopic seating or grandstands that are being relocated shall comply with ICC 300.

Reason: The purpose is for coordination with ICC 300 Section 505. There is also a correlative change to IEBC Section 1301. Directs code users to the ICC-300 for correct rules on relocation of an existing bleacher (due to floor replacement or gym layout redesign or other conditions) and other related rules on seating that may apply during building repairs or remodeling. Sections 305, 309 and 311 are addressed in Chapter 5. Section 310, Accessibility, is required when the alteration would require movement of major structural elements for the bleacher.

ICC 300 text is indicated below.

SECTION 505 SEATING RELOCATION

Section 505.1 Relocating existing bleachers. Relocating existing bleachers to a new location shall be permitted provided the existing bleacher complies with Sections 303.6, 304, 306, 307, 308 and 310 and Chapter 5.

Exception: Where full compliance with Sections 310.1 and 501.4 is *technically infeasible*, the relocated existing bleachers shall provide access in compliance with the building code to the maximum extent technically feasible.

The purpose of the ICC 300 standard is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, and safety to life and property relative to the construction, alteration, repair, operation, and maintenance of new and existing temporary and permanent bench bleachers, folding and telescopic seating, and grandstands. Information can be downloaded from the following website:
<http://www.iccsafe.org/cs/standards/IS-BLE/Pages/default.aspx>.

Cost Impact: The proposed changes will not increase the cost of construction.

G233-12

Public Hearing: Committee:	AS	AM	D
Assembly:	ASF	AMF	DF

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