



**PRESERVE
SHAPE
BUILD**

Self-Certification 2024 International Existing Building Code Architectural Provisions

This is the Self-Certification training presentation for architectural provisions of the 2024 International Existing Building Code with City of Phoenix amendments.

A separate Self-Certification training presentation is available for the accessibility provisions.

End of presenter's notes for this slide.



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My telephone number is 602 262 7802.

You will notice during this video version of the Power Point presentation I will be describing, in appropriate detail, the graphics that appear on the slide to provide persons with visual disabilities the opportunity to have access to the information presented in this training video.

This is a requirement by the Americans with Disabilities Act for a service or program offered to the public by the City and this requirement is wholeheartedly supported by this Department.

We welcome any suggestions on our efforts in making this video presentation, and any other City services and programs, accessible.

End of presenter's notes for this slide.

Chapter 1 Administration



Complete construction documents – Required

Accurate, detailed project scope – Required

Coordination of every discipline's documents – Required

List of every discipline's deferred submittals – Required
On the architectural cover sheet, or
On the cover sheet of each discipline

Every discipline's Special Inspection and Observation
Certificates – Required

As a self-certifying professional, you are responsible to be thoroughly familiar with each discipline's scope of work and the work product of each discipline.

This includes, but is not limited to:

Submitting a complete set of construction documents.

Which includes an accurate, detailed project scope.

Coordination of every discipline's documents.

A list of every discipline's deferred submittals either on the architectural cover sheet, or on the cover sheet of each discipline.

And every discipline's Special Inspection and Observation Certificates.

End of presenter's notes for this slide.

Chapter 1 Administration

NOTE !! Chapter 1 has been amended extensively.



It is important to be familiar all the amendments to the IEBC.

Chapter 1 has been amended extensively. This amendment brings it into better alignment with the IBC's Chapter 1 requirements.

It is important to review and be familiar with all the amendments for the IEBC.

End of presenter's notes for this slide.

Chapter 1 Administration



101.3 Purpose. The intent of this code is to provide flexibility to permit the use of alternative approaches to achieve compliance with minimum requirements to provide a reasonable level of safety, health, property protection and general welfare insofar as they are affected by *repair, alteration, change of occupancy, addition* and relocation of *existing buildings*.

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The Change of Occupancy provisions in the IEBC may prompt a required alteration regardless of if an existing element was originally intended to be altered.

End of presenter's notes for this slide.

Chapter 1 Administration

It is not the intent of the IEBC to require more for an *existing building* than that which the IBC requires for a new building.



The provisions in the IEBC modify some specific requirements found in the IBC.

Not all IBC requirements are modified by the IEBC.

If the IEBC does not have a provision that modifies an IBC requirement, then compliance with the IBC provision is required.

It is not the intent of the IEBC to require more for an existing building than that which the IBC requires for a new building.

The provisions in the IEBC modify some specific requirements found in the IBC.

Not all IBC requirements are modified by the IEBC.

If the IEBC does not have a provision that modifies an IBC requirement, then compliance with the IBC provision is required.

End of presenter's notes for this slide.

Chapter 2 Definitions

ADDITION – An extension or increase in floor area, number of stories, or height of a building or structure.



REPAIR – The reconstruction, replacement or renewal of any part of an *existing building* for the purpose of its maintenance or to correct damage.

ALTERATION – Any construction or renovation to an *existing structure* other than a *repair* or *addition*.

Here are some important IEBC definitions.

ADDITION. An extension or increase in floor area, number of stories, or height of a building or structure.

REPAIR. The reconstruction, replacement or renewal of any part of an *existing building* for the purpose of its maintenance or to correct damage.

ALTERATION. Any construction or renovation to an *existing structure* other than a *repair* or *addition*.

End of presenter's notes for this slide.

Chapter 2 Definitions



CHANGE OF OCCUPANCY. Any of the following shall be considered a change of occupancy where the current *International Building Code* requires a greater degree of safety, accessibility, structural strength, fire protection, means of egress, ventilation or sanitation than is existing in the current building or structure:

1. Any change in the occupancy classification of a building or structure.
2. A change in the purpose of, or a change in the level of activity within, a building or structure.
3. Any change of use.

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End of presenter's notes for this slide.

Chapter 2 Definitions



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1. Any change in the occupancy classification of a building or structure.
2. A change in the purpose of, or a change in the level of activity within, a building or structure.
3. Any change of use.

Let's look at this a bit closer.

Notice that there are three separate change conditions that are included in the overall definition of Change of Occupancy.

Number one is what naturally comes to mind when we hear the term Change of Occupancy. This is the actual change of the occupancy group classification. It is based on Chapter three of the IBC where specific occupancy group classifications are listed such as Group A-2, I-4, R-2, etc, and examples of the type of facilities that each group classification includes are listed.

A change from one Group to another Group like a funeral parlor which is a Group A-3 being converted into a fraternity which is a Group R-2 is an example of a change covered by number one.

An example of number two in the definition is converting a standard office building with employee spaces divided into offices and cubicles into a call center where the employees sit side-by-side in a more concentrated manner. Both are an occupancy Group B classification, but the occupant load increases.

End of presenter's notes for this slide.

Chapter 2 Definitions

An example for number 3 in the definition is converting an existing nursing home, which is an occupancy Group I-2 classification, into a psychiatric hospital which is also an occupancy Group I-2 classification.



This conversion doesn't change the occupancy group classification, but it does change the use because there are differing code requirements in the IBC for the psychiatric hospital.

An example for number 3 in the definition is converting an existing nursing home, which is an occupancy Group I-2 classification, into a psychiatric hospital which is also an occupancy Group I-2 classification.

This conversion doesn't change the occupancy group classification, but it does change the use because there are differing code requirements in the IBC for the psychiatric hospital.

End of presenter's notes for this slide.

Chapter 2 Definitions

A Change of Occupancy may or may not prompt alterations.



Reviewing the *Change of Occupancy* section in the compliance method you are using and knowing what elements are available in the *existing building*, will determine if *alterations* will also be required with the *Change of Occupancy*.

A Change of Occupancy may or may not prompt alterations.

Reviewing the Change of Occupancy section in the compliance method you are using and knowing what elements are available in the existing building, will determine if alterations will also be required with the Change of Occupancy.

End of presenter's notes for this slide.

Chapter 3 Provisions for All Compliance Methods

Chapter 3 lists three compliance methods for *additions*, *alterations*, and *change of occupancy*. You can ONLY USE ONE method. Mixing methods is not allowed.



The method used SHALL be specified on the drawings.

Prescriptive compliance method

Chapter 5

Work area compliance method

Chapters 6 through 12

Performance compliance method

Chapter 13

Chapter 3 lists three compliance methods for *additions*, *alterations*, and *change of occupancy*. You can ONLY USE ONE method. Mixing methods is not allowed.

The method used SHALL be specified on the drawings.

The three compliance methods are.

The Prescriptive compliance method

Found in Chapter 5

The Work area compliance method

Found in Chapters 6 through 12

And the Performance compliance method

Which is found in Chapter 13

End of presenter's notes for this slide.

Chapter 3 Provisions for All Compliance Methods

Chapter 3 also provides provisions that apply to all three compliance methods, *repairs*, and relocations of structures.



General Provisions.
Storm Shelters.
Structural Design Loads & Evaluation and Design Procedures.
In-Situ Load Tests.
Accessibility for Existing Buildings.
Smoke Alarms.
Carbon Monoxide Detection.
Additions and Replacements of Exterior Wall Coverings and Envelopes.

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The list includes.

General Provisions.
Storm Shelters.
Structural Design Loads & Evaluation and Design Procedures.
In-Situ Load Tests.
Accessibility for Existing Buildings.
Smoke Alarms.
Carbon Monoxide Detection.
and, Additions and Replacements of Exterior Wall Coverings and Envelopes.

End of presenter's notes for this slide.

Chapter 3 Provisions for All Compliance Methods

General Provisions –

302.2 Additional codes.

This section lists other Codes that also have existing building provisions. Compliance with those provisions is required unless they conflict with provisions in the IEBC.



Let's look at some of these provisions.

General Provisions is the first group.

Section 302.2. Additional codes.

This section lists other Codes that also have existing building provisions. Compliance with those provisions is also required unless they conflict with provisions in the IEBC.

End of presenter's notes for this slide.

Chapter 3 Provisions for All Compliance Methods

General Provisions –



302.3 Existing materials.

302.4 New and replacement materials.

Except as otherwise required or permitted by the IEBC, materials permitted by the applicable code for new construction shall be used.

Materials already in use and compliant with the code in effect at the time the existing building was permitted may be used if they do not create an *unsafe* condition.

Section 302.3. Existing materials, and Section 302.4. New and replacement materials.

Except as otherwise required or permitted by the IEBC, materials permitted by the applicable code for new construction shall be used.

Materials already in use and compliant with the code in effect at the time the existing building was permitted may be used if they do not create an *unsafe* condition.

End of presenter's notes for this slide.

Chapter 4 Repairs

A *repair* generally involves removing and replacing only a portion of an element or system, not the entire thing.



Chapter 4 is not required to be used for *historic buildings*.

Use Chapter 12 for *repairs to historic buildings*.

Chapter 4. Repairs.

A *repair* generally involves removing and replacing only a portion of an element or system, not the entire thing.

This chapter has provisions for *repairs* of all *existing buildings* except *historic buildings*.

Historic buildings can use Chapter 4 for *repairs*, but it is not required. *Repairs* for *historic buildings* are covered in Chapter 12.

End of presenter's notes for this slide.

Chapter 4 Repairs

Repairs shall not make the *existing building* less code compliant than it was before the *repair*.



Repairs shall be executed in a manner that maintains the existing level of fire protection.

Repairs shall be executed in a manner that maintains the level of protection for the existing means of egress.

Repairs shall not make the existing building less code compliant than it was before the *repair*.

Repairs shall be executed in a manner that maintains the existing level of fire protection.

And *repairs* shall be executed in a manner that maintains the level of protection for the existing means of egress.

End of presenter's notes for this slide.

Chapter 5 Prescriptive Compliance Method

Additions –

Additions shall comply with the IBC.



The entire building, including the *addition*, shall comply with the area and height provisions in IBC Chapter 5.

A new *occupiable roof* shall comply with provisions of the IBC.

Now let's talk about the first Compliance Method.

Remember. You can only use one of the compliance methods. Mixing methods is not allowed.

You must also clearly specify which compliance method you are using on the construction documents.

The Prescriptive Compliance Method is found in Chapter 5. Don't forget Chapter 3 for the provisions that apply to all three methods.

First up is *Additions*.

Additions shall comply with the IBC.

The entire building, including the *addition*, shall comply with the area and height provisions in IBC Chapter 5.

And, a new *occupiable roof* shall comply with provisions of the IBC.

End of presenter's notes for this slide.

Chapter 5 Prescriptive Compliance Method

Additions –

502.1.2 Additions shall not create or extend a nonconformity in the *existing building* regarding accessibility, structural strength, supports and attachments for nonstructural components, fire safety, means of egress, or the capacity of mechanical, plumbing, or electrical systems.



Section **502.1.2.**

Additions shall not create or extend a nonconformity in the *existing building* regarding accessibility, structural strength, supports and attachments for nonstructural components, fire safety, means of egress, or the capacity of mechanical, plumbing, or electrical systems.

End of presenter's notes for this slide.

Chapter 5 Prescriptive Compliance Method

Alterations –

503.1 General. *Alterations* to any building or structure shall comply with the requirements of the IBC for new construction. *Alterations* shall be such that the *existing building* or structure is not less complying with the provisions of the IBC than the *existing building* or structure was prior to the *alteration*,.....



Now for *alterations using the Prescriptive Compliance Method*.

Alterations to any building or structure shall comply with the requirements of the IBC for new construction.

Alterations shall be such that the *existing building* or structure is not less complying with the provisions of the IBC than the *existing building* or structure was prior to the *alteration*.

End of presenter's notes for this slide.

Chapter 5 Prescriptive Compliance Method

Alterations –

503.20 When an *alteration* involves a *work area* more than 50 percent of the building area, and the building has elevator service, a two-way communication system shall be provided at the elevator when required by IBC Section 1009.8.



This section requires a two-way communications system regardless if the elevator is involved in the *alteration*.

Section 503.20. When an *alteration* involves a *work area* more than 50 percent of the building area, and the building has elevator service, a two-way communication system shall be provided at the elevator when required by IBC Section 1009.8.

Here is a section that requires a two-way communications system be added to the scope of the work based on IBC Section 1009.8.

End of presenter's notes for this slide.

Chapter 5 Prescriptive Compliance Method

Fire Escapes:

Fire escapes cannot be used as a *means of egress* component on new buildings or on *additions*.



Fire escapes cannot constitute more than 50 percent of the required *exits* nor more than 50 percent of the required *exit* capacity for *existing buildings*.

New fire escapes are only permitted on *existing buildings* where exterior stairways cannot be utilized because of site constraints.

Fire escapes cannot be used as a *means of egress* component on new buildings or on *additions*.

The 'new building' verbiage is included in the IEBC for cases where an *addition* is fire separated in compliance with other code provisions and may be interpreted as a separate new building.

Fire escapes cannot constitute more than 50 percent of the required *exits* nor more than 50 percent of the required *exit* capacity for *existing buildings*.

New fire escapes are only permitted on *existing buildings* where exterior stairways cannot be utilized because of site constraints.

End of presenter's notes for this slide.

Chapter 5 Prescriptive Compliance Method

Windows and Emergency Escape Openings:

Replacement windows, but not the replacement of the glazing only, shall comply with requirements for new window installations.



Replacement windows may require fall protection devices based on a list of conditions.

Bars, grilles, covers or screens may be allowed when compliant with four listed conditions.

Replacement windows, but not the replacement of the glazing only, shall comply with requirements for new window installations.

Replacement windows may require fall protection devices based on a list of conditions.

Bars, grilles, covers or screens may be allowed when compliant with four listed conditions.

End of presenter's notes for this slide.

Chapter 5 Prescriptive Compliance Method

Change of Occupancy:

Compliance to IBC provisions is required for the new occupancy in the portion of the building with the *change of occupancy*.



506.3 An existing stairway is not required to be altered to comply with the IBC where the space and construction restricts the existing pitch or slope from being reduced.

The capacity of the entire means of egress system must comply with the new occupancy and use.

Let's move on to *change of occupancy* using the Prescriptive Compliance Method.

Compliance to IBC provisions is required for the new occupancy in the portion of the building with the *change of occupancy*.

Section 506.3. An existing stairway is not required to be altered to comply with the IBC where the space and construction restricts the existing pitch or slope from being reduced.

The capacity of the entire means of egress system must comply with the new occupancy and use. That may mean adding a new stairway if the existing one doesn't have the necessary capacity.

End of presenter's notes for this slide.

Chapter 5

Prescriptive Compliance Method

Historic Buildings:

Provisions of the IEBC apply when the building official determines that a condition is a distinct life safety hazard.



ALWAYS contact the Historic Preservation Office when your project involves a historic building or structure.

Prescriptive Compliance Method provisions of the IEBC apply to historic buildings when the building official determines that a condition is a distinct life safety hazard.

ALWAYS contact the Historic Preservation Office when your project involves a historic building or structure.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method



WORK AREA – That portion or portions of a building consisting of all reconfigured spaces as indicated on the construction documents. Work area excludes other portions of the building where incidental work entailed by the intended work must be performed and portions of the building where work not initially intended by the owner is specifically required by this code.

On to the second compliance method. The Work Area Compliance Method.

We have already encountered the *work area* term.

The definition of work area is important when working with the IEBC.

In this compliance method the *work area* relative to the area of the existing building is used to delineate two levels of *alteration* work.

The definition reads. That portion or portions of a building consisting of all reconfigured spaces as indicated on the construction documents. Work area excludes other portions of the building where incidental work entailed by the intended work must be performed and portions of the building where work not initially intended by the owner is specifically required by this code.

The elevator two-way communications mentioned previously is an example of the second sentence in the definition. The elevator may not be included in the actual *work area*, but the alteration is required by the Code none-the-less.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

The *work area* shall be clearly identified on the construction documents when the Work Area Compliance Method is used.



Work Area Compliance Method provides requirements for various prescribed levels of work and types of work:

Alterations Level 1, Level 2, and Level 3.

Change of Occupancy.

Additions.

Historic Buildings.

The *work area* must be clearly identified on the construction documents when the Work Area Compliance Method is used.

Work Area Compliance Method provides requirements for various prescribed levels of work and types of work:

Alterations. Which are divided into Level 1, Level 2, and Level 3.

Change of Occupancy.

Additions.

and *Historic Buildings.*

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Level 1 Alterations:

This includes the removal and replacement, or the covering, of existing materials, elements, *equipment or fixtures* using new materials, elements, *equipment or fixtures* that serve the same purpose. It does not include space reconfiguration.



Window replacement is included in Level 1 Alterations.

Roof replacement and *roof recover* is included in Level 1 Alterations.

Level 1 Alterations include the removal and replacement, or the covering, of existing materials, elements, *equipment or fixtures* using new materials, elements, *equipment or fixtures* that serve the same purpose.

It does not include space reconfiguration.

Window replacement is included in Level 1 *Alterations*.

Roof replacement and *roof recover* is also included in Level 1 *Alterations*.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Level 1 Alterations:

701.2 *Alterations* shall not make the *existing building* less safe than it was before the *alterations*.



703.1 *Alterations* shall be executed in a manner that maintains the existing level of fire protection.

704.1 *Alterations* shall be executed in a manner that maintains the level of protection for the existing means of egress.

Alterations must not make the *existing building* less safe than it was before the *alterations*.

Alterations must be executed in a manner that maintains the existing level of fire protection.

And *alterations* must be executed in a manner that maintains the level of protection for the existing means of egress.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Level 2 Alterations:

This level applies when the *work area* does not exceed 50 percent of the building area.



It includes work that reconfigures space, adds or eliminates doors or windows, reconfigures or extends a system, or installs any additional equipment.

801.2 Level 1 Alterations provisions also apply to Level 2 Alterations.

801.4 All new elements, components, systems, and spaces shall comply with IBC provisions. The IEBC provides 6 exceptions.

Level 2 alterations.

When the *work area* does not exceed 50 percent of the building area, Level 2 *alteration* provisions apply.

Level 2 includes work that reconfigures space, adds or eliminates doors or windows, reconfigures or extends a system, or installs any additional equipment.

Section 801.2 requires Level 2 *alterations* to also comply with Level 1 *alteration* provisions.

Section 801.4. All new elements, components, systems, and spaces must comply with IBC provisions. The IEBC provides 6 exceptions.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Level 2 Alterations:

802.5 Guards must be provided to protect floor elevation changes of more than 30 inches if they are not present; and existing guards must be replaced if they are judged to be in danger of collapse. Guards must be designed to comply with the IBC.

802.6 Fire-resistance rating of existing elements may be allowed to be reduced in compliance with the IBC when an automatic fire sprinkler system is installed in conformance with IBC Section 903.3.1.1 or 903.3.1.2.



Section 802.5. Guards must be provided to protect floor elevation changes of more than 30 inches if they are not present; and existing guards must be replaced if they are judged to be in danger of collapse. Guards must be designed to comply with the IBC.

Section 802.6. Fire-resistance rating of existing elements may be allowed to be reduced in compliance with the IBC when an automatic fire sprinkler system is installed in conformance with IBC Section 903.3.1.1 or 903.3.1.2.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Level 2 Alterations:

804.1 Means of egress in the *work area* shall comply with the IBC unless the *work area* includes exits or corridors that are shared by more than one tenant within the *work area*. The IEBC provides detailed alternatives to IBC compliance for the means of egress shared by more than one tenant.



809.1 *Alterations* are required to comply to the *International Energy Conservation Code* as they relate to new construction only. The entire building is not required to comply.

Section 804.1. Means of egress in the *work area* shall comply with the IBC unless the *work area* includes exits or corridors that are shared by more than one tenant within the *work area*. The IEBC provides detailed alternatives to IBC compliance for the means of egress shared by more than one tenant.

Section 809.1. *Alterations* are required to comply to the *International Energy Conservation Code* as they relate to new construction only.

But, the entire building is not required to comply.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Level 3 Alterations:

This applies when the *work area* exceeds 50 percent of the building area.



It includes work that reconfigures space, adds or eliminates any door or window, reconfigures or extends a system, or installs any additional equipment.

901.2 Level 1 and 2 Alterations provisions also apply to Level 3 Alterations.

Level 3 *alterations* provisions apply when the *work area* exceeds 50 percent of the building area.

It includes work that reconfigures space, adds or eliminates any door or window, reconfigures or extends a system, or installs any additional equipment.

Section 901.2 requires Level 3 *alterations* to also comply with Level 1 and Level 2 *alteration* provisions.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Level 3 Alterations:

903.1 Existing means of egress stairways shall be enclosed per IEBC Section 802.2.1 from the highest *work area* floor thru all the floors below, including the level of exit discharge, and all floors below the level of exit discharge regardless of the number of tenants served or occupant load.

903.3 Interior finish in exits serving the *work area* shall comply with IEBC Section 802.4 between the highest floor on which there is a *work area* to the floor of exit discharge.



Section 903.1. Existing means of egress stairways shall be enclosed per IEBC Section 802.2.1 from the highest *work area* floor thru all the floors below, including the level of exit discharge, and all floors below the level of exit discharge, regardless of the number of tenants served or occupant load.

Section 903.3. Interior finish in exits serving the *work area* shall comply with IEBC Section 802.4 between the highest floor on which there is a *work area* to the floor of exit discharge.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Level 3 Alterations:

905.3 Exit signs shall be provided from the highest *work area* floor to the level of exit discharge per IBC.



905.4 In buildings with elevator service, a two-way communication system shall be provided where required by IBC Section 1009.8

907.1 *Alterations* are required to comply to the *International Energy Conservation Code* as they relate to new construction only. The entire building is not required to comply.

Section 905.3. Exit signs shall be provided from the highest *work area* floor to the level of exit discharge per IBC.

Section 905.4. In buildings with elevator service, a two-way communication system shall be provided where required by IBC Section 1009.8

Section 907.1. *Alterations* are required to comply to the *International Energy Conservation Code* as they relate to new construction only.

But, the entire building is not required to comply.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Change of Occupancy:

1001.2.1 Change in use shall comply with IEBC Sections 1002 through 1010.



1001.2.2 Change of occupancy classification shall comply with IEBC Sections 1002 through 1011.

1001.2.2.1.1 When a portion of an *existing building* undergoes a change of occupancy classification it shall comply with IEBC Section 1011.

The Work Area Compliance Method also includes provisions for a *change of occupancy*.

A change in use shall comply with IEBC Sections 1002 through 1010.

A change of occupancy classification shall comply with IEBC Sections 1002 through 1011.

And when a portion of an *existing building* undergoes a change of occupancy classification it only needs to comply with IEBC Section 1011.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Change of Occupancy:

1002.1 A change into one of the special use or occupancy categories listed in IBC Chapter 4 shall comply with all the provisions of IBC Chapter 4 for that occupancy category.



1002.2 A *change of occupancy* to one of the incidental uses listed in IBC Table 509.1 shall comply with IBC Section 509.

1002.3 Where a *change of occupancy* occurs to a Group I-2, or I-1 facility, the *work area* with the *change of occupancy* shall comply with the IBC. Two exceptions are listed in the IEBC.

Section 1002.1. A change into one of the special use or occupancy categories listed in IBC Chapter 4 shall comply with all the provisions of IBC Chapter 4 for that occupancy category.

Section 1002.2. A *change of occupancy* to one of the incidental uses listed in IBC Table 509.1 shall comply with IBC Section 509.

Section 1002.3. Where a *change of occupancy* occurs to a Group I-2, or I-1 facility, the *work area* with the *change of occupancy* shall comply with the IBC. Two exceptions are listed in the IEBC.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Change of Occupancy:

1011.5.1 When a change of occupancy classification is to a higher-hazard category as shown in Table 1011.5, the means of egress shall comply with the IBC. There are 8 exceptions listed in the IEBC.



TABLE 1011.5 – MEANS OF EGRESS HAZARD CATEGORIES	
RELATIVE HAZARD	OCCUPANCY CLASSIFICATION
1 (Highest Hazard)	H
2	I-2; I-3; I-4
3	A; E; I-1; M; R-1; R-2; R-4, Condition 2
4	B; F-1; R-3; R-4, Condition 1; S-1
5 (Lowest Hazard)	F-2; S-2; U

Section 1011.5.1. When a change of occupancy classification is to a higher-hazard category as shown in Table 1011.5, the means of egress shall comply with the IBC. There are 8 exceptions listed in the IEBC.

An image of Table 1011.5 titled Means of Egress Hazard Categories appears on this slide. It contains 2 columns. The left column is titled 'relative hazard', and the five cells below are numbered 1 to 5 from top to bottom, with 1 being the highest hazard level. The right column is titled 'occupancy classification', and the five cells below contain different occupancy group classifications commensurate with their relative hazard.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Change of Occupancy:

1011.5.2 When a change of occupancy classification is to an equal or lesser-hazard category as shown in Table 1011.5, the IEBC provides specific modified provisions for means of egress, egress capacity, handrails, guards, and emergency escape and rescue openings.



Section 1011.5.2. When a change of occupancy classification is to an equal or lesser-hazard category as shown in Table 1011.5, the IEBC provides specific modified provisions for means of egress, egress capacity, handrails, guards, and emergency escape and rescue openings.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Change of Occupancy:

1011.6.1 When a change of occupancy classification is to a higher-hazard category as shown in Table 1011.6, the heights and areas of buildings and structures shall comply with IBC Chapter 5. There are 2 exceptions listed in the IEBC.



TABLE 1011.6 – HEIGHTS AND AREAS HAZARD CATEGORIES	
RELATIVE HAZARD	OCCUPANCY CLASSIFICATION
1 (Highest Hazard)	H
2	A-1; A-2; A-3; A-4; I; R-1; R-2; R-4, Condition 2
3	E; F-1; S-1; M
4 (Lowest Hazard)	B; F-2; S-2; A-5; R-3; R-4, Condition 1; U

Section 1011.6.1. When a change of occupancy classification is to a higher-hazard category as shown in Table 1011.6, the heights and areas of buildings and structures shall comply with IBC Chapter 5. There are 2 exceptions listed in the IEBC.

An image of Table 1011.6 titled Heights and Areas Hazard Categories appears on this slide. It contains 2 columns. The left column is titled 'relative hazard', and the four cells below are numbered 1 to 4 from top to bottom, with 1 being the highest hazard level. The right column is titled 'occupancy classification', and the four cells below contain different occupancy group classifications commensurate with their relative hazard.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Change of Occupancy:

1011.6.1.1 Except for Group H, F-1, and S-1, fire barrier walls and horizontal assemblies constructed in accordance with IBC Sections 707 and 711 respectively, shall be allowed to be used in lieu of fire walls to subdivide the building into separate buildings for the purpose of complying with the area limitations required for the new occupancy when all three conditions listed in the IEBC are met.



Section 1011.6.1.1. Except for Group H, F-1, and S-1, fire barrier walls and horizontal assemblies constructed in accordance with IBC Sections 707 and 711 respectively, shall be allowed to be used in lieu of fire walls to subdivide the building into separate buildings for the purpose of complying with the area limitations required for the new occupancy when all three conditions listed in the IEBC are met.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Change of Occupancy:

1011.7.1 When a change of occupancy classification is to a higher-hazard category as shown in Table 1011.7, the exterior walls shall have fire-resistance, exterior opening areas, and opening protectives per the IBC. There is 1 exception listed in the IEBC.



TABLE 1011.7 – EXPOSURE OF EXTERIOR WALLS HAZARD CATEGORIES	
RELATIVE HAZARD	OCCUPANCY CLASSIFICATION
1 (Highest Hazard)	H
2	F-1; M; S-1
3	A; B; E; I; R
4 (Lowest Hazard)	F-2; S-2; U

Section 1011.7.1. When a change of occupancy classification is to a higher-hazard category as shown in Table 1011.7, the exterior walls shall have fire-resistance, exterior opening areas, and opening protectives per the IBC. There is 1 exception listed in the IEBC.

An image of Table 1011.7 Titled Exposure of Exterior Walls Hazard Categories appears on this slide. It contains 2 columns. The left column is titled 'relative hazard', and the four cells below are numbered 1 to 4 from top to bottom, with 1 being the highest hazard level. The right column is titled 'occupancy classification', and the four cells below contain different occupancy group classifications commensurate with their relative hazard.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Change of Occupancy:

1011.7.1 When a change of occupancy classification is to an equal or lesser-hazard category as shown in Table 1011.7, the existing exterior walls and openings shall be accepted.



1011.7.3 The IEBC provides provisions for required protected openings.

1011.8 The IEBC provides provisions for vertical shaft enclosures, including stairways.

Section 1011.7.1. When a change of occupancy classification is to an equal or lesser-hazard category as shown in Table 1011.7, the existing exterior walls and openings shall be accepted.

The IEBC provides provisions for required protected openings.

And the IEBC provides provisions for vertical shaft enclosures, including stairways.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Additions:

1101.1 An *addition* shall comply with the IBC without requiring the *existing building* or structure to comply with the IBC except as required by IEBC Chapter 11.



When an *addition* impacts the *existing building* or structure, the impacted portion shall comply with the IEBC.

Work Area Compliance Method provisions for *additions* are listed after the *change of occupancy* provisions.

Section 1101.1. An *addition* shall comply with the IBC without requiring the *existing building* or structure to comply with the IBC except as required by IEBC Chapter 11.

When an *addition* impacts the *existing building* or structure, the impacted portion shall comply with the IEBC.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Additions:

1101.2 An *addition* shall not create or extend any nonconformity in the *existing building* with regard to accessibility, structural strength, supports and attachments for nonstructural components, fire safety, means of egress or capacity of mechanical, plumbing or electrical systems. There is 1 exception listed in the IEBC.



1101.4 Any work within the *existing building* shall comply with the IEBC.

Section 1101.2. An *addition* shall not create or extend any nonconformity in the *existing building* with regard to accessibility, structural strength, supports and attachments for nonstructural components, fire safety, means of egress or capacity of mechanical, plumbing or electrical systems. There is 1 exception listed in the IEBC.

Section 1101.4. Any work within the *existing building* shall comply with the IEBC.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Additions:

1101.8 A new *occupiable roof* shall comply with provisions of the IBC.



1102.1 An *addition* shall not increase the height of an *existing building* beyond that permitted by IBC Chapter 5.

1102.2 An *addition* shall not increase the area of an *existing building* beyond that permitted by IBC Chapter 5 unless fire separation is provided in compliance with IBC Chapter 5.

Section 1101.8. A new *occupiable roof* shall comply with provisions of the IBC.

Section 1102.1. An *addition* shall not increase the height of an *existing building* beyond that permitted by IBC Chapter 5.

Section 1102.2. An *addition* shall not increase the area of an *existing building* beyond that permitted by IBC Chapter 5 unless fire separation is provided in compliance with IBC Chapter 5.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Historic Buildings:

ALWAYS contact the Historic Preservation Office when your project involves a historic building or structure.

Refer to the City's amendments for IEBC Chapter 12.



Historic Buildings using the Work Area Compliance Method.

ALWAYS contact the Historic Preservation Office when your project involves a *historic building* or structure.

Don't forget to refer to the City's amendments for IEBC Chapter 12.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Historic Buildings:

1201.1.1 A preliminary meeting is offered by the City if one is requested.



1201.2 A written investigation report by a registered design professional identifying all *unsafe* conditions and describing any components of the building that provide a level of safety substantially below that required of existing non-historic buildings may be required.

Chapter 4 refers to Chapter 12 for *repairs* of historic buildings.

A preliminary meeting is offered by the City if a meeting is requested.

A written investigation report by a registered design professional identifying all *unsafe* conditions and describing any components of the building that provide a level of safety substantially below that required of existing non-historic buildings may be required by the building official.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Historic Buildings:

1201.5 If a condition is determined to be *unsafe* by the building official, it shall be remedied to a condition where it is no longer *unsafe*.



1201.6 Exterior alterations to a *historic building* shall be exempt from the provisions of the International Energy Conservation Code. New construction within designated historic districts shall be subject to the provisions of the International Energy Conservation Code.

If a condition is determined to be *unsafe* by the building official, it shall be remedied to a condition where it is no longer *unsafe*.

Exterior alterations to a *historic building* shall be exempt from the provisions of the International Energy Conservation Code. New construction within designated historic districts shall be subject to the provisions of the International Energy Conservation Code.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Historic Buildings:

Repairs:

1202.1 *Repairs* are permitted to use original or like materials and original methods of construction, unless the materials are hazardous and the materials are prohibited in the IBC.

1202.2 *Repair* and replacement of existing or missing features using original materials shall be permitted. Partial replacement for *repairs* that match the original in configuration, height, and size shall be permitted. Glazing is subject to the requirements of Section 1203.8. There are 3 exceptions in the IEBC for replacement glazing in hazardous locations.



Repairs are permitted to use original or like materials and original methods of construction, unless the materials are hazardous and the materials are prohibited in the IBC.

Repair and replacement of existing or missing features using original materials shall be permitted. Partial replacement for *repairs* that match the original in configuration, height, and size shall be permitted.

Glazing is subject to the requirements of Section 1203.8. There are 3 exceptions in the IEBC for replacement glazing in hazardous locations.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Historic Buildings:

Change of Occupancy:

1204.2 Building area may exceed the area limitation specified in IBC Chapter 5 by 20 percent.



1204.3 Alternate methods of compliance for exterior wall fire-resistance and opening protectives may be used if the alternatives comply with IEBC 1201.2.

1204.4 1-hour occupancy separation may be omitted when the building is provided with an approved automatic sprinkler system throughout.

The Work Area Compliance Method also has provisions for a Change of Occupancy of an *historic building*.

The building area may exceed the area limitation specified in IBC Chapter 5 by 20 percent.

Alternate methods of compliance for exterior wall fire-resistance and opening protectives may be used if the alternatives comply with IEBC 1201.2.

And a 1-hour occupancy separation may be omitted when the building is provided with an approved automatic sprinkler system throughout.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Historic Buildings:

Change of Occupancy:

1204.5 Regardless of occupancy or use group, a Class C roof covering may be used where a fire-retardant roof covering is required.



1203.3 The width of means of egress components that do not comply with the IEBC, and the IBC will require a building official review and approval. An exit system must be provided that is adequate for the total occupant load.

Regardless of occupancy or use group, a Class C roof covering may be used where a fire-retardant roof covering is required.

The width of means of egress components that do not comply with the IEBC, and the IBC will require a building official review and approval.

An exit system must be provided that is adequate for the total occupant load.

End of presenter's notes for this slide.

Chapter 6 thru 12 Work Area Compliance Method

Historic Buildings:

Change of Occupancy:

1204.10 An existing wood lath or metal lath and plaster wall and ceiling is considered to provide a 1-hour fire-resistance rating.



1204.11 The building official shall grant approval of alternatives for stairways and guards if they are found to meet the intent of these provisions. Existing conditions are allowed to remain for all stairways and guards in buildings less than 3000 square foot in area.

Section 1204.10. An existing wood lath or metal lath and plaster wall and ceiling is considered to provide a 1-hour fire-resistance rating.

Section 1204.11. The building official shall grant approval of alternatives for stairways and guards if they are found to meet the intent of these provisions. Existing conditions are allowed to remain for all stairways and guards in buildings less than 3000 square foot in area.

End of presenter's notes for this slide.

Chapter 13 Performance Compliance Method

CANNOT be used for Group H, I-1, I-3, or I-4.

Additions and new occupiable roofs shall comply with the IBC. An *addition* shall not increase the area of an *existing building* beyond that permitted by IBC Chapter 5 unless fire separation is provided in compliance with IBC Chapter 5.

Requires a structural analysis of the existing building.

Required evaluations in 3 categories:

- Fire Safety
- Means of Egress
- General Safety



And now for the last compliance method.

The Performance Compliance Method.

This compliance method CANNOT be used for Group H, I-1, I-3, or I-4 occupancies.

Additions, and new occupiable roofs, shall comply with the IBC.

An *addition* shall not increase the area of an *existing building* beyond that permitted by IBC Chapter 5 unless fire separation is provided in compliance with IBC Chapter 5.

This compliance method requires a structural analysis of the existing building because the parameters used to evaluate the safety of the building do not include the condition of the structural elements.

This compliance method requires evaluations of the existing building in 3 categories.

- Fire Safety.
- Means of Egress.
- and General Safety.

End of presenter's notes for this slide.

Chapter 13 Performance Compliance Method

19 Safety Parameters



- | | |
|------------------------------------|--|
| 1. Building Height, Stories | 10. Smoke Control |
| 2. Building Area | 11. Means of Egress |
| 3. Compartmentation | 12. Dead Ends |
| 4. Tenant and Dwelling Separations | 13. Exit Access Travel Distance |
| 5. Corridor Walls | 14. Elevator Control |
| 6. Vertical Openings | 15. Means of Egress Emergency Lighting |
| 7. HVAC Systems | 16. Mixed Occupancies |
| 8. Automatic Fire Detection | 17. Automatic Sprinklers |
| 9. Fire Alarm System | 18. Standpipes |
| | 19. Incidental Uses |

This method uses nineteen safety parameters in the evaluation process.

1. Building Height, Stories.
2. Building Area.
3. Compartmentation.
4. Tenant and Dwelling Separations.
5. Corridor Walls.
6. Vertical Openings.
7. HVAC Systems.
8. Automatic Fire Detection.
9. Fire Alarm System.
10. Smoke Control.
11. Means of Egress.
12. Dead Ends.
13. Exit Access Travel Distance.

14. Elevator Control.
15. Means of Egress Emergency Lighting.
16. Mixed Occupancies.
17. Automatic Sprinklers.
18. Standpipes.
19. Incidental Uses.

End of presenter's notes for this slide.

Chapter 13

Performance Compliance Method

The 19 safety parameters are evaluated and the scores for each is entered into each category in the Table 1306.1 Summary Sheet.



The safety parameter scores for each category are tallied.

If any of the 3 categories fail, the building doesn't comply, and adjustments must be made until each category passes.

The 19 safety parameters are evaluated and the scores for each is entered into each category in the Table 1306.1 Summary Sheet.

The safety parameter scores for each category are tallied.

If any of the 3 categories fail, the building doesn't comply, and adjustments must be made until each category passes.

End of presenter's notes for this slide.

Chapter 14 Relocated or Moved Buildings

Relocated or Moved Buildings:

Any structure that is moved to a different lot or a new location on the same lot falls within the scope of Chapter 14.



Any *repair, alteration, or change of occupancy* shall comply with other sections of the IEBC.

Any *additions* shall comply with the IBC and other current codes for new construction.

Chapter 14. Relocated and Moved Buildings. This chapter is short and sweet, and the last chapter we will cover.

Any structure that is moved to a different lot or a new location on the same lot falls within the scope of Chapter 14.

Any *repair, alteration, or change of occupancy* shall comply with other sections of the IEBC.

Any *additions* shall comply with the IBC and other current codes for new construction.

End of presenter's notes for this slide.



Questions?

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Accessibility Technical Lead

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Planning and Development Department

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602-262-7802

Alright! We have come to the end of this training presentation. I know there were a lot of numbers.

If you have any questions, please feel free to contact me at

Telephone number 6 0 2 2 6 2 7 8 0 2.

Or.

My email. R o s t d o t s a p o n a t p h o e n i x d o t g o v.

A picture of an infant with a quizzical facial expression is shown.

End of presenter's notes for this slide.