

ICC 1215-202X edition Public Input Agenda based on Nov 15, 2024 input received on initial draft edition of the ICC 1215 Standard

For December 18, 2024 and subsequent Meetings – Teleconference

Matrix for ICC 1215 proposals

Proposal #	Section Number	Date of meeting proposal considered	Committee Action	Notes					
Chapter 1 ADMINISTRATION PROVISIONS									
IS-OSMTH 01-01-24	101.1	12/18/24	D						
IS-OSMTH 01-02-24	101.1	12/18/24		WITHDRAWN based on 01- 01-24					
IS-OSMTH 01-03-24	101.1	12/18/24	D						
IS-OSMTH 01-04-24	101.1	12/18/24		Proposed new 101.1 deferred till 1/22/25					
IS-OSMTH 01-05-24	101.2	12/18/24	D						
IS-OSMTH 01-06-24	101.2	12/18/24		Proposed new 101.2 deferred till 1/22/25					
IS-OSMTH 01-07-24	101.3	12/18/24		Deferred till 1/22/25					
IS-OSMTH 01-08-24	102.1	01/08/25	Q1: AM Q2: D	12/18/24:Back to WG1 for committee recommendation on 1/8/25. Question split.					
IS-OSMTH 01-09-24	102.3	01/08/25		Tabled until action on 01-12- 24					
IS-OSMTH 01-10-24	102.4								
IS-OSMTH 01-11-24	103.2								
IS-OSMTH 01-12-24	104.1								
IS-OSMTH 01-13-24	104.1								
IS-OSMTH 01-14-24	104.1								
IS-OSMTH 01-15-24	104.2								
IS-OSMTH 01-16-24	104.2								
IS-OSMTH 01-17-24	105.1.1								
IS-OSMTH 01-18-24	105.1.1								
		oter 2 DEFINITIC	DNS	1					
IS- OSMTH 02-01-24	202								
IS- OSMTH 02-02-24	202		-						
IS- OSMTH 02-03-24	202								
IS- OSMTH 02-04-24	202								
IS- OSMTH 02-05-24	202								
IS- OSMTH 02-06-24	202								
	Ch	apter 3 DESIG	N						
IS-OSMTH 03-01-24	301.4								
IS-OSMTH 03-02-24	301.5								
IS-OSMTH 03-03-24	301.5								
IS-OSMTH 03-04-24	302.4								
IS-OSMTH 03-05-24	302.4								
IS-OSMTH 03-06-24	302.4								
IS-OSMTH 03-07-24	306.4								
IS-OSMTH 03-08-24	308			Complete re-write					
IS-OSMTH 03-09-24	308			Complete re-write					

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Bronocol #	Section Number	Date of	Committee	Notes
Proposal #	Section Number	meeting	Action	Notes
		proposal	Action	
		considered		
IS-OSMTH 03-10-24	308.3, 308.3.1,			
	308.4			
IS-OSMTH 03-11-24	308.5			
IS-OSMTH 03-12-24	308.6			
IS-OSMTH 03-13-24	308.6			
IS-OSMTH 03-14-24	new 310			
	Chapter 7 TRAN	SPORTATION A		
		1		1
IS-OSMTH 07-01-24	701.1			
IS-OSMTH 07-02-24	701.1			
IS-OSMTH 07-03-24	702.1			
IS-OSMTH 07-04-24	702.1, 702.2.1,			
	702.4, 702.5, 702.6			
IS-OSMTH 07-05-24	702.4.2			
IS-OSMTH 07-06-24	702.6			
IS-OSMTH 07-00-24	703			Complete re-write
IS-OSMTH 07-08-24	702.6			
	10210			
	Chapter 8 0	ON-SITE INSTA	LLATION	
IS-OSMTH 08-01-24	802			Complete re-write
IS-OSMTH 08-02-24	Chapter 8			Complete delete
IS-OSMTH 08-03-24	802.3.2			
IS-OSMTH 08-04-24	802.4, 802.5.1			
	Chapter 9 RI			
IS-OSMTH 09-01-24	9			
IS-OSMTH 09-02-24	9			
		-chapter propos	sals	1
IS-OSMTH 10-01-24	202, Chap 9			
IS-OSMTH 10-02-24	308.6, Chap 9			
		endix B propos	als	
IS-OSMTH APP B 1	Appendix B			
				1
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				1
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Proposal #	Section Number	Date of meeting proposal considered	Committee Action	Notes

Revisions to the text are in legislative format – strikeout of what is to be removed, and underlined for new. Revised text in the proposals in red is to highlight the changes that were modified by the committee.

Staff notes located in this document after a proponents reason are provided to indicate proposals that may require coordination; technical information; or terminology that is not good code language (e.g. "may" or "guarantee", the use of "when" where the use is not a function of time). Staff notes are provided to assist the committee or proponent for possible modification. It is not intended to provide an opinion.

Chapter 1 ADMINISTRATION PROVISIONS

IS-OSMTH 01-01-24 ICC 1215 Section 101.1

Proponents: Macy Miller, Alaska Wagoner, The Tiny House Concierge, Vina Lustado, Sol Haus Design Supporting Proponent: Bill Gould, MiTek, Inc.

Revise as follows:

101.1 Purpose. The purpose of this standard is to provide minimum requirements to safeguard public health, safety, general welfare and to address societal and industry challenges for the inspection and regulatory compliance of small residential units, to include tiny houses for permanent occupancy. This standard is intended for adoption by government agencies and organizations for use in conjunction with model codes to achieve uniformity in the inspection and regulatory compliance of small residential units.

Reason (Miller): The phrase 'Tiny House' is not in there at all and tiny homes are the whole basis of why this standard is being brought about. I believe we should borrow the same language from 101.2 and **add "to include tiny houses for permanent occupancy"** at the end of the first sentence, to denote specifically that they are addressed in this standard.

Reason (Wagoner): Matching what we put in 101.2. Much as I like the SRU concept, I don't think it hurts to briefly call out the reason we're here.

Reason (Lustado): The phrase 'Tiny House' is not in there at all and tiny homes are the whole basis of why this standard is being brought about. I believe we should borrow the same language from 101.2 and add "to include tiny houses for permanent occupancy" at the end of the first sentence, to denote specifically that they are addressed in this standard.

Reason (Gould): A new term for "small residential units" is used in this section and throughout the standard. This term is not in the title or scope of the proposed standard and the term is not in the IBC or IRC. Recommend replacing this with "tiny houses", which are already defined in the 2024 IRC Appendix BB. If it is decided by the committee to retain "small residential units" in the standard, then I recommend adding it to the title (Design, Construction and Regulation of <u>Small Residential Units and</u> Tiny Houses for Permanent Occupancy" and adding "…<u>and Tiny Houses</u>…" wherever "small residential units" appears throughout the remainder of the standard.

Staff note: Initial motion "Approve as submitted" failed: 6 Yes, 9 No Next motion "Approve as modified" failed: 1 Yes, 13 No

Committee Action: Disapproved 12 - 1

Committee Reason: Introduces an unnecessary redundancy.

IS-OSMTH 01-02-24 ICC 1215 Section 101.1

Proponent: Vera Struck, Massachusetts Movable Tiny House Legislative Task Force

Revise as follows:

101.1 Purpose. The purpose of this standard is to provide minimum requirements to safeguard public health, safety, general welfare and to address societal and industry challenges for the inspection and regulatory compliance of small residential units including tiny houses. This standard is intended for adoption by government agencies and organizations for use in conjunction with model codes to achieve uniformity in the inspection and regulatory compliance of small residential units.

Reason: Should have "**including tiny houses**" after small residential units. The standard bears that name.

Staff note: WITHDRAWN by proponent based on previous committee action.

Committee Action:

IS-OSMTH 01-03-24 ICC 1215 Section 101.1

Proponent: Janet Thome, Tiny House Alliance USA

Revise as follows:

101.1 Purpose. The purpose of this standard is to provide minimum requirements to safeguard public health, safety, general welfare and to address societal and industry challenges for the inspection and regulatory compliance of small residential units tiny houses for permanent occupancy. This standard is intended for adoption by government agencies and organizations for use in conjunction with model codes to achieve uniformity in the inspection and regulatory compliance of small residential units.

Reason: The term small residential unit is not in the original scope of the standard and the intent of the standard has changed to a SRU as a primary focus, making a tiny house, a secondary focus, and a category under the SRU. This is a hijack of the standard. The term small residential unit is not addressed in the IRC, however, a tiny house is already defined in Appendix BB Tiny House, which dictates the definition and size. A tiny house should be the primary intent of the standard.

Staff note:

Committee Action: Disapproved 12 - 1

Committee Reason: Based on previous committee action in 01-01-24.

IS-OSMTH 01-04-24 ICC 1215 Section 101.1

Proponents: Kelly Cobeen, Wiss Janney Elstner Associates

Revise as follows:

101.1 Purpose. The purpose of this standard is to provide minimum requirements to safeguard public health, safety, general welfare and to address societal and industry challenges for the inspection and regulatory compliance of small residential units. This standard is intended for adoption by government agencies and organizations for use in conjunction with model codes to achieve uniformity in the inspection and regulatory compliance of small residential units.

101.1 Purpose. The purpose of the standard is to establish minimum requirements to provide a reasonable level of safety, health and general welfare through affordability, structural strength, means of egress, stability, sanitation, light and ventilation, energy conservation and safety to life and property from fire and other hazards and to provide a reasonable level of safety for fire fighters and emergency responders during emergency operations.

Reason: The Section 101.1 purpose needs to be struck and replaced with a purpose consistent with the IBC and IRC. The purpose of the codes is to protect the health and safety of the public.

Staff note: Kelly not present to address committee, action deferred until next meeting 1/8/25. 1/8/25: Kelly not present to address committee, action deferred until next meeting 1/22/25.

Committee Action:

IS-OSMTH 01-05-24 ICC 1215 Section 101.2

Proponent: Janet Thome, Tiny House Alliance USA

Revise as follows:

101.2 Scope. This standard applies to design, construction and regulation of small residential units, to include tiny houses for permanent occupancy tiny houses for permanent occupancy.

Reason: The term small residential unit is not in the original scope of the standard and the intent of the standard has changed to a SRU as a primary focus, making a tiny house, a secondary focus, and a category under the SRU. This is a hijack of the standard. The term small residential unit is not addressed in the IRC, however, a tiny house is already defined in Appendix BB Tiny House, which dictates the definition and size. A tiny house should be the primary intent of the standard.

Staff note:

Committee Action: Disapproved 13 - 0

Committee Reason: Based on previous committee action in 01-01-24

IS-OSMTH 01-06-24 ICC 1215 Section 101.2

Proponents: Kelly Cobeen, Wiss Janney Elstner Associates

Revise as follows:

101.2 Scope. This standard applies to design, construction and regulation of small residential units, to include tiny houses for permanent occupancy.

101.2 Scope. The provisions of this standard shall apply to the construction, *alteration*, movement, enlargement, replacement, *repair*, equipment, use and occupancy location, removal and demolition of detached one-family *small residential units* (SRUs) not more than one story above grade plane. SRUs shall conform to the requirements of the International Residential Code, except as modified by this standard.

Reason: Section 101.2 scope needs to be struck and replaced. Suggest basing this on the IRC scope. The term "regulation" is inappropriately open ended where the IRC scope is specific.

Staff note: Kelly not present to address committee, action deferred until next meeting 1/8/25.

1/8/25: Kelly not present to address committee, action deferred until next meeting 1/22/25.

Committee Action:

IS-OSMTH 01-07-24 ICC 1215 Section 101.3

Proponent: Kelly Cobeen, Wiss Janney Elstner Associates

Revise as follows:

101.3 Provisions for compliance. Where requirements are not provided by this standard, the applicable provisions of the construction codes adopted by the Authority Having Jurisdiction (AHJ), current model I-codes, or design criteria provided by a registered design professional shall apply.

Reason: Section 101.3 provisions for compliance needs to be struck. No replacement is necessary because Section 101.2 indicates that the requirements of the IRC govern, except as modified by this code. Note that it is critical to strike the last phrase of this section "…or design criteria provided by a registered design professional." Building codes (IBC or IRC) provide design criteria. Design professionals implement design criteria established by building codes. It is inappropriate to leave design professionals to establish the criteria, as there would be no basis and the results could not be relied on to protect public safety.

Staff note: Kelly not present to address committee, action deferred until next meeting 1/8/25.

1/8/25: Kelly not present to address committee, action deferred until next meeting 1/22/25.

Committee Action:

IS-OSMTH 01-08-24 ICC 1215 Section 102.1

Proponent: Janet Thome, Tiny House Alliance USA

Revise as follows:

102.1 General. The construction of small residential units tiny houses shall comply with the general requirements of this standard <u>or equivalent</u> and the applicable provisions of the construction codes adopted by the AHJ.

Reason: The term small residential unit is not in the original scope of the standard and the intent of the standard has changed to a SRU as a primary focus, making a tiny house, a secondary focus, and a category under the SRU. This is a hijack of the standard. The term small residential unit is not addressed in the IRC, however, a tiny house is already defined in Appendix BB Tiny House, which dictates the definition and size.

Shall is a mandatory term in code language, and to avoid being out of compliance with ANSI Normative Procedures 3.2, 3.2.1, and 3.2.2, the statement as it is written is creating a contractual agreement, or a condition of sale, and an exclusive endorsement of and requiring the use of a proprietary product of the Standard Development Organization that is developing this standard, which is not allowed.

ANSI Normative Procedures

3.2 Commercial terms and conditions

Except as otherwise permitted by these Essential Requirements, ANS shall not include terms or conditions that are primarily contractual or commercial in nature, as opposed to technical, engineering or scientific in nature. Thus, for example, an ANS shall not include contractual requirements (3.2.1); endorse or require the use of proprietary products or services (3.2.2); or endorse or require the use of particular conformity-assessment bodies, testing facilities or training organizations (3.2.3).

3.2.1 Contractual Requirements

Except as provided below, ANS shall not include contractual requirements such as those relating to particular products or services, guarantees, warranties, reworks, indemnities, buybacks, price-related terms and other conditions of sale or use.

3.2.2 Endorsements of Proprietary Products or Services

ANS shall not endorse or require the purchase or use of proprietary products or service providers as a condition of implementing the standard. Proprietary in this

context means products or services that are the property of an owner and cannot be obtained or recreated without the consent of the owner. For example, an ANS may not endorse or require the purchase or use of brand-name tools or components, licenses, manufacturer lists, service provider lists or copyrighted materials.8 However, for informational purposes, where known sources exist for products or services necessary to comply with the ANS, it is permissible, but not obligatory, to identify the sources (which may include a source's name and address) in a footnote, an appendix, or reference to a website. The referenced products or services shall be reasonably available from the referenced sources, the words "or the equivalent" shall be added to the reference, and the reference shall also expressly state that identification of products or services is not an endorsement of those products or services or their suppliers.

Staff note: Motion to disapprove was withdrawn. Comment to go to WG1 for additional work and report back to main committee at 1/8/25 meeting.

1/8/25: Comment split into two separate questions.

Reserve Janets modification proposal for the ANSI public review period.

Split question: Unanimous

1: 102.1 General. The construction of small residential units and tiny houses shall comply with

Committee Action: Approved as modified Unanimous

Committee Reason: The adding of the language and tiny houses keeps helps bring clarity to the statement on what the standard covers.

2: the general requirements of this standard <u>or equivalent</u> and the applicable provisions of the construction codes adopted by the AHJ.

Committee Action: Disapproved Unanimous

Committee Reason: See WG1 reason statement to committee. The original language provides necessary clarity as to the requirements for demonstrating compliance with the 1215 standard and provides an acknowledgement of the specific adopted standards/codes of the local enforcement agency.

IS-OSMTH 01-09-24 ICC 1215 Section 102.3

Proponent: Janet Thome, Tiny House Alliance USA

Revise as follows:

102.3 Qualifications. Qualifications, including certificates and credentials, where required by this standard, or equivalent are noted in the appropriate section of this standard.

Reason: Adding the comment to avoid exclusivity with this standard.

Staff note: Table until action on 01-12-24 has been taken.

Committee Action:

IS-OSMTH 01-10-24 ICC 1215 Section 102.4

Proponent: Janet Thome, Tiny House Alliance USA

Revise as follows:

102.4 Conflicts. Where conflicts occur between provisions of this standard and referenced standards, the provisions of this standard shall apply. or applicable states' statutory requirements.

Reason: There are referenced standards that are a state's statutory requirement and will supersede an adopted standard.

Shall is a mandatory term in code language, and to avoid being out of compliance with ANSI Normative Procedures 3.2, 3.2.1, and 3.2.2, the statement as it is written is creating a contractual agreement, or a condition of sale, and an exclusive endorsement of and requiring the use of a proprietary product of the Standard Development Organization that is developing this standard, which is not allowed.

ANSI Normative Procedures

3.2 Commercial terms and conditions

Except as otherwise permitted by these Essential Requirements, ANS shall not include terms or conditions that are primarily contractual or commercial in nature, as opposed to technical, engineering or scientific in nature. Thus, for example, an ANS shall not include contractual requirements (3.2.1); endorse or require the use of proprietary products or services (3.2.2); or endorse or require the use of particular conformity-assessment bodies, testing facilities or training organizations (3.2.3).

3.2.1 Contractual Requirements

Except as provided below, ANS shall not include contractual requirements such as those relating to particular products or services, guarantees, warranties, reworks, indemnities, buybacks, price-related terms and other conditions of sale or use.

3.2.2 Endorsements of Proprietary Products or Services

ANS shall not endorse or require the purchase or use of proprietary products or service providers as a condition of implementing the standard. Proprietary in this context means products or services that

are the property of an owner and cannot be obtained or recreated without the consent of the owner. For example, an ANS may not endorse or require the purchase or use of brand-name tools or

components, licenses, manufacturer lists, service provider lists or copyrighted materials.8

However, for informational purposes, where known sources exist for products or services necessary to comply with the ANS, it is permissible, but not obligatory, to identify the sources (which may

include a source's name and address) in a footnote, an appendix, or reference to a website. The referenced products or services shall be reasonably available from the referenced sources, the words

"or the equivalent" shall be added to the reference, and the reference shall also expressly state that identification of products or services is not an endorsement of those products or services or their

suppliers.

Staff note:

Committee Action:

IS-OSMTH 01-11-24 ICC 1215 Section 103.2

Proponent: Bill Gould, MiTek, Inc.

Revise as follows:

103.2 Additional requirements for non-site-specific components and buildings small residential units and tiny houses. Off-site construction components and small residential units and tiny houses that do not have site-specific design criteria shall be noted as such on the construction documents. These documents, and/or any data plates must specify the design criteria for the unit. The AHJ shall verify that the proposed building small residential units and tiny houses meets the design criteria and requirements for the its-site locations.

Reason Replace "building" with "small residential units and tiny houses" as that is the subject of the standard.

Staff note:

Committee Action:

IS-OSMTH 01-12-24 ICC 1215 Section 104.1

Proponent: David Tompos, Sr., ICC NTA, LLC

Revise as follows:

104.1 General. Inspections shall include off site inspections or on-site inspections approved by the AHJ as required. Inspections shall be in accordance with the applicable building codes and including ICC/MBI 1205. Be in accordance with the applicable building codes, state certification programs or the local AHJ.

Reason: ICC/MBI 1205 or ASTM E541 should not be a requirement of this standard but should be adopted by each state as part of their certification programs. There are approximately 35 states that have certification programs and their requirements for plan reviewers, inspectors, and third-party agencies are very different. By requiring either or both ICC/MBI 1205 or ASTM E541 as a stand-alone requirement in the ICC 1215 standard, most states would not adopt the ICC 1215 because it would conflict with their existing state requirements.

Each state through their legislative process will determine the qualifications of the plan reviewers and inspectors and qualifications of a third party agency, if applicable, and each state has the option to add either ICC/MBI 1205 or ASTM E541 through their legislative process.

It is my opinion that by making these changes, the states will be more in favor of adopting the new ICC 1215 standard on Design, Construction and Regulations of Tiny Houses for Permanent Occupancy.

Staff note:

Committee Action:

IS-OSMTH 01-13-24 ICC 1215 Section 104.1

Proponents: Macy Miller, Janet Thome, Tiny House Alliance USA, Vina Lustado, Sol Haus Design

Revise as follows:

Miller, Lustado:

104.1 General. Inspections shall include off-site inspections or on-site inspections approved by the AHJ as required. Inspections shall be in accordance with the applicable building codes and including ICC/MBI 1205.

-Alternatively-

Miller, Thome, Lustado:

104.1 General. Inspections shall include off-site inspections or on-site inspections approved by the AHJ as required. Inspections shall be in accordance with the applicable building codes , and including ICC/MBI 1205 and/or ASTM E541.

Reason (Miller): As written it could be perceived as exclusionary to alternative means of approval being used in multiple states.

Reason (Thome): ASTME541 is a statutory requirement in ten states, and will supersede ICC/MBI 1205, therefore, it needs to be inclusive in the standard.

Reason (Lustado): As written it could be perceived as exclusionary to alternative means of approval being used in multiple states.

Staff note: See 01-13-24

Committee Action:

IS-OSMTH 01-14-24 ICC 1215 Section 104.1

Proponent: Alaska Wagoner, The Tiny House Concierge

Revise as follows:

104.1 General. Inspections shall include off-site inspections or on-site inspections approved by the AHJ as required. Inspections shall be in accordance with the applicable building codes <u>and standards, including this standard,</u> and including ICC/MBI 1205 <u>and/or ASTM E541</u>.

Reason: Inspections are hard. Let inspectors choose what's best in a given situation and mend some fences.

Staff note: See 01-12-24

Committee Action:

IS-OSMTH 01-15-24 ICC 1215 Section 104.2

Proponent: Alaska Wagoner, The Tiny House Concierge

Revise as follows:

104.2 Off-site Inspections. Off-site inspections performed on components and portions of the small residential units, when not part of an approved state-certified modular or offsite inspection program, shall be performed by an approved third-party inspection agency and/or the AHJ <u>or an approved third-party inspector</u> to verify that construction is compliant with the approved construction documents.

Reason: Allowing third-party inspectors opens up inspection options. We reference them in 104.3, so it seemed good to allow them for off-site inspections as well as on-site.

Staff note: Also see 01-15-24

Committee Action:

IS-OSMTH 01-16-24 ICC 1215 Section 104.2

Proponent: Vina Lustado, Sol Haus Design

Revise as follows:

104.2 Off-site Inspections. Off-site inspections performed on components and portions of the small residential units, when not part of an approved state-certified modular or offsite inspection program, shall be performed by an approved third-party inspection agency and/or the AHJ or an approved third party inspection agency to verify that construction is compliant with the approved construction documents.

Reason: This is just a shifting of language to match other sections of standard such as 104.3.

Staff note: Also see 01-14-24

Committee Action:

IS-OSMTH 01-17-24 ICC 1215 Section 105.1.1

Proponents: Macy Miller, Vera Struck, Massachusetts Movable Tiny House Legislative Task Force, Alaska Wagoner, The Tiny House Concierge, Vina Lustado, Sol Haus Design

Revise as follows:

105.1 General. The AHJ or an approved third-party inspection agency shall indicate that the construction is compliant with the approved design documents and this standard.

105.1.1 Approved Forms. Approved forms shall include item a; and one of items b, c, d, $\Theta r \in Or f$:

- a. Data plates as specified in ICC/MBI 1205 and Appendix A B of this standard.
- b. Certification label as specified in ICC/MBI 1205.
- c. <u>Certification label as specified in ASTM E541.</u>
- d. Certification by approved registered design professional.
- e. Certification of state-wide modular construction program.
- f. Record of Approved Final Inspection by the AHJ or an entity recognized by the AHJ.

Reason:

(Miller, Lustado) 105.1

a. I believe the effort we made in WG1 to develop data plate requirements should become Appendix 'B' and a. should reflect that effort. ICC/MBI 1205 should be removed from section a. as it is covered by point b. Our actual data plate requirements are slightly different from the ones in ICC/MBI 1205's.

c.-e. should become 105.1 d.-f. 'as is' in order to add in the other compliance path some states use.

c. We should include a path for compliance via ASTM E541 because some states use this for the approval of tiny homes.

(Struck) (a) We have a supplemental sheet in Drive ! w/WG1's decision as to minimum data on a data plate. In Appendix B, Small residential units, especially movable tiny houses w/integrated chassis need a data plate just as an RV, HUD home would.

(Wagoner):

a. SRU data plates should have the information compiled in what I'll call "Vera's List." I thought we had a name for Vera's List, but maybe we don't. Appendix A refers to **The Size and Capacity for Unreinforced Cast-in-Place Footings,** so I suggest we call it "Appendix B." I removed reference to ICC/MBI 1205 because it was listed as 'b'.

c. Added reference to ASTEM E541 to add even more flexibility and in an attempt to mend fences.

d. Rephrased so we would know who did the 'approving.'

Staff note:

Committee Action: Approved as submitted.

IS-OSMTH 01-178-24 ICC 1215 Section 105.1.1

Proponent: Bill Gould, MiTek, Inc.

Revise as follows:

Section 105.1.1 Approved Forms. Approved forms shall include items a <u>and e</u>; and one of the items in b, c <u>or d</u> or e

Reason: Item e – The record of approved final inspection should be required regardless of the certification options used in either b, c or d.

Staff note:

Committee Action:

Chapter 2 DEFINITIONS

IS-OSMTH 02-01-24 ICC 1215 Section 202 Definitions

Proponents: Macy Miller, Alaska Wagoner, The Tiny House Concierge

Revise as follows:

(1 of 3) Comment –

BUILDER. The individual or entity responsible for construction <u>including but not limited</u> to: owner-builder, non-profit organization, contractor, manufacturer, small business, educational institution, etc.

(1 of 3) Reason:

(Miller) This seems to be something brought up quite a bit throughout the process. While the definition as it is may feel inclusive to some, other parties wish it more explicitly included a few categories. I don't think it takes away anything to explicitly include those.

(Wagoner) 'builder' wouldn't be clear enough (adding clarity).

(2 of 3) Comment –

PERMANENT CHASSIS. A foundation and transportation system, to include drawbar, coupling mechanism, frame, running gear assembly and lights; for modular buildings <u>SRUs</u> designed to meet the applicable building code. In use as a permanent foundation system, anchorage of the building to the foundation is provided to resist the uplift and sliding forces that result from the application of the prescribed loads.

(2 of 3) Reason:

(Miller) This is to match common nomenclature.

(Wagoner) Keeping things cohesive by continuing to refer to SRUs and this standard.

(3 of 3) Comment –

PERSON. An individual, partnership, company, corporation, association, or any other legal entity, however organized.

THIRD-PARTY INSPECTION AGENCY. An approved PERSON <u>individual or entity</u> determined by this standard or applicable states statutory requirements to be qualified by reason of facilities, personnel, experience, demonstrated reliability, and independence of judgment to inspect SMALL RESIDENTIAL UNITS, and panelized components for compliance with the CONSTRUCTION DOCUMENTS, COMPLIANCE CONTROL PROGRAM, and applicable codes.

(3 of 3) Reason:

(Miller) This is more clear and resembles the same language used in other definitions (i.e. builder). I don't believe we use the word PERSON anywhere else. Making this change lets us streamline definitions and get rid of possible confusion.

Staff note: Also see Wagoner comment 02-05-24.

Committee Action:

IS-OSMTH 02-02-24 ICC 1215 Section 202 Definitions

Proponent: Janet Thome, Tiny House Alliance USA

Revise as follows:

(13) SRU Small residential unit

Delete without substitution

Reason: The term small residential unit is not in the original scope of the standard and the intent of the standard has changed to a SRU as a primary focus, making a tiny house, a secondary focus, and a category under the SRU. This is a hijack of the standard. Any text that includes a SRU should be stricken from the standard, it has no place in the standard.

APPLICABLE BUILDING CODE. The versions of the building code that have been adopted by the state or jurisdiction in which a **SMALL RESIDENTIAL UNIT** tiny house is to be constructed.

Reason: See above.

ASSEMBLY. A collection of components assembled into a whole or partial module or SMALL RESIDENTIAL UNIT tiny house.

Reason: See above.

COMPLIANCE CONTROL PROGRAM. Procedures that state the guiding principles and define the framework for ensuring that construction documents approved by a design review agency,or that small residential unit tiny house or components inspected by a THIRD-PARTY INSPECTION AGENCY, comply with the applicable building codes.

Reason: See above.

CONSTRUCTION DOCUMENTS. Designs, plans, and specifications, including written, graphic, and pictorial documents, prepared or assembled for describing the design, location and physical characteristics of the SMALL RESIDENTIAL UNITS tiny houses or components necessary to show compliance with the applicable building codes.

Reason: See above.

DATA PLATE. A plate attached by the MANUFACTURER or BUILDER, to a SMALL RESIDENTIAL UNIT, tiny house or component that contains identifying information allowing code officials or end users to determine if the structure is suitable for installation in their jurisdiction, location, project or special conditions.

Reason: See above.

MANUFACTURER. The entity responsible for the manufacturing of assemblies, SMALL RESIDENTIAL UNITS, tiny house, components or PANELIZED SYSTEMS.

Reason: See above.

PERMANENT FOUNDATION SYSTEM. A foundation system for SMALL RESIDENTIAL UNITS tiny houses designed to meet the applicable building code to accommodate all loads and transmitting resulting loads to the supporting soil.

Reason: See above.

SMALL RESIDENTIAL UNIT (SRU). A dwelling unit that is 1,200 square feet or less constructed as a permanent residential structure with or without a PERMANENT CHASSIS system.

Reason: See above.

OWNER BUILDER. A person owning property and acting as their own general contractor on the job, and either does the work themselves or has employees (or subcontractors) working on the project.

Reason: The term builder and manufacturer are very interchangeable terms. Builder could mean an entity that builds for a manufacturing business with the intention to sell the tiny house. The owner builder is building the tiny house for themself to live in and does not have the intention to sell, and often a city will impose laws that include being licensed, the work site has to be their primary residence, they will have restrictions on selling the tiny house, the permit and approval process is unique to owner builders, and it will most always be open construction.

Staff note:

Committee Action:

IS-OSMTH 02-03-24 ICC 1215 Section 202 Definitions

Proponent: Jeffrey Munsterteiger, National Association of Home Builders (NAHB)

Revise as follows:

APPLICABLE BUILDING CODE. The versions of the building code that have been adopted by the state or jurisdiction in which a <u>SMALL RESIDENTIAL UNIT TINY HOUSE</u> is to be constructed installed or occupied.

APPROVED. Acceptable to the Authority Having Jurisdiction.

APPROVED AGENCY. An established and recognized agency that is regularly engaged in conducting tests, furnishing inspection services or furnishing product certification, and has been approved by the building official.

AUTHORITY HAVING JURISDICTION (AHJ). Organization, political subdivision, office, building official or individual charged with the responsibility of administering and enforcing the provisions of the applicable building code. <u>The authority having jurisdiction shall include a state agency or local building department.</u>

BUILDER. The individual or entity responsible for construction means a person having proper licensure and insurance as required by the AHJ and in the business of building TINY HOMES, or of contracting or offering to contract with an owner to build TINY HOMES. A BUILDER may also contract or offer to contract with an owner to improve existing TINY HOMES.

CHASSIS. The entire transportation system comprising of the drawbar and coupling mechanism, frame, running gear assembly and lights that meets Federal Motor Vehicle Safety Standards and bears a label applied by a manufacturer that is listed with the National Highway Traffic Safety Administration.

PERMANENT CHASSIS. A foundation <u>CHASSIS</u> and transportation system that is an integral part of the TINY HOUSE'S structure and cannot be removed without significant structural modifications., to include drawbar, coupling mechanism, frame, running gear assembly and lights; for modular buildings designed to meet the applicable building code. In use as a permanent foundation system, anchorage of the building to the foundation is

provided to resist the uplift and sliding forces that result from the application of the prescribed loads.

DECAL. The approved form of certification issued by the authority having jurisdiction, to be permanently attached to the modular building, modular component or panelized system indicating that it has been constructed to meet or exceed the applicable building code requirements.

MANUFACTURER. The <u>An</u> entity <u>employing one or more persons engaged in the business of responsible for</u> the manufacturing of assemblies, <u>SMALL RESIDENTIAL UNITS_TINY HOMES</u>, components or PANELIZED SYSTEMS. <u>A MANUFACTURER does not assemble components into a complete TINY HOUSE</u>, outside of their own manufacturing facility.

SMALL RESIDENTIAL UNIT (SRU). A dwelling unit that is 1,200 square feet or less constructed as a permanent residential structure with or without a PERMANENT CHASSIS system.

TINY HOUSE. A SMALL RESIDENTIAL UNIT 400 square feet or less <u>A</u> dwelling that is <u>400</u> square feet (37 m2) or less in floor area excluding lofts, with or without a PERMANENT CHASSIS system.

Reasons:

Applicable Building Code: Small Residential Unit changes to Tiny House, see reason statement for SRU. Changed the word constructed to installed or occupied. Building code regulations can and do vary widely across jurisdictions. This standard applies to tiny houses built on permanent chassis, implying that they could be moved from jurisdiction to jurisdiction. This standard should not be written in a way that could be interpreted to circumvent the regulations of the jurisdiction where a home may be installed or occupied.

Approved: added the definition of approved as it appears in the 2024 IRC. This standard uses the word approved numerous times and by not clarifying who is authorized to give an approval, conflict will be set up between builders, manufacturers and AHJs.

Approved Agency: added the definition of approved agency as it appears in the ICC 1200 standard. This standard was intended to apply to tiny houses built in a modular fashion off-site. Clarifying who may constitute an approved agency will avoid confusion and conflict with AHJ.

Builder: The definition as it was written would provide that any individual, regardless of skill, experience, education or holding proper licensure or being properly insured as required by an AHJ would be permitted by this standard to not only construct a tiny home, but also prescribe the details of its design, use, installation, and transport.

Chassis: The National Highway Traffic Safety Administration (NHTSA) is the agency that enforces Federal Motor Vehicle Safety Standards (FMVS). They have a program to list manufacturers which are required to apply labels to trailers attesting to their compliance with federal regulation. A local building code official is not equipped to make such inspections or certifications, and model building codes do not address construction that occurs on movable trailer frames. Text was added requiring that manufacturers of frames for tiny houses must be listed by NHTSA and comply with FMVS standards. A code official need only to verify that an appropriate label is attached.

Permanent Chassis: these proposed changes simplify this definition. A chassis is already defined and it doesn't need to be restated. This definition only needs to define what makes a chassis permanent, which is the purpose of this revision.

Decal: the definition of a decal was included form the ICC 1200 standard. This standard includes a requirement to place a decal, but doesn't further explain what it is, the definition is important for consistency with the other standards in this series.

Manufacturer: the definition of manufacturer as it was included doesn't set manufactures apart from builders. An entity could easily define into either category. These proposed revisions expand on the definition as its written here, and in the other 1200 series standards, but the other standards do not include a definition for builder. Whether by these revisions, or other revisions, the two categories must be adequately separated.

Small Residential Unit (SRU): This term is deleted. In another public comment changes to its use throughout the standard is changed to the term TINY HOUSE. The purpose of this standard is to regulate the off-site construction of modular tiny houses. The definition of SRU includes structures up to 1200 sq ft. A tiny house is an SRU up to 400 sq ft. Putting this in context, as defined an SRU is a building that could be 24' x 50'. Entire neighborhoods in many older suburbs and cities have homes no larger than this, and this standard could be applied to them, circumventing established building code requirements. Therefore, the definition is suggested to be deleted, keeping an established definition of a TINY HOUSE in place.

Tiny House: the definition of tiny house is modified to align with the definition found in IRC appendix BB. It is important that this standard align with the IRC definition of TINY HOUSE.

Staff note:

Committee Action:

IS-OSMTH 02-04-24 ICC 1215 Section 202 Definitions

Proponent: Vera Struck, Massachusetts Movable Tiny House Legislative Task Force

Revise as follows:

CHASSIS. The entire transportation system comprising of the drawbar and coupling mechanism, frame, running gear assembly and lights.

PERMANENT CHASSIS. A foundation and transportation system, to include drawbar, coupling mechanism, frame, running gear assembly and lights; for modular buildings small residential units designed to meet the applicable building code. In use as a permanent foundation system, anchorage of the building to the foundation is provided to resist the uplift and sliding forces that result from the application of the prescribed loads.

Reason: This change is like others we've made where the words "modular building" are replaced with small residential units

Staff note:

Committee Action:

IS-OSMTH 02-05-24 ICC 1215 Section 202 Definitions

Proponent: Alaska Wagoner, The Tiny House Concierge

Revise as follows:

COMPLIANCE CONTROL PROGRAM. Procedures that state the guiding principles and define the framework for ensuring that construction documents, approved by a design review agency, or that small residential units or components inspected by a **THIRD-PARTY INSPECTION AGENCY**, comply with the applicable building codes.

Reason: Our definition of "Compliance Control Program" felt clunky. Needed simplification.

Comment -

CONSTRUCTION DOCUMENTS. Designs, plans, and specifications, including written, graphic, and pictorial documents, prepared or assembled for describing the design, location and physical characteristics of the **SMALL RESIDENTIAL UNITS** or components necessary that describe the design and physical characteristics of **SMALL RESIDENTIAL UNITS**, components, or panelized systems, to show compliance with the applicable building codes.

Reason: Definition of "Construction Documents" felt clunky. Adjusted "SMALL RESIDENTIAL UNITS, components, and panelized systems" to match how we've previously listed those elements.

Comment -

DATA PLATE. A plate attached by the **MANUFACTURER** or **BUILDER**, to a **SMALL RESIDENTIAL UNIT**, or component, or panelized system that contains identifying information allowing code officials or end users to determine if the structure is suitable for installation in their jurisdiction or location, for a particular project, or given special conditions.

Reason: Definition of "Data Plate" felt clunky. Adjusted "SMALL RESIDENTIAL UNITS, components, and panelized systems" to match how we've previously listed those elements.

Comment -

DESIGN PACKAGE. The aggregate of all construction documents, including on-site documentation, and the compliance control program, to be submitted by the **MANUFACTURER** or **BUILDER** to the design review agency or relevant party for compliance purposes., or required by the design review agency for compliance review. A design package shall include model- or project-specific plans and calculations, typical system packages and calculations, or any combination thereof. It shall also include any relevant compliance control program documentation, and on-site documentation. Unique on-site construction details and site-specific foundation drawings prepared for specific projects are not a part of the design package.

Reason: Definition of "Design Package" felt clunky. Part of the original definition asks for "on-site documentation" and another part suggests it isn't necessary. Original definition suggests that compliance control program documentation is a necessary part of a design package. For an individual or small builder it would not be.

Staff Note: This definition may contain a provision using "shall". This should be avoided in definitions.

Comment -

INSTALLATION. The assembly of a **SMALL RESIDENTIAL UNIT**, component or **PANELIZED SYSTEM** on site and the process of affixing the modular building, **MODULAR COMPONENT** or **PANELIZED SYSTEM** to land, a foundation, or an existing building.

Reason: Removed use of the word 'modular' so as not to confuse this standard with modular building practices.

Comment -

MODULAR COMPONENT. A sub-assembly, subsystem, or combination of elements, including **PANELIZED SYSTEMS**, **BUILDING SHELLS**, or bathroom pods, for use as a part of a **SMALL RESIDENTIAL UNIT** that is not structurally independent, but is a part of structural, plumbing, mechanical, electrical, fire protection, or other systems affecting life safety.

Reason: Keeping things cohesive by continuing to refer to SRUs.

Comment -

MODULE. A three-dimensional, volumetric section of a <u>building</u> <u>structure</u> designed and approved to be transported as a single section independent of other sections, to a site for **ON-SITE CONSTRUCTION**.

Reason: Changed 'building' to 'structure' so as to use a neutral term that didn't refer to IBC.

Comment -

OPEN CONSTRUCTION. MODULAR COMPONENT or **PANELIZED SYSTEM** constructed in such a manner that all portions can <u>A style of construction that allows the</u> resulting work to be readily inspected at the building site without disassembly, damage or destruction thereof.

Reason: Open construction' references a style, not a product. Our original definition references a product.

Comment -

PERSON. An individual, partnership, company, corporation, association, or any other legal entity, however organized.

THIRD PARTY INSPECTOR/THIRD PARTY INSPECTATION AGENCY.

An approved <u>individual or entity</u> determined by this standard or applicable statutory requirements to be qualified by reason of experience, demonstrated reliability, and independence of judgment, to inspect SMALL RESIDENTIAL UNITS, <u>components, and panelized systems</u> for compliance with construction documents, <u>any relevant</u> COMPLIANCE CONTROL PROGRAM<u>S</u>, and applicable building code. A third-party inspector may work under the direction of a THIRD-PARTY INSPECTION AGENCY.

Reason: Definition of "person" felt wonky. Adjusted "SMALL RESIDENTIAL UNITS, components, and panelized systems" to match how we've previously listed those elements. Small builders may not have compliance control programs, so added "any relevant" to account for that.

Combined "THIRD PARTY INSPECTOR" and "THIRD PARTY INSPECTION AGENCY" under one definition and expressed that one could work under another because the definitions we had for each were nearly the same.

Staff note: Also see Miller comment 02-01-24

Committee Action:

IS-OSMTH 02-06-24 ICC 1215 Section 202

Proponent: Bill Gould, MiTek, Inc.

Revise as follows:

Comment -

BUILDER. "The individual or entity responsible for <u>on-site</u> construction".

Reason: Clarifies that the Builder works on-site, whereas the manufacturer works offsite.

Comment -

BUILDING SHELL ENVELOPE. "The structural framework, exterior walls, <u>roofing</u>, cladding, <u>insulation and weather-resisting systems</u>."

Reason: Envelope is the more common term used in the building code. Added roofing, insulation and weather barrier.

Comment -

PERMANENT CHASSIS. "...to resist uplift, overturning and sliding forces...".

Reason: Overturning should be added as an action along with uplift and sliding.

Comment -

DESIGN PACKAGE. – Bold text **COMPLIANCE CONTROL PROGRAM** in the definition.

Staff note: Editorial

Comment -

INSTALLATION. – "The assembly of a SMALL RESIDENTIAL UNIT, component or PANELIZED SYSTEM on site and the process of <u>anchoring</u> the modular building, MODULAR COMPONENT or PANELIZED SYSTEM to <u>land</u> <u>earth</u>, <u>soil</u>, a foundation or an existing building."

Reason: Suggest removing the word "affixing" from this definition and replacing it with "anchoring" as that is more commonly used. Also, suggest removing the word "land" from this definition and replacing with "earth" or "soil"

Staff note:

Committee Action:

Chapter 3 DESIGN

IS-OSMTH 03-01-24 ICC 1215 Section 301.4

Proponent: Janet Thome, Tiny House Alliance USA

Revise as follows:

301.4 Tiny Houses. Tiny houses shall comply with this standard and/or Appendix BB of the IRC, or equivalent.

Reason: Shall is a mandatory term in code language, and to avoid being out of compliance with ANSI Normative Procedures 3.2, 3.2.1, and 3.2.2, the statement as it is written is creating a contractual agreement, or a condition of sale, and an exclusive endorsement of and requiring the use of a proprietary product of the Standard Development Organization that is developing this standard, which is not allowed. This standard includes the certification of tiny houses, and the compliance varies in the different states.

ANSI Normative Procedures

3.2 Commercial terms and conditions

Except as otherwise permitted by these Essential Requirements, ANS shall not include terms or conditions that are primarily contractual or commercial in nature, as opposed to technical, engineering or scientific in nature. Thus, for example, an ANS shall not include contractual requirements (3.2.1); endorse or require the use of proprietary products or services (3.2.2); or endorse or require the use of particular conformity-assessment bodies, testing facilities or training organizations (3.2.3).

3.2.1 Contractual Requirements

Except as provided below, ANS shall not include contractual requirements such as those relating to particular products or services, guarantees, warranties, reworks, indemnities, buybacks, price-related terms and other conditions of sale or use.

3.2.2 Endorsements of Proprietary Products or Services

ANS shall not endorse or require the purchase or use of proprietary products or service providers as a condition of implementing the standard. Proprietary in this context means products or services that are the property of an owner and cannot be obtained or recreated without the consent of the owner. For example, an ANS may not endorse or require the purchase or use of brand-name tools or components, licenses, manufacturer lists, service provider lists or copyrighted materials.8

However, for informational purposes, where known sources exist for products or services necessary to comply with the ANS, it is permissible, but not obligatory, to

identify the sources (which may include a source's name and address) in a footnote, an appendix, or reference to a website. The referenced products or services shall be reasonably available from the referenced sources, the words "or the equivalent" shall be added to the reference, and the reference shall also expressly state that identification of products or services is not an endorsement of those products or services or their suppliers.

Staff note:

Committee Action:

IS-OSMTH 03-02-24 ICC 1215 Section 301.5

Proponent: Bill Gould, MiTek, Inc.

Revise as follows:

301.5 Use of Intermodal Shipping Containers Repurposed as Buildings and Building Components. "A structure incorporating <u>utilizing</u> intermodal shipping containers shall be designed and constructed to comply with the IBC Chapter 16, <u>Section 3114</u> and ICC Guideline G5, Guideline for the Safe Use of ISO Intermodal Shipping Containers Repurposed as Buildings and Components."

Reason: 2024 IBC Section 3114 provides requirements for use of intermodal shipping containers.

Staff note:

Committee Action:

IS-OSMTH 03-03-24 ICC 1215 Section 301.5

Proponent: Kelly Cobeen, Wiss Janney Elstner Associates

Revise as follows:

301.5 Use of Shipping Containers Repurposed as Buildings and Building Components. A structure incorporating shipping containers shall be designed and constructed to comply with the IBC. Chapter 16 and ICC Guideline G5, Guideline for the Safe Use of ISO Intermodal Shipping Containers Repurposed as Buildings and Building Components.

Reason: Section 301.5 should refer broadly to the IBC, not just Chapter 16. Note that Section 3114 specifically addresses repurposed shipping containers. It is not appropriate to require the use of a guideline or other document that does not use mandatory language.

Staff note:

Committee Action:

IS-OSMTH 03-04-24 ICC 1215 Section 302.4

Proponents: Macy Miller, Janet Thome, Tiny House Alliance USA, Vina Lustado, Sol Haus Design

Revise as follows:

302.4 Inspections. Inspections shall be in accordance with applicable codes and standards and/or State certification programs , including ICC/MBI 1205.

-Alternatively-

302.4 Inspections. Inspections shall be in accordance with applicable codes and standards and/or State certification programs, including ICC/MBI 1205 <u>and/or ASTM</u> <u>E541</u>.

Reason (Miller, Lustado): As written, it could be perceived as exclusionary to alternative means of approval being used in multiple states.

Reason (Thome): ASTME541 is a statutory requirement in ten states, and will supersede ICC/MBI 1205, therefore, it needs to be inclusive in the standard.

Staff note: See 03-04-24 and 03-05-24

Committee Action:

IS-OSMTH 03-05-24 ICC 1215 Section 302.4

Proponent: Alaska Wagoner, The Tiny House Concierge

Revise as follows:

104.1 General. Inspections shall include off-site inspections or on-site inspections approved by the AHJ as required. Inspections shall be in accordance with the applicable building codes <u>and standards, including this standard,</u> and including ICC/MBI 1205 <u>and/or ASTM E541</u>.

Reason: Inspections are hard. Let inspectors choose what's best in a given situation and mend some fences.

Staff note: See 03-03-24 and 03-05-24

Committee Action:

IS-OSMTH 03-06-24 ICC 1215 Section 302.4

Proponent: David Tompos, Sr., ICC NTA, LLC

Revise as follows:

302.4 Inspections. Inspections shall be in accordance with applicable codes and standards_and/or State certification programs, including ICC/MBI 1205.

Reason: Inspections are covered under Section 104.1 General. Section 302.4 is redundant and not necessary.

Staff note: See 03-03-24 and 03-04-24

Committee Action:

IS-OSMTH 03-07-24 ICC 1215 New Section 306.4

Proponent: Chase Browning, National Fire Sprinkler Association

Revise as follows:

306.4 Automatic Sprinkler Systems

306.4.1 General. Where provided, automatic sprinkler systems shall be designed and installed in accordance with this section, and with NFPA 13D or Section P2904 of the *International Residential Code*, which shall be considered to be equivalent to NFPA 13D.

306.4.1.1 Tiny Houses. For Small Residential Units 400 sq ft or less in floor area, the provisions of Sections 306.4.1.2 and 306.4.1.3 shall be permitted.

306.4.1.2 Obstructions. The sprinkler manufacturer's listed spacing requirements shall be followed, without regard to -obstructions.

306.4.1.3 Lofts greater than 4 ft in width. Sprinkler protection shall be provided to cover the floor area under lofts.

Reason: The International Residential Code has included residential fire sprinklers as a minimum safety feature in all townhouses and one-and-two family dwellings since 2009. This proposal is not intended to require fire sprinklers within this standard, but merely to provide guidance for scenarios where fire sprinklers 'are provided.'

It is important to note that the NFPA 13D standard, starting with the 2022 and newer editions, has provided new guidance for tiny house applications (dwellings 400 sq ft or less) that allow for a substantial relaxation of the typical obstruction rules for sprinklers. This is intended to avoid scenarios in tiny houses where, for example, six or more sprinklers may be required in a small compartment of under 200 sq ft based on the classic obstruction rules. By requiring that the spacing rules be followed, and protecting the floor area under lofts, reasonable fire protection is still provided, even with the relaxation of typical obstruction criteria.

These provisions are intended to correlate with the defined terms of the draft ICC/THIA 1215, which, at the time of this submission, include:

SMALL RESIDENTIAL UNIT (SRU). A dwelling unit that is 1,200 square feet or less constructed as a permanent residential structure with or without a PERMANENT CHASSIS system.

TINY HOUSE. A SMALL RESIDENTIAL UNIT 400 square feet or less with or without a PERMANENT CHASSIS system.

Staff note:

Committee Action:

IS-OSMTH 03-08-24 ICC 1215 Section 308

Proponent: Kelly Cobeen, Wiss Janney Elstner Associates

Revise as follows:

308.2 Application. Structural design shall be in accordance with the provisions of the codes and standards adopted by the AHJ.

308.3 Floor Systems. Floor systems shall be suitable to support the design loads of the SRU. Floor loads shall meet sections R301.4 and R301.5 of the IRC.

308.3.1 Chassis. SRUs can be built with or without a permanent chassis.

308.4 Connection of SRU to Chassis. Connections shall be in accordance with Chapter 7, Section 704.

308.5 Conditions for Prescriptive Requirements. The prescriptive requirements of section 308.6 shall apply to exterior bracing where the following conditions are met:

- 1. The following applies to the location where the building is sited:
 - a. Ultimate design wind speeds (Vult) not greater than 130 mph.
 - b. Classified Exposure B or C.
 - c. Seismic Design Category (SDC) classified as A,B, or C.
- ____
- 2. Length of the structure not greater than 50 feet or tributary span not greater than 25 feet.

3. Base wall section height not greater than 96 inches.

4. Roof slope not greater than 4:12.

5. Building width 8 feet or greater.

Option: An additional wall section 48 inches in height to provide for a loft where the loft floor system is continuous across the width of the unit at a height not greater than 96 inches.

If the conditions of this section are not met, the provisions of Section R 301.1 of the IRC shall apply.

308.6 Exterior Bracing Prescriptive Requirements. The exterior bracing shall conform with Section R602.10 Wall Bracing of the IRC or with the following:

1. The exterior end walls shall have 2 wall segments each 24 inches (minimum) in length, or 1 – 48 inch wall segment. Maximum stud spacing shall be 16" O.C.

2. The exterior end wall covering shall be a 7/16 inch thick wood structural sheathing with a span rating of 24/0, Exposure 1 (or equivalent).

3. The sheathing shall be fastened as follows:

a. 0.131 inch by 2 inch nail (8d) 4 inch O.C. edges, 6 inch O.C. field or,

b. 0.148 inch by 2 inch nail (10d) 6 inch O.C. edges, 6 inch O.C. field or,

c. 16 gauge (minimum) staple 1 inch penetration 3 inch O.C. edges, 6 inch O.C. field.

Option: Alternative materials that have a designed shear value of 350 PLF can be used when installed in accordance with manufacturer's instructions.

4. Holdowns, straps or other uplift device having a minimum service design capacity of 2800 pound uplift shall be provided at each end of each end wall panel.

5. The roof diaphragm shall be 7/16 inch thick wood structural sheathing with a span rating of 24/0, Exposure 1 or equivalent.

6. Sheathing attached to wood trusses/rafters spaced 24 inch O.C. (max) with:

a. 7/16 inch by 1 $\frac{1}{2}$ by 16 gauge (minimum) staples 6 inch O.C. edges and 12 inch O.C. field or,

b. 0.113, 0.120, or 0.131 by 2 inch nails spaced 6 inch O.C. edges and 12 inch O.C. field.

Option: 7/16 inch thick, wood structural sheathing with a span rating of 24/0, Exposure 1 or equivalent attached to steel trusses/rafters spaced 24 inch O.C. (max) with #8 screws 6" O.C. edges, 12" O.C. field.

7. For a wood truss/rafter with 7/16 inch thick, wood structural sheathing with a span rating of 24/0, Exposure 1 or equivalent, the roof diaphragm shall have a maximum span of 50 feet.

8. The steel truss/rafter with 7/16 inch thick, wood structural sheathing with a span rating of 24/0, Exposure 1 or equivalent shall not exceed the aspect ratio (length/width) of 3:1 for unblocked diaphragms and 4:1 for blocked diaphragms. Blocking for diaphragms shall be strapping 3 inches wide with a minimum thickness of 33 mils installed on top or below the sheathing.

9. The wall to floor and wall to roof has a minimum service design value of 350 PLF with fasteners placed in the shearwall. The following shall be the fastener capacity:

a. Wood Screw Capacity (pounds)					
Screw Size	(sp/D-fir)	<u>(spf/H-fir)</u>			
#8	147	125-			
#10		<u> </u>			
#12	235	200			

b. Self-tapping Screw Capacity (pounds)

Screw Size	20 ga steel (33 mil thick)	2x Plate (sr	of/H-fir min) Note i and ii
-#8	300#	129#	147#-
#10	420#	140#	186#-
#12	601#	147#	<u> </u>

i) Minimum thickness of chassis steel 12 ga (.1017 in) 97 milii) Minimum thickness of top track 20 ga (.0346 in) 33 mil-

Penetration of screw through joined material shall not be less than three exposed threads.

10. The design of the connection of the endwall/shearwall into the soil shall meet local conditions where required by the AHJ

308.2 Application. Structural design and construction shall be in accordance with the International Residential Code except as specifically modified by this section.

Reason:

This standard does not systematically address environmental loads in the way the IRC does. The intent of the structural provisions of the standards adopted by the IBC and the IRC is that residential structures perform on par with the performance that would result from the structural provisions of the IBC. This is the guiding principle that has guided development of IRC provisions and should also be applied here. In order to do this, all environmental loads must be systematically addressed, including wind, seismic, flood, etc. Without this equivalence, homes constructed in accordance with this standard will be highly vulnerable to damage from environmental loads, and the resulting standard should not be adopted.

The easiest way to do provide equivalent performance for structural provisions (and the other provisions in this standard) would be to require conformance with the IRC and use this standard to propose any specific justified variances from the IRC. If this route is not taken, then most or all of the prescriptive structural provisions of the IRC will need to be written into this document. The bracing provisions of the IRC are prescriptive (can be

used without a specific engineering design) because they have been pre-engineered by the code change proposal proponents. This is the way in which equivalency to the IBC and other codes is established. If this standards committee is going to bypass IRC bracing provisions and come up with new prescriptive bracing, then engineered designs serving as the basis will be needed. See below for proposed language.

Key methods used by the IRC to address environmental loads should be adopted by reference or included in this standard. These are:

• Setting scope of environmental load levels. IRC limits use to low and moderate wind speeds, prohibits use in very high seismic, has rule regarding placement in flood prone areas, etc. This serves to limit loading on the homes to a level that can be addressed by IRC prescriptive provisions.

• Setting weight and geometry scope. Scoping includes number of stories, story height, spacing of braced wall lines, seismic weight, seismic prohibition of irregular configurations. This simplifies configurations to the point that calculations can be run for pre-engineering.

• Limiting materials of construction. For example, limits are put on concrete and masonry walls and masonry veneer.

The IRC specifies engineered design for portions of the home that fall beyond this scope. This also is appropriate for this standard.

Section 308.3 Floor Systems is no longer needed. All of the floor provisions of the IRC are needed and should be met. Either adopt IRC by reference or bring in IRC floor provisions.

Section 308.3.1 Chassis is not needed. The IRC will provide floor provisions and allow alternative construction such as the chassis to be engineered per the IBC.

Sections 308.4 and Chapter 7 Section 703 are not needed. There is no technical justification given for this information, so engineering per existing IRC/IBC is appropriate.

Sections 308.5 and 308.6 are not needed. The bracing described in Section 308.6 is substantially less than what would be required by the IRC for the 1200 square foot size associated with the Section 202 definition of Small Residential Unit, resulting in substandard structures extremely vulnerable to wind and seismic damage. The IRC scoping and bracing provisions are needed in order to provide safe residential units, or alternative prescriptive provisions developed. At 1200 square feet, these homes are not small and would require all exterior walls to have braced wall lines conforming to IRC bracing provisions, interior braced wall lines for moderate seismic and wind, and engineered designs for high seismic and wind. It is not clear what sources should be used for load path connections, but clearly the IRC provisions should be used. Staff note:

Committee Action:

IS-OSMTH 03-09-24 ICC 1215 Section 308

Proponent: Jeffrey Munsterteiger, National Association of Home Builders

Revise as follows:

SECTION 308 STRUCTURAL DESIGN

308.1 Scope. The provisions of this chapter shall govern the minimum requirements for structural design.

308.2 Application. Structural design shall be in accordance with the provisions of the codes and standards adopted by the AHJ.

308.3 Floor Systems. Floor systems shall be suitable to support the design loads of the SRU. Floor loads shall meet sections R301.4 and R301.5 of the IRC.

308.3.1 Chassis. SRUs can be built with or without a permanent chassis.

308.4 Connection of SRU to Chassis. Connections shall be in accordance with Chapter 7, Section 704 accepted engineering practice.

308.5 Conditions for Prescriptive Requirements. The prescriptive requirements of section 308.6 shall apply to exterior bracing where the following conditions are met:

1. The following applies to the location where the building is sited:

- c. Ultimate design wind speeds (V_{ult}) not greater than 130 mph.
- d. Classified Exposure B or C.
- e. Seismic Design Category (SDC) classified as A,B, or C.

2. Length of the structure not greater than 50 feet or tributary span not greater than 25 feet.

3. Base wall section height not greater than 96 inches.

- 4. Roof slope not greater than 4:12.
- 5. Building width 8 feet or greater.

Option: An additional wall section 48 inches in height to provide for a loft where the loft floor system is continuous across the width of the unit at a height not greater than 96 inches.

If the conditions of this section are not met, the provisions of Section R 301.1 of the IRC shall apply.

308.6 Exterior Bracing Prescriptive Requirements. The exterior bracing shall conform with Section R602.10 Wall Bracing of the IRC or with the following:

1. The exterior end walls shall have 2 wall segments each 24 inches (minimum) in length, or 1 – 48 inch wall segment. Maximum stud spacing shall be 16" O.C.

2. The exterior end wall covering shall be a 7/16 inch thick wood structural sheathing with a span rating of 24/0, Exposure 1 (or equivalent).

3. The sheathing shall be fastened as follows:

a. 0.131 inch by 2 inch nail (8d) 4 inch O.C. edges, 6 inch O.C. field or,

d. 0.148 inch by 2 inch nail (10d) 6 inch O.C. edges, 6 inch O.C. field or,

c. 16 gauge (minimum) staple 1 inch penetration 3 inch O.C. edges, 6 inch O.C. field.

Option: Alternative materials that have a designed shear value of 350 PLF can be used when installed in accordance with manufacturer's instructions.

4. Holdowns, straps or other uplift device having a minimum service design capacity of 2800 pound uplift shall be provided at each end of each end wall panel.

5. The roof diaphragm shall be 7/16 inch thick wood structural sheathing with a span rating of 24/0, Exposure 1 or equivalent.

6. Sheathing attached to wood trusses/rafters spaced 24 inch O.C. (max) with:

a. 7/16 inch by 1 ½ by 16 gauge (minimum) staples 6 inch O.C. edges and 12 inch O.C. field or,

b. 0.113, 0.120, or 0.131 by 2 inch nails spaced 6 inch O.C. edges and 12 inch O.C. field.

Option: 7/16 inch thick, wood structural sheathing with a span rating of 24/0, Exposure 1 or equivalent attached to steel trusses/rafters spaced 24 inch O.C. (max) with #8 screws 6" O.C. edges, 12" O.C. field. 7. For a wood truss/rafter with 7/16 inch thick, wood structural sheathing with a span rating of 24/0, Exposure 1 or equivalent, the roof diaphragm shall have a maximum span of 50 feet.

8. The steel truss/rafter with 7/16 inch thick, wood structural sheathing with a span rating of 24/0, Exposure 1 or equivalent shall not exceed the aspect ratio (length/width) of 3:1 for unblocked diaphragms and 4:1 for blocked diaphragms. Blocking for diaphragms shall be strapping 3 inches wide with a minimum thickness of 33 mils installed on top or below the sheathing.

9. The wall to floor and wall to roof has a minimum service design value of 350 PLF with fasteners placed in the shearwall. The following shall be the fastener capacity:

 a. Wood Screw Capacity (pounds)

 Screw Size
 (sp/D-fir)

 #8
 147

 #10
 187

 #12
 235

b. Self-tapping Screw Capacity (pounds)

Screw Size	20 ga steel (33 mil thick)	2x Plate (sp	of/H-fir min) No	ote i and ii
#8	300#	129#	147#	
#10	420#	140#	186#-	
#12	601#		224#	

i) Minimum thickness of chassis steel 12 ga (.1017 in) 97 milii) Minimum thickness of top track 20 ga (.0346 in) 33 mil-

Penetration of screw through joined material shall not be less than three exposed threads.

10. The design of the connection of the endwall/shearwall into the soil shall meet local conditions where required by the AHJ.

Reason:

The requirements of this section appear to loosely follow the prescriptive wall bracing concepts of the IRC, Section R602.10. Wall bracing requirements from the IRC are not translatable to the requirements for structures built in compliance with this standard, unless the structure is in full compliance with the IRC, for all structural requirements including foundation types and not constructed for mounting to a chassis.

The IRC wall bracing requirements are the result of stringent engineering analysis and testing for the forces encountered by permanently sited structures during the conditions of wind and seismic events. In both cases, the maximum loads are typically short duration. Whereas the loads encountered by a structure being towed by a vehicle at highway speeds are present for extended durations, and are encountered

simultaneously, such as wind loads, and the forces encountered during braking, acceleration, and maneuvering. These are outside the scope of IRC requirements.

Further exploring the prescriptive minimum bracing requirements given in this draft, they appear to result in significantly less bracing than what would be required if designed to IRC requirements. For example, the design parameters would allow for up to a 50-foot braced wall line spacing built in category C, with a 130 mph wind speed. With an 8-foot story height, and a 4:12 pitch roof height, a minimum of 28.728-feet of bracing is required. This is assuming no interior gypsum and unblocked wall bracing panels, neither of which are required by minimum design requirements in the standard.

Additional concerns are with the use of staples in 308.6 paragraph 3.c.. Staples are not permitted for fastening of wall bracing panels in the IRC. Without engineering analysis or testing staples should not be permitted here.

308.6 appears to apply only to "exterior end walls" leaving a question about how other walls are required to be braced, if required to be braced at all. Also missing are requirements that compliant panels be placed within 10-feet of braced wall line ends, and with a maximum spacing of 20-feet between panels.

Also, within section 308 are two "options" for construction. In typical code language, what's given here as an option should be written as an exception, if they are necessary.

As a result of the above concerns this comment proposes deleting without substitution the prescriptive design requirements in this standard.

Staff note:

Committee Action:

IS-OSMTH 03-10-24 ICC 1215 Sections 308.3, 308.3.1 & 308.4

Proponent: Janet Thome, Tiny House Alliance USA

Revise as follows:

308.3 Floor Systems. Floor systems shall be suitable to support the design loads of the SRU tiny house. Floor loads shall meet sections R301.4 and R301.5 of the IRC.

308.3.1 Chassis. SRUs Tiny houses can be built with or without a permanent chassis.

308.4 Connection of SRU <u>Tiny House</u> to Chassis. Connections shall be in accordance with Chapter 7, Section 704.

Reason: (308.3) A small residential unit is neither defined in code or requirements of an AHJ. The term small residential unit is not in the original scope of the standard and the intent of the standard has changed to a SRU as a primary focus, making a tiny house, a secondary focus, and a category under the SRU. This is a hijack of the standard. Any text that includes a SRU should be stricken from the standard, it has no place in the standard. A tiny house should be the primary intent of the standard.

Reason: (308.3.1, 308.4) The term small residential unit is not in the original scope of the standard and the intent of the standard has changed to a SRU as a primary focus, making a tiny house, a secondary focus, and a category under the SRU. This is a hijack of the standard. Any text that includes a SRU should be stricken from the standard, it has no place in the standard. A tiny house should be the primary intent of the standard

Staff note:

Committee Action:

IS-OSMTH 03-11-24 ICC 1215 Section 308.5

Proponent: Bill Gould, MiTek, Inc.

Revise as follows:

308.5 Conditions for Prescriptive Requirements. The prescriptive requirements of section 308.6 shall apply to exterior bracing where the following conditions are met:

- 1. The following applies to the location where the building is sited:
 - a. Ultimate design wind speeds (V_{ult}) not greater than 130 mph.
 - b. Classified Exposure B or C.
 - c. Seismic Design Category (SDC) classified as A,B, or C
- 2. Length of the structure not greater than 50 feet or tributary span not greater than 25 feet.
- 3. Base wall section height not greater than 96 inches.
- 4. Roof slope not greater than 4:12.
- 5. Building width 8 feet or greater.

Option Exception to item 3: An additional wall section 48 inches in height to provide for a loft where the loft floor system is continuous across the width of the unit at a height not greater than 96 inches.

If the conditions of this section are not met, the provisions of Section R 301.1 of the IRC shall apply.

Reason: Item 3 which limits the base wall section height to not greater than 96 inches If there is a loft, then the total wall height would be 144 inches.

Staff note:

Committee Action:

IS-OSMTH 03-12-24 ICC 1215 Section 308.6, items 2, 3, 4, 5, 7, 8, 9 & 10

Proponent: Bill Gould, MiTek, Inc.

Revise as follows:

308.6 Exterior Bracing Prescriptive Requirements. The exterior bracing shall conform with Section R602.10 Wall Bracing of the IRC or with the following:

2. The exterior end wall covering shall be <u>minimum thickness</u> 7/16 inch thick wood structural

sheathing with a span rating of 24/0, Exposure 1 (or equivalent).

3. The sheathing shall be fastened as follows:

a. 0.131 inch by 2 inch nail (8d) 4 inch O.C. edges, 6 inch O.C. field or,

b. 0.148 inch by 2 inch nail (10d) 6 inch O.C. edges, 6 inch O.C. field or,

c. 16 gauge (minimum) staple 1 inch penetration 3 inch O.C. edges, 6 inch O.C. field.

Option: Alternative materials that shall have a <u>minimum</u> designed shear value capacity of 350 PLF may be used when installed in accordance with manufacturer's instructions a referenced standard, an approved evaluation report and the manufacturer's installation instructions.

4. Hold-downs, straps or and other uplift restraining devices shall having have a minimum design uplift capacity of 2,800 lbs uplift and shall be provided at each end of each end wall panel.

5. The roof diaphragm shall be <u>minimum thickness</u> 7/16 inch thick wood structural sheathing with a span rating of 24/0, Exposure 1 or equivalent.

7. For a wood truss/rafter with <u>minimum thickness</u> 7/16 inch thick, wood structural sheathing with a span rating of 24/0, Exposure 1 or equivalent, the roof diaphragm shall have a maximum span of 50 feet.

8. The <u>cold-formed</u> steel truss/rafter with <u>minimum</u> 7/16 inch thick, wood structural sheathing with a span rating of 24/0, Exposure 1 or equivalent shall not exceed the aspect ratio (length/width) of 3:1 for unblocked diaphragms and 4:1 for blocked diaphragms. Blocking for diaphragms shall be <u>cold-formed</u> steel strapping a <u>minimum</u> 3

inches wide with a minimum thickness of 33 mils installed on top <u>of</u> or below the sheathing <u>with screws designed to resist the diaphragm shear at the strapping location.</u>

9. The wall to floor and wall to roof has a minimum service design value of 350 PLF with fasteners placed in the shearwall. The following shall be the fastener capacity:

a. Wood Screw Capacity (pounds)					
Screw Size	(sp/D-fir)	<u>(spf/H-fir)</u>			
#8	147	125			
#10	187	158			
#12	235	200			

b. Self-tapping Screw Capacity (pounds)

Screw Size	20 ga steel (33 mil thick)	2x Plate (s	pf/H-fir min) Note i and ii
#8	300#	129#	147#-
#10	420#	140#	186#-
#12	601#	147#	224#_

i) Minimum thickness of chassis steel 12 ga (.1017 in) 97 milii) Minimum thickness of top track 20 ga (.0346 in) 33 mil

<u>Minimum wall-to-floor and wall-to-roof design shear capacities of 350 PLF shall be</u> provided with screw fasteners as part of shear walls. The following design shear capacities shall apply unless otherwise noted in an approved evaluation report:"

- a. Wood Screw Shear Capacity
- b. <u>Self-Tapping Screw Shear Capacity</u>

Penetration of screw through joined material shall not be less than three exposed threads.

10. The Design of the connection anchorage of endwall/shear wall bottom plates into the soil to foundations shall meet local conditions where required by the AHJ.

Reason: Items 3 & 4, 8, 10 Stands on its own. Items 2, 5 & 7 Is the 7/16 inch thick wood structure sheathing a minimum thickness? If so, include "<u>minimum thickness</u>".

Item 9 To further simplify, you could also just provide the lowest value for each fastener size.

Staff note: See 10-02-24

Committee Action:

IS-OSMTH 03-13-24 ICC 1215 Section 308.6, item 2

Proponents: Macy Miller, Vina Lustado, Sol Haus Design, Alaska Wagoner, The Tiny House Concierge

Revise as follows:

308.6 Exterior Bracing Prescriptive Requirements. The exterior bracing shall conform with Section R602.10 Wall Bracing of the IRC or with the following:

2. The exterior end wall covering shall be a 7/16 inch thick wood structural sheathing with a span rating of 24/0, Exposure 1 (or equivalent).

Option: Exterior endwall requirements may be accounted for with interior walls that are within ¹/₃ the distance of overall SRU of structures end.

Reason (Miller, Lustado, Wagoner): The likelihood of wanting a big window on the end of a tiny house is high enough to justify the condition that interior walls could handle shear forces within the prescriptive path. Even though this may be addressed in R602.10, I think it is worth noting within this prescriptive path language. I am not sure how to denote a safe number of feet from the endwall that it should be. I would say something like within ¹/₃ of the tiny house length of the end of the structure. I think it would be best to talk to an engineer about this distance though.

Staff note:

Committee Action:

IS-OSMTH 03-14-24 ICC 1215 New Section 310

Proponent: Zack Giffin, Operation Tiny Home

Revise as follows:

SECTION 310 INSULATION

310.1 Insulation requirements. SRU's under 400 SF shall meet or exceed the values included in the revised chart titled "1215 Tiny House Prescriptive Insulation Requirements" *(Staff: referenced in Table 310.1)* or meet the performance standards adopted by the AHJ.

Table 310.1 - 1215 Tiny House Prescriptive Insulation Requirements" (SRU's under 400 sf)

Climate	Ceiling R-	Wood	Mass Wall	Floor R-	Basement	Slab R-
Zone	Value	Frame Wall	R-Value	Value	Wall R -	Value &
		R-Value			Value	Depth
1	R-13	R-13	R - 3/4	R-13	NR	NR
2	R-13	R-13	R - 4/6	R-13	NR	NR
3	R-15	R-13	R - 8/13	R-13	R - 5 ci or	R - 10, 2 ft
					R-13	
4	R-20	R-15	R - 8/13	R-15	R - 10 ci or	R - 10, 2 ft
					R-13	
5	R-30	R-20 or R-	R - 13/17	R-20	R - 15 ci or	R - 10, 4 ft
		13 + R-5 ci			R - 19	
6	R-38	R-20 or R-	R - 15/20	R-30	R - 15 ci or	R - 10, 4 ft
		13 + R-5 ci			R - 19	
7-8	R-49	R-20 or R-	R - 19/21	R-30	R - 15 ci or	R - 10, 4 ft
		13 + R-5 ci			R - 19	

Reason: Refer to above table.

Staff note:

Committee Action:

Chapter 7 TRANSPORTATION AND STORAGE

IS-OSMTH 07-01-24 ICC 1215 Section 701.1

Proponent: Janet Thome, Tiny House Alliance USA

Revise as follows:

701.1 General. Transportation of units which have been manufactured or constructed off-site shall comply with the provisions of this chapter. An SRU <u>A tiny house</u> constructed off-site and its transportation system shall be built to withstand the effects of highway movement such that the home is transported and installed as a habitable dwelling.

Reason: The term small residential unit is not in the original scope of the standard and the intent of the standard has changed to a SRU as a primary focus, making a tiny house, a secondary focus, and a category under the SRU. This is a hijack of the standard. Any text that includes a SRU should be stricken from the standard, it has no place in the standard. A tiny house should be the primary intent of the standard.

Staff note:

Committee Action:

IS-OSMTH 07-02-24 ICC 1215 Section 701.1

Proponent: Bill Gould, MiTek, Inc.

Revise as follows:

701.1 General. Transportation of units which have been manufactured or constructed off-site shall comply with the provisions of this chapter. An SRU <u>and Tiny House</u> constructed off-site and its transportation system shall be built to withstand the effects of highway movement <u>and wind forces</u> such that the home is transported and installed as a habitable dwelling.

Reason: Is a Tiny House considered a "unit"? The word "unit" is used a few times in the standard and it's meaning should be clear what it is referring to.

Is cosmetic damage (i.e. damage or cracking of drywall) during transport considered acceptable? If a component is damaged (e.g. wood splitting/cracking, window glass cracking, etc.), the standard require that it be repaired / replaced.

Staff note:

Committee Action:

IS-OSMTH 07-03-24 ICC 1215 Section 702.1

Proponent: Macy Miller, Vina Lustado, Sol Haus Design, Vera Stuck, Massachusetts Movable Tiny House Legislative Task Force, Alaska Wagoner, The Tiny House Concierge

Revise as follows:

702.1 Chassis. All chassis shall be built in compliance with DOT <u>and NHTSA</u> requirements as described below:

- 1. A chassis with an inspection record by DOT and/or NTHSA inspection.
- 2. A QA process that verifies compliance with DOT requirements.
- 3. A QA process approved by the AHJ.

Reason: (Miller, Lustado, Wagoner) NTHSA requirements may be different that DOT and both apply, so I

am just writing this in as a wider scope of compliance..

Reason: (Struck) DOT are state requirements and NHTSA is federal, we s/b certifying to one or the other.

Staff note: NTHSA - National Highway Traffic Safety Administration

Committee Action:

IS-OSMTH 07-04-24 ICC 1215 Section 702.1, 702.2.1, 702.4, 702.5, 702.6

Proponent: Jeffrey Munsterteiger, National Association of Home Builders (NAHB)

Revise as follows:

702.1 Chassis. All chassis shall be built in compliance with DOT requirements as described below:

- 1. A chassis with an inspection record by DOT inspection.
- 2. A QA process that verifies compliance with DOT requirements.
- 3. A QA process approved by the AHJ.

702.2.1 Recycled axles. Before reuse, all axles, including component parts, shall be inspected and reconditioned as required pursuant to an acceptable quality control program or listed or labeled by a nationally recognized inspection agency or a DOT inspection or a quality assurance process approved by the AHJ.

702.4 Tires. Tires shall be sized and fitted so the static loads imposed on the axle do not exceed the gross axle weight rating determined by the SRU manufacturer or builder.

702.5 Coupling mechanism. The coupling mechanism shall have a certified load rating capable of carrying the actual imposed design static load, determined by the SRU manufacturer or builder, when installed in accordance with the coupler's instructions. As part of the coupling mechanism there shall be an approved breakaway braking system.

702.6 Location. The location of the running gear shall be determined by engineering analysis or SRU manufacturer or builder's experience, taking into account the gross weight (including all contents), and total length of unit to meet or exceed the actual imposed loads on the coupling mechanism and the running gear are not exceeded. Weight of the home shall be checked in a level position ready for transportation.

Reason:

The National Highway Traffic Safety Administration is responsible for compliance with federal motor vehicle safety regulations. Local code officials are not equipped to inspect trailers for compliance with these regulations, and the standard should not imply or require it. NHTSA has a program already, in which manufactures are required to label trailers for compliance with regulations. Constructing a safe and regulatory compliant trailer is beyond the scope of I-Codes and standards. There is more to such an

endeavor than recommending a minimum of 12-gauge metal in a trailer's frame. Minimum material sizes, the geometry of its design, and how pieces are assembled together (welding, bolting, etc) are factors not considered here.

While a few specific lines were struck in this comment, there is much more for the committee to consider and revise before publishing a final standard. A few examples are provided below, but this isn't an exhaustive or complete list.

702.6- what constitutes a manufacturers or builders experience? How is this quantified and if a code official accepted their design and this unit was in involved in a serious crash, liability can extend to a code official.

Section 703 appears to be equating the results of the equations into a connection to the chassis, but its unclear once the calculation is completed, how that is applied going forward.

What are the limits of application of Table 703.1.1? are washers or lock washers required? How about edge distance to the edge of chassis frame components? What are the minimum fastener requirements? Do they need to meet any specific grade or ASTM standard. Or have any corrosion resistance if used in treated materials? Are these fastening requirements to resist against the gravity loads of the structure, or were they evaluated for the wind and seismic loads attributed to the structure's location and the rigors of towing?

Staff note:

Committee Action:

IS-OSMTH 07-05-24 ICC 1215 Section 702.4.2

Proponent: Bill Gould, MiTek, Inc.

Revise as follows:

702.4.2 Installation. Tires and rims shall be installed by applying the proper torque to the lug nuts as specified in accordance with the tire and rim manufacturer's instructions and checked by the Small Residential Unit and Tiny House manufacturer or builder when the unit is completed.

Reason: Isn't proper torque applied to the lug nuts and not the tire or rim?

Staff note:

Committee Action:

IS-OSMTH 07-06-24 ICC 1215 Section 702.6

Proponent: Bill Gould, MiTek, Inc.

Revise as follows:

702.6 Location. The location of the running gear shall be determined by engineering analysis or SRU <u>and Tiny House</u> manufacturer or builder's experience, taking into account the gross weight (including all contents), and total length of unit to meet or exceed the actual imposed loads on the coupling mechanism and the running gear are not exceeded. Weight of the <u>home load</u> shall be checked in a level position ready for transportation.

Reason: Replace "weight of the home" with "weight of the load"

Staff note:

Committee Action:

IS-OSMTH 07-07-24 ICC 1215 Section 703

Proponent: Kelly Cobeen, Wiss Janney Elstner Associates

Revise as follows:

703.1 Connection to chassis. Connection of the SRU to the chassis for in-transit conditions shall comply with 703.1.1 and 703.1.2 or shall comply with 703.2 shall be engineered in accordance with the International Building Code.

703.1.1 Design weight. The summation as shown in Equation 703.1.1(a) or 703.1.1(b) of the design loads (1) through (3) of this section shall be used to determine the adequacy of the connection of the SRU to the chassis for in-transit conditions.

- 1. Vertical dead load of all structural and non-structural components at the time of shipment of the SRU above the chassis or 500 pounds per linear foot.
- 2. Live load for additional non-structural elements in place during transport.
- 3. Dynamic loading factor

EQ. 703.1.1(a) TDW= (DL_{SRU} + LL₃) x (1+dL) Or EQ. 703.1.1(b) TDW = (UW_{SRU} x UL_{SRU} + LL₃) x (1+dL)

Where,

TDW = Total Design Weight

DLsRU = Calculated weight of the Small Residential Unit

UW_{SRU} = Weight of Small Residential Unit per linear foot (500 lbs/lf minimum)-UL_{SRU} = Small Residential Unit length-

LL₃ = Live load during transport (3 lbs/square foot minimum)

dL = Dynamic loading factor (25% minimum)

Table 703.1.1 FASTENER CAPACITY

(Lag screw or through bolt capacity - lbs)

LAG/BOLT DIAMETER (inches)-	D.FIR/S.PINE	HEM-FIR/S-P-F
3/8	400#-	370# -
1/2-	762#	700#-
5/8 -	1200#	1120# -

-

(Salf_t	anning	SCLOW	canacity	/_lhe)
	apping	30101	capaony	103)

Screw Size	20 ga (33 mil) Track	2x Plate (SPF/HF min)
#8-	300# -	184#
#10-	420# -	232# -

#12	601# -	280# -
. .		

Notes:

A. Minimum thickness of chassis steel 12 gauge (0.1017 inch) 97 mil-

- B. Penetration of screws through joined materials shall not be less than three exposed treads.
- c. Thread locking shall be provided as required by the fastener manufacturer to maintain the holding capacity.

703.1.2 Number of fasteners. The total number of fasteners required for in-transit condition shall equal the total design weight divided by the fastener capacity.

- Notes:
 - 1. Total number of lags or through bolts to be distributed over the length of the unit.
 - 2. Any combination of lags, through bolts, or self-tapping screws can be considered to connect the SRU to the chassis.

703.2 Alternative connection. The connection of the SRU to the chassis shall be in accordance with acceptable engineering practice.

Reason: No reason submitted.

Staff note:

Committee Action:

IS-OSMTH 07-08-24 ICC 1215 Section 702.6, item 3, table 703.1.1

Proponent: Bill Gould, MiTek, Inc.

Revise as follows:

703.1.1 Design weight. The summation as shown in Equation 703.1.1(a) or 703.1.1(b) of the design loads (1) through (3) of this section shall be used to determine the adequacy of the connection of the SRU to the chassis for in-transit conditions.

1. Vertical dead load of all structural and non-structural components at the time of shipment of the SRU above the chassis or 500 pounds per linear foot.

- 2. Live load for additional non-structural elements in place during transport.
- 3. Dynamic loading factor

EQ. 703.1.1(a) TDW= (DL_{SRU} + LL₃) x (1+dL) Or

EQ. 703.1.1(b) TDW = (UW_{SRU} x UL_{SRU} + LL₃) x (1+dL)

Where,

TDW = Total Design Weight

DL_{SRU} = Calculated weight of the Small Residential Unit

 UW_{SRU} = Weight of Small Residential Unit per linear foot (500 lbs/lf minimum)

UL_{SRU} = Small Residential Unit length

LL₃ = Live load during transport (3 lbs/square foot minimum)

dL = Dynamic loading factor (25% minimum)

Table 703.1.1 FASTENER CAPACITY (Lag screw or through bolt capacity - lbs)

LAG/BOLT DIAMETER (inches)	D.FIR/S.PINE	HEM-FIR/S-P-F
3/8	400#	370#
1/2	762#	700#
5/8	1200#	1120#

(Self-tapping screw capacity - lbs)

Screw Size	20 ga (33 mil) Track	2x Plate (SPF/HF min)
#8	300#	184#
#10	420#	232#
#12	601#	280#

Notes:

A. Minimum thickness of chassis steel 12 gauge (0.1017 inch) 97 mil

B. Penetration of screws through joined materials shall not be less than three exposed treads.

C. Thread locking shall be provided as required by the fastener manufacturer to maintain the holding capacity.

Reason: Are these fastener capacities in shear? Is there any concern about overturning during transport where tension capacities for resisting uplift would be needed?

(3) Include units for all terms used in the dynamic loading factor equation (e.g. lbs, feet)

Why is Hem-Fir/S-P-F shown in one table and SPF/HF shown in another table? Should the same abbreviations be used?

Staff note: Editorial?

Committee Action:

Chapter 8 ON-SITE INSTALLATION

IS-OSMTH 08-01-24 ICC 1215 Section 802

Proponent: Kelly Cobeen, Wiss Janney Elstner Associates

Revise as follows:

SECTION 802

FOUNDATION

802.1 Foundation. Foundation shall be constructed in accordance with Chapter 4 of the IRC.

802.2 Loads. The foundation shall be designed to support the building, all live and dead loads, and all construction loads. The foundation shall be designed to consider all geotechnical limits placed on the building and foundation at the site.

802.3 Footings. Footings shall be in accordance with section R403 of the IRC.

802.3.1 Depth. Footing depth shall be in accordance with section R403.1.4 of the IRC.

Exceptions:

- 1. The footing of the SRU shall not be required to be placed below the frost line when the underside of the unit is protected with a foundation wall or skirting having an insulation value of R-6 minimum from the underside of the unit to grade.
- 2. A monolithic slab is permitted above the frost line where site-specific conditions including soil characteristics, site preparation, ventilation and insulative properties of the under-floor enclosure are considered.

802.3.2 Material. Footing material shall provide equal load bearing capacity and resistance to decay. Footing material shall be one of the following:

- 1. Four-inch nominal precast concrete pads meeting ASTM C 90-23.
- 2. Six inch minimum poured in place concrete pads, slabs, or ribbons with at least a 28-day compressive strength of 3000 pounds per square inch.

- 3. Pressure treated plywood is to be rated exposure 1 or exterior sheathing in accordance with PS-1-95.
- 4. ABS footing pads that are listed or labeled for the required load capacity for use in the soil classification at the site.
- 5. Other materials that are certified by a registered design professional and accepted by the local AHJ.

802.3.3 Ground Moisture Control. Ventilation shall be in compliance with section R408 of the IRC.

802.4 Piers. Piers shall be capable of transmitting the vertical live and dead loads to the footing or foundation. Piers shall be one of the following:

- Concrete block (open or closed cell) meeting ASTM C90-23, 8 inches x 8 inches x 16 inches single layer maximum 36 inches high and double interlocked blocks maximum 67 inches high. Mortar is not required unless written in the installation instructions or required by the design professional or the AHJ.
- 2. Metal or other approved piers shall be listed or labeled and installed in compliance with the manufacturer's installation instructions.
- 3. Other materials that are certified by a registered design professional and accepted by the local AHJ.

802.5 Anchorage. Anchorage systems shall comply with one of the following:

- 1. IRC, section R403.1.6.
- 2. Designed by a registered design professional.
- 3. Requirements of the local AHJ.

802.5.1 Ground anchors. Where ground anchors are used, the anchor shall be listed by the manufacturer of the anchor or certified by a registered design professional for the soil condition and installed in compliance with the manufacturer's instructions.

SECTION 803

CONNECTIONS

803.1 Manufacturer instructions. The manufacturer or builder shall provide instructions that describe the details for:

- 1. Foundation loads, anchorage details and required capacity of anchorage devices.
- 2. Maximum foundation support, spacings, and any additional information necessary for the proper support of the building.

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- 3. Information on the connection of building or plumbing, gas, electrical services.
- 4. Installation of all other items necessary to complete the SRU on site.

Reason: These foundation provision are inadequate and need to be replace with IRC foundation provisions. None of the foundation materials listed in Section 802.3 or pier systems in Section 802.4 have the weight or continuity that is needed to provide wind or seismic resistance to the home being supported. As a result, their use would contribute to significant wind and seismic vulnerability of these homes. These should be deleted and replaced with IRC foundation systems that have adequate weight and continuity.

Staff note:

Committee Action:

IS-OSMTH 08-02-24 ICC 1215 Chapter 8

Proponent: Jeffrey Munsterteiger, National Association of Home Builders (NAHB)

Revise as follows:

DELETE ALL OF CHAPTER 8

Reason: The current draft of chapter 8 falls short of being enough to provide a compliant foundation.

802.3.1 removes requirements for footings to be placed a minimum of 12-inches below the top of grade, or below the frost line if certain items are considered. To resist lateral loads from wind of seismic forces, footings have a minimum depth requirement to prevent lateral displacement. It isn't enough to remove these requirements simply because an under slab is insulated. Crawl spaces still require minimum footing depths, there needs to be additional considerations to this section.

Alternate foundation designs are provided in 802.3.2, without substantiation of their adequacy or further prescriptive requirements beyond being required to be designed by a registered design professional. For example, pressure treated plywood is a permitted material. What are the details of this construction? Is it a permanent wood foundation? ABS footing pads should be listed.

802.3.3 only requires compliance with ventilation requirements for crawlspaces. All the requirements of that section should be applicable.

802.5 requires foundation anchorage to comply with IRC R403.1.6 which only applies to a foundation built in compliance with the IRC. It doesn't apply to any of the alternate materials provided in this standard.

803.1 allows a builder or manufacturer to provide instructions for foundation design or anchorage. The definitions of builder or manufacturer are such that anyone could be either and write instructions for the mentioned items without any basis for the requirements. Really anything could be provided without more specifics on these requirements.

The entire chapter is shown to be deleted in this comment to spark additional conversation about the minimum requirements for this section.

Staff note:

Committee Action:

IS-OSMTH 08-03-24 ICC 1215 Section 802.3.2, items 1, 3 & 4

Proponent: Bill Gould, MiTek, Inc.

Revise as follows:

802.3.2 Material. Footing material shall provide equal load bearing capacity and resistance to decay. Footing material shall be one of the following:

1. Four-inch nominal precast concrete pads meeting ASTM C 90-23 ACI 318-19.

3. Pressure treated plywood is to shall be rated exposure 1 or exterior sheathing in accordance with PS-1-95 PS-1-22.

4. ABS footing pads that are listed or labeled in an approved evaluation report for the required load capacity for use in the soil classification at the site.

Reason:

1. Replace ASTM C90-23 with ACI 318-19 Building Code Requirements for Structural Concrete.

- 3. Use mandatory language and update reference to PS 1-22.
- 4. Note ABS footing pad evaluation report.

Staff note:

Committee Action:

IS-OSMTH 08-04-24 ICC 1215 Sections 802.4, item 2, 802.5.1

Proponent: Bill Gould, MiTek, Inc.

Revise as follows:

802.4 Piers. Piers shall be capable of transmitting the vertical live and dead loads to the footing or foundation. Piers shall be one of the following:

2. Metal or other approved piers shall be listed or labeled <u>in an approved</u> <u>evaluation report</u> and installed in compliance with the manufacturer's installation instructions.

802.5.1 Ground anchors. Where ground anchors are used, the anchor shall be listed <u>in</u> <u>an approved evaluation report</u> by the manufacturer of the anchor or certified by a registered design professional for the soil condition and installed in compliance with the manufacturer's <u>installation</u> instructions.

Reason: Suggest adding wording about approved evaluation reports.

Staff note:

Committee Action:

Chapter 9 REFERENCED STANDARDS

IS-OSMTH 09-01-24 ICC 1215 Section

Proponent: Macy Miller, Vina Lustado, Sol Haus Design, Alaska Wagoner, The Tiny House Concierge

Revise as follows:

Add:

ASTM-E541 Criteria for Compliance Ensuring Agencies for Manufactured Buildings

Reason: Cited in comments for technical revisions.

Staff note:

Committee Action:

IS-OSMTH 09-02-24 ICC 1215 Section

Proponent: Bill Gould, MiTek, Inc.

Revise as follows:

Add:

ACI 318-19 Building Code Requirements for Structural Concrete.

Date for NFPA 70<u>-23</u>.

Reason: Cited in comments for technical revisions of 802.3.2, item 1.

Staff note:

Committee Action:

Multi-chapter proposals

IS-OSMTH 10-01-24 ICC 1215 Section 202 & Chapter 9

Proponent: Bill Gould, MiTek, Inc.

Revise as follows:

Section 202:

Abbreviations. The following abbreviations, when used in this standard, shall have the following meanings, unless the context clearly indicates otherwise.

(2) APA—The Engineered Wood Association DOC – Department of Commerce

Chapter 9:

Promulgating Agency	Title	Referenced in standard section
And Standard		number
Reference		
Number		
APA PS-1-95	Construction and Industrial Plywood	802.3.2
DOC PS 1-22	Structural Plywood	
ASTM C90-23	Standard Specification for Loadbearing Concrete Masonry Units	802.3.2, 802.4
Federal Motor	Lamps, Reflective Devices and Associated	702.7
Vehicle Safety	Equipment	
Standard 108		
IBC - 2024	International Building Code	301.2, 302.6.1,
		801.1
IRC - 2024	International Residential Code	301.2, 301.4,
		308.3, 309.1,
		801.1, 802.1,
		802.3, 802.3.1,
		802.3.3, 802.5
ICC/MBI 1205 -	Standard for Off-Site Construction: Inspection and	
2021	Regulatory Compliance	302.4, 508.3
NFPA 70	National Electric Code	304.2

Reason: The PS 1-95 Standard reference in Chapter 9 is incorrect. The promulgating agency is not APA, but rather the U.S. Department of Commerce, abbreviated as "<u>DOC</u>" in the IBC and IRC. The title and date should be <u>Structural Plywood, PS 1-22</u>.

Staff note:

Committee Action:

IS-OSMTH 10-02-24 ICC 1215 Section 308.6, items 2 & 6, Chapter 9

Proponent: Bill Gould, MiTek, Inc.

Revise as follows:

Section 308.6:

308.6 Exterior Bracing Prescriptive Requirements. The exterior bracing shall conform with Section R602.10 Wall Bracing of the IRC or with the following:

2. The exterior end wall covering shall be a 7/16 inch thick wood structural sheathing <u>or orientated strand board in accordance with DOC PS 2-18</u> with a span rating of 24/0, Exposure 1 (or equivalent).

6. Sheathing attached to wood trusses/rafters spaced 24 inch O.C. (max) with:

a. Minimum 7/16 inch by 1 $\frac{1}{2}$ by 16 gauge (minimum) staples 6 inch O.C. edges and 12 inch O.C. field or,

b. <u>Minimum</u> 0.113, 0.120, or 0.131 by 2 inch nails spaced 6 inch O.C. edges and 12 inch O.C. field.

Option: 7/16 inch thick, wood structural sheathing with a span rating of 24/0, Exposure 1 or equivalent attached to <u>cold-formed</u> steel trusses/rafters in accordance with <u>AISI</u> <u>S100-16 (2020) and spaced 24 inch O.C. (max) with <u># No. 8</u> screws 6" O.C. edges, 12" O.C. field</u>

Chapter 9:

Promulgating Agency And Standard Reference	Title	Referenced in standard section number
Number APA PS-1-95	Construction and Industrial Plywood	802.3.2
DOC PS 1-22	Structural Plywood	
DOC PS 1-18	Performance Standard for Wood Structural	308.6
	Panels	

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ALCL \$100 16 (2020)	2022 North American Englishing for the Design of Cold	2026
<u>AISI S100-16 (2020)</u>	· · · ·	<u>308.6</u>
	Formed Steel Structural Members, 2016 Edition	
	(Reaffirmed 2020), with Supplement 2, 2020 Edition	
ASTM C90-23	Standard Specification for Loadbearing Concrete	802.3.2, 802.4
	Masonry Units	,
Federal Motor	Lamps, Reflective Devices and Associated	702.7
Vehicle Safety	Equipment	
Standard 108		
IBC - 2024	International Building Code	301.2, 302.6.1,
		801.1
IRC - 2024	International Residential Code	301.2, 301.4,
		308.3, 309.1,
		801.1, 802.1,
		802.3, 802.3.1,
		802.3.3, 802.5
ICC/MBI 1205 -	Standard for Off-Site Construction: Inspection and	104.1, 105.1.1,
2021	Regulatory Compliance	302.4, 508.3
NFPA 70	National Electric Code	304.2

Reason: The PS 1-95 Standard reference in Chapter 9 is incorrect. The promulgating agency is not APA, but rather the U.S. Department of Commerce, abbreviated as "<u>DOC</u>" in the IBC and IRC. The title and date should be <u>Structural Plywood, PS 1-22</u>.

Staff note:

Committee Action:

APPENDIX B

IS-OSMTH APP B 1 ICC 1215 Section Appendix B

Proponent: Macy Miller, Vera Struck, Massachusetts Movable Tiny House Legislative Task Force, Alaska Wagoner, The Tiny House Concierge

Revise as follows:

Add:

SMALL RESIDENTIAL UNIT DATA PLATE - OSMTH 105.1

Information displayed. Small Residential Data Plates shall display information pertinent to the structures constructed for use by AHJ's. Data required shall include but not be limited to:

- BUILDER NAME (MANUFACTURER)
- BUILDER CONTACT INFORMATION (MAN. SITE)
- WIND LOAD
- ROOF LIVE/DEAD LOAD
- SNOW LOAD
- FLOOR LIVE LOAD
- SEISMIC/RICHTER CATEGORY
- HEATING/COOLING THERMAL DESIGN ZONE
- GROSS WEIGHT OF STRUCTURE
- BUILD DATE
- SERIAL NUMBER
- LIST OF CODES/OCCUPANCY CLASSIFICATION
- ELECTRICAL WIRING/RATING
- RESCHECK AND/OR APPROPRIATE ENERGY VALUES

Location. Small Residential Unit Data Plate shall be placed on the interior of the structure, near the distribution panel on a closet wall or in a cabinet under the kitchen sink in the unit.

Material. Small Residential Unit Data Plate shall be constructed of material durable to water, heat and fading.

Example - Small Residential Unit Data Plate.

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Small Reside	ential Unit Data Plate
Builder/Manufacturer Contact Info: (Name, address, Email, Phone, Web)	Additional Documents with DataPlate: ResCheck
Date of Build: Serial Number:	Special Installation/Handling Instructions Y/N
Weight (LL/DL) Wind Load (Zone) Roof Load (LL/DL) Floor (LL) Snow Load	ά
Solow Load Seismic Risk Category (Zone/g) Heating/Wiring (AMP) Thermal Resistance Values: (Roof/Walls/Floor) List of Codes/Occupancy Classification	The builder certifies to the best of their knowledge and belief that this Movable Tiny House has been inspected in accordance with the requirements of the AHJ (Authority having jurisdiction) and is in compliance with the IRC and ICC/THIA Standard 1215.

Reason:

This information was talked about in WG1 after the draft went out for public comment.

Staff note: Check with Vera to see if she agrees with the extra verbiage in this comment.

RESCHECK AND/OR APPROPRIATE ENERGY VALUES

... under the kitchen sink in the unit.

Committee Action: