# Code Review 2018 Changes to International Codes IEBC - SPECIAL OCCUPANCY TAC

W A R N I N G

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W A R N I N G





Existing Building Code(IEBC)-(SP OCC)
Special Occupancy Technical Advisory Committee
(TAC)

## 2018 International Existing Building Code - Special Occupancy

## **Special Occupancy TAC**

IEBC Code Change No.	IEBC Section	Change Summary b/t 2015 IEBC and 2018 IEBC	Change Summary b/t 2017 FEBC and 2018 IEBC	Staff comments
EB 10-15	New 301.1 New 301.2 301.1 301.1.1 301.1.2 301.1.3 401.1 401.1.1 401.1.2.2 404 501.1 501.1.1 502 1401.1 1401.2.4	Modifies Chapter 6 to Chapter 4 "Repairs". Modifies Section 301 "Administration". Modifies 301.1 "General", 301.2 "Repairs", 301.3 "Alteration, change of occupancy, addition or relocation", 301.3.1 "Prescriptive compliance method", 301.3.3 "Performance compliance method", 401.1 "Scope", 401.1.1 "Compliance with other methods", 401.2.2 "New and replacement materials". Deletes Section 404 "Repairs". Modifies text of Section 501.1 "Scope", 501.1.1 Compliance with other alternatives. Deletes Section 502 "Repairs". Modifies text of Section 1401.1 "Scope", 1401.1.1 "Compliance with other methods", 1401.2.4 "Alterations and repairs".  This section corrects section numbering and references in FBC, EB Chapter 3 after creating new section 303 and removes duplicate details which will now be part of section 303 if approved. This proposal will make the repair provisions more consistent for each method. The committee felt that having a standalone chapter for repairs will make the code more clear.  Cost Impact: This proposal is only to clarify the existing code requirements through relocation (reorganization) of code sections, so there is no intended increase or decrease expected by approving this proposal.	This change is not similar to that of the FEBC. The FEBC provides for Florida specific changes to these sections	Overlapping provision to be considered during step 2 of the code change process

<b>TAC Action</b>			Commission Action				TAC	Cmsn.		
	orida Specific Need:		Accommodate Florida Specific Need:							
YES (Select Criter a. b. c. C. Others (Explain):	ia)	NO:	YES (Select Criteria)  a. b. c. d. e. f.	NO:	No Action	Needed				
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EB 15-15	401.2.1 401.2.2 602.1		ials", 601.2 "Existing building sir		similar to that of the d		erlapping provision to be considered ring step 2 of the code change			
	602.2	materials , 002.2 New	and replacement materials.	provides f		proces	3			
	302.2		om these sections. This proposal uilding] Materials" and "New and	specific cl	hanges to					
		Replacement Materials	" sections from Chapters 4 already inserted in chapter 3. The							
		content in Chapter 3 ap	plies to all methods in the IEBC so							
		<u> </u>	in the other method chapters reduces							
		redundancy.								
			lification does not change the							
			s unnecessary redundancy from							
		other chapters, so costs	s are not increased or decreased.							
TAC Action			Commission Action				TAC	Cmsn.		
	orida Specific Need:		Accommodate Florida Specific Need:							
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EB 41-16	408.4(New) 1206.1		4 "Structural". Modifies text of Section This proposal reconciles a significant	This chan	ge is not that of the				be considered change	
	1200.1		Prescriptive and Work Area methods.	FEBC. Th		proces		i tile code	e change	
			ive method, Section 408.1 says that	provides f		proces				
		improvements to the ex	sisting building need be made only if	specific cl	hanges to					
			uired. The balance of Section 408	this section	n					
			al checks or upgrade triggers not ad or removal of a structural element.							
			at or removal of a structural element.  atch the Prescriptive method to the							

		requirements are safety enforced in historic built section 408.4 is borrow revision to Section 1206  Cost Impact: Will incre If you read current 408. proposal could increase current 408.2 to mean to	rifying that the Chapter 4 structural v-related and therefore should be dings. The proposed wording of new ed directly from 1206.1. The proposed 6.1 is merely an editorial clarification.  Lease the cost of construction 1 to exclude structural work, this e construction costs. If you read that safety-related structural provisions proposal will have no effect on costs.						
TAC Action Accommodate Flo	rid <u>a S</u> pecific Need:		Commission Action Accommodate Florida Specific Need:				TAC	Cmsn.	
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EB 4-15	202	Adds new definition "[A] EXISTING BUILDING".  The IEBC uses both the terms "existing building" and "existing structure", but only defines "existing building". The IBC only defines "existing structure".  Cost Impact: this proposal will not affect the cost of construction because it merely adds a definition.		similar to that of the durir			step 2 o	ovision to f the code	be considered e change
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TAC Action		defines "existing structu  Cost Impact: this propo	osal will not affect the cost of merely adds a definition.  Commission Action				TAC	Cmsn.	
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	B 69-15	1202.2		1201.5 "Unsafe conditions", 1207.1		l nge is not			be considered
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E	EB 6-15	301.1	in the exception change requirement to comply with the exception refers on alterations in flood haza performance methods him 701.3, so this exception	301.1 "General". Adds new language as Alteration to Alterations and the with Section 403.2 and 1401.3.3. It to the work area method for areas. The prescriptive and have provisions similar to Section should also refer to them.  Crease cost of construction because it alterations in flood hazard areas.	Same as between 2 and 2018	2015 IEBC			
	YES (Select Criteria	rida Specific Need: a)	NO:	Commission Action Accommodate Florida Specific Need: YES (Select Criteria) a. b. c. d. e. f. Others (Explain):	NO:	No Action Overlapp provisions	TAC	Cmsn.	
			wording effectively bypa Chapter 6. Furthermore shall be permitted with comethods of construction replacement of existing materials shall be permit Cost Impact: Will not in This is an editorial cha	ncrease the cost of construction  nge that will either not affect the cost lower it slightly because reports that	specific c this section	hanges to			
			0044	1 10 01 1 10 11					

	1202.3	parts of Section 1202 fc Area method. Section 1 does not necessarily ap within the Work Area m the same way Sections for specific project type new Section 1206: Relo shows it as 1207 to clar part of the existing Sec	ncrease the cost of construction. The	similar to FEBC. Th provides f specific cl this section	or Florida nanges to	during proces		f the code	e change
TAC Action			Commission Action	•			TAC	Cmsn.	
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Others (Explain):			Others (Explain):		Overlapp	ina	$\Box$		-
					provisions	ıııg	Ш		
EB 70-15	1203.5	Modifies text of Section	1203.5 "Interior finishes". The	This chan	ge is not	Overla	oning pr	ovicion to	be considered
LB 70-13	1203.3		shes includes interior floor finishes by		that of the				e change
			ng Code. The scoping of only wall and	FEBC. Th		proces		i lile cou	e change
			Section 1203.5 does not allow the			proces	3		
			loor finishes; such as would be found	provides for Florida specific changes to					
			toric assembly occupancies. If the	this section					
			ric fabric, it should be regulated the	uno ocolic	<b></b>				
			ceiling interior finishes. Just like wall						
			s does not provide an exception for						
		floor finishes that are a	dded, not back of the historic fabric of						
		the interior, or the unde	rlayment to removed finishes. The						
			er modified by the Committee. The						
			rified the application of this section by						
			ology "interior" with reference to						
		finishes.							
		Coot Immost: MEII 1:							
		-	ncrease the cost of construction ment to remove or modify interior floor						

		finishes in historic build	ings.					
TAC Action Accommodate Floric YES (Select Criteria) a. b. c. c Others (Explain):		NO:	Commission Action Accommodate Florida Specific Need:  YES (Select Criteria)  a. b. c. d. e. f.  Others (Explain):	NO:	No Action Overlapp provisions	TAC	Cmsn.	
EB 7-16	301.1	exception that allows the architectural and other in normally trigger in alterative exception, however, regular exception, however, regular exception alread flood hazard areas (white improvements) or to sulproposal does not chan could be constructed by the could effectively reduce structural safety required cost of construction should and other construction should effectively reduced the construction should be constructed and other constructions and other constructions are constructed and other constructions and other constructions are constructed and other constructed and other constructions are constructed and other constructed and other constructed and other constructed and other constructed and oth	ncrease the cost of construction icrease the cost of construction, but it mit the cases in which the code official the cost of construction by waiving ements. In practice, no increase in the buld be expected, however, since the ige any of the code's provisions, but	Same as a between 2 and 2018	2015 IEBC			
TAC Action Accommodate Floric YES (Select Criteria) a. b. c. c. Others (Explain):	<u> </u>	NO:	Commission Action Accommodate Florida Specific Need: YES (Select Criteria) a. b. c. d. e. f. Others (Explain):	NO:	No Action Overlapp provisions	TAC	Cmsn.	

# Code Change No: EB4-15

Original Proposal

Section: 202 (New)

**Proponent:** Maureen Traxler, representing City of Seattle Dept of Planning & Development (maureen.traxler@seattle.gov)

**[A] EXISTING BUILDING.** A building erected prior to the date of adoption of the appropriate code, or one for which a legal building permit has been issued.

#### Add new text as follows:

[A] EXISTING STRUCTURE A structure erected prior to the date of adoption of the appropriate code, or one for which a legal building permit has been issued. For application of provisions in flood hazard areas, an existing structure is any building or structure for which the start of construction commenced before the effective date of the community's first flood plain management code, ordinance or standard.

Reason: Reason: The IEBC uses both the terms "existing building" and "existing structure" but only defines "existing building." Some code sections use "existing building"; some use "existing structure"; other sections use "existing building or structure." Section 501.1 is an example. "501.1 Scope. The provisions of this chapter shall ... apply to the alteration, repair, addition and change of occupancy of existing structures.... The work performed on an existing building shall be classified in accordance with this chapter." After reviewing the use of the terms "existing building" and "existing structure" in the IBC and IEBC, we concluded that the terms are used interchangeably, and that including both definitions is the most reasonable way to coordinate the use of these terms. This proposal adds the IBC definition of "existing structure" to the IEBC. The definition for "existing building" will be modified to include a sentence about flood hazard areas that is copied from the definition of "existing structure" in Group B. The definition for "existing building" is controlled by the Admin committee.

The IBC defines "existing structure" but not "existing building." This proposal is the first step in correlating the two definitions in the IEBC and IBC. Changes to the IBC will be considered in Group B; if this proposal is successful, we will propose similar changes to the IBC.

Cost Impact: Will not increase the cost of construction

This proposal will not affect the cost of construction because it merely adds a definition.

Staff note: The term existing building is maintained by the Administrative Committee. This is an errata to the IEBC.

Report of Committee Action Hearings

## **Committee Action:**

## Approved as Submitted

**Committee Reason:** The addition of the term "existing structure" was appropriate as the term is used interchangeably with the term "existing building" within the IEBC. This clarifies that the meaning of the terms is essentially the same with the current exception to the fact that the definition from the IBC has language for the flood provisions. This is intended to be revised in the Group B cycle by the proponent.

ASSEMBLY ACTION:	None

Final Action Results

EB4-15 AS

# **EB4-15**

**EXISTING STRUCTURES (for flood hazard areas).** See Section 1612.2 of the *Florida Building Code, Building.* 

# Code Change No: EB6-15

**Original Proposal** 

**Section: 301.1** 

**Proponent:** Maureen Traxler, representing City of Seattle Dept of Planning & Development (maureen.traxler@seattle.gov)

#### Revise as follows:

**301.1 General.** The *repair*, *alteration*, *change of occupancy*, *addition* or relocation of all *existing buildings* shall comply with one of the methods listed in Sections 301.1.1 through 301.1.3 as selected by the applicant. Sections 301.1.1 through 301.1.3 shall not be applied in combination with each other. Where this code requires consideration of the seismic forceresisting system of an *existing building* subject to *repair*, *alteration*, *change of occupancy*, *addition* or relocation of *existing buildings*, the seismic evaluation and design shall be based on Section 301.1.4 regardless of which compliance method is used.

**Exception:** Subject to the approval of the *code official*, *alterations* complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code unless the building is undergoing more than a limited structural *alteration* as defined in Section 907.4.4. New structural members added as part of the *alteration* shall comply with the *International Building Code*. Alteration—Alterations of existing buildings in flood hazard areas shall comply with Section 403.2, 701.3 or 1401.3.3.

**Reason:** This exception refers only the work area method for alterations in flood hazard areas. The prescriptive and performance methods have provisions similar to Section 701.3, so this exception should also refer to them.

Cost Impact: Will not increase the cost of construction

This proposal will not increase the cost of construction because it adds alternatives for alterations in flood hazard areas.

Report of Committee Action Hearings

#### Committee Action: Approved as Submitted

**Committee Reason:** This proposal simply provides all the relevant references to the flood provisions found in the IEBC. This is a more comprehensive approach that will better address all methods in the IEBC.

Assembly Action: None

Final Action Results

EB6-15 AS

# Code Change No: EB10-15

## **Original Proposal**

Section: 301.1 (New), 301.2 (New), 301.1, 301.1.1, 301.1.2, 301.1.3, 401.1, 401.1.1, 401.2.2, 404, 501.1, 501.1.1, 502, 1401.1., 1401.1.1, 1401.2.4

Proponent: Edward Kulik, Chair, representing Building Code Action Committee(bcac@iccsafe.org)

Relocate Chapter 6 as follows:

#### **64 REPAIRS**

(Renumber Subsequent sections in this Chapter) (Renumber Chapters 4 and 5)

Revise as follows:

## SECTION 301 ADMINISTRATION

<u>301.1</u> <u>General.</u> The *repair*, *alteration*, *change of occupancy*, *addition* or relocation of all *existing buildings* shall comply with Section 301.2 or 301.3, as applicable.

301.2 Repairs Repairs shall comply with the requirements of Chapter 4.

## 301.1301.3 General Alteration, change of occupancy, addition or relocation. The

repair, \_alteration, change of occupancy, addition or relocation of all existing buildings shall comply with one of the methods listed in Sections 301.1.1 301.3.1 through 301.1.3 301.3.3 as selected by the applicant. Sections 301.1.1 301.3.1 through 301.1.3 shall not be applied in combination with each other. Where this code requires consideration of the seismic forceresisting system of an existing building subject to repair, \_alteration, change of occupancy, addition or relocation of existing buildings, the seismic evaluation and design shall be based on Section 301.1.4 301.3.4 regardless of which compliance method is used.

**Exception:** Subject to the approval of the *code official*, *alterations* complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code unless the building is undergoing more than a limited structural *alteration* as defined in Section 907.4.4. New structural members added as part of the *alteration* shall comply with the *International Building Code*. *Alterations* of *existing buildings* in *flood hazard areas* shall comply with Section 701.3.

#### 301.1.4301.3.1 Prescriptive compliance method. Repairs, alterations

<u>Alterations</u>, additions and changes of occupancy complying with Chapter 45 of this code in buildings complying with the *International Fire Code* shall be considered in compliance with the provisions of this code.

**301.1.2301.3.2** Work area compliance method. Repairs, alterations <u>Alterations</u>, additions, changes in occupancy and relocated buildings complying with the applicable requirements of Chapters 5–6 through 13 of this code shall be considered in compliance with the provisions of this code.

**301.1.3** Performance compliance method. Repairs, alterations Alterations, additions, changes in occupancy and relocated buildings complying with Chapter 14 of this code shall be considered in compliance with the provisions of this code.

(Renumber subsequent sections)

**401.1 Scope.** The provisions of this chapter shall control the *alteration*, repair, addition and change of occupancy or relocation of existing buildings and structures, including historic buildings and structures as referenced in Section 301.1.1–301.3.1.

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

<u>401.1.1 Compliance with other methods.</u> Alterations, repairs, additions and changes of occupancy to or relocation of, existing buildings and structures shall comply with the provisions of this chapter or with one of the methods provided in Section <u>301.1-301.3</u>.

**401.2.2 New and replacement materials.** Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted for repairs and alterations, provided no hazard to life, health or property is created. Hazardous materials shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

#### **Delete without substitution:**

#### SECTION 404-REPAIRS

**404.1 General.** Buildings and structures, and parts thereof, shall be repaired in compliance with Sections 401.2 and 404. Work on nondamaged components that is necessary for the required repair of damaged components shall be considered part of the repair and shall not be subject to the requirements for alterations in this chapter. Routine maintenance required by Section 401.2, ordinary repairs exempt from permit in accordance with Section 105.2, and abatement of wear due to normal service conditions shall not be subject to the requirements for repairs in this section.

[BS] 404.2 Substantial structural damage to vertical elements of the lateral force-resisting system. A building that has sustained substantial structural damage to the vertical elements of its lateral force-resisting system shall be evaluated and repaired in accordance with the applicable provisions of Sections 404.2.1 through 404.2.3.

#### **Exceptions:**

- 1. Buildings assigned to Seismic Design Category A, B or C whose substantial structural damage was not caused by earthquake need not be evaluated or rehabilitated for load combinations that include earthquake effects.
- 2. One- and two-family dwellings need not be evaluated or rehabilitated for load combinations that include earthquake effects.

**[BS] 404.2.1 Evaluation.** The building shall be evaluated by a registered design professional, and the evaluation findings shall be submitted to the building official. The evaluation shall establish whether the damaged building, if repaired to its predamage state, would comply with the provisions of the International Building Code for wind and earthquake loads.

Wind loads for this evaluation shall be those prescribed in Section 1609 of the International Building Code. Earthquake loads for this evaluation, if required, shall be permitted to be 75 percent of those prescribed in Section 1613 of the International Building Code. Alternatively, compliance with ASCE 41, using the performance objective in Table 301.1.4.2 for the applicable risk category, shall be deemed to meet the earthquake evaluation requirement.

[BS] 404.2.2 Extent of repair for compliant buildings. If the evaluation establishes compliance of the predamage building in accordance with Section 404.2.1, then repairs shall be permitted that restore the building to its predamage state.

**[BS] 404.2.3 Extent of repair for noncompliant buildings.** If the evaluation does not establish compliance of the predamage building in accordance with Section 404.2.1, then the building shall be rehabilitated to comply with applicable provisions of the International Building Code for load combinations that include wind or seismic loads. The wind loads for the repair shall be as required by the building code in effect at the time of original construction, unless the damage was caused by wind, in which case the wind loads shall be as required by the International Building Code. Earthquake loads for this rehabilitation design shall be those required for the design of the predamage building, but not less than 75 percent of those prescribed in Section 1613 of the International Building Code. New structural members and connections required by this rehabilitation design shall comply with the detailing provisions of the International Building Code for new buildings of similar structure, purpose and location. Alternatively, compliance with ASCE 41, using the performance objective in Table 301.1.4.2 for the applicable risk category, shall be deemed to meet the earthquake rehabilitation requirement.

**[BS] 404.3 Substantial structural damage to gravity loadcarrying components.** Gravity load-carrying components that have sustained substantial structural damage shall be rehabilitated to comply with the applicable provisions of the International Building Code for dead and live loads. Snow loads shall be considered if the substantial structural damage was caused by or related to snow load effects. Existing gravity load-carrying structural elements shall be permitted to be designed for live loads approved prior to the damage. If the approved live load is less than that required by Section 1607 of the International Building Code, the area designed for the nonconforming live load shall be posted with placards of approved design indicating the approved live load. Nondamaged gravity load-carrying components that receive dead, live or snow loads from rehabilitated components shall also be rehabilitated or shown to have the capacity to carry the design loads of the rehabilitation design. New structural members and connections required by this rehabilitation design shall comply with the detailing provisions of the International Building Code for new buildings of similar structure, purpose and location.

**[BS] 404.3.1 Lateral force-resisting elements.** Regardless of the level of damage to vertical elements of the lateral force-resisting system, if substantial structural damage to gravity load-carrying components was caused primarily by wind or earthquake effects, then the building shall be evaluated in accordance with Section 404.2.1 and, if noncompliant, rehabilitated in accordance with Section 404.2.3.

#### **Exceptions:**

- 1. One- and two-family dwellings need not be evaluated or rehabilitated for load combinations that include earthquake effects.
- Buildings assigned to Seismic Design Category A, B or C whose substantial-structural damage was not caused by earthquake need not be evaluated or rehabilitated for load combinations that include earthquake effects.

**[BS] 404.4 Less than substantial structural damage.** For damage less than substantial structural damage, repairs shall be allowed that restore the building to its predamage state. New structural members and connections used for this repair shall comply with the detailing provisions of the International Building Code for new buildings of similar structure, purpose and location.

**[BS] 404.5 Flood hazard areas.** For buildings and structures in flood hazard areas established in Section 1612.3 of the International Building Code, or Section R322 of the International Residential Code, as applicable, any repair that constitutes substantial improvement or repair of substantial damage of the existing structure shall comply with the flood design requirements for new construction, and all aspects of the existing structure shall be brought into compliance with the requirements for new construction for flood design.

For buildings and structures in flood hazard areas established in Section 1612.3 of the International Building Code, or Section R322 of the International Residential Code, as applicable, any repairs that do

not constitute substantial improvement or repair of substantial damage of the existing structure are not required to comply with the flood design requirements for new construction.

#### Revise as follows:

- **501.1 Scope.** The provisions of this chapter shall be used in conjunction with Chapters 6-7 through 13 and shall apply to the *alteration*, repair, *addition* and *change of occupancy* of existing structures, including historic and moved structures, as referenced in Section 301.1.2. The work performed on an *existing building* shall be classified in accordance with this chapter.
- **501.1.1 Compliance with other alternatives.** *Alterations*, repairs, additions and changes of occupancy to existing structures shall comply with the provisions of Chapters 6-7 through 13 or with one of the alternatives provided in Section 301.1.

#### Delete without substitution:

#### SECTION 502 REPAIRS

- **502.1 Scope.** Repairs, as defined in Chapter 2, include the patching or restoration or replacement of damaged materials, elements, equipment or fixtures for the purpose of maintaining such components in good or sound condition with respect to existing loads or performance requirements.
- 502.2 Application. Repairs shall comply with the provisions of Chapter 6.
- **502.3 Related work.** Work on nondamaged components that is necessary for the required repair of damaged components shall be considered part of the repair and shall not be subject to the provisions of Chapter 7, 8, 9, 10 or 11.

#### Revise as follows:

- **1401.1 Scope.** The provisions of this chapter shall apply to the *alteration*, repair, *addition* and *change of occupancy* of existing structures, including historic and moved structures, as referenced in Section 301.1.3-301.3.3. The provisions of this chapter are intended to maintain or increase the current degree of public safety, health and general welfare in *existing buildings* while permitting-repair, *alteration*, *addition* and *change of occupancy* without requiring full compliance with Chapters 5-6 through 13, except where compliance with other provisions of this code is specifically required in this chapter.
- **1401.1.1 Compliance with other methods.** *Alterations*, repairs, additions and changes of occupancy to existing structures shall comply with the provisions of this chapter or with one of the methods provided in Section 301.1 301.3.
- **1401.2.4 Alterations and repairs.** An existing building or portion thereof that does not comply with the requirements of this code for new construction shall not be altered or repaired in such a manner that results in the building being less safe or sanitary than such building is currently. If, in the alteration or repair, the current level of safety or sanitation is to be reduced, the portion altered or repaired-shall conform to the requirements of Chapters 2 through 12 and Chapters 14 through 33 of the International Building Code.

**Reason:** The purpose of this code change is to remove the topic of repair from the three compliance methods and to move repair into one standalone chapter.

The topic of repairs is fairly simple but the way the three methods handle the topic very differently:

- Prescriptive method- Specific requirements on structural repairs only, general statement on other topics with code official discretion on 'dangerous' situations
- Work area method- Specific requirements for structural (identical to prescriptive method), building materials, fire protection, accessibility, mechanical, plumbing, and electrical.
- Performance method- General requirements only and reference to the IBC for thresholds.

The IEBC has three different methods to give choices in the design of existing buildings. The reason for the choice to the applicant is to give options since every existing building is different, using legacy materials and having legacy code requirements. This is not the case for repairs.

As an example, the prescriptive method would allow items like glazing in hazardous locations non-NEMA electrical receptacles in hospitals to be replaced in kind whereas the work area method sets a baseline on these items. Since repair items don't usually get a permit or inspection, there is really little need for options in replacing something for the sole purpose of it's maintenance.

The proposal moves this topic to right before the prescriptive method and the chapters would be:

- 1- Admin
- 2- Definitions
- 3- General Requirements for all compliance methods
- 4- Repairs
- 5- Prescriptive
- 6- Work Area Classification of Work
- 7- Alt. 1
- 8- Alt. 2
- 9- Alt. 3
- 10- Change of Occupancy
- 11- Additions
- 12- Historic Buildings
- 13- Relocated Buildings
- 14- Performance Method
- 15- Safeguards
- 16- Referenced Standards

One item that would generally require a building permit would be damaged buildings. However, damaged buildings only specifically address structural items of which are currently identical in the prescriptive and work area methods. Therefore, no technical change is created by this change.

The alternative to this change would be to correlate repairs in the three methods and copy them into the three applicable chapters. However, a single chapter does not remove any options currently available, is correlated for the code user, and will minimize different requirements on the same topic in future code cycles.

This public proposal is submitted by the ICC Building Code Action Committee (BCAC). The BCAC was established by the ICC Board of Directors to pursue opportunities to improve and enhance an assigned International Code or portion thereof. This includes both the technical aspects of the codes as well as the code content in terms of scope and application of referenced standards. Since its inception in July, 2011, the BCAC has held 13 open meetings and numerous workgroup calls which included members of the BCAC as well as any interested party to discuss and debate the proposed changes and the public comments. Related documentation and reports are posted on the BCAC website at: http://www.iccsafe.org/cs/BCAC/Pages/default.aspx.

Cost Impact: Will not increase the cost of construction

Cost impact: Code proposal is only to clarify the existing code requirements through a relocation (reorganization) of code sections, so there is no intended increase or decrease expected by approving this proposal.

Report of Committee Action Hearings

Committee Action:	Approved as Submitted
COMMINEE ACHOM.	Approved as Submitted

**Committee Reason:** This proposal will make the repair provisions more consistent for each method. The committee felt that repairs do not require several different methods of compliance. Having a standalone chapter for repairs will make the code more clear.

Assembly Action:	None

Final Action Results

EB10-15 AS

**BACK** 

## EB10-15

[BS] 404.2.1 Evaluation. The building shall be evaluated by a registered design professional, and the evaluation findings shall be submitted to the building official. The evaluation shall establish whether the damaged building, if repaired to its predamage state, would comply with the provisions of the Florida Building Code, Building International Building Code for wind and earthquake loads. Wind loads for this evaluation shall be those prescribed in Section 1609 (the HVHZ shall comply with Section 1620) of the Florida Building Code, Building International Building Code. Earthquake loads for this evaluation, if required, shall be permitted to be 75 percent of those prescribed in Section 1613 of the Florida Building Code, Building International Building Code. Alternatively, compliance with ASCE 41, using the performance objective in Table 301.1.4.2 for the applicable risk category, shall be deemed to meet the earthquake evaluation requirement.

**502.2 Application.** *Repairs* shall comply with the provisions of Chapter 6. <u>Re-roofing shall comply with the provisions of Section 706.</u>

# Code Change No: EB15-15

Original Proposal

Section: 401.2.1, 401.2.2, 602.1, 602.2

**Proponent:** Kathleen Petrie, representing City of Seattle, Department of Planning and Development (kathleen.petrie@seattle.gov)

#### **Delete without substitution:**

**401.2.1 Existing materials.** Materials already in use in a building in compliance with requirements or approvals in effect at the time of their erection or installation shall be permitted to remain in use unless determined by the building official to be unsafe per Section 115.

**401.2.2** New and replacement materials. Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted for *repairs* and *alterations*, provided no hazard to life, health or property is created. Hazardous materials shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

**602.1 Existing building materials.** Materials already in use in a building in compliance with requirements or approvals in effect at the time of their erection or installation shall be permitted to remain in use unless determined by the *code official* to render the building or structure unsafe or *dangerous* as defined in Chapter 2.

**602.2 New and replacement materials.** Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted for *repairs* and *alterations*, provided no *dangerous* or *unsafe* condition, as defined in Chapter 2, is created. Hazardous materials, such as asbestos and lead-based paint, shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

**Reason:** This proposal deletes the "Existing [Building] Materials" and "New and Replacement Materials" sections from Chapters 4 and 6 because they are already inserted in chapter 3. The content in Chapter 3 applies to all methods in the IEBC so deleting these sections in the other method chapters reduces redundancy.

Cost Impact: Will not increase the cost of construction

This modification does not change the requirement. It removes unnecessary redundancy from other chapters, so costs are not increased or decreased

Report of Committee Action Hearings

Committee Action:	Approved as Submitt

**Committee Reason:** The proposal was approved as it was consistent with EB14-15 that removes repetitive language already located in the more general provisions found in Chapter 3.

None

Final Action Results

EB15-15 AS

**BACK** 

## EB15-15

**602.2 New and replacement materials.** Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted for repairs and alterations, provided no *dangerous* or *unsafe* condition, as defined in Chapter 2, is created. Hazardous materials, such as asbestos and lead-based paint, shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

**Exception**: Repairs to a historic building shall be permitted using original or like materials. Materials shall comply with Sections 602.2, 602.3 and 602.4.

# Code Change No: EB58-16 (Mislabeled)

Original Proposal

Section(s): APPENDIX A, Chapter A1, Chapter A6

**Proponent:** David Bonowitz, representing National Council of Structural Engineers Associations (dbonowitz@att.net)

THIS CODE CHANGE WILL BE HEARD BY THE IBC-STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEES.

#### Add new text as follows:

408.4 Structural. Historic buildings shall comply with the applicable structural provisions in this Chapter.

**Exception:** The code official shall be authorized to accept existing floors and existing live loads and to approve operational controls that limit the live load on any floor.

#### Revise as follows:

**[BS] 1206.1 General.** *Historic buildings* shall comply with the applicable structural provisions for the work as classified in Chapter 5.

**Exception:** The *code official* shall be authorized to accept existing floors and <u>existing live loads and</u> to approve operational controls that limit the live load on any <del>such</del> floor.

Reason: This proposal reconciles a significant difference between the Prescriptive and Work Area methods.

In the current Prescriptive method, Section 408.1 says that improvements to the existing building need be made only if they are specifically required. The balance of Section 408 has no specific structural checks or upgrade triggers -- not even for added dead load or removal of a structural element -- so depending on interpretation, 408.1 has the effect of saying that historic buildings are exempt from any structural work.

By contrast, in the current Work Area method, Section 1206.1 says specifically that the code's common sense structural provisions do apply to historic buildings.

This proposal would match the Prescriptive method to the Work Area method, clarifying that the Chapter 4 structural requirements are safety-related and therefore should be enforced in historic buildings. The proposed wording of new section 408.4 is borrowed directly from 1206.1.

The proposed revision to Section 1206.1 is merely an editorial clarification.

In concept, one could argue that historic structures should be exempt from the code's few wind and seismic upgrade triggers. We might be open to that, but at the very least all checks of dead, live, and snow load, as well as confirmations of adequacy when the de facto structure is altered, should be enforced. And in any case, there is no reason for the Prescriptive and Work Area methods to differ in their structural provisions.

Cost Impact: Will increase the cost of construction

If you read current 408.1 to exclude structural work, this proposal could increase construction costs. If you read current 408.2 to mean that safety-related structural provisions already apply, then this proposal will have no effect on costs.

Report of Committee Action Hearings

Committee Action: As Submitted

**Committee Reason:** This proposal provides the direction needed to apply the structural provisions of this chapter and gives the building official the authority to evaluate the historical building and make exceptions where needed.

Assembly Action: None

#### **Public Comments**

## Public Comment 1:

David Bonowitz, representing National Council of Structural Engineers Associations (dbonowitz@att.net) requests Approve as Modified by this Public Comment.

#### Modify as follows:

408.4 Structural. Historic buildings shall comply with the applicable structural provisions in this Chapter.

#### **Exception Exceptions:**

- The code official shall be authorized to accept existing floors and existing live loads and to approve operational controls that limit the live load on any floor.
- Repair of substantial structural damage is not required to comply with Sections 404.2 and 404.3. Substantial structural damage shall be repaired in accordance with Section 404.4.

[BS] 1206.1 General. Historic buildings shall comply with the applicable structural provisions for the work as classified in Chapter 5.

#### **Exception Exceptions:**

- The code official shall be authorized to accept existing floors and existing live loads and to approve operational controls that limit the live load on any floor.
- Repair of substantial structural damage is not required to comply with Section 606.2.2 and 606.2.3. Substantial structural damage shall be repaired in accordance with Section 606.2.1.

**Commenter's Reason:** As noted in the EB41 reason statement, the proposal as submitted addresses a significant discrepancy between the code's two methods for historic buildings. Currently, the Work Area method (1206.1) subjects historic buildings to the same structural upgrade triggers as non-historic buildings, but the Prescriptive method (408) does not. EB41 resolves the discrepancy by adding a provision to the Prescriptive method (approved 408.4) to match the Work Area method.

Thus, as submitted and approved, historic buildings will be subject to the same structural upgrade triggers as non-historic buildings, with either method. This represents no change to the Work Area method, but a potentially significant change to the Prescriptive method.

This proposed modification offers something of a compromise for both methods. A rational argument can be made that historic buildings should not be subject to expensive and disruptive wind and seismic retrofits when those retrofits are triggered by repairs. Alterations, additions, relocations, and changes of occupancy are all voluntary; those projects should be subject to sensible upgrade triggers, even for historic buildings, and the projects can be scoped and budgeted to accommodate these requirements with due regard for historic preservation. EB41, as submitted and approved, does this. Repairs, however, are not voluntary, so an upgrade triggered by repair might be at odds with the priorities of preservation. Not everyone will agree with this approach; after all, historic buildings are expected to provide adequate safety too, as contemplated by current (though vague) 408.2. But if historic buildings should ever be exempt from the code's sensible wind and seismic retrofit triggers, it should be in the case of involuntary repairs.

Final Action Results

EB58-16

AMPC1



EB41-16 (Misslabeled)

## [B] SECTION 408 HISTORIC BUILDINGS SEE CHAPTER 12

## SECTION 1206 INVESTIGATION AND EVALUATION

1206.1 Investigation and evaluation report. An historic building undergoing alteration or change of occupancy shall be investigated and evaluated. If it is intended that the building meet the requirements of this chapter, a written report shall be prepared and filed with the building official by a Florida-registered architect or engineer. Such report shall be in accordance with the provisions of Sections 4.3.1.2 through 4.3.2 of NFPA 914, Code for Fire Protection of Historic Structures and shall identify each required safety feature that is in compliance with this chapter and where compliance with this or other chapters would be damaging to the contributing historic features. In addition, the report shall describe each feature that is not in compliance and demonstrate how the intent of the provisions of this or other chapters are complied with in providing an equivalent level of safety.

# Code Change No: EB69-15

**Original Proposal** 

Section: 1202.2, 1202.3

**Proponent:** David Bonowitz, David Bonowitz, S.E., representing Existing Buildings Subcommittee, National Council of Structural Engineers Associations (dbonowitz@att.net)

#### Revise as follows:

1202.2 1201.5 Unsafe conditions. No change to text. 1202.3 1207.1 Relocated buildings. No change to text.

**Reason:** This editorial proposal reorganizes parts of Section 1202 for internal consistency within the Work Area method. Section 1202.2, regarding unsafe conditions, does not necessarily apply only to repairs. It is a more general provision that belongs in Section 1201. (In Group B, Section 1206.2 may also be removed as redundant.)

Section 1202.3, for relocated buildings, has nothing to do with repairs. For consistency within the Work Area method, it should be in its own section, the same way Sections 1204 and 1205 are separate sections for specific project types. Ideally, 1202.3 would move to a new Section 1206: Relocated Buildings, but the proposal shows it as 1207 to clarify that the intent is NOT to make this part of the existing Section 1206: Structural.

**Cost Impact:** Will not increase the cost of construction The proposal is entirely editorial.

Report of Committee Action Hearings

#### **Committee Action:**

Approved as Submitted

**Committee Reason:** The relocation of provisions out of the repair section was felt to be an appropriate clarification. The provisions on unsafe buildings and relocated buildings tend to be lost in the repair section.

Assembly Action: None

Final Action Results

EB69-15 AS



## EB69-15

# Chapter 12 Historic Buildings

Replace Chapter 12 in its entirety with Florida-specific language to read as follows:

## SECTION 1201 GENERAL

1201.1 Intent and purpose. It is the intent of this chapter to provide means for occupant safety, property conservation and use of designated historic buildings while protecting those elements, spaces and features that make these buildings historically or architecturally significant

# Code Change No: EB70-15

**Original Proposal** 

**Section: 1203.5** 

**Proponent:** Daniel Nichols, New York State Division of Building Standards and Codes, representing New York State Division of Building Standards and Codes (dnichols@dos.state.ny.us)

#### Revise as follows:

**1203.5 Interior finishes.** The existing finishes of walls and ceilings shall be accepted when it is demonstrated that they are the historic finishes.

**Reason:** The definition of interior finishes includes interior floor finishes by the International Building Code. The scoping of only wall and ceiling finishes in IEBC Section 1203.5 does not allow the acceptance of historic floor finishes; such as would be found in historic homes or historic assembly occupancies. If the floor is part of the historic fabric, it should be regulated the same as the walls and ceiling interior finishes.

Just like wall and ceiling finishes, this does not provide an exception for floor finishes that are added, not back of the historic fabric of the interior, or the underlayment to removed finishes.

Cost Impact: Will not increase the cost of construction

This removes a requirement to remove or modify interior floor finishes in historic buildings.

Report of Committee Action Hearings

Committee Action: Approved as Modified

#### Modify as follows:

1203.5 Interior finishes. The existing interior finishes shall be accepted when it is demonstrated that they are the historic finishes.

**Committee Reason:** The inclusion of floors as part of the interior finishes was felt to be necessary. As currently written the section is limited to walls and ceilings. The modification further clarified the application of this section by using consistent terminology "interior" with reference to finishes.

Assembly Action: None

**Final Action Results** 

EB70-15 AM

## EB70-15

# Chapter 12 Historic Buildings

Replace Chapter 12 in its entirety with Florida-specific language to read as follows:

## SECTION 1201 GENERAL

1201.1 Intent and purpose. It is the intent of this chapter to provide means for occupant safety, property conservation and use of designated historic buildings while protecting those elements, spaces and features that make these buildings historically or architecturally significant

# Code Change No: EB7-16

Original Proposal

Section: 301.1

**Proponent:** David Bonowitz, representing National Council of Structural Engineers Associations (dbonowitz@att.net)

THIS CODE CHANGE WILL BE HEARD BY THE IBC-STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

#### Revise as follows:

**301.1 General.** The *repair*, *alteration*, *change of occupancy*, *addition* or relocation of all *existing buildings* shall comply with one of the methods listed in Sections 301.1.1 through 301.1.3 as selected by the applicant. Sections 301.1.1 through 301.1.3 shall not be applied in combination with each other. Where this code requires consideration of the seismic forceresisting system of an *existing building* subject to *repair*, *alteration*, *change of occupancy*, *addition* or relocation of *existing buildings*, the seismic evaluation and design shall be based on Section 301.1.4 regardless of which compliance method is used.

**Exception:** Subject to the approval of the *code official*, *alterations* complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code unless the building is undergoing more than a limited structural *alteration* as defined in Section 907.4.4. New structural members added as part of the *alteration* shall comply with the *International Building Code*. *Alterations* of *existing* buildings in flood hazard areas shall comply with Section 701.3.

**Exception:** Subject to the approval of the *code official*, *alterations* complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code. New structural members added as part of the *alteration* shall comply with the *International Building Code*. This exception shall not apply to alterations that constitute substantial improvement in *flood hazard areas, which* shall comply with Section 701.3. This exception shall not apply to the structural provisions of Chapter 4 or to the structural provisions of Sections 707, 807, and 907.

**Reason:** This proposal retains the exception that allows the code official to waive certain architectural and other requirements that the IEBC would normally trigger in alteration projects. It removes that exception, however, regarding structural provisions.

The current exception already does not apply to alterations in flood hazard areas (which sometimes trigger structural improvements) or to substantial structural alterations. So the proposal does not change those cases at all.

Since the existing structural provisions for alterations are already measured, already allow reduced loads and alternative criteria in many cases, and already trigger structural improvements only in rare and severe cases, the proposed change to this exception should have little impact except to affirm that structural safety is fundamental to the code's intent.

By rolling back the blanket waiver for structural safety issues, the proposal helps code officials enforce the code as intended. It prevents the IEBC's basic structural requirements from being undermined by a permit applicant's pressure to receive a discretionary waiver.

As a secondary matter, it is worth noting that the existing exception is unclear. It refers to "laws in existence at the time the building ... was built." But if the intent is to waive requirements triggered by alterations, this language ignores, or forgets, the fact that older codes for a long time had alteration provisions that triggered structural upgrade -- often with requirements more onerous than those in the current IEBC. So does a permit applicant claiming compliance with the "laws in existence" a generation ago also intend to comply with those outdated triggers? Thie proposal removes that potential confusion.

#### Cost Impact: Will not increase the cost of construction

This proposal will not increase the cost of construction, but it could, hypothetically, limit the cases in which the code official could effectively reduce the cost of construction by waiving structural safety requirements. In practice, no increase in the cost of construction should be expected, however, since the proposal does not change any of the code's provisions, but only changes what was a discretionary waiver.

# Report of Committee Action Hearings

Committee Action:	Approved as Submitted	İ
Committee Reason: For consistency with Group A cowards that convergence.	efforts toward converting IEBC to one compliance method. This is a step	
Assembly Action:	None	<b>;</b>
	Final Action Results	
EB7-16	AS	_

# Code Change No: EB54-16

**Original Proposal** 

Section: [BS] 1201.2

**Proponent:** Gwenyth Searer, Wiss, Janney, Elstner Associates, Inc.

THIS CODE CHANGE WILL BE HEARD BY THE IBC-STRUCTURAL CODE COMMITTEE. SEE THE TENTATIVE HEARING ORDER FOR THIS COMMITTEE.

#### Revise as follows:

[BS] 1201.2 Report. A historic building undergoing repair-alteration, or change of occupancy shall be investigated and evaluated. If it is intended that the building meet the requirements of this chapter, a written report shall be prepared and filed with the code official by a registered design professional when such a report is necessary in the opinion of the code official. Such report shall be in accordance with Chapter 1 and shall identify each required safety feature that is in compliance with this chapter and where compliance with other chapters of these provisions would be damaging to the contributing historic features. For buildings assigned to Seismic Design Category D, E or F, a structural evaluation describing, at a minimum, the vertical and horizontal elements of the lateral force-resisting system and any strengths or weaknesses therein shall be prepared. Additionally, the report shall describe each feature that is not in compliance with these provisions and shall demonstrate how the intent of these provisions is complied with in providing an equivalent level of safety.

Reason: There is no need for a report regarding the safety features or the lateral force resisting systems of a historic building in the event of a repair to a historic building. According to Section 601.1, repairs need only comply with Chapter 12; this wording effectively bypasses all of the upgrade triggers in Chapter 6. Furthermore, according to Section 1202.1, repairs shall be permitted with original or like materials and original methods of construction, and according to Section 1202.4, replacement of existing or missing features using original materials shall be permitted.

In short, all of the existing language that governs repairs of historic buildings specifically excludes triggering of upgrades; thus a report that details all of the non-conformances of the safety features and lateral force resisting system is not needed. Furthermore, the requirement in 1201.2 that mandates the report list each feature of the historic building that is not in compliance with "these provisions" and requires demonstration of "how the intent of these provisions is complied with" is contradictory and confusing when it comes to repairs. Including repairs in the requirements of Section 1201.2 is thus both circular and confusing.

Cost Impact: Will not increase the cost of construction

This is an editorial change that will either not affect the cost of construction, or may lower it slightly because reports that are not required will not be mandated

> **Report of Committee Action** Hearings

**Committee Action:** Approved as Submitted

Committee Reason: The committee agrees that the report required by Section 1201.2 for historic buildings may be needed for some repairs but it should not be required for all repairs.

None

**Final Action Results** 

EB54-16 AS





## EB54-16

<u>1201.1 Intent and purpose.</u> It is the intent of this chapter to provide means for occupant safety, property conservation and use of designated historic buildings while protecting those elements, spaces and features that make these buildings historically or architecturally significant.

<u>1201.2 Scope.</u> The provisions of this code acknowledge the need to preserve the character of historic buildings and shall apply to the repair, alteration, restoration, change of occupancy, addition and relocation of historic buildings.