

2015



Virginia Existing Building Code

Part II of the Virginia Uniform Statewide Building Code



Effective September 4, 2018

PREFACE

Introduction

The Virginia Uniform Statewide Building Code (USBC) is a state regulation promulgated by the Virginia Board of Housing and Community Development, a Governor-appointed board, for the purpose of establishing minimum regulations to govern the construction and maintenance of buildings and structures.

The provisions of the USBC are based on nationally recognized model building and fire codes published by the International Code Council, Inc. The model codes are made part of the USBC through a regulatory process known as incorporation by reference. The USBC also contains administrative provisions governing the use of the model codes and establishing requirements for the enforcement of the code by the local building departments and other code enforcement agencies.

In keeping with the designations of the USBC used previously, since the 2015 editions of the International Codes are incorporated by reference into this version of the USBC, it is known as the 2015 edition of the USBC.

Arrangement

The USBC is part of the Virginia Administrative Code (VAC), the official compilation of state regulations published under the authority and guidance of the Virginia Code Commission. Due to the difference in the section numbering system between the VAC and the model codes incorporated by reference into the USBC, the USBC utilizes a dual section numbering system. In the USBC, the VAC section numbers are listed first, followed by a section number matching the model code system. In this printing of the USBC, the VAC section numbers are omitted and only the model code numbering system is utilized. The version of the USBC containing both the VAC section numbers and the model code numbering is available from the Virginia Department of Housing and Community Development (DHCD) and may also be accessed through the website of the Virginia Code Commission or by subscription to the VAC.

Overview

The USBC is divided into three stand-alone parts. Part I contains regulations specific to the construction of new buildings and structures and is known as the Virginia Construction Code. Part II contains regulations specific to the rehabilitation of existing buildings, including repair, alterations, additions and change of occupancy in existing buildings and structures, and is known as the Virginia Existing Building Code. Part III of the USBC contains the regulations for the maintenance of existing structures which is enforced at the option of the local governments. It is known as the Virginia Maintenance Code.

Codes Purchased from ICC

The 2015 edition of the USBC is being made available in pamphlet form as in past editions of the USBC. In addition to the pamphlet form of the USBC published by DHCD, the International Code Council (ICC) publishes versions of the Virginia Construction Code, Virginia Existing Building Code, Virginia Maintenance Code and a series of Virginia specific trade codes. In the ICC published versions, marginal markings are provided to distinguish between text which is part of the International Codes and text which is part of the state regulations. Double vertical lines in the margins within the body of the codes indicate state amendments to the International Codes. As in the standard printings of the International Codes, a single vertical line in the margins within the body of the code indicates a technical change from the previous edition of the International Codes. Deletions from the previous editions of the International Codes are indicated in the form of an arrow (→) in the margin where an entire section, paragraph, exception or table has been deleted or an item in a list of items or a table has been deleted.

Technical Assistance

The local building departments and enforcing agencies may be contacted for further information concerning the USBC. Contact information for DHCD is below.

DHCD, Division of Building and Fire Regulation
State Building Codes Office
600 East Main Street, Suite 300
Richmond, Virginia 23219
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CHAPTER 1

ADMINISTRATION

SECTION 101

GENERAL

101.1 Short title. The Virginia Uniform Statewide Building Code, Part II, Existing Buildings, may be cited as the "Virginia Existing Building Code" or as the "VEBC."

101.2 Incorporation by reference. Chapters 2 - 16 of the 2015 International Existing Building Code, published by the International Code Council, Inc., are adopted and incorporated by reference to be an enforceable part of the VEBC. The term "IEBC" means the 2015 International Existing Building Code, published by the International Code Council, Inc. Any codes and standards referenced in the IEBC are also considered to be part of the incorporation by reference, except that such codes and standards are used only to the prescribed extent of each such reference.

101.3 Numbering system. A dual numbering system is used in the VEBC to correlate the numbering system of the Virginia Administrative Code with the numbering system of the IEBC. IEBC numbering system designations are provided in the catchlines of the Virginia Administrative Code sections and cross references between sections or chapters of the VEBC use only the IEBC numbering system designations. The term "chapter" is used in the context of the numbering system of the IEBC and may mean a chapter in the VEBC, a chapter in the IEBC or a chapter in a referenced code or standard, depending on the context of the use of the term. The term "chapter" is not used to designate a chapter of the Virginia Administrative Code, unless clearly indicated.

101.4 Arrangement of code provisions. The VEBC is comprised of the combination of (i) the provisions of Chapter 1, Administration, which are established herein, (ii) Chapters 2 - 16 of the IEBC, which are incorporated by reference in Section 101.2, and (iii) the changes to the text of the incorporated chapters of the IEBC that are specifically identified, including any new chapters added. The terminology "changes to the text of the incorporated chapters of the IEBC that are specifically identified, including any new chapters added" shall also be referred to as the "state amendments to the IEBC." Such state amendments to the IEBC are set out using corresponding chapter and section numbers of the IEBC numbering system. In addition, since Chapter 1 of the IEBC is not incorporated as part of the VEBC, any reference to a

provision of Chapter 1 of the IEBC in the provisions of Chapters 2 - 16 of the IEBC is generally invalid. However, where the purpose of such a reference would clearly correspond to a provision of Chapter 1 established herein, then the reference may be construed to be a valid reference to such corresponding Chapter 1 provision.

101.5 Use of terminology and notes. The provisions of this code shall be used as follows:

1. The term "this code," or "the code," where used in the provisions of Chapter 1, in Chapters 2 - 16 of the IEBC, or in the state amendments to the IEBC, means the VEBC, unless the context clearly indicates otherwise.
2. The term "this code," or "the code," where used in a code or standard referenced in the VEBC, means that code or standard, unless the context clearly indicates otherwise.
3. The term "USBC" where used in this code, means the VCC, unless the context clearly indicates otherwise.
4. The use of notes in Chapter 1 is to provide information only and shall not be construed as changing the meaning of any code provision.
5. Notes in the IEBC, in the codes and standards referenced in the IEBC and in the state amendments to the IEBC, may modify the content of a related provision and shall be considered to be a valid part of the provision, unless the context clearly indicates otherwise.
6. References to International Codes and standards, where used in this code, include state amendments made to those International Codes and standards in the VCC.

Note: See Section 101.2 of the VCC for a list of major codes and standards referenced in the VCC.

101.6 Order of precedence. The provisions of this code shall be used as follows:

1. The provisions of Chapter 1 of this code supersede any provisions of Chapters 2 - 16 of the IEBC that address the same subject matter and impose differing requirements.

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2. The provisions of Chapter 1 of this code supersede any provisions of the codes and standards referenced in the IEBEC that address the same subject matter and impose differing requirements.
3. The state amendments to the IEBEC supersede any provisions of Chapters 2 - 16 of the IEBEC that address the same subject matter and impose differing requirements.
4. The state amendments to the IEBEC supersede any provisions of the codes and standards referenced in the IEBEC that address the same subject matter and impose differing requirements.
5. The provisions of Chapters 2 - 16 of the IEBEC supersede any provisions of the codes and standards referenced in the IEBEC that address the same subject matter and impose differing requirements.

101.7 Administrative provisions. The provisions of Chapter 1 establish administrative requirements, which include but are not limited to provisions relating to the scope and enforcement of the code. Any provisions of Chapters 2 - 16 of the IEBEC or any provisions of the codes and standards referenced in the IEBEC that address the same subject matter to a lesser or greater extent are deleted and replaced by the provisions of Chapter 1. Further, any administrative requirements contained in the state amendments to the IEBEC shall be given the same precedence as the provisions of Chapter 1. Notwithstanding the above, where administrative requirements of Chapters 2 - 16 of the IEBEC or of the codes and standards referenced in the IEBEC are specifically identified as valid administrative requirements in Chapter 1 of this code or in the state amendments to the IEBEC, then such requirements are not deleted and replaced.

Note: The purpose of this provision is to eliminate overlap, conflicts and duplication by providing a single standard for administrative, procedural and enforcement requirements of this code.

101.8 Definitions. The definitions of terms used in this code are contained in Chapter 2 along with specific provisions addressing the use of definitions. Terms may be defined in other chapters or provisions of the code and such definitions are also valid.

SECTION 102 PURPOSE AND SCOPE

102.1 Purpose. In accordance with § 36-99.01 of the Code of Virginia, the General Assembly of Virginia has

declared that (i) there is an urgent need to improve the housing conditions of low and moderate income individuals and families, many of whom live in substandard housing, particularly in the older cities of the Commonwealth; (ii) there are large numbers of older residential *buildings* in the Commonwealth, both occupied and vacant, which are in urgent need of rehabilitation and must be rehabilitated if the state's citizens are to be housed in decent, sound, and sanitary conditions; and (iii) the application of those *building* code requirements currently in force to housing rehabilitation has sometimes led to the imposition of costly and time-consuming requirements that result in a significant reduction in the amount of rehabilitation activity taking place.

The General Assembly further declares that (i) there is an urgent need to improve the existing condition of many of the Commonwealth's stock of commercial properties, particularly in older cities; (ii) there are large numbers of older commercial *buildings* in the Commonwealth, both occupied and vacant, that are in urgent need of rehabilitation and that must be rehabilitated if the citizens of the Commonwealth are to be provided with decent, sound and sanitary work spaces; and (iii) the application of the existing *building* code to such rehabilitation has sometimes led to the imposition of costly and time-consuming requirements that result in a significant reduction in the amount of rehabilitation activity taking place.

102.2 Scope. The provisions of this code shall govern construction and rehabilitation activities in *existing buildings* and *structures*.

102.2.1 Change of occupancy to Group I-2 or I-3.

A *change of occupancy* to Group I-2 or I-3 shall comply with the provisions of the VCC. Written application shall be made to the local building department for a new certificate of occupancy and the new certificate of occupancy shall be obtained prior to the *change of occupancy*. When impractical to achieve compliance with the VCC for the new occupancy classification, the building official shall consider modifications upon application and as provided for in Section 106.3 of the VCC.

102.2.2 Reconstruction, alteration or repair in Group R-5 occupancies. Compliance with this section shall be an acceptable alternative to compliance with this code at the discretion of the owner or owner's agent. The VCC may be used for the reconstruction, *alteration* or repair of Group R-5 *buildings* or *structures* subject to the following criteria:

1. Any reconstruction, *alteration* or repair shall not adversely affect the

performance of the *building* or *structure*, or cause the *building* or *structure* to become unsafe or lower existing levels of health and safety.

2. Parts of the *building* or *structure* not being reconstructed, altered or repaired shall not be required to comply with the requirements of the VCC applicable to newly constructed *buildings* or *structures*.
3. The installation of material or equipment, or both, that is neither required nor prohibited shall only be required to comply with the provisions of the VCC relating to the safe installation of such material or equipment.
4. Material or equipment, or both, may be replaced in the same location with material or equipment of a similar kind of capacity.

Exceptions:

1. This section shall not be construed to permit noncompliance with any applicable flood load or flood-resistant construction requirements of the VCC.
2. Reconstructed decks, balconies, porches and similar *structures* located 30 inches (762mm) or more above grade shall meet the current code provisions for structural loading capacity, connections and structural attachment. This requirement excludes the configuration and height of handrails and guardrails.
5. In accordance with Section 36-99.2 of the Code of Virginia, any replacement glass installed in *buildings* constructed prior to the first edition of the USBC shall meet the quality and standards for glass installed in new *buildings* as are in effect at the time of installation. In addition, as a requirement of this code, the installation of replacement of glass in *buildings* constructed under any

edition of the USBC shall be as required for new installations.

SECTION 103 APPLICATION OF CODE

103.1 General. All administrative provisions of the VCC, including but not limited to, requirements for permits, inspections and approvals by the local building department, provisions for appeals from decisions of the local building department and the issuance of modifications, are applicable to the use of this code, except where this code sets out differing requirements. Where there is a conflict between a general requirement and a specific requirement in the IEBC, the specific requirement shall govern.

103.1.1 Use of performance code. Compliance with the provisions of a nationally recognized performance code when approved as a modification shall be considered to constitute compliance with this code. All documents submitted as part of such consideration shall be retained in the permanent records of the local building department.

103.1.2 Preliminary meeting. When requested by a prospective permit applicant or when determined necessary by the code official, the code official shall meet with the prospective permit applicant prior to the application for a permit to discuss plans for the proposed work or *change of occupancy* in order to establish the specific applicability of the provisions of this code.

103.2 Change of occupancy. Prior to a *change of occupancy* of the *building* or *structure*, the owner or the owner's agent shall make written application to the local building department for a new certificate of occupancy and shall obtain the new certificate of occupancy .

When impractical to achieve compliance with this code for the new occupancy , the building official shall consider modifications upon application and as provided for in Section 106.3 of the VCC.

103.3 Retrofit requirements. The local building department shall enforce the provisions of Section 1101 that require certain *existing buildings* to be retrofitted with fire protection systems and other safety equipment. Retroactive fire protection system requirements contained in the IFC shall not be applicable unless required for compliance with the provisions of Section 1101 .

103.4 Nonrequired equipment. The following criteria for nonrequired equipment is in accordance with § 36-103 of the Code of Virginia. *Building* owners may elect to install partial or full fire alarms or other safety

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equipment that was not required by the edition of the VCC in effect at the time a *building* was constructed without meeting current requirements of the code, provided the installation does not create a hazardous condition. Permits for installation shall be obtained in accordance with the VCC. In addition, as a requirement of this code, when such nonrequired equipment is to be installed, the building official shall notify the appropriate fire official or fire chief.

103.4.1 Reduction in function or discontinuance of nonrequired fire protection systems. When a nonrequired fire protection system is to be reduced in function or discontinued, it shall be done in such a manner so as not to create a false sense of protection. Generally, in such cases, any features visible from interior areas shall be removed, such as sprinkler heads, smoke detectors, or alarm panels or devices, but any wiring or piping hidden within the construction of the *building* may remain. Approval of the proposed method of reduction or discontinuance shall be obtained from the building official.

103.5 Equipment changes. Upon the replacement or new installation of any fuel-burning appliances or equipment in *existing buildings*, an inspection or inspections shall be conducted in accordance with Section 113.3.1 of the VCC.

103.6 Requirements relating to maintenance. Any requirements of the IEBC requiring the maintenance of *existing buildings* or *structures* are invalid.

Note: Requirements for the maintenance of *existing buildings* and *structures* and for unsafe conditions are contained in the VMC.

103.7 Use of Appendix A. Appendix A of the IEBC provides guidelines for the seismic retrofit of *existing buildings*. The use of this appendix is not mandatory but shall be permitted to be utilized at the option of an owner, the owner's agent or the RDP involved in a rehabilitation project. However, in no case shall the use of Appendix A be construed to authorize the lowering of existing levels of health or safety in *buildings* or *structures* being rehabilitated.

103.8 Use of Appendix B. Appendix B of the IEBC provides supplementary accessibility requirements for *existing buildings* and facilities. All applicable requirements of Appendix B shall be met in *buildings* and *structures* being rehabilitated.

103.9 Use of Resource A. Resource A of the IEBC provides guidelines for the evaluation of fire resistance ratings of archaic materials and may be used in conjunction with rehabilitation projects.

103.10 Construction documents. Construction documents shall be submitted with the application for a permit. The work proposed to be performed on an *existing building* or *structure*, shall be classified on the construction documents as repairs, *alterations*, *change of occupancy*, addition, historic *building*, and/or *moved building*. All *work areas* shall be identified on the construction documents. *Alterations* shall further be identified as Level 1, Level 2, and/or Level 3.

Exception: construction documents or classification of the work does not need to be submitted when the building official determines the proposed work does not require such documents, classification or identification.

CHAPTER 2

DEFINITIONS

1. Change Section 201.3 of the IEBC to read:

201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in the other International Codes, such terms shall have the meanings ascribed to them in those codes, except that terms that are not defined in this code and that are defined in the VCC shall take precedence over other definitions.

2. Add the following definitions to Section 202 of the IEBC to read:

BUILDING. A combination of materials, whether portable or fixed, having a roof to form a *structure* for the use or occupancy by persons, or property. The word "building" shall be construed as though followed by the words "or part of parts thereof" unless the context clearly requires a different meaning. "Building" shall not include roadway tunnels and bridges owned by the Virginia Department of Transportation, which shall be governed by construction and design standards approved by the Virginia Commonwealth Transportation Board.

For application of this code, each portion of a building that is completely separated from other portions by fire walls complying with Section 706 of the VCC shall be considered as a separate building (see Section 503.1 of the VCC).

EXISTING STRUCTURE. A *structure* (i) for which a legal *building* permit has been issued under any edition of the USBC, (ii) which has been previously approved, or (iii) which was built prior to the initial edition of the USBC. 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.

MOVED BUILDING OR STRUCTURE. An *existing building* or *structure* which is moved to a new location.

STRUCTURE. An assembly of materials forming a construction for occupancy or use including stadiums, gospel and circus tents, reviewing stands, platforms, stagings, observation towers, radio towers, water tanks, storage tanks (underground and aboveground), trestles, piers, wharves, swimming pools, amusement devices, storage bins, and other structures of this general nature but excluding water wells. The word "*structure*" shall be construed as though followed by the words "or part or parts thereof" unless the context clearly requires a

different meaning. "*Structure*" shall not include roadway tunnels and bridges owned by the Virginia Department of Transportation, which shall be governed by construction and design standards approved by the Virginia Commonwealth Transportation Board.

3. Change the following definitions in Section 202 of the IEBC to read:

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

CHANGE OF OCCUPANCY. Either of the following shall be considered a change of occupancy where the current VCC requires a greater degree of 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. Any change in the purpose of, or a change in the level of activity within, a *building* or *structure*.

Note: The use and occupancy classification of a *building* or *structure*, shall be determined in accordance with Chapter 3 of the VCC.

EXISTING BUILDING. A *building* for which a legal certificate of occupancy has been issued under any edition of the USBC or approved by the building official when no legal certificate of occupancy exists, and that has been occupied for its intended use; or, a *building* built prior to the initial edition of the USBC.

SUBSTANTIAL IMPROVEMENT. For the purpose of determining compliance with the flood provisions of this code, any improvement, including repair, reconstruction, rehabilitation, *alteration*, or addition, or other improvement of a *building* or *structure* or a portion thereof, the cost of which equals or exceeds 50% of the market value of the *building* or *structure* before the improvement or repair is started. If the *building* or *structure* has sustained substantial damage, any improvements are considered substantial improvement regardless of the actual improvement performed. The term does not, however, include either:

DEFINITIONS

1. Any project for improvement of a *building* or *structure* required to correct existing health, sanitary, or safety code violations identified by the building official and that is the minimum necessary to assure safe living conditions; or
2. Any *alteration* of a historic *structure*, provided that the *alteration* will not preclude the *building* or *structure's* continued designation as a historic *building* or *structure*.

WORK AREA. That intended room, space, or portion of a *building* or *structure* where a wall or walls are added, relocated, or removed. Work area excludes (i) the addition or elimination of any door or window; (ii) the reconfiguration or extension of any system; (iii) the installation of any additional equipment; (iv) the removal of finished flooring or ceiling materials; (v) adjacent rooms or other rooms, spaces, or portions of the *building* or *structure* where incidental work entailed by the intended work must be performed; and (vi) portions of the *building* or *structure* where work not initially intended is specifically required by this code.

Delete the following definitions:

- **APPROVED**
- **DANGEROUS**
- **DEFERRED SUBMITTAL**
- **FACILITY**
- **FLOOD HAZARD AREA**
- **REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE**
- **RELOCATABLE BUILDING**
- **UNSAFE**

Change the title of Chapter 3 of the IEBC to read:

CHAPTER 3

GENERAL PROVISIONS AND SPECIAL DETAILED REQUIREMENTS

Change Section title of 301 and change Section 301.1 of the IEBC to read:

SECTION 301 GENERAL

301.1 Applicability. The applicable provisions of this chapter shall be used in conjunction with the requirements in this code, and shall apply to all construction and rehabilitation.

Delete Sections 301.1.1 through 301.1.4.2, including tables.

301.1.1 Prescriptive compliance method. (Section deleted)

301.1.2 Work area compliance method. (Section deleted)

301.1.3 Performance compliance method. (Section deleted)

301.1.4 Seismic evaluation and design procedures. (Section deleted)

301.1.4.1 Compliance with International Building Code-level seismic forces. (Section deleted)

**TABLE 301.1.4.1
PERFORMANCE OBJECTIVES FOR USE IN
ASCE 41 FOR COMPLIANCE WITH
INTERNATIONAL BUILDING CODE-LEVEL
SEISMIC FORCES** (Table deleted)

301.1.4.2 Compliance with reduced International Building Code-level seismic forces. (Section deleted)

**TABLE 301.1.4.2
PERFORMANCE OBJECTIVES FOR USE IN
ASCE 41 FOR COMPLIANCE WITH
REDUCED INTERNATIONAL BUILDING CODE-
LEVEL SEISMIC FORCES** (Table deleted)

Add Section 301.2 to the IEBC to read:

301.2 Occupancy and use. When determining the appropriate application of the referenced sections of this code, the occupancy and use of a *building* shall be determined in accordance with Chapter 3 of the VCC.

Change the title of Section 302 Sections 302.1 through 302.3 of the IEBC to read:

SECTION 302 BUILDING MATERIALS AND SYSTEMS

302.1 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 the VCC would not permit their use in *buildings* or *structures* of similar occupancy, purpose and location.

302.2 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 VCC would not permit their use in *buildings* or *structures* of similar occupancy, purpose and location.

302.3 Existing seismic force-resisting systems. Where the existing seismic force-resisting system is a type that can be designated ordinary, values of R , Ω_0 and C_d for the existing seismic force-resisting system shall be those specified by the VCC for an ordinary system unless it is demonstrated that the existing system will provide performance equivalent to that of a detailed, intermediate or special system.

Delete Sections 302.4 and 302.5. of the IEBC

302.4 New and replacement materials. (Section deleted)

302.5 Occupancy and use. (Section deleted)

Add Section 303, including subsections, to the IEBC to read:

SECTION 303 FIRE ESCAPES

303.1 Where permitted. Fire escapes shall be permitted only as provided for in Sections 303.1.1 through 303.1.4.

303.1.1 Existing fire escapes. Existing fire escapes shall continue to be accepted as a component in the means of egress in *existing buildings* only.

303.1.2 New fire escapes. Newly constructed fire escapes for *existing buildings* shall be permitted only where exterior stairs cannot be utilized due to lot lines limiting stair size or due to the sidewalks, alleys or roads at grade level. New fire escapes shall not incorporate ladders or access by windows.

Exception: Fire escapes that are replaced or repaired shall only be required to comply with Sections 303.3 and 303.4 if feasible, and if not feasible, such that the replaced or repaired fire escape is not less safe than its existing condition.

303.1.3 Limitations. Fire escapes shall comply with this section and shall not constitute more than 50 percent of the required number of exits nor more than 50 percent of the required exit capacity.

303.1.4 Fire escapes required. For other than Group I-2, where more than one exit is required, newly constructed fire escapes complying with Section 303.6 shall be accepted as providing one of the required means of egress. Replacement fire escapes or existing fire escapes undergoing repairs shall comply with Sections 303.3 and 303.4 if feasible, and if not feasible, to the greatest extent possible.

303.2 Location. Where located on the front of the *building* and where projecting beyond the *building* line, the lowest landing shall not be less than 7 feet (2134 mm) or more than 12 feet (3658 mm) above grade, and shall be equipped with a counterbalanced stairway to the street. In alleyways and thoroughfares less than 30 feet (9144 mm) wide, the clearance under the lowest landing shall not be less than 12 feet (3658).

303.3 Construction. The fire escape shall be designed to support a live load of 100 pounds per square foot (4788 Pa) and shall be constructed of steel or other approved noncombustible materials. Fire escapes constructed of wood not less than nominal 2 inches (51 mm) thick are permitted on *buildings* of Type V construction. Walkways and railings located over or supported by combustible roofs in *buildings* of Type III and IV construction are permitted to be of wood not less than nominal 2 inches (51 mm) thick.

303.4 Dimensions. Stairs shall be at least 22 inches (559 mm) wide with risers not more than, and treads not less than, 8 inches (203 mm) and landings at the foot of stairs not less than 40 inches (1016 mm) wide by 36 inches (914mm) long, located not more than 9 inches (203 mm) below the door.

303.5 Opening protectives. Openings within 10 feet (3048 mm) of newly constructed fire escape stairways shall be protected by fire assemblies having minimum 3/4 – hour fire-resistance ratings.

Exception: Opening protection shall not be required in *buildings* equipped throughout with an approved automatic sprinkler system.

303.6 Fire escape access and details. Newly constructed fire escapes shall comply with all of the following requirements:

1. Occupants shall have unobstructed access to the fire escape without having to pass through a room subject to locking.
2. Access to a new fire escape shall be through a door, except that windows shall be permitted to provide access from single dwelling units or sleeping units in Group R-1, R-2 and I-1 occupancies or to provide access from spaces having a maximum occupant load of 10 in other occupancy classifications.
 - 2.1. The window shall have a minimum net clear opening of 5.7 square feet (0.53 m²) or 5 square feet (0.46 m²) where located at grade.
 - 2.2. The minimum net clear opening height shall be 24 inches (610 mm) and net clear opening width shall be 20 inches (508 mm).
 - 2.3. The bottom of the clear opening shall not be greater than 44 inches (1118 mm) above the floor.
 - 2.4. The operation of the window shall comply with the operational constraints of the VCC.
3. In all *buildings* of Group E occupancy, up to and including the 12th grade, *buildings* of Group I occupancy, rooming houses and childcare centers, ladders of any type are prohibited on fire escapes used as a required means of egress.

Add Section 304, including subsections, to the IEBC to read:

SECTION 304 GLASS REPLACEMENT AND REPLACEMENT WINDOWS

304.1 Conformance. In accordance with § 36-99.2 of the Code of Virginia, any replacement glass installed in *buildings* constructed prior to the first edition of the

USBC shall meet the quality and installation standards for glass installed in new *buildings* as are in effect at the time of installation. In addition, as a requirement of this code, the installation or replacement of glass in *buildings* constructed under any edition of the USBC shall be as required for new installations.

304.2 Replacement window opening devices. In Group R-2 or R-3 *buildings* containing dwelling units, window opening control devices complying with ASTM F 2090 shall be installed where an existing window is replaced and where all of the following apply to the replacement window:

1. The window is operable;
2. The window replacement includes replacement of the sash and the frame;
3. The top of the sill of the window opening is at a height less than 36 inches (915 mm) above the finished floor;
4. The window will permit openings that will allow passage of a 4-inch diameter (102 mm) sphere when the window is in its largest opened position; and
5. The vertical distance from the top of the sill of the window opening to the finished grade or other surface below, on the exterior of the *building*, is greater than 72 inches (1829 mm).

The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the minimum net clear opening area of the window unit to less than the area required by Section 1029.2 of the VCC.

Exceptions:

1. Operable windows where the top of the sill of the window opening is located more than 75 feet (22 860 mm) above the finished grade or other surface below, on the exterior of the room, space or *building*, and that are provided with window fall prevention devices that comply with ASTM F 2006.
2. Operable windows with openings that are provided with window fall prevention devices that comply with ASTM F 2090.

304.3 Replacement window emergency escape and rescue openings. Where windows are required to provide emergency escape and rescue openings in Group R-2 and R-3 occupancies, replacement windows shall be

exempt from the requirements of Sections 1030.2, 1030.3 and 1030.5 provided the replacement window meets the following conditions:

1. The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening. The replacement window shall be permitted to be of the same operating style as the existing window or a style that provides for an equal or greater window opening area than the existing window.
2. The replacement of the window is not part of a *change of occupancy*.

Add Section 305, including subsections, to the IEBC to read:

**SECTION 305
SEISMIC FORCE-RESISTING SYSTEMS**

305.1 General. Where this code requires consideration of the seismic force-resisting 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 305.2 regardless of which compliance method is used.

305.2 Seismic evaluation and design procedures. The seismic evaluation and design shall be based on the procedures specified in the VCC or ASCE 41. The procedures contained in Appendix A of this code shall be permitted to be used as specified in Section 305.2.2.

305.2.1 Compliance with VCC-level seismic forces. Where compliance with the seismic design provisions of the VCC is required, the criteria shall be in accordance with one of the following:

1. One-hundred percent of the values in the VCC. Where the existing seismic force-resisting system is a type that can be designated as "Ordinary," values of R , Ω_0 and C_d used for analysis in accordance with Chapter 16 of the VCC shall be those specified for structural systems classified as "Ordinary" in accordance with Table 12.2-1 of ASCE 7, unless it can be demonstrated that the structural system will provide performance equivalent to that of a "Detailed," "Intermediate" or "Special" system.
2. ASCE 41, using a Tier 3 procedure and the two level performance objective in Table 305.2.1 for the applicable risk category.

TABLE 305.2.1
PERFORMANCE OBJECTIVES FOR USE IN ASCE 41 FOR COMPLIANCE WITH
VCC-LEVEL SEISMIC FORCES

RISK CATEGORY (Based on VCC Table 1604.5)	STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-1E EARTHQUAKE HAZARD LEVEL	STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-2N EARTHQUAKE HAZARD LEVEL
I	Life Safety (S-3)	Collapse Prevention (S-5)
II	Life Safety (S-3)	Collapse Prevention (S-5)
III	Damage Control (S-2)	Limited Safety (S-4)
IV	Immediate Occupancy (S-1)	Life Safety (S-3)

305.2.2 Compliance with reduced VCC-level seismic forces. Where seismic evaluation and design is permitted to meet reduced VCC seismic force levels, the criteria used shall be in accordance with one of the following:

1. The VCC using 75 percent of the prescribed forces. Values of R , Ω_0 and C_d used for analysis shall be as specified in Section 305.2.1 of this code.
2. *Structures* or portions of *structures* that comply with the requirements of the applicable chapter in Appendix A as specified in Items 2.1 through 2.5 and subject to the limitations of the respective Appendix A chapters shall be deemed to comply with this section.
 - 2.1. The seismic evaluation and design of unreinforced masonry bearing wall *buildings* in Risk Category I or II are permitted to be based on the procedures specified in Appendix Chapter A1.
 - 2.2. Seismic evaluation and design of the wall anchorage system in reinforced concrete and reinforced masonry wall *buildings* with

flexible diaphragms in Risk Category I or II are permitted to be based on the procedures specified in Chapter A2.

- 2.3. Seismic evaluation and design of cripple walls and sill plate anchorage in residential *buildings* of light-frame wood construction in Risk Category I or II are permitted to be based on the procedures specified in Chapter A3.
- 2.4. Seismic evaluation and design of soft, weak, or open-front wall conditions in multiunit residential *buildings* of wood construction in Risk Category I or II are permitted to be based on the procedures specified in Chapter A4.
- 2.5. Seismic evaluation and design of concrete *buildings* assigned to Risk Category I, II or III are permitted to be based on the procedures specified in Chapter A5.
3. ASCE 41, using the performance objective in Table 305.2.2 for the applicable risk category.

TABLE 305.2.2
PERFORMANCE OBJECTIVES FOR USE IN ASCE 41 FOR COMPLIANCE WITH REDUCED VCC-
LEVEL SEISMIC FORCES

RISK CATEGORY (Based on VCC Table 1604.5)	STRUCTURAL PERFORMANCE LEVEL FOR USE WITH BSE-1E EARTHQUAKE HAZARD LEVEL
I	Life Safety (S-3)
II	Life Safety (S-3)
III	Damage Control (S-2) ^a
IV	Immediate Occupancy (S-1)

a. Tier 1 evaluation at the Damage Control performance level shall use the Tier 1 Life Safety checklists and Tier 1 Quick Check provision midway between those specified for Life Safety and Immediate Occupancy performance

Add Section 306, including subsections, to the IEBC to read:

**SECTION 306
GROUP B TEACHING AND RESEARCH
LABORATORIES**

306.1 Change of occupancy in existing Group B teaching and research laboratories. Where the use of new or different hazardous materials or a change in the amount of hazardous materials in existing Group B testing and research laboratories in educational occupancies above the 12th grade would constitute a *change of occupancy*, this section shall be permitted to be used as an acceptable alternative to compliance with *change of occupancy* requirements to permit the increased amounts of hazardous materials stipulated without the laboratories being classified as Group H. In addition, as set out in Section 5001.7 of the SFPC, approval under this section is contingent upon

operational requirements in the SFPC being complied with and maintained.

306.1.1 Hazardous materials in existing Group B teaching and research laboratories. The percentage of maximum allowable quantities of hazardous materials per control area and the number of control areas permitted at each floor level within an *existing building* shall be permitted to comply with Table 302.6.1(1) in *buildings* equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the VCC or shall be permitted to comply with Table 302.6.1(2) in *buildings* not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the VCC.

**Table 306.1.1(1)
Design and Number of Control Areas in Existing Buildings Equipped Throughout with an Automatic Sprinkler System in Accordance with Section 903.3.1.1 of the VCC with Group B Teaching and Research Laboratories in Educational Occupancies above the 12th Grade**

Floor Level		Percentage of the Maximum Allowable Quantity per Control Area ^a	Number of Control Areas per Floor	Fire-Resistance Rating for Fire Barriers and Horizontal Assemblies in Hours ^b
Above Grade Plane	Higher than 20	5	1	2
	10-20	10	1	2
	7-9	25	2	2
	4-6	50	2	2
	3	75	2	1
	2	100	3	1
	1	100	4	1
Below Grade Plane	1	75	3	1
	2	50	2	1
	Lower than 2	Not Allowed	Not Allowed	Not Allowed

a. Percentage shall be of the maximum allowable quantity per control area shown in Tables 307.1(1) and 307.1(2) of the VCC, with all increases allowed in the notes to those tables.

b. Separation shall include fire barriers and horizontal assemblies as necessary to provide separation from other portions of the *building*.

Table 306.1.1(2)

Design and Number of Control Areas in Existing Buildings Not Equipped Throughout with an Automatic Sprinkler System in Accordance with Section 903.3.1.1 of the VCC with Group B Teaching and Research Laboratories in Educational Occupancies above the 12th Grade

		Percentage of the Maximum Allowable Quantity per Control Area ^a	Number of Control Areas per Floor	Fire-Resistance Rating for Fire Barriers and Horizontal Assemblies in Hours ^b
Above Grade Plane	Higher than 9	5	1	2
	7-9	10	2	2
	4-6	25	2	2
	3	75	2	1
	2	100	3	1
	1	100	4	1
Below Grade Plane	1	75	3	1
	2	50	2	1
	Lower than 2	Not Allowed	Not Allowed	Not Allowed

a. Percentage shall be of the maximum allowable quantity per control area shown in Tables 307.1(1) and 307.1(2) of the VCC, with all increases allowed in the notes to those tables.

b. Separation shall include fire barriers and horizontal assemblies as necessary to provide separation from other portions of the *building*.

306.1.2 Automatic fire alarm and detection systems. An automatic fire alarm system shall be provided throughout the *building* in accordance with Section 907 of the VCC. An automatic fire detection system shall be provided in the control area in accordance with Section 907 of the VCC where pyrophics or Class 4 oxidizers are used and the *building* is not equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the VCC.

306.1.3 System supervision and monitoring. Automatic fire detection systems shall be electronically supervised and monitored by an approved supervising station or, where approved, shall initiate an audible and visual signal at a constantly attended onsite location.

vertical in 12 units horizontal (2-percent slope) in Section 1507 of the VCC for roofs that provide positive roof drainage.

2. Recovering or replacing an existing roof covering shall not be required to meet the requirement of secondary (emergency overflow) drains or scuppers in Section 1503.4 of the VCC for roofs that provide for positive roof drainage. For the purposes of this exception, existing secondary drainage or scupper systems required in accordance with the VCC shall not be removed unless they are replaced by secondary drains or scuppers designed and installed in accordance with Section 1503.4 of the VCC.

Add Section 307, including subsections, to the IEBC to read:

SECTION 307 REROOFING AND ROOF REPAIR

307.1 Reroofing. Materials and methods of application used for recovering or replacing an existing roof covering shall comply with this section and the applicable requirements of Chapter 15 of the VCC.

Exceptions:

1. Roof replacement of roof recover of existing low-slope roof coverings shall not be required to meet the minimum design slope requirement of one-quarter unit

307.2 Structural and construction loads. Structural roof components shall be capable of supporting the roof covering system and the material and equipment loads that will be encountered during installation of the system.

307.3 Roof replacement. Roof replacement shall include the removal of all existing layers of roof coverings down to the roof deck.

Exception: Where the existing roof assembly includes an ice barrier membrane that is adhered to the roof deck, the existing ice barrier membrane shall be permitted to remain in place and covered with an additional layer of ice barrier membrane in accordance with Section 1507 of the VCC.

307.3.1 Roof recover. The installation of a new roof covering over an existing roof covering shall be permitted where any of the following conditions occur:

1. Complete and separate roofing systems, such as standing-seam metal roof systems, that are designed to transmit the roof loads directly to the *building's* structural system and that do not rely on existing roofs and roof coverings for support, shall not require the removal of existing roof coverings.
2. Metal panel, metal shingle and concrete and clay tile roof coverings shall be permitted to be installed over existing wood shake roofs when applied in accordance with Section 307.4.
3. The application of a new protective coating over an existing spray polyurethane foam roofing system shall be permitted without tear-off of existing roof coverings.
4. Where the new roof covering is installed in accordance with the roof covering manufacturer's approved instructions.

Exceptions: A roof recover shall not be permitted where any of the following conditions occur:

1. Where the existing roof or roof covering is water soaked or has deteriorated to the point that the existing roof or roof covering is not adequate as a base for additional roofing.
2. Where the existing roof covering is slate, clay, cement or asbestos-cement tile.
3. Where the existing roof has two or more applications of any type of roof covering.

307.4 Roof recovering. Where the application of a new roof covering over wood shingle or shake roofs creates a combustible concealed space, the entire existing surface shall be covered with gypsum board, mineral fiber, glass fiber or other approved materials securely fastened in place.

307.5 Reinstallation of materials. Existing slate, clay or cement tile shall be permitted for reinstallation, except that damaged, cracked or broken slate or tile shall not be reinstalled. Existing vent flashing, metal edgings, drain outlets, collars and metal counter-flashings shall not be reinstalled where rusted, damaged or deteriorated. Aggregate surfacing materials shall not be reinstalled.

307.6 Flashings. Flashings shall be reconstructed in accordance with approved manufacturer's installation instructions. Metal flashing to which bituminous materials are to be adhered shall be primed prior to installation.

307.7 Roof repair. Roof repairs shall comply with this section. Work on nondamaged components that is necessary for the required repair of damaged components shall be considered part of the roof repair and shall not be subject to the requirements of other parts of this code.

Exception: Routine maintenance required by this section, ordinary repairs exempt from permit in accordance with Section 108.2 of the VCC, and abatement of wear due to normal service conditions shall not be subject to the requirements for roof repairs in this section.

307.7.1 Building materials and systems. Building materials and systems shall comply with the requirements of Sections 307.7.1.1 and 307.7.1.2.

307.7.1.1 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.

307.7.1.2 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, 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

CHAPTER 4

ACCESSIBILITY

Change Section 401.1 of the IEBC to read:

401.1 Scope. The applicable provisions of this chapter shall apply to all construction and rehabilitation.

Delete Sections 401.1.1 through 401.3 of the IEBC.

401.1.1 Compliance with other methods. (Section deleted)

401.2 Building materials and systems. (Section deleted)

401.2.1 Existing materials. (Section deleted)

401.2.2 New and replacement materials. (Section deleted)

401.2.3 Existing seismic force-resisting systems. (Section deleted)

401.3 Dangerous conditions. (Section deleted)

Change Section title of 402 of the IEBC to read:

SECTION 402 CHANGE OF OCCUPANCY

Change Sections 402.1 through 402.3 of the IEBC to read:

402.1 Change of occupancy. *Existing buildings or structures* that undergo a *change of occupancy* shall comply with this section.

Exception: Type B dwelling or sleeping units required by Section 1107 of the VCC are not required to be provided in *existing buildings* and facilities undergoing a *change of occupancy* in conjunction with *alterations* where the *work area* is 50 percent or less of the aggregate area of the *building*.

402.2 Partial change in occupancy. Where a portion of the *building* is changed to a new occupancy classification, additional accessible features are not required due to the *change of occupancy*.

402.3 Complete change of occupancy. Where an entire *building* undergoes a *change of occupancy* classification, it shall have all of the following accessible features:

1. At least one accessible *building* entrance.

2. At least one accessible route from an accessible *building* entrance to primary function areas.
3. Signage complying with Section 1111 of the VCC.
4. Accessible parking, where parking is being provided.
5. At least one accessible passenger loading zone, when loading zones are provided.
6. At least one accessible route connecting accessible parking and accessible passenger loading zones to an accessible entrance.

Where it is technically infeasible to comply with the new construction standards for any of these requirements of a *change of occupancy*, the above items shall conform to the requirements to the maximum extent technically feasible.

Exception: The accessible features listed in Items 1 through 6 are not required for an accessible route to Type B units.

Delete Sections 402.3.1, 402.4, and 402.5 of the IEBC.

402.3.1 Design live load. (Section deleted)

402.4 Existing structural elements carrying lateral load. (Section deleted)

402.5 Smoke alarms in existing portions of a building. (Section deleted)

Change Section title of 403 of the IEBC to read:

SECTION 403 ADDITIONS

Change Sections 403.1 through 403.3 of the IEBC to read:

403.1 Additions. Accessibility provisions for new construction shall apply to additions. An addition that affects the accessibility to, or contains an area of, a primary function shall comply with the requirements in Section 410.7, as applicable.

403.2 Accessible dwelling units and sleeping units. Where Group I-1, I-2, I-3, R-1, R-2 or R-4 dwelling or sleeping units are being added, the requirements of Section 1107 of the VCC for accessible units apply only to the quantity of spaces being added.

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403.3 Type A dwelling or sleeping units. Where more than 20 Group R-2 dwelling or sleeping units are being added, the requirements of Section 1107 of the VCC for Type A units and Chapter 9 of the VCC for visible alarms apply only to the quantity of the spaces being added.

Delete Section 403.3.1 of the IEBC.

403.3.1 Design live load. (Section deleted)

Change Section 403.4 of the IEBC to read:

403.4 Type B dwelling or sleeping units. Where four or more Group I-1, I-2, R-1, R-2, R-3 or R-4 dwelling or sleeping units are being added, the requirements of Section 1107 of the VCC for Type B units and Chapter 9 of the VCC for visible alarms apply only to the quantity of spaces being added.

Delete Sections 403.4.1 through 403.11.3

403.4.1 Seismic Design Category F. (Section deleted)

403.5 Bracing for unreinforced masonry parapets upon reroofing. (Section deleted)

403.6 Wall anchorage for unreinforced masonry walls in major alterations. (Section deleted)

403.7 Bracing for unreinforced masonry parapets in major alterations. (Section deleted)

403.8 Roof diaphragms resisting wind loads in highwind regions. (Section deleted)

403.9 Voluntary seismic improvements. (Section deleted)

403.10 Smoke alarms. (Section deleted)

403.11 Refuge areas. (Section deleted)

403.11.1 Smoke compartments. (Section deleted)

403.11.2 Ambulatory care. (Section deleted)

403.11.3 Horizontal exits. (Section deleted)

Change Section title of 404 of the IEBC to read:

SECTION 404 ALTERATIONS

Change Sections 404.1 and 404.2 of the IEBC to read:

404.1 General. An *alteration* of an existing facility shall not impose a requirement for greater accessibility than that which would be required for new construction.

Alterations shall not reduce or have the effect of reducing accessibility of a facility or portion of a facility.

404.2 Alterations. A facility that is altered shall comply with the applicable provisions in this section and Chapter 11 of the VCC, except as modified by Sections 404.3 and 404.4, unless technically infeasible. Where compliance with this section is technical infeasible, the *alteration* shall provide access to the maximum extent technically feasible.

Exceptions:

1. The altered element or space is not required to be on an accessible route, unless required by Section 404.3.
2. Accessible means of egress required by Chapter 10 of the VCC are not required to be provided in existing facilities.
3. The *alteration* to Type A individually owned dwelling units within a Group R-2 occupancy shall be permitted to meet the provision for a Type B dwelling unit.
4. Type B dwelling or sleeping units required by Section 1107 of the VCC are not required to be provided in *existing buildings* and facilities undergoing a *change of occupancy* in conjunction with *alterations* where the *work area* is 50 percent or less of the aggregate area of the *building*.

Delete Sections 404.2.1, 404.2.2 and 404.2.3 of the IEBC.

404.2.1 Evaluation. (Section deleted)

404.2.2 Extent of repair for compliant buildings (Section deleted)

404.2.3 Extent of repair for noncompliant buildings (Section deleted)

Change Sections 404.3 of the IEBC to read:

404.3 Alterations affecting an area containing a primary function. Where an *alteration* affects the accessibility to, or contains an area of primary function, the route to the primary function area shall be accessible. The accessible route to the primary function area shall include toilet facilities and drinking fountains that shall also be accessible to and useable by individuals with disabilities, serving the area of primary function.

Exceptions:

1. The costs of providing the accessible route are not required to exceed 20 percent of the costs of the *alterations* affecting the area of primary function.
2. This provision does not apply to *alterations* limited solely to windows, hardware, operating controls, electrical outlets and signs.
3. This provision does not apply to *alterations* limited solely to mechanical systems, electrical systems, installation or *alteration* of fire protection systems and abatement of hazardous materials.
4. This provision does not apply to *alterations* undertaken for the primary purpose of increasing the accessibility of a facility.
5. This provision does not apply to altered areas limited to Type B dwelling and sleeping units.

Delete Section 404.3.1 of the IEBC.

404.3.1 Lateral force-resisting elements. (Section deleted)

Change Section 404.4 and add subsections 404.4.1 through 404.4.15 and delete Section 404.5 of the IEBC.

404.4 Scoping for alterations. The provisions of Sections 404.4.1 through 404.4.14 shall apply to *alterations* to *existing buildings* and facilities.

404.4.1 Entrances. Where an *alteration* includes *alterations* to an entrance, and the facility has an

accessible entrance on an accessible route, the altered entrance is not required to be accessible unless required by Section 404.3. Signs complying with Section 1111 of the VCC shall be provided.

Exception: Where an *alteration* includes *alterations* to an entrance, and the facility has an accessible entrance, the altered entrance is not required to be accessible, unless required by Section 410.7. Signs complying with Section 1111 of the VCC shall be provided.

404.4.2 Elevators. Altered elements of existing elevators shall comply with ASME A17.1/CSA B44 and ICC A117.1. Such elements shall also be altered in elevators programmed to respond to the same hall call control as the altered elevator.

404.4.3 Platform lifts. Platform (wheelchair) lifts complying with ICC A117.1 and installed in accordance with ASME A18.1 shall be permitted as a component of an accessible route.

404.4.4 Stairways and escalators. In *alterations*, *change of occupancy* or additions where an escalator or stairway is added where none existed previously and major structural modifications are necessary for installation, an accessible route shall be provided between the levels served by the escalator or stairways in accordance with Section 1104.4 of the VCC.

404.4.5 Ramps. Where steeper slopes than allowed by Section 1012.2 of the VCC are necessitated by space limitations, the slope of ramps in or providing access to existing facilities shall comply with Table 404.4.5.

**TABLE 404.4.5
RAMPS**

SLOPE	MAXIMUM RISE
Steeper than 1:10 but not steeper than 1:8	3 inches
Steeper than 1:12 but not steeper than 1:10	6 inches

For SI: 1 inch = 25.4 mm

404.4.6 Accessible dwelling or sleeping units. Where Group I-1, I-2, I-3, R-1, R-2 or R-4 dwelling or sleeping units are being altered, the requirements of Section 1107 of the VCC for Accessible units apply only to the quantity of the spaces being altered.

404.4.7 Type A dwelling or sleeping units. Where more than 20 Group R-2 dwelling or sleeping units are being altered, the requirements of Section 1107 of the VCC for Type A units and Chapter 9 of the VCC for visible alarms apply only to the quantity of the spaces being altered.

404.4.8 Type B dwelling or sleeping units. Where four or more Group I-1, I-2, R-1, R-2, R-3 or R-4 dwelling or sleeping units are being altered and where the *work area* is greater than 50 percent of the aggregate area of the *building*, the requirements of Section 1107 of the VCC for Type B units and Chapter 9 of the VCC for visible alarms apply only to the quantity of the spaces being altered.

Exception: Group I-1, I-2, R-2, R-3 and R-4 dwelling or sleeping units where the first

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certificate of occupancy was issued before March 15, 1991 are not required to provide Type B dwelling or sleeping units.

404.4.9 Jury boxes and witness stands. In *alterations*, accessible wheelchair spaces are not required to be located within the defined area of raised jury boxes or witness stands and shall be permitted to be located outside these spaces where ramp or lift access poses a hazard by restricting or projecting into a required means of egress.

404.4.10 Toilet rooms. Where it is technically infeasible to alter existing toilet and bathing rooms to be accessible, an accessible family or assisted-use toilet or bathing room constructed in accordance with Section 1109.2.1 of the VCC is permitted. The family or assisted-use toilet or bathing room shall be located on the same floor and in the same area as the existing toilet or bathing rooms. At the inaccessible toilet and bathing rooms, provide directional signs indicating the location of the nearest family or assisted-use toilet room or bathing room. These directional signs shall include the International Symbol of Accessibility and sign characters shall meet the visual character requirements in accordance with ICC A117.1.

404.4.11 Dressing, fitting and locker rooms. Where it is technically infeasible to provide accessible dressing, fitting or locker rooms at the same location as similar types of rooms, one accessible room on the same level shall be provided. Where separate-sex facilities are provided, accessible rooms for each sex shall be provided. Separate sex facilities are not required where only unisex rooms are provided.

404.4.12 Fuel dispensers. Operable parts of replacement fuel dispensers shall be permitted to be 54 inches (1370 mm) maximum, measuring from the surface of the vehicular way where fuel dispensers are installed on existing curbs.

404.4.13 Thresholds. The maximum height of thresholds at doorways shall be 3/4 inch (19.1 mm). Such thresholds shall have beveled edges on each side.

404.4.14 Amusement rides. Where the structural or operational characteristics of an amusement ride are altered to the extent that the amusement ride's performance differs from that specified by the manufacturer or the original design, the amusement ride shall comply with requirements for new construction in Section 1110.4.8 of the VCC.

404.4.15 Dining areas. An accessible route to raised or sunken dining areas or to outdoor seating areas is not required provided that the same services and décor are provided in an accessible space usable by any occupant and not restricted to use by people with a disability.

404.5 Flood hazard areas. (Section deleted)

Change Section title of 405 of the IEBC to read:

SECTION 405 HISTORIC BUILDINGS

Change Sections 405.1 through 405.1.4 of the IEBC to read:

405.1 General. These provisions shall apply to facilities designated as historic *buildings* or *structures* that undergo *alterations* or a *change of occupancy*, unless technically infeasible. Where compliance with the requirements for accessible routes, entrances or toilet rooms would threaten or destroy the historic significance of the facility, the alternative requirements of Sections 405.1.1 through 405.1.4 for that element shall be permitted.

Exception: Type B dwelling or sleeping units required by Section 1107 of the VCC are not required to be provided in historical *buildings*.

405.1.1 Site arrival points. At least one accessible route from a site arrival point to an accessible entrance shall be provided.

405.1.2 Multilevel buildings and facilities. An accessible route from an accessible entrance to public spaces on the level of the accessible entrance shall be provided.

405.1.3 Entrances. At least one main entrance shall be accessible.

Exceptions:

1. If a main entrance cannot be made accessible, an accessible nonpublic entrance that is unlocked while the *building* is occupied shall be provided; or
2. If a main entrance cannot be made accessible, a locked accessible entrance with a notification system or remote monitoring shall be provided.

Signs complying with Section 1111 of the VCC shall be provided at the primary entrance and the accessible entrance.

405.1.4 Toilet and bathing facilities. Where toilet rooms are provided, at least one accessible family or assisted – use toilet room complying with Section 1109.2.1 of the VCC shall be provided.

405.2 Location. (Section deleted)

405.3 Construction. (Section deleted)

405.4 Dimensions. (Section deleted)

405.5 Opening protectives. (Section deleted)

Delete Sections 406, 407, 408, 409 and 410 in their entirety.

**SECTION 406
GLASS REPLACEMENT
AND REPLACEMENT WINDOWS
(Section deleted)**

**SECTION 407
CHANGE OF OCCUPANCY
(Section deleted)**

**SECTION 408
HISTORIC BUILDINGS
(Section deleted)**

**SECTION 409
MOVED STRUCTURES
(Section deleted)**

**SECTION 410
ACCESSIBILITY FOR EXISTING BUILDINGS
(Section deleted)**

Change the title of Chapter 5 of the IEBC to read:

CHAPTER 5

REPAIRS

Change Section 501.1 of the IEBC to read:

501.1 Scope. Repairs, including 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, shall comply with the requirements of this chapter. Repairs to historic *buildings* need only comply with Chapter 9. Portions of the *existing building* or *structure* not being repaired shall not be required to comply with the requirements of this code applicable to newly constructed *buildings* or *structures*. 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 6, 7 or 8. Routine maintenance required by Section 302, ordinary repairs exempt from permit in accordance with Section 108.2 of the VCC, and abatement of wear due to normal service conditions shall not be subject to the requirements for repairs in this section.

Exception: Repairs complying with the requirements of the building code under which the *building* or *structure* or the affected portions thereof was built, or as previously approved by the building official, shall be considered in compliance with the provisions of this code, unless the *building* or *structure* or the affected portions thereof is undergoing a substantial structural *alteration* as described in Section 604.7.1. New structural members added as part of the *alteration* or repairs shall comply with the VCC. Repairs of *existing buildings* in flood hazard areas shall comply with Section 503.

Delete Section 501.1.1 of the IEBC.

501.1.1 Compliance with other alternatives.
(Section deleted)

Change Section 501.2 of the IEBC to read:

501.2 Conformance. The work shall not make the *building* less conforming than it was before the repair was undertaken. Repairs shall be done in a manner that maintains the following:

1. Level of fire protection that is existing.

2. Level of protection that is existing for the means of egress.
3. Level of accessibility that is existing.

Change Section title of 502 of the IEBC to read:

SECTION 502 STRUCTURAL

Change Sections 502.1 and 502.2, including subsections, of the IEBC to read:

502.1 General. Structural repairs shall be in compliance with this section and Section 501.2. Regardless of the scope of repair, new structural members and connections used for repair or rehabilitation shall comply with the detailing provisions of the VCC for new *buildings* of similar *structure*, purpose and location.

502.2 Repairs to damaged buildings. Repairs to damaged *buildings* shall comply with this section.

502.2.1 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 connection used for this repair shall comply with the detailing provisions of the VCC for new *buildings* of similar *structure*, purpose and location.

502.2.2 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 in accordance with Section 502.2.2.1, and either repaired in accordance with Section 502.2.2. or repaired and rehabilitated in accordance with Section 502.2.2.3, depending on the results of the evaluation.

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.

502.2.2.1 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 VCC for load combinations that include wind or earthquake effects, except that the seismic forces shall be the reduced VCC-level seismic forces.

Wind loads for this evaluation shall be those prescribed in Section 1609 of the VCC. Earthquake loads for this evaluation, if required, shall be permitted to be 75 percent of those prescribed in Section 1613 of the VCC. Alternatively, compliance with ASCE 41, using the performance objective in Table 305.2.2 for the applicable risk category, shall be deemed to meet the earthquake evaluation requirement.

502.2.2.2 Extent of repair for compliant buildings. If the evaluation establishes that the *building* in its predamage condition complies with the provisions of Section 502.2.2.1, then repairs shall be permitted that restore the *building* to its predamage state.

502.2.2.3 Extent of repair for noncompliant buildings. If the evaluation does not establish that the *building* in its predamage condition complies with the provisions of Section 502.2.2.1, then the *building* shall be rehabilitated to comply with the provisions of this section. 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 in accordance with the VCC. The earthquake loads for this rehabilitation design shall be those required by the building code in effect at the time of original construction, but not less than the reduced VCC-level seismic forces. New structural members and connections required by this rehabilitation design shall comply with the detailing provisions of the VCC for new *buildings* of similar *structure*, purpose and location. Alternatively, compliance with ASCE 41, using the performance objective in Table 305.2.2 for the applicable risk category, shall be deemed to meet the earthquake rehabilitation requirement.

502.2.3 Substantial structural damage to gravity load-carrying components. Gravity load-carrying components that have sustained substantial structural damage shall be rehabilitated to comply with the applicable provisions for dead and live loads in the VCC. 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 VCC, 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 if required to comply with the design loads of the rehabilitation design, 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 VCC for new *buildings* of similar *structure* purpose and location.

502.2.3.1 Lateral force-resisting elements. Regardless of the level of damage to gravity 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 502.2.2.1 and, if noncompliant, rehabilitated in accordance with Section 502.2.2.3.

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.

Delete Section 502.3 of the IEBC.

502.3 Related work. (Section deleted)

Change Section title of 503 of the IEBC to read:

SECTION 503 FLOOD HAZARD AREAS

Change Section 503.1 of the IEBC to read:

503.1 Flood hazard areas. For *buildings* and *structures*, in flood hazard areas established in Section 1612.3 of the VCC, or Section R322 of the International Residential Code, as applicable, any repair that constitutes *substantial improvement* or repair of substantial damage of the *existing building or structure* shall comply with the flood design requirements for new construction and all aspects of the *existing building or 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 VCC, or Section R322 of the International Residential Code, as applicable, any repairs do not constitute *substantial improvement* or repair of substantial damage of the *existing building or structure* are not required to comply with the flood design requirements for new construction.

Deleted Section 503.2 of the IEBC.

503.2 Application. (Section deleted)

Change the Section title of 504 of the IEBC to read:

SECTION 504 ELECTRICAL

Change Section 504.1, including subsections, of the IEBC to read:

504.1 Material. Existing electrical wiring and equipment undergoing repair shall be allowed to be repaired or replaced with like material.

504.1.1 Receptacles. Replacement of electrical receptacles shall comply with the applicable requirements of Section 406.4(D) of NFPA 70.

504.1.2 Plug fuses. Plug fuses of the Edison-base type shall be used for replacements only where there is no evidence of over fusing or tampering per applicable requirements of Section 240.51(B) of NFPA 70.

504.1.3 Nongrounding-type receptacles. For replacement of nongrounding-type receptacles with grounding-type receptacles and for branch circuits that do not have an equipment grounding conductor in the branch circuitry, the grounding conductor of a grounding-type receptacle outlet shall be permitted

to be grounded to any accessible point on the grounding electrode system or to any accessible point on the grounding electrode conductor in accordance with Section 250.130(C) of NFPA 70.

504.1.4 Group I-2 receptacles. Non-"hospital grade" receptacles in patient bed locations of Group I-2 shall be replaced with "hospital grade" receptacles, as required by NFPA 99 and Article 517 of NFPA 70.

504.1.5 Grounding of appliances. Frames of electric ranges, wall-mounted ovens, counter-mounted cooking units, clothes dryers and outlet or junction boxes that are part of the existing branch circuit for these appliances shall be permitted to be grounded to the grounded circuit conductor in accordance with Section 250.140 of NFPA 70.

Delete Section 504.2 of the IEBC.

504.2 Application. (Section deleted)

Change the Section title of 505 of the IEBC to read:

SECTION 505 MECHANICAL

Change Sections 505.1 and 505.2 of the IEBC to read:

505.1 General. Existing mechanical systems undergoing repair shall not make the *building* less conforming than it was before the repair was undertaken.

505.2 Mechanical draft systems for manually fired appliances and fireplaces. A mechanical draft system shall be permitted to be used with manually fired appliances and fireplaces where such a system complies with all of the following requirements:

1. The mechanical draft device shall be listed and installed in accordance with the manufacturer's installation instructions.
2. A device shall be installed that produces visible and audible warning upon failure of the mechanical draft device or loss of electrical power at any time that the mechanical draft device is turned on. This device shall be equipped with a battery backup if it receives power from the *building* wiring.
3. A smoke detector shall be installed in the room with the appliance or fireplace. This device shall be equipped with a battery backup if it receives power from the *building* wiring.

REPAIRS

Change the Section title of 506 of the IEBC to read:

SECTION 506 PLUMBING

Change Sections 506.1 and 506.2 of the IEBC to read:

506.1 Materials. Plumbing materials and supplies shall not be used for repairs that are prohibited in the International Plumbing Code.

506.2 Water closet replacement. The maximum water consumption flow rates and quantities for all replaced water closets shall be 1.6 gallons (6 L) per flushing cycle.

Exception: Blowout-design water closets 3.5 gallons (13 L) per flushing cycle.

Delete Section 507 of the IEBC in its entirety.

SECTION 507 ADDITIONS (Section deleted)

Delete Section 508 of the IEBC in its entirety.

SECTION 508 HISTORIC BUILDINGS (Section deleted)

Delete Section 509 of the IEBC in its entirety.

SECTION 509 RELOCATED BUILDINGS (Section deleted)

Change the title of Chapter 6 of the IEBC to read:

CHAPTER 6

ALTERATIONS

Change Sections 601.1 through 601.3 and add Sections 601.4 and 601.5, including subsections, to the IEBC to read:

601.1 General. Except as provided by Section 905.1 or this chapter, *alterations* to any *building* or *structure* shall comply with the requirements of the VCC for new construction. *Alterations* shall be such that the *existing building* or *structure* is no less conforming to the provisions of the VCC than the *existing building* or *structure* was prior to the *alteration*.

Exceptions:

1. Any stairway replacing an existing stairway shall not be required to comply with the requirements of Section 1011 of the VCC where the existing space and construction does not allow a reduction in pitch or slope.
2. Handrails otherwise required to comply with Section 1011.11 of the VCC shall not be required to comply with the requirements of Section 1014.6 of the VCC regarding full extension of the handrails where such extensions would be hazardous due to plan configuration.
3. Where the current level of safety or sanitation is proposed to be reduced, the portion altered shall conform to the requirements of the VCC.
4. *Alterations* complying with the requirements of the building code under which the *building* or *structure* or the affected portions thereof was built, or as previously approved by the building official, shall be considered in compliance with the provisions of this code, unless the *building* or *structure* or the affected portions thereof is undergoing a substantial structural *alteration* as described in Section 604.7.1. New structural members added as part of the *alteration* or repairs shall comply with the VCC. *Alterations* of *existing buildings* in flood hazard areas shall comply with Section 601.3.

601.2 Levels of alterations. *Alterations* to any *building* or *structure* shall be classified as the following:

601.2.1 Level 1. 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. Level 1 *alterations* shall comply with the applicable provisions Section 602.

601.2.2 Level 2. Level 2 *alterations* include the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment; and shall apply where the *work area* is less than 50 percent of the *building* area. Level 2 *alterations* shall comply with the applicable provisions of Sections 602 and 603.

601.2.3 Level 3. Level 3 *alterations* apply where the *work area* exceeds 50 percent of the *building* area. Level 3 *alterations* shall comply with the applicable provisions of Sections 602, 603 and 604.

601.2.3.1 Special provisions. A *building* separated horizontally in compliance with VCC Section 510.2 shall be considered as separate and distinct *buildings* for the purpose of determining *building* area used for the application of Section 601.2.3.

601.3 Flood hazard areas. In flood hazard areas, *alterations* that constitute *substantial improvement* shall require that the *building* comply with Section 1612 of the VCC, or Section R322 of the International Residential Code, as applicable.

601.4 Energy conservation. Level 1, 2, and 3 *alterations* to *existing buildings* or *structures* are permitted without requiring the entire *building* or *structure* to comply with the energy requirements of the International Energy Conservation Code or International Residential Code. The *alterations* shall conform to the energy requirements of the International Energy Conservation Code or International Residential Code as they relate to new construction only.

Exception: Except for window and door openings, like materials, assemblies or thicknesses shall be permitted for *alterations* involving the exterior *building* thermal envelope, 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.

ALTERATIONS

601.5 Accessibility. Accessibility shall be provided in accordance with the applicable provisions of Section 404.

Change the title of Section 602 of the IEBC to read:

SECTION 602 LEVEL 1 ALTERATIONS

Change Sections 602.1 through 602.3, including subsections, of the IEBC to read:

602.1 Scope. Level 1 *alterations* as described in Section 601.2.1 shall comply with the requirements of this section. Level 1 *alterations* to historic *buildings* shall comply with this chapter, except as modified in Chapter 9.

602.2 Conformance. *Alterations* shall be done in a manner that maintains the following:

1. Level of fire protection that is existing.
2. Level of protection that is existing for the means of egress.

602.3 Building elements and materials. *Building* elements and materials shall comply with the applicable provisions of Sections 302 and 602.3.1 through 602.3.5.

602.3.1 Interior finishes. All newly installed interior wall and ceiling finishes shall comply with Chapter 8 of the VCC.

602.3.2 Interior floor finish. New interior floor finish, including new carpeting used as an interior floor finish material, shall comply with Section 804 of the VCC.

602.3.3 Interior trim. All newly installed interior trim materials shall comply with Section 806 of the VCC.

602.3.4 Materials and methods. All new work shall comply with the materials and methods requirements in the VCC, International Energy Conservation Code, International Mechanical Code, and International Plumbing Code, as applicable, that specify material standards, detail of installation and connection, joints, penetrations, and continuity of any element, component, or system in the *building*.

602.3.5 International Fuel Gas Code. The following sections of the International Fuel Gas Code shall constitute the fuel gas materials and methods requirements for Level 1 *alterations*.

1. All of Chapter 3, entitled "General Regulations," except Sections 303.7 and 306.
2. All of Chapter 4, entitled "Gas Piping Installations," except Sections 401.8 and 402.3. 2.1. Sections 401.8 and 402.3 shall apply when the work being performed increases the load on the system such that the existing pipe does not meet the size required by code. Existing systems that are modified shall not require resizing as long as the load on the system is not increased and the system length is not increased even if the altered system does not meet code minimums.
3. All of Chapter 5, entitled "Chimneys and Vents."
4. All of Chapter 6, entitled "Specific Appliances."

Change the title of Section 603 of the IEBC to read:

SECTION 603 LEVEL 2 ALTERATIONS

Change Section 603.1 and add Sections 603.2 through 603.10, including subsections, to the IEBC to read:

603.1 Scope. Level 2 *alterations* as described in Section 601.2.2 shall comply with the requirements of this section.

Exception: *Buildings* in which the *alteration* is exclusively the result of compliance with the accessibility requirements of Section 404.3 shall be permitted to comply with Section 602.

603.2 Level 1 alteration compliance. In addition to the requirements of this section, all work shall comply with the applicable requirements of Section 602.

603.3 Compliance. All new construction elements, components, systems, and spaces shall comply with the requirements of the VCC.

Exceptions:

1. Windows may be added without requiring compliance with the light and ventilation requirements of the VCC.
2. Newly installed electrical equipment shall comply with the requirements of Section 603.8.

3. The length of dead-end corridors in newly constructed spaces shall only be required to comply with the provisions of Section 603.6.5.
4. The minimum ceiling height of the newly created habitable and occupiable spaces and corridors shall be 7 feet (2134 mm).

603.4 Building elements and materials. The requirements of Section 603.4 are limited to *work areas* in which Level 2 *alterations* are being performed and shall apply beyond the *work area* where specified.

603.4.1 Vertical openings. Existing vertical openings shall comply with the provisions of Sections 603.4.1.1, 603.4.1.2 and 603.4.1.3.

603.4.1.1 Existing vertical openings. Existing interior vertical openings connecting two or more floors shall be enclosed with approved assemblies having a fire-resistance rating of not less than 1 hour with approved opening protectives.

Exceptions:

1. Where vertical opening enclosure is not required by the VCC or the International Fire Code.
2. Interior vertical openings other than stairways may be blocked at the floor and ceiling of the *work area* by installation of not less than 2 inches (51 mm) of solid wood or equivalent construction.
3. The enclosure shall not be required where:
 - 3.1. Connecting the main floor and mezzanines; or
 - 3.2. All of the following conditions are met:
 - 3.2.1. The communicating area has a low hazard occupancy or has a moderate hazard occupancy that is protected throughout by an automatic sprinkler system.

3.2.2. The lowest or next to the lowest level is a street floor.

3.2.3. The entire area is open and unobstructed in a manner such that it may be assumed that a fire in any part of the interconnected spaces will be readily obvious to all of the occupants.

3.2.4. Exit capacity is sufficient to provide egress simultaneously for all occupants of all levels by considering all areas to be a single floor area for the determination of required exit capacity.

3.2.5. Each floor level, considered separately, has at least one half of its individual required exit capacity provided by an exit or exits leading directly out of that level without having to traverse another communicating floor level or be exposed to the smoke or fire spreading from another communicating floor level.

4. In Group A occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories.

5. In Group B occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section 603.4.1.1, shall not be required in the following locations:

- 5.1. *Buildings* not exceeding 3,000 square feet (279 m²) per floor.
 - 5.2. *Buildings* protected throughout by an approved automatic fire sprinkler system.
6. In Group E occupancies, the enclosure shall not be required for vertical openings not exceeding three stories when the *building* is protected throughout by an approved automatic fire sprinkler system.
7. In Group F occupancies, the enclosure shall not be required in the following locations:
 - 7.1. Vertical openings not exceeding three stories.
 - 7.2. Special purpose occupancies where necessary for manufacturing operations and direct access is provided to at least one protected stairway.
 - 7.3. *Buildings* protected throughout by an approved automatic sprinkler system.
8. In Group H occupancies, the enclosure shall not be required for vertical openings not exceeding three stories where necessary for manufacturing operations and every floor level has direct access to at least two remote enclosed stairways or other approved exits.
9. In Group M occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section 603.4.1.1, shall not be required in the following locations:
 - 9.1. Openings connecting only two floor levels.
 - 9.2. Occupancies protected throughout by an approved automatic sprinkler system.
10. In Group R-1 occupancies, the enclosure shall not be required for vertical openings not exceeding three stories in the following locations:
 - 10.1. *Buildings* protected throughout by an approved automatic sprinkler system.
 - 10.2. *Buildings* with less than 25 dwelling units or sleeping units where every sleeping room above the second floor is provided with direct access to a fire escape or other approved second exit by means of an approved exterior door or window having a sill height of not greater than 44 inches (1118 mm) and where:
 - 10.2.1. Any exit access corridor exceeding 8 feet (2438 mm) in length that serves two means of egress, one of which is an unprotected vertical opening, shall have at least one of the means of egress separated from the vertical opening by a 1- hour fire barrier; and
 - 10.2.2. The *building* is protected throughout by an automatic fire alarm system, installed and supervised in accordance with the VCC.
11. In Group R-2 occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section

603.4.1.1, shall not be required in the following locations:

- 11.1. Vertical openings not exceeding two stories with not more than four dwelling units per floor.
 - 11.2. *Buildings* protected throughout by an approved automatic sprinkler system.
 - 11.3. *Buildings* with not more than four dwelling units per floor where every sleeping room above the second floor is provided with direct access to a fire escape or other approved second exit by means of an approved exterior door or window having a sill height of not greater than 44 inches (1118 mm) and the *building* is protected throughout by an automatic fire alarm system complying with Section 603.5.4.
12. One- and two-family dwellings.
 13. Group S occupancies where connecting not more than two floor levels or where connecting not more than three floor levels and the *structure* is equipped throughout with an approved automatic sprinkler system.
 14. Group S occupancies where vertical opening protection is not required for open parking garages and ramps.

603.4.1.2 Supplemental shaft and floor opening enclosure requirements. Where the *work area* on any floor exceeds 50 percent of that floor area, the enclosure requirements of Section 603.4.1 shall apply to vertical openings other than stairways throughout the floor.

Exception: Vertical openings located in tenant spaces that are entirely outside the *work area*.

603.4.1.3 Supplemental stairway enclosure requirements. Where the *work area* on any

floor exceeds 50 percent of that floor area, stairways that are part of the means of egress serving the *work area* shall, at a minimum, be enclosed with smoke-tight construction on the highest *work area* floor and all floors below.

Exception: Where stairway enclosure is not required by the VCC or the International Fire Code.

603.4.2 Smoke compartments. In Group I-2 occupancies where the *work area* is on a story used for sleeping rooms for more than 30 patients, the story shall be divided into not less than two compartments by smoke barrier walls in accordance with Section 407.5 of the VCC as required for new construction.

603.4.3 Interior finish. The interior finish of walls and ceilings in exits and corridors in any *work area* shall comply with the requirements of the VCC.

Exception: Existing interior finish materials that do not comply with the interior finish requirements of the VCC shall be permitted to be treated with an approved fire-retardant coating in accordance with the manufacturer's instructions to achieve the required rating.

603.4.3.1 Supplemental interior finish requirements. Where the *work area* on any floor exceeds 50 percent of the floor area, Section 603.4.3 shall also apply to the interior finish in exits and corridors serving the *work area* throughout the floor.

Exception: Interior finish within tenant spaces that are entirely outside the *work area*.

603.4.4 Guards. The requirements of Sections 603.4.4.1 and 603.4.4.2 shall apply in all *work areas*.

603.4.4.1 Minimum requirement. Every portion of a floor, such as a balcony or a loading dock, that is more than 30 inches (762 mm) above the floor or grade below and is not provided with guards, or those in which the existing guards are judged to be in danger of collapsing, shall be provided with guards.

603.4.4.2 Design. Where there are no guards or where existing guards must be replaced, the guards shall be designed and installed in accordance with the VCC.

603.4.5 Fire-resistance ratings. Where approved by the code official, *buildings* where an automatic

sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 of the VCC has been added, and the *building* is now sprinklered throughout, the required fire-resistance ratings of *building* elements and materials shall be permitted to meet the requirements of the current building code.

603.5 Fire protection. The requirements of Section 603.5 shall be limited to *work areas* in which Level 2 alterations are being performed, and where specified they shall apply throughout the floor on which the *work areas* are located or otherwise beyond the *work area*.

603.5.1 Corridor ratings. Where an approved automatic sprinkler system is installed throughout the story, the required fire-resistance rating for any corridor located on the story shall be permitted to be reduced in accordance with the VCC. In order to be considered for a corridor rating reduction, such system shall provide coverage for the stairway landings serving the floor and the intermediate landings immediately below.

603.5.2 Automatic sprinkler system. Automatic sprinkler systems shall be provided in accordance with the requirements of Sections 603.5.2.1 through 603.5.2.5. Installation requirements shall be in accordance with the VCC.

603.5.2.1 High-rise buildings. In high-rise *buildings*, *work areas* that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with automatic sprinkler protection in the entire *work area* where the *work area* is located on a floor that has a sufficient sprinkler water supply system from an existing standpipe or a sprinkler riser serving that floor.

603.5.2.1.1 Supplemental automatic sprinkler system requirements. Where the *work area* on any floor exceeds 50 percent of that floor area, Section 603.5.2.1 shall apply to the entire floor on which the *work area* is located.

Exception: Occupied tenant spaces that are entirely outside the *work area*.

603.5.2.2 Groups A, B, E, F-1, H, I, M, R-1, R-2, R-4, S-1 and S-2. In *buildings* with occupancies in Groups A, B, E, F-1, H, I, M, R-1, R-2, R-4, S-1 and S-2, *work areas* that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided

with automatic sprinkler protection where all of the following conditions occur:

1. The *work area* is required to be provided with automatic sprinkler protection in accordance with the VCC as applicable to new construction; and
2. The *work area* exceeds 50 percent of the floor area.

Exception: If the *building* does not have sufficient municipal water supply for design of a fire sprinkler system available to the floor without installation of a new fire pump, *work areas* shall be protected by an automatic smoke detection system throughout all occupiable spaces other than sleeping units or individual dwelling units that activates the occupant notification system in accordance with Sections 907.4, 907.5 and 907.6 of the VCC.

603.5.2.2.1 Mixed uses. In *work areas* containing mixed uses, one or more of which requires automatic sprinkler protection in accordance with Section 603.5.2.2, such protection shall not be required throughout the *work area* provided that the uses requiring such protection are separated from those not requiring protection by fire-resistance-rated construction having a minimum 2-hour rating for Group H and a minimum 1-hour rating for all other occupancy groups.

603.5.2.3 Windowless stories. Work located in a windowless story, as determined in accordance with the VCC, shall be sprinklered where the *work area* is required to be sprinklered under the provisions of the VCC for newly constructed *buildings* and the *building* has a sufficient municipal water supply without installation of a new fire pump.

603.5.2.4 Other required automatic sprinkler systems. In *buildings* and areas listed in Table 903.2.11.6 of the VCC, *work areas* that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with an automatic sprinkler system under the following conditions:

1. The *work area* is required to be provided with an automatic sprinkler system in accordance with the VCC applicable to new construction; and

2. The *building* has sufficient municipal water supply for design of an automatic sprinkler system available to the floor without installation of a new fire pump.

603.5.2.5 Supervision. Fire sprinkler systems required by this section shall be supervised by one of the following methods:

1. Approved central station system in accordance with NFPA 72;
2. Approved proprietary system in accordance with NFPA 72;
3. Approved remote station system of the jurisdiction in accordance with NFPA 72; or
4. When approved by the code official, approved local alarm service that will cause the sounding of an alarm in accordance with NFPA 72.

Exception: Supervision is not required for the following:

1. Underground gate valve with roadway boxes.
2. Halogenated extinguishing systems.
3. Carbon dioxide extinguishing systems.
4. Dry- and wet-chemical extinguishing systems.
5. Automatic sprinkler systems installed in accordance with NFPA 13R where a common supply main is used to supply both domestic and automatic sprinkler systems and a separate shutoff valve for the automatic sprinkler system is not provided.

603.5.3 Standpipes. Where the *work area* includes exits or corridors shared by more than one tenant and is located more than 50 feet (15 240 mm) above or below the lowest level of fire department access, a standpipe system shall be provided. Standpipes shall have an approved fire department connection with hose connections at each floor level above or below the lowest level of fire department access. Standpipe

systems shall be installed in accordance with the VCC.

Exceptions:

1. No pump shall be required provided that the standpipes are capable of accepting delivery by fire department apparatus of a minimum of 250 gallons per minute (gpm) at 65 pounds per square inch (psi) (946 L/m at 448KPa) to the topmost floor in *buildings* equipped throughout with an automatic sprinkler system or a minimum of 500 gpm at 65 psi (1892 L/m at 448KPa) to the topmost floor in all other *buildings*. Where the standpipe terminates below the topmost floor, the standpipe shall be designed to meet (gpm/psi) (L/m/KPa) requirements of this exception for possible future extension of the standpipe.
2. The interconnection of multiple standpipe risers shall not be required.

603.5.4 Fire alarm and detection. An approved fire alarm system shall be installed in accordance with Sections 603.5.4.1 through 603.5.4.3. Where automatic sprinkler protection is provided in accordance with Section 603.5.2 and is connected to the *building* fire alarm system, automatic heat detection shall not be required.

An approved automatic fire detection system shall be installed in accordance with the provisions of this code and NFPA 72. Devices, combinations of devices, appliances, and equipment shall be approved. The automatic fire detectors shall be smoke detectors, except that an approved alternative type of detector shall be installed in spaces such as boiler rooms, where products of combustion are present during normal operation in sufficient quantity to actuate a smoke detector.

603.5.4.1 Fire alarm requirements. A fire alarm system shall be installed in accordance with Sections 603.5.4.1.1 through 603.5.4.1.7 and Sections 1103.7 and 1103.8 of the IFC. Existing alarm-notification appliances shall be automatically activated throughout the *building*. Where the *building* is not equipped with a fire alarm system, alarm-notification appliances within the *work area* shall be provided and automatically activated.

Exceptions:

1. Occupancies with an existing, previously approved fire alarm system.
2. Where selective notification is permitted, alarm-notification appliances shall be automatically activated in the areas selected.

603.5.4.1.1 Group E. *Work areas* classified as Group E occupancies.

603.5.4.1.2 Group I-1. *Work areas* classified as Group I-1 residential care/assisted living facilities.

603.5.4.1.3 Group I-2. Throughout occupancies classified as Group I-2 occupancies.

603.5.4.1.4 Group I-3. *Work areas* classified as Group I-3 occupancies.

603.5.4.1.5 Group R-1. Occupancies classified as Group R-1 occupancies.

603.5.4.1.6 Group R-2. *Work areas* classified as Group R-2 apartment buildings.

603.5.4.1.7 Group R-4. *Work areas* classified as Group R-4 residential care/assisted living facilities.

603.5.4.2 Supplemental fire alarm system requirements. Where the *work area* on any floor exceeds 50 percent of that floor area, Section 603.5.4.1 shall apply throughout the floor.

Exception: Alarm-initiating and notification appliances shall not be required to be installed in tenant spaces outside of the *work area*.

603.5.4.3 Smoke alarms. Individual sleeping units and individual dwelling units in any *work area* in Group R and I-1 occupancies shall be provided with smoke alarms in accordance with the International Fire Code.

Exception: Interconnection of smoke alarms outside of the *work area* shall not be required.

603.6 Means of egress. The means of egress shall comply with the requirements of Section 603.6.

Exceptions:

1. Where the *work area* and the means of egress serving it complies with NFPA 101.
2. Means of egress conforming to the requirements of the building code under which the *building* was constructed shall be considered compliant means of egress.

603.6.1 General. The requirements of this section shall be limited to *work areas* that include exits or corridors shared by more than one tenant within the *work area* in which Level 2 alterations are being performed, and where specified they shall apply throughout the floor on which the *work areas* are located or otherwise beyond the *work area*.

603.6.2 Number of exits. The number of exits shall be in accordance with Sections 603.6.2.1 through 603.6.2.3.

603.6.2.1 Minimum number. Every story utilized for human occupancy on which there is a *work area* that includes exits or corridors shared by more than one tenant within the *work area* shall be provided with the minimum number of exits based on the occupancy and the occupant load in accordance with the VCC. In addition, the exits shall comply with Sections 603.6.2.1.1 and 303.

603.6.2.1.1 Single-exit buildings. Only one exit is required from *buildings* and spaces of the following occupancies:

1. In Group A, B, E, F, M, U and S occupancies, a single exit is permitted in the story at the level of exit discharge when the occupant load of the story does not exceed 50 and the exit access travel distance does not exceed 75 feet (22 860 mm).
2. Group B, F-2, and S-2 occupancies not more than two stories in height that are not greater than 3,500 square feet per floor (326 m²), when the exit access travel distance does not exceed 75 feet (22 860 mm). The minimum fire-resistance rating of the exit enclosure and of the opening protection shall be 1 hour.
3. Open parking *structures* where vehicles are mechanically parked.

4. In Group R-4 occupancies, the maximum occupant load excluding staff is 16.
5. Groups R-1 and R-2 not more than two stories in height, when there are not more than four dwelling units per floor and the exit access travel distance does not exceed 50 feet (15 240 mm). The minimum fire-resistance rating of the exit enclosure and of the opening protection shall be 1 hour.
6. In multilevel dwelling units in *buildings* of occupancy Group R-1 or R-2, an exit shall not be required from every level of the dwelling unit provided that one of the following conditions is met:
 - 6.1. The travel distance within the dwelling unit does not exceed 75 feet (22 860 mm); or
 - 6.2. The *building* is not more than three stories in height and all third floor space is part of one or more dwelling units located in part on the second floor; and no habitable room within any such dwelling unit shall have a travel distance that exceeds 50 feet (15 240 mm) from the outside of the habitable room entrance door to the inside of the entrance door to the dwelling unit.
7. In Groups R-2, H-4, H-5 and I occupancies and in rooming houses and child care centers, a single exit is permitted in a one-story *building* with a maximum occupant load of 10 and the exit access travel distance does not exceed 75 feet (22 860 mm). In dwelling units within Group R-2 *buildings*, an occupant load of 12 shall be permitted to be substituted for the occupant load established above and, in addition, staff of such family day homes shall not be counted for the purposes of establishing occupant loads.
8. In *buildings* of Group R-2 occupancy that are equipped

throughout with an automatic fire sprinkler system, a single exit shall be permitted from a basement or story below grade if every dwelling unit on that floor is equipped with an approved window providing a clear opening of at least 5 square feet (0.47 m²) in area, a minimum net clear opening of 24 inches (610 mm) in height and 20 inches (508 mm) in width, and a sill height of not more than 44 inches (1118 mm) above the finished floor.

9. In *buildings* of Group R-2 occupancy of any height with not more than four dwelling units per floor; with a smoke-proof enclosure or outside stairway as an exit; and with such exit located within 20 feet (6096 mm) of travel to the entrance doors to all dwelling units served thereby.
10. In *buildings* of Group R-3 occupancy equipped throughout with an automatic fire sprinkler system, only one exit shall be required from basements or stories below grade.

603.6.2.2 Mezzanines. Mezzanines in the *work area* and with an occupant load of more than 50 or in which the common path of egress travel distance to an exit or exit access doorway exceeds 75 feet (22 860 mm) shall have access to at least two independent means of egress.

Exception: Two independent means of egress are not required where the travel distance to an exit does not exceed 100 feet (30 480 mm) and the *building* is protected throughout with an automatic sprinkler system.

603.6.3 Egress doorways. Egress doorways in any *work area* shall comply with Sections 603.6.3.1 through 603.6.3.5.

603.6.3.1 Two egress doorways required. *Work areas* shall be provided with two egress doorways in accordance with the requirements of Sections 603.6.3.1.1 and 603.6.3.1.2.

603.6.3.1.1 Occupant load and travel distance. In any *work area*, all rooms and spaces having an occupant load greater than

50 or in which the common path of egress travel distance to an exit or exit access doorway exceeds 75 feet (22 860 mm) shall have a minimum of two egress doorways.

Exceptions:

1. Storage rooms having a maximum occupant load of 10.
2. Where the *work area* is served by a single exit in accordance with Section 603.6.2.1.1.

603.6.3.1.2 Group I-2. In *buildings* of Group I-2 occupancy, any patient sleeping room or suite of patient rooms greater than 1,000 square feet (93 m²) within the *work area* shall have a minimum of two egress doorways.

603.6.3.2 Door swing. In the *work area* and in the egress path from any *work area* to the exit discharge, all egress doors serving an occupant load greater than 50 shall swing in the direction of exit travel.

603.6.3.2.1 Supplemental requirements for door swing. Where the *work area* exceeds 50 percent of the floor area, door swing shall comply with Section 603.6.3.2 throughout the floor.

Exception: Means of egress within or serving only a tenant space that is entirely outside the *work area*.

603.6.3.3 Door closing. In any *work area*, all doors opening onto an exit passageway at grade or an exit stairway shall be self-closing or automatic-closing by listed closing devices.

Exceptions:

1. Where exit enclosure is not required by the VCC.
2. Means of egress within or serving only a tenant space that is entirely outside the *work area*.

603.6.3.3.1 Supplemental requirements for door closing. Where the *work area* exceeds 50 percent of the floor area, doors shall comply with Section 603.6.3.3 throughout the exit stairway from the *work*

area to, and including, the level of exit discharge.

603.6.3.4 Panic hardware. In any *work area*, and in the egress path from any *work area* to the exit discharge, in *buildings* of Group A assembly occupancies with an occupant load greater than 100, all required exit doors equipped with latching devices shall be equipped with approved panic hardware.

603.6.3.4.1 Supplemental requirements for panic hardware. Where the *work area* exceeds 50 percent of the floor area, panic hardware shall comply with Section 603.6.3.4 throughout the floor.

Exception: Means of egress within a tenant space that is entirely outside the *work area*.

603.6.3.5 Emergency power source in Group I-3. Power operated sliding doors or power operated locks for swinging doors shall be operable by a manual release mechanism at the door. Emergency power shall be provided for the doors and locks in accordance with Section 2702 of the VCC.

Exceptions:

1. Emergency power is not required in facilities with 10 or fewer locks complying with the exception to Section 408.4.1 of the VCC.
2. Emergency power is not required where remote mechanical operating releases are provided.

603.6.4 Openings in corridor walls. Openings in corridor walls in any *work area* shall comply with Sections 603.6.4.1 through 603.6.4.4.

Exception: Openings in corridors where such corridors are not required to be rated in accordance with the VCC.

603.6.4.1 Corridor doors. Corridor doors in the *work area* shall not be constructed of hollow core wood and shall not contain louvers. All dwelling unit or sleeping unit corridor doors in *work areas* in *buildings* of Groups R-1, R-2, and I-1 shall be at least 13/8-inch (35 mm) solid core wood or approved equivalent and shall not have any glass panels, other than approved wired glass or other approved glazing material in metal frames. All dwelling unit or sleeping unit

corridor doors in *work areas* in *buildings* of Groups R-1, R-2, and I-1 shall be equipped with approved door closers. All replacement doors shall be 13/4-inch (44 mm) solid bonded wood core or approved equivalent, unless the existing frame will accommodate only a 13/8-inch (35 mm) door.

Exceptions:

1. Corridor doors within a dwelling unit or sleeping unit.
2. Existing doors meeting the requirements of Guidelines on Fire Ratings of Archaic Materials and Assemblies (VEBC Resource A) for a rating of 15 minutes or more shall be accepted as meeting the provisions of this requirement.
3. Existing doors in *buildings* protected throughout with an approved automatic sprinkler system shall be required only to resist smoke, be reasonably tight fitting, and shall not contain louvers.
4. In group homes with a maximum of 15 occupants and that are protected with an approved automatic detection system, closing devices may be omitted.
5. Door assemblies having a fire protection rating of at least 20 minutes.

603.6.4.2 Transoms. In all *buildings* of Group I-1, I-2, R-1 and R-2 occupancies, all transoms in corridor walls in *work areas* shall be either glazed with 1/4-inch (6.4 mm) wired glass set in metal frames or other glazing assemblies having a fire protection rating as required for the door and permanently secured in the closed position or sealed with materials consistent with the corridor construction.

603.6.4.3 Other corridor openings. In any *work area*, unless otherwise protected or fire-resistant rated in accordance with Section 716 of the VCC, any other sash, grille, or opening in a corridor and any window in a corridor not opening to the outside air shall be sealed with materials consistent with the corridor construction.

603.6.4.3.1 Supplemental requirements for other corridor opening. Where the *work area* exceeds 50 percent of the floor area, Section 603.6.4.3 shall be applicable to all corridor windows, grills, sashes, and other openings on the floor.

Exception: Means of egress within or serving only a tenant space that is entirely outside the *work area*.

603.6.4.4 Supplemental requirements for corridor openings. Where the *work area* on any floor exceeds 50 percent of the floor area, the requirements of Sections 603.6.4.1 through 603.6.4.3 shall apply throughout the floor.

603.6.5 Dead-end corridors. Dead-end corridors in any *work area* shall not exceed 35 feet (10 670 mm).

Exceptions:

1. Where dead-end corridors of greater length are permitted by the VCC.
2. In other than Group A and H occupancies, the maximum length of an existing dead-end corridor shall be 50 feet (15 240 mm) in *buildings* equipped throughout with an automatic fire alarm system installed in accordance with the VCC.
3. In other than Group A and H occupancies, the maximum length of an existing dead-end corridor shall be 70 feet (21 356 mm) in *buildings* equipped throughout with an automatic sprinkler system installed in accordance with the VCC.
4. In other than Group A and H occupancies, the maximum length of an existing, newly constructed, or extended dead-end corridor shall not exceed 50 feet (15 240 mm) on floors equipped with an automatic sprinkler system installed in accordance with the VCC.

603.6.6 Means-of-egress lighting. Means-of-egress lighting shall be in accordance with this section, as applicable.

603.6.6.1 Artificial lighting required. Means of egress in all *work areas* shall be provided with artificial lighting in accordance with the requirements of the VCC.

603.6.6.2 Supplemental requirements for means-of-egress lighting. Where the *work area* on any floor exceeds 50 percent of that floor area, means of egress throughout the floor shall comply with Section 603.6.6.1.

Exception: Means of egress within or serving only a tenant space that is entirely outside the *work area*.

603.6.7 Exit signs. Exit signs shall be in accordance with this section, as applicable.

603.6.7.1 Work areas. Means of egress in all *work areas* shall be provided with exit signs in accordance with the requirements of the VCC.

603.6.7.2 Supplemental requirements for exit signs. Where the *work area* on any floor exceeds 50 percent of that floor area, means of egress throughout the floor shall comply with Section 603.6.7.1.

Exception: Means of egress within a tenant space that is entirely outside the *work area*.

603.6.8 Handrails. The requirements of Sections 603.6.8.1 and 603.6.8.2 shall apply to handrails from the *work area* floor to, and including, the level of exit discharge.

603.6.8.1 Minimum requirement. Every required exit stairway that is part of the means of egress for any *work area* and that has three or more risers and is not provided with at least one handrail, or in which the existing handrails are judged to be in danger of collapsing, shall be provided with handrails for the full length of the stairway on at least one side. All exit stairways with a required egress width of more than 66 inches (1676 mm) shall have handrails on both sides.

603.6.8.2 Design. Handrails required in accordance with Section 603.6.8.1 shall be designed and installed in accordance with the provisions of the VCC.

603.6.9 Guards. The requirements of Sections 603.6.9.1 and 603.6.9.2 shall apply to guards from the *work area* floor to, and including, the level of exit discharge but shall be confined to the egress path of any *work area*.

603.6.9.1 Minimum requirement. Every open portion of a stairway, landing, or balcony that is more than 30 inches (762 mm) above the floor or grade below and is not provided with guards,

or those portions in which existing guards are judged to be in danger of collapsing, shall be provided with guards.

603.6.9.2 Design. Guards required in accordance with Section 603.6.9.1 shall be designed and installed in accordance with the VCC.

603.7 Structural. Structural elements and systems within *buildings* undergoing Level 2 *alterations* shall comply with Sections 603.7.1 through 603.7.5.

603.7.1 New structural elements. New structural elements in *alterations*, including connections and anchorage, shall comply with the VCC.

603.7.2 Minimum design loads. The minimum design loads on existing elements of a *structure* that do not support additional loads as a result of an *alteration* shall be the loads applicable at the time the *building* was constructed.

603.7.3 Existing structural elements carrying gravity loads. Any existing gravity load-carrying structural element for which an *alteration* causes an increase in design gravity load of more than 5 percent shall be strengthened, supplemented, replaced or otherwise altered as needed to carry the increased gravity load required by the VCC for new *structures*. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased as part of the *alteration* shall be shown to have the capacity to resist the applicable design gravity loads required by the VCC for new *structures*.

Exception: *Buildings* of Group R occupancy with not more than five dwelling or sleeping units used solely for residential purposes where the *existing building* and its *alteration* comply with the conventional light-frame construction methods of the VCC or the provisions of the International Residential Code.

603.7.3.1 Design live load. Where the *alteration* does not result in increased design live load, existing gravity load-carrying structural elements shall be permitted to be evaluated and designed for live loads approved prior to the *alteration*. If the approved live load is less than that required by Section 1607 of the VCC, the area designed for the nonconforming live load shall be posted with placards of approved design indicating the approved live load. Where the *alteration* does result in increased design live load, the live load required by Section 1607 of the VCC shall be used.

603.7.4 Existing structural elements resisting lateral loads. Except as permitted by Section 603.7.5, where the *alteration* increases design lateral loads in accordance with Section 1609 or 1613 of the VCC, or where the *alteration* results in a prohibited structural irregularity as defined in ASCE 7, or where the *alteration* decreases the capacity of any existing lateral load-carrying structural element, the *structure* of the altered *building* or *structure* shall be shown to meet the requirements of Sections 1609 and 1613 of the VCC. For purposes of this section, compliance with ASCE 41, using a Tier 3 procedure and the two-level performance objective in Table 305.2.2 for the applicable risk category, shall be deemed to meet the requirements of Section 1613 of the VCC.

Exception: Any existing lateral load-carrying structural element whose demand-capacity ratio with the *alteration* considered is not more than 10 percent greater than its demand-capacity ratio with the *alteration* ignored shall be permitted to remain unaltered. For purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces in accordance with VCC Sections 1609 and 1613. Reduced VCC level seismic forces in accordance with Section 305.2.2 shall be permitted. For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of additions and *alterations* since original construction.

603.7.5 Voluntary lateral force-resisting system alterations. *Alterations* of existing structural elements and additions of new structural elements that are initiated for the purpose of increasing the lateral force-resisting strength or stiffness of an *existing* structure and that are not required by other sections of this code shall not be required to be designed for forces conforming to the VCC, provided that an engineering analysis is submitted to show that:

1. The capacity of existing structural elements required to resist forces is not reduced;
2. The lateral loading to existing structural elements is not increased either beyond its capacity or more than 10 percent;
3. New structural elements are detailed and connected to the existing structural elements as required by the VCC;

4. New or relocated nonstructural elements are detailed and connected to existing or new structural elements as required by the VCC; and
5. Voluntary *alterations* to lateral force-resisting systems conducted in accordance with Appendix A and the referenced standards of this code shall be permitted.

603.7.6 Voluntary seismic improvements. *Alterations* to existing structural elements or additions of new structural elements that are not otherwise required by this chapter and are initiated for the purpose of improving the performance of the seismic force-resisting system of an *existing* structure or the performance of seismic bracing or anchorage of existing nonstructural elements shall be permitted, provided that an engineering analysis is submitted demonstrating the following:

1. The altered *structure* and the altered nonstructural elements are no less conforming to the provisions of the VCC with respect to earthquake design than they were prior to the *alteration*.
2. New structural elements are detailed as required for new construction.
3. New or relocated nonstructural elements are detailed and connected to existing or new structural elements as required for new construction.
4. The *alterations* do not create a structural irregularity as defined in ASCE 7 or make an existing structural irregularity more severe.

603.8 Electrical. Electrical elements and systems within *buildings* undergoing Level 2 *alterations* shall comply with Sections 603.8.1 through 603.8.3.

603.8.1 New installations. All newly installed electrical equipment and wiring relating to work done in any *work area* shall comply with all applicable requirements of NFPA 70 except as provided for in Section 603.8.3.

603.8.2 Existing installations. Existing wiring in all *work areas* in Group A-1, A-2, A-5, H and I occupancies shall be upgraded to meet the materials and methods requirements of Section 602.3.

603.8.3 Residential occupancies. In Group R-2, R-3, R-4 and R-5 occupancies and *buildings* regulated by the International Residential Code, the

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requirements of Sections 603.8.3.1 through 603.8.3.7 shall be applicable only to *work areas* located within a dwelling unit.

603.8.3.1 Enclosed areas. All enclosed areas, other than closets, kitchens, basements, garages, hallways, laundry areas, utility areas, storage areas and bathrooms shall have a minimum of two duplex receptacle outlets or one duplex receptacle outlet and one ceiling or wall-type lighting outlet.

603.8.3.2 Kitchens. Kitchen areas shall have a minimum of two duplex receptacle outlets.

603.8.3.3 Laundry areas. Laundry areas shall have a minimum of one duplex receptacle outlet located near the laundry equipment and installed on an independent circuit.

603.8.3.4 Ground fault circuit interruption. Newly installed receptacle outlets shall be provided with ground fault circuit interruption as required by NFPA 70.

603.8.3.5 Minimum lighting outlets. At least one lighting outlet shall be provided in every bathroom, hallway, stairway, attached garage, and detached garage with electric power, and to illuminate outdoor entrances and exits.

603.8.3.6 Utility rooms and basements. At least one lighting outlet shall be provided in utility rooms and basements where such spaces are used for storage or contain equipment requiring service.

603.8.3.7 Clearance for equipment. Clearance for electrical service equipment shall be provided in accordance with NFPA 70.

603.9 Mechanical. All *work areas* intended for occupancy and all spaces converted to habitable or occupiable space in any *work area* shall be provided with natural or mechanical ventilation in accordance with the International Mechanical Code.

Exception: Existing mechanical ventilation systems shall comply with the requirements of Section 603.9.1.

603.9.1 Altered existing systems. In mechanically ventilated spaces, existing mechanical ventilation systems that are altered, reconfigured, or extended shall provide not less than 5 cubic feet per minute (cfm) (0.0024 m³/s) per person of outdoor air and not less than 15 cfm (0.0071 m³/s) of ventilation air per person; or not less than the amount of ventilation

air determined by the Indoor Air Quality Procedure of ASHRAE 62.

603.9.2 Local exhaust. All newly introduced devices, equipment, or operations that produce airborne particulate matter, odors, fumes, vapor, combustion products, gaseous contaminants, pathogenic and allergenic organisms, and microbial contaminants in such quantities as to affect adversely or impair health or cause discomfort to occupants shall be provided with local exhaust.

603.10 Plumbing. Where the occupant load of the story is increased by more than 20 percent, plumbing fixtures for the story shall be provided in quantities specified in the International Plumbing Code based on the increased occupant load.

Change the title of Section 604 of the IEBC to read:

SECTION 604 LEVEL 3 ALTERATIONS

Change Section 604.1 and add Sections 604.2 through 604.7, including subsections, to the IEBC to read:

604.1 Scope. Level 3 *alterations* as described in Section 601.2.3 shall comply with the requirements of this section.

Exception: *Buildings* in which the *alteration* is exclusively the result of compliance with the accessibility requirements of Section 404.3 shall be permitted to comply with Section 602.

604.2 Level 1 and Level 2 alterations compliance. In addition to the requirements of this section, work shall comply with the applicable requirements of Sections 602 and 603. The requirements of Sections 603.4, 603.5 and 603.6 shall apply within all *work areas* whether or not they include exits and corridors shared by more than one tenant and regardless of the occupant load.

Exception: *Buildings* in which the *alteration* affecting exits or shared egress access is exclusively the result of compliance with the accessibility requirements of Section 404.3 shall not be required to comply with this section.

604.3 Special use and occupancy. The following special uses and occupancies shall comply with the requirements of Section 603.6 except as specifically required in Sections 604.3.1 and 604.3.2.

604.3.1 High-rise buildings. Any *building* having occupied floors more than 75 feet (22 860 mm) above the lowest level of fire department vehicle

access shall comply with the requirements of Sections 604.3.1.1 and 604.3.1.2.

604.3.1.1 Recirculating air or exhaust systems. When a floor is served by a recirculating air or exhaust system with a capacity greater than 15,000 cubic feet per minute (701 m³/s), that system shall be equipped with approved smoke and heat detection devices installed in accordance with the International Mechanical Code.

604.3.1.2 Elevators. Where there is an elevator or elevators for public use, at least one elevator serving the *work area* shall comply with this section. Existing elevators with a travel distance of 25 feet (7620 mm) or more above or below the main floor or other level of a *building* and intended to serve the needs of emergency personnel for fire-fighting or rescue purposes shall be provided with emergency operation in accordance with ASME A17.3. New elevators shall be provided with Phase I emergency recall operation and Phase II emergency in-car operation in accordance with ASME A17.1.

604.3.2 Boiler and furnace equipment rooms. Boiler and furnace equipment rooms adjacent to or within Groups I-1, I-2, I-4, R-1, R-2 and R-4 occupancies shall be enclosed by 1-hour fire-resistance-rated construction.

Exceptions:

1. Steam boiler equipment operating at pressures of 15 pounds per square inch gauge (psig) (103.4 KPa) or less is not required to be enclosed.
2. Hot water boilers operating at pressures of 170 psig (1171 KPa) or less are not required to be enclosed.
3. Furnace and boiler equipment with 400,000 British thermal units (Btu) (4.22 × 10⁸ J) per hour input rating or less is not required to be enclosed.
4. Furnace rooms protected with an automatic sprinkler system are not required to be enclosed.

604.4 Building elements and materials. *Building* elements and materials shall comply with the requirements of Section 603.6 except as specifically required in Sections 604.4.1 through 604.4.3.

604.4.1 Existing stairways. Existing stairways that are part of the means of egress shall be enclosed in accordance with Section 603.4.1.1, and its exceptions if applicable, from the highest *work area* floor to, and including, the level of exit discharge and all floors below.

604.4.2 Fire separation in Group R-3. Where the *work area* is in any attached dwelling unit in Group R-3 or any multiple single-family dwelling (townhouse), walls separating the dwelling units that are not continuous from the foundation to the underside of the roof sheathing shall be constructed to provide a continuous fire separation using construction materials consistent with the existing wall or complying with the requirements for new *structures*. All work shall be performed on the side of the dwelling unit wall that is part of the *work area*.

Exception: Where alterations or repairs do not result in the removal of wall or ceiling finishes exposing the *structure*, walls are not required to be continuous through concealed floor spaces.

604.4.3 Interior finish. Interior finish in exits serving the *work area* shall comply with Section 603.4.3 between the highest floor on which there is a *work area* to the floor of exit discharge.

604.5 Fire protection. Fire protection shall comply with the requirements of Section 603.6 except as specifically required in Sections 604.5.1 and 604.5.2.

604.5.1 Automatic sprinkler systems. An automatic sprinkler system shall be provided in a *work area* where required by Section 603.5.2 or this section.

604.5.1.1 High-rise buildings. An automatic sprinkler system shall be provided in *work areas* where the high-rise *building* has a sufficient municipal water supply for the design and installation of an automatic sprinkler system at the site.

604.5.1.2 Rubbish and linen chutes. Rubbish and linen chutes located in the *work area* shall be provided with automatic sprinkler system protection or an approved automatic fire extinguishing system where protection of the rubbish and linen chute would be required under the provisions of the VCC for new construction.

604.5.1.3 Upholstered furniture or mattresses. *Work areas* shall be provided with an automatic sprinkler system in accordance with the VCC where any of the following conditions exist:

1. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet (232 m2).
2. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet (232 m2).

604.5.2 Fire alarm and detection systems. Fire alarm and detection shall be provided throughout the *work area* in accordance with Section 907 of the VCC as required for new construction.

604.5.2.1 Manual fire alarm systems. Where required by the VCC, a manual fire alarm system shall be provided throughout the *work area*. Alarm notification appliances shall be provided on such floors and shall be automatically activated as required by the VCC.

Exceptions:

1. Alarm-initiating and notification appliances shall not be required to be installed in tenant spaces outside of the *work area*.
2. Visual alarm notification appliances are not required, except where an existing alarm system is upgraded or replaced or where a new fire alarm system is installed.

604.5.2.2 Automatic fire detection. Where required by the VCC for new *buildings*, automatic fire detection systems shall be provided throughout the *work area*.

604.6 Means of egress. The means of egress shall comply with the requirements of Section 603.6 except as specifically required in Sections 604.6.1 and 604.6.2.

604.6.1 Means-of-egress lighting. Means of egress from the highest *work area* floor to the floor of exit discharge shall be provided with artificial lighting within the exit enclosure in accordance with the requirements of the VCC.

604.6.2 Exit signs. Means of egress from the highest *work area* floor to the floor of exit discharge shall be provided with exit signs in accordance with the requirements of the VCC.

604.7 Structural. Structural alterations shall comply with the requirements of Section 603.6 except as specifically required in Sections 604.7.1 and 604.7.2.

604.7.1 Substantial structural alteration. Where more than 30 percent of the total floor and roof areas of the *building* or *structure* have been or are proposed to be involved in structural alteration within a 5-year period, the evaluation and analysis shall demonstrate that the lateral load-resisting system of the altered *building* or *structure* complies with the International Building Code for wind loading and with reduced International Building Code-level seismic forces in accordance with Section 305.2.2. The areas to be counted toward the 30 percent shall be those areas tributary to the vertical load-carrying components, such as joists, beams, columns, walls and other structural components that have been or will be removed, added or altered, as well as areas such as mezzanines, penthouses, roof *structures* and in-filled courts and shafts.

604.7.2 Limited structural alteration. Where the work does not involve a substantial structural *alteration* and the *building* is not assigned to Seismic Design Category F, the existing elements of the lateral load-resisting system shall comply with Section 603.7.4.

Delete Sections 605, 606, 607, 608 and 609 of the IEBC in their entirety.

**SECTION 605
ACCESSIBILITY
(Section deleted)**

**SECTION 606
STRUCTURAL
(Section deleted)**

**SECTION 607
ELECTRICAL
(Section deleted)**

**SECTION 608
MECHANICAL
(Section deleted)**

**SECTION 609
PLUMBING
(Section deleted)**

Change the title of Chapter 7 of the IEBC to read:

CHAPTER 7

CHANGE OF OCCUPANCY

Change Sections 701.1 through 701.2 of the IEBC to read:

701.1 Scope. The provisions of this chapter shall apply where a *change of occupancy* occurs, except as modified by Section 906 for historic *buildings*. Compliance with the current VCC for the *change of occupancy* shall only be required as prescribed in this chapter. Compliance shall be only as necessary to meet the specific provisions of the applicable International Codes and is not intended to require the entire *building* be brought into compliance.

Exception: Compliance with the provisions of Chapter 14 shall be permitted in lieu of complying with this chapter for a *change of occupancy*.

701.2 Work undertaken in connection with a change of occupancy. Any repairs, *alterations*, or additions undertaken in connection with a *change of occupancy* shall conform to the applicable requirements for the work as classified in this code and as modified by this chapter.

Delete Section 701.3 of the IEBC.

701.3 Flood hazard areas. (Section deleted)

Change the title of Section 702 of the IEBC to read:

SECTION 702 SPECIAL USE AND OCCUPANCY

Change Sections 702.1 and 702.2 of the IEBC to read:

702.1 Compliance with the building code. Where a *building* undergoes a *change of occupancy* to one of the special use or occupancy categories described in Chapter 4 of the VCC, the *building* shall comply with all of the requirements of Chapter 4 of the VCC applicable to the special use or occupancy.

702.2 Incidental Uses. Where a portion of a *building* undergoes a *change of occupancy* to one of the incidental uses listed in Table 509 of the VCC, the incidental use shall comply with the applicable requirements of Section 509 of the VCC.

Delete Sections 702.3 through 702.6, including subsections, of the IEBC.

702.3 Interior trim. (Section deleted)

702.4 Window opening control devices. (Section deleted)

702.5 Emergency escape and rescue openings. (Section deleted)

702.6 Materials and methods. (Section deleted)

Change the title of Section 703 of the IEBC to read:

SECTION 703 BUILDING ELEMENTS AND MATERIALS

Change Section 703.1 of the IEBC and add Section 703.2, including subsections, to the IEBC to read:

703.1 Interior finish. In areas of the *building* undergoing a *change of occupancy* classification, the interior finish of walls and ceilings shall comply with the requirements of the VCC for the new occupancy classification.

703.2 Enclosure of vertical openings. When a *change of occupancy* classification is made to a higher hazard category as shown in Table 705.2, protection of existing vertical openings shall be in accordance with Sections 703.2.1 through 703.2.3.

703.2.1 Stairways. Interior stairways shall be protected as required by Section 705.1.

703.2.2 Other vertical openings. Interior vertical openings, other than stairways, within the area of the *change of occupancy* shall be protected as required by the VCC.

Exceptions:

1. Existing 1-hour interior shaft enclosures shall be accepted where a higher rating is required.
2. Vertical openings, other than stairways, in *buildings* of other than Group I occupancy and connecting less than six stories shall not be required to be enclosed are permitted if the entire *building* is provided with an approved automatic sprinkler system.

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703.2.3 Shaft openings. All openings into existing vertical shaft enclosures shall be protected by fire assemblies having a fire protection rating of not less than 1 hour and shall be maintained self-closing or shall be automatic-closing by actuation of a smoke detector. All other openings shall be fire protected in an approved manner. Existing fusible link-type automatic door-closing devices shall be permitted in all shafts except stairways if the fusible link rating does not exceed 135°F (57°C).

Change the title of Section 704 of the IEBC to read:

SECTION 704 FIRE PROTECTION

Change Section 704.1 of the IEBC and add Sections 704.2 and 704.3 to the IEBC to read:

704.1 Fire protection systems. Fire protection systems shall be provided in accordance with Sections 704.2 and 704.3.

704.2 Fire sprinkler system. Where a *building* undergoes a *change of occupancy* that requires an automatic fire sprinkler system to be provided based on the new occupancy in accordance with Chapter 9 of the VCC, such system shall be provided throughout the area where the *change of occupancy* occurs.

704.3 Fire alarm and detection system. Where a *building* undergoes a *change of occupancy* that requires a fire alarm and detection system to be provided based on the new occupancy in accordance with Chapter 9 of the VCC, such system shall be provided throughout the area where the *change of occupancy* occurs. Existing alarm notification appliances shall be automatically activated throughout the *building*. Where the *building* is not equipped with a fire alarm system, alarm notification appliances shall be provided throughout the area where the *change of occupancy* occurs in accordance with Section 907 of the VCC as required for new construction.

Change the title of Section 705 of the IEBC to read:

SECTION 705 MEANS OF EGRESS

Change Sections 705.1 through 705.2, deleting subsections, and add Sections 705.3 and 705.4 of the IEBC to read:

705.1 General. Means of egress in *buildings* undergoing a *change of occupancy* shall comply with this Section.

705.2 Means of egress, hazards. Hazard categories in regard to life safety and means of egress shall be in accordance with Table 705.2.

TABLE 705.2
MEANS OF EGRESS HAZARD CATEGORIES

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	I-2, I-3, I-4
3	A, E, I-1, M, R-1, R-2, R-4
4	B, F-1, R-3, S-1, R-5
5 (Lowest Hazard)	F-2, S-2, U

705.3 Means of egress for change to higher hazard category. When a *change of occupancy* classification is made to a higher hazard category (lower number) as shown in Table 705.2, the means of egress serving the area of the *change of occupancy* shall comply with the requirements of Chapter 10 of the VCC.

Exceptions:

1. Existing interior stairways are permitted to be enclosed in accordance with Section 603.4.1.1 from the highest floor where the *change of occupancy* classification occurs to, and including, the level of exit discharge and all floors below.
2. An enclosure shall not be required for openings serving only one adjacent floor and that are not connected with corridors or stairways serving other floors.
3. Unenclosed existing stairways need not be enclosed in a continuous vertical shaft if each story is separated from other stories by 1-hour fire resistance rated construction or approved wired glass set in steel frames and all exit corridors are sprinklered. The openings between the corridor and the occupant space shall have at least one sprinkler head above the openings on the tenant side. The sprinkler system shall be permitted to be supplied from the domestic water supply systems, provided the system is of adequate pressure, capacity, and sizing for the combined domestic and sprinkler requirements.
4. Existing corridor walls constructed on both sides of wood lath and plaster in good condition or 1/2 -inch-thick (12.7 mm) gypsum wallboard shall be permitted. Such walls shall either terminate at the underside of a ceiling of equivalent construction or extend to the underside of the floor or roof next above.
5. Existing corridor doorways, transoms and other corridor openings are permitted to comply with the requirements in Sections 603.6.4.1, 603.6.4.2 and 603.6.4.3 regardless of *work areas*.
6. Existing dead-end corridors are permitted to comply with the requirements in Section 603.6.5 regardless of *work areas*.
7. An existing operable window with clear opening area no less than 4 square feet (0.38 m²) and minimum opening height and width of 22 inches (559 mm) and 20 inches (508 mm), respectively, shall be accepted as an emergency escape and rescue opening.
8. Regardless of *work areas*, existing handrails are permitted to comply with the requirements of Section 603.6.8 and existing guards are permitted to comply with the requirements of Section 603.6.10.
9. Fire escapes in compliance with Section 303.
10. Existing stairways are not required to be altered to meet current tread depth and riser height requirements.

705.4 Means of egress for change of occupancy to equal or lower hazard category or without a change in classification. When a *change of occupancy* classification is made to an equal or lesser hazard category (higher number) as shown in Table 705.2 or a *change of occupancy* without a change of classification is made, the means of egress shall be deemed acceptable provided the means of egress serving the area of the *change of occupancy* meets the egress capacity and occupant load based means of egress provisions in Chapter 10 of the VCC for the new occupancy.

Change the title of Section 706 of the IEBC to read:

**SECTION 706
HEIGHTS AND AREAS**

Change Sections 706.1 through 706.5, including subsections, of the IEBC to read:

706.1 General. Heights and areas of *buildings and structures* undergoing a *change of occupancy* classification shall comply with this Section.

706.2 Heights and areas, hazards. Hazard categories in regard to height and area shall be in accordance with Table 706.2.

TABLE 706.2
HEIGHTS AND AREAS HAZARD CATEGORIES

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	A-1, A-2, A-3, A-4, I, R-1, R-2, R-4
3	E, F-1, S-1, M
4 (Lowest Hazard)	B, F-2, S-2, A-5, R-3, R-5, U

706.3 Height and area for change to higher hazard category. When a *change of occupancy* classification is made to a higher hazard category as shown in Table 706.2, heights and areas of *buildings* and *structures* shall comply with the requirements of Chapter 5 of the VCC for the new occupancy classification.

Exception: For high-rise *buildings* constructed in compliance with a previously issued permit, the type of construction reduction specified in Section 403.2.1 of the VCC is permitted. This shall include the reduction for columns. The high-rise *building* is required to be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the VCC.

706.3.1 Fire wall alternative. In other than Groups H, F-1 and S-1, fire barriers and horizontal assemblies constructed in accordance with Sections 707 and 711, respectively, of the VCC shall be permitted 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 where all of the following conditions are met:

1. The *buildings* are protected throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 of the International Building Code.
2. The maximum allowable area between fire barriers, horizontal assemblies, or any combination thereof shall not exceed the maximum allowable area determined in accordance with Chapter 5 of the VCC without an increase allowed for an automatic sprinkler system in accordance with Section 506 of the VCC.
3. The fire-resistance rating of the fire barriers and horizontal assemblies shall be not less than that specified for fire walls in Table 706.4 of the VCC.

Exception: Where horizontal assemblies are used to limit the maximum allowable area, the required fire-resistance rating of the horizontal assemblies shall be permitted to be reduced by 1 hour provided the height and number of stories increases allowed for an automatic sprinkler system by Section 504 of the VCC are not used for the *buildings*.

706.4 Height and area for change to equal or lesser hazard category. When a *change of occupancy* classification is made to an equal or lesser hazard category as shown in Table 706.2, the height and area of the *existing building* shall be deemed acceptable.

706.5 Fire barriers. When a *change of occupancy* classification is made to a higher hazard category as shown in Table 706.2, fire barriers in separated mixed use *buildings* shall comply with the fire-resistance requirements of the VCC.

Exception: Where the fire barriers are required to have a 1-hour fire-resistance rating, existing wood lath and plaster in good condition or existing 1/2-inch-thick (12.7 mm) gypsum wallboard shall be permitted.

Delete Section 706.6 of the IEBC.

706.6 Flashings. (Section deleted)

Change the title of Section 707 of the IEBC to read:

SECTION 707 **EXTERIOR WALL FIRE-RESISTANCE RATINGS**

Change Sections 707.1 through 707.3, deleting subsections, and add Section 707.4 to the IEBC to read:

707.1 Exterior wall fire-resistance ratings, hazards. Hazard categories in regard to fire-resistance ratings of exterior walls shall be in accordance with Table 707.1.

**TABLE 707.1
EXPOSURE OF EXTERIOR WALLS HAZARD CATEGORIES**

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	F-1, M, S-1
3	A, B, E, I, R
4 (Lowest Hazard)	F-2, S-2, U

707.2 Exterior wall rating for change of occupancy classification to a higher hazard category. When a *change of occupancy* classification is made to a higher hazard category as shown in Table 707.1, exterior walls shall have fire resistance and exterior opening protectives as required by the VCC.

Exception: A 2-hour fire-resistance rating shall be allowed where the *building* does not exceed three stories in height and is classified as one of the following groups: A-2 and A-3 with an occupant load of less than 300, B, F, M or S.

707.3 Exterior wall rating for change of occupancy classification to an equal or lesser hazard category. When a *change of occupancy* classification is made to an equal or lesser hazard category as shown in Table 707.1, existing exterior walls, including openings, shall be accepted.

707.4 Opening protectives. Openings in exterior walls shall be protected as required by the VCC. Where openings in the exterior walls are required to be protected because of their distance from the lot line, the sum of the area of such openings shall not exceed 50 percent of the total area of the wall in each story.

Exceptions:

1. Where the VCC permits openings in excess of 50 percent.
2. Protected openings shall not be required in *buildings* of Group R occupancy that do not exceed three stories in height and that are located not less than 3 feet (914 mm) from the lot line.
3. Where exterior opening protectives are required, an automatic sprinkler system throughout may be substituted for opening protection.
4. Exterior opening protectives are not required when the *change of occupancy* group is to an equal or lower hazard classification in accordance with Table 707.1.

**SECTION 708
ELECTRICAL AND LIGHTING**

Change Section 708.1 of the IEBC and add Sections 708.2 through 708.4 to the IEBC to read:

708.1 Special occupancies. Where a *building* undergoes a *change of occupancy* to one of the following special occupancies as described in NFPA 70, the electrical wiring and equipment of the *building* that contains the proposed occupancy shall comply with the applicable requirements of NFPA 70:

1. Hazardous locations.
2. Commercial garages, repair, and storage.
3. Aircraft hangars.
4. Gasoline dispensing and service stations.
5. Bulk storage plants.
6. Spray application, dipping, and coating processes.
7. Health care facilities.
8. Places of assembly.
9. Theaters, audience areas of motion picture and television studios, and similar locations.
10. Motion picture and television studios and similar locations.
11. Motion picture projectors.
12. Agricultural *buildings*.

708.2 Service upgrade. When a new occupancy is required to have a higher electrical load demand per NFPA 70 and the service cannot accommodate the increased demand, the service shall be upgraded to meet the requirements of NFPA 70 for the new occupancy.

708.3 Number of electrical outlets. Where a *building* undergoes a *change of occupancy*, the number of electrical outlets shall comply with NFPA 70 for the new occupancy.

Change the title of Section 708 of the IEBC to read:

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708.4 Lighting. Lighting shall comply with the requirements of the VCC for the new occupancy.

Add Section title 709 to the IEBC to read:

SECTION 709 MECHANICAL AND VENTILATION

Add Section 709.1 to the IEBC to read:

709.1 Mechanical and ventilation requirements. Where a *building* undergoes a *change of occupancy* such that the new occupancy is subject to different kitchen exhaust requirements or to increased ventilation requirements in accordance with the International Mechanical Code, the new occupancy shall comply with the respective International Mechanical Code provisions.

Add Section title 710 to the IEBC to read:

SECTION 710 PLUMBING

Add Sections 710.1 through 710.3 to the IEBC to read:

710.1 Increased demand. Where a *building* or portion thereof undergoes a *change of occupancy* such that the new occupancy is subject to increased or different plumbing fixture requirements or to increased water supply requirements in accordance with the International Plumbing Code, the new occupancy shall comply with the respective International Plumbing Code provisions.

Exception: In other than Group R or I occupancies or child care facilities classified as group E, where the occupant load is increased by 20 percent or less in the area where the *change of occupancy* occurs, additional plumbing fixtures required based on the increased occupant load in quantities specified in the International Plumbing Code are not required.

710.2 Interceptor required. If the new occupancy will produce grease or oil-laden wastes, interceptors shall be provided as required in the International Plumbing Code.

710.3 Chemical wastes. If the new occupancy will produce chemical wastes, the following shall apply:

1. If the existing piping is not compatible with the chemical waste, the waste shall be neutralized prior to entering the drainage system, or the piping shall be changed to a compatible material.

2. No chemical waste shall discharge to a public sewer system without the approval of the sewage authority.

Add Section title 711 to the IEBC to read:

SECTION 711 STRUCTURAL

Add Sections 711.1 through 711.3 to the IEBC to read:

711.1 Gravity loads. *Buildings* subject to a *change of occupancy* where such change in the nature of occupancy results in higher uniform or concentrated loads based on Table 1607.1 of the VCC shall comply with the gravity load provisions of the VCC.

Exception: Structural elements whose stress is not increased by more than 5 percent.

711.2 Snow and wind loads. *Buildings and structures* subject to a *change of occupancy* where such change in the nature of occupancy results in higher wind or snow risk categories based on Table 1604.5 of the VCC shall be analyzed and shall comply with the applicable wind or snow load provisions of the VCC.

Exception: Where the new occupancy with a higher risk category is less than or equal to 10 percent of the total *building* floor area. The cumulative effect of the area of occupancy changes shall be considered for the purposes of this exception.

711.3 Seismic loads. *Existing buildings* with a *change of occupancy* shall comply with the seismic provisions of Sections 711.3.1 and 711.3.2.

711.3.1 Compliance with VCC-level seismic forces. Where a *building* is subject to a *change of occupancy* that results in the *building* being assigned to a higher risk category based on Table 1604.5 of the VCC, the *building* shall comply with the requirements for VCC-level seismic forces as specified in Section 305.2.1 for the new risk category.

Exceptions:

1. Specific detailing provisions required for a new *structure* are not required to be met where it can be shown that an equivalent level of performance and seismic safety is obtained for the applicable risk category based on the provision for reduced VCC-level seismic forces as specified in Section 305.2.2.

2. Where the area of the new occupancy with a higher hazard category is less than or equal to 10 percent of the total *building* floor area and the new occupancy is not classified as Risk Category IV. For the purposes of this exception, *buildings* occupied by two or more occupancies not included in the same risk category, shall be subject to the provisions of Section 1604.5.1 of the VCC. The cumulative effect of the area of occupancy changes shall be considered for the purposes of this exception.
3. Unreinforced masonry bearing wall *buildings* in Risk Category III when assigned to Seismic Design Category A or B shall be allowed to be strengthened to meet the requirements of Appendix Chapter A1 of this code Guidelines for the Seismic Retrofit of *Existing Buildings* (GSREB).

711.3.2 Access to Risk Category IV. Where a *change of occupancy* is such that compliance with Section 711.3.1 is required and the *building* is assigned to Risk Category IV, the operational access to the *building* shall not be through an adjacent *structure*, unless that *structure* conforms to the requirements for Risk Category IV *structures*. Where operational access is less than 10 feet (3048 mm) from either an interior lot line or from another *structure*, access protection from potential falling debris shall be provided by the owner of the Risk Category IV *structure*.

Add Section title 712 to the IEBC to read:

SECTION 712 ASSESSIBILITY

Add Section 712.1 to the IEBC to read:

712.1 General. *Existing buildings* that undergo a *change of occupancy* classification shall comply with Section 402.

Change the title of Chapter 8 of the IEBC to read:

CHAPTER 8

ADDITIONS

Change Sections 801.1 through 801.3 of the IEBC to read:

801.1 Scope. Additions to any *building* or *structure* shall comply with the requirements of the VCC for new construction without requiring the *existing building* or *structure* to comply with any requirements of those codes or of these provisions, except as required by this chapter. Where an addition impacts the *existing building* or *structure*, that portion shall comply with this code. Where a fire wall that complies with Section 706 of the VCC is provided between the addition and the *existing building*, the addition shall be considered a separate *building*.

801.2 Creation or extension of nonconformity. An addition shall not create or extend any nonconformity in the *existing building* to which the addition is being made with regard to accessibility, structural strength, fire safety, means of egress, or the capacity of mechanical, plumbing, or electrical systems. *Alterations* to the *existing building* or *structure*, shall be made so that the *existing building* or *structure*, together with the addition are no less conforming to the provisions of the VCC than the *existing building* or *structure* was prior to the addition.

801.3 Other work. Any repair or *alteration* work within an *existing building* to which an addition is being made shall comply with the applicable requirements for the work as classified in this code.

Change the title of Section 802 of the IEBC to read:

SECTION 802

HEIGHTS AND AREAS

Change Section 802.1 of the IEBC to read:

802.1 Height limitations. No addition shall increase the height of an *existing building* beyond that permitted under the applicable provisions of Chapter 5 of the VCC for new *buildings*.

Add Sections 802.2 and 802.3 to the IEBC to read:

802.2 Area limitations. No addition shall increase the area of an *existing building* beyond that permitted under the applicable provisions of Chapter 5 of the VCC for new *buildings* unless fire separation as required by the VCC is provided.

Exception: In-filling of floor openings and nonoccupiable appendages such as elevator and exit stairway shafts shall be permitted beyond that permitted by the VCC.

802.3 Fire protection systems. Existing fire areas increased by the addition shall comply with Chapter 9 of the VCC.

Change the title of Section 803 of the IEBC to read:

SECTION 803

STRUCTURAL

Change Sections 803.1 through 803.5, including subsections, and delete Sections 803.2.2, 803.2.3, 803.4.1, 803.5.1 and 803.5.2 of the IEBC.

803.1 Compliance with the VCC. Additions to *existing buildings* or *structures* are new construction and shall comply with the VCC.

803.2 Existing structural elements carrying gravity load. Any existing gravity load-carrying structural element for which an addition and its related *alterations* cause an increase in design gravity load of more than 5 percent shall be strengthened, supplemented, replaced or otherwise altered as needed to carry the increased gravity load required by the VCC for new *structures*. Any existing gravity load carrying structural element whose gravity load-carrying capacity is decreased shall be considered an altered element subject to the requirements of Section 603.7.3. Any existing element that will form part of the lateral load path for any part of the addition shall be considered an existing lateral load-carrying structural element subject to the requirements of Section 803.3.

Exception: *Buildings* of Group R occupancy with no more than five dwelling units or sleeping units used solely for residential purposes where the *existing building* and the addition comply with the conventional light-frame construction methods of the VCC or the provisions of the International Residential Code.

803.2.1 Design live load. Where the addition does not result in increased design live load, existing gravity load-carrying structural elements shall be

permitted to be evaluated and designed for live loads approved prior to the addition. If the approved live load is less than that required by Section 1607 of the VCC, the area designed for the nonconforming live load shall be posted with placards of approved design indicating the approved live load. Where the addition does result in increased design live load, the live load required by Section 1607 of the VCC shall be used.

803.3 Existing structural elements carrying lateral load. Where the addition is structurally independent of the *existing structure*, existing lateral load-carrying structural elements shall be permitted to remain unaltered. Where the addition is not structurally independent of the *existing structure*, the *existing structure* and its addition acting together as a single *structure* shall be shown to meet the requirements of Sections 1609 and 1613 of the VCC. For purposes of this section, compliance with ASCE 41, using a Tier 3 procedure and the two-level performance objective in Table 305.2.1 for the applicable risk category, shall be deemed to meet the requirements of Section 1613.

Exceptions:

1. Any existing lateral load-carrying structural element whose demand-capacity ratio with the addition considered is not more than 10 percent greater than its demand-capacity ratio with the addition ignored shall be permitted to remain unaltered. For purposes of this exception, comparisons of demand-capacity ratios and calculation of design lateral loads, forces and capacities shall account for the cumulative effects of additions and *alterations* since original construction. For purposes of calculating demand capacity ratios, the demand shall consider applicable load combinations involving VCC-level seismic forces in accordance with Section 305.2.1.
2. *Buildings* of Group R occupancy with no more than five dwelling or sleeping units used solely for residential purposes where the *existing building* and the addition comply with the conventional light-frame construction methods of the VCC or the provisions of the International Residential Code.

803.4 Voluntary addition of structural elements to improve the lateral force-resisting system. Voluntary addition of structural elements to improve the lateral force-resisting system of an *existing building* shall comply with Section 603.7.5.

803.5 Snow drift loads. Any structural element of an *existing building* subjected to additional loads from the effects of snow drift as a result of an addition shall comply with the VCC.

Exceptions:

1. Structural elements whose stress is not increased by more than 5 percent.
2. *Buildings* of Group R occupancy with no more than five dwelling units or sleeping units used solely for residential purposes where the *existing building* and the addition comply with the conventional light-frame construction methods of the VCC or the provisions of the International Residential Code.

Delete Section 803.6 of the IEBC .

803.6 Fire-resistance ratings. (Section deleted)

Change the title of Section 804 of the IEBC to read:

**SECTION 804
FLOOD HAZARD AREAS**

Change Section 804.1 of the IEBC to read:

804.1 Flood hazard areas. Additions and foundations in flood hazard areas shall comply with the following requirements:

1. For horizontal additions that are structurally interconnected to the *existing building*:
 - 1.1. If the addition and all other proposed work, when combined, constitute *substantial improvement*, the *existing building* and the addition shall comply with Section 1612 of the International Building Code, or Section R322 of the International Residential Code, as applicable.
 - 1.2. If the addition constitutes *substantial improvement*, the *existing building* and the addition shall comply with Section 1612 of the International Building Code, or Section R322 of the International Residential Code, as applicable.
2. For horizontal additions that are not structurally interconnected to the *existing building*:
 - 2.1. The addition shall comply with Section 1612 of the International Building Code, or

Section R322 of the International Residential Code, as applicable.

2.2. If the addition and all other proposed work, when combined, constitute *substantial improvement*, the *existing building* and the addition shall comply with Section 1612 of the International Building Code, or Section R322 of the International Residential Code, as applicable.

3. For vertical additions and all other proposed work that, when combined, constitute *substantial improvement*, the *existing building* shall comply with Section 1612 of the International Building Code, or Section R322 of the International Residential Code, as applicable.
4. For a raised or extended foundation, if the foundation work and all other proposed work, when combined, constitute *substantial improvement*, the *existing building* shall comply with Section 1612 of the International Building Code, or Section R322 of the International Residential Code, as applicable.
5. For a new foundation or replacement foundation, the foundation shall comply with Section 1612 of the International Building Code or Section R322 of the International Residential Code, as applicable.

Delete Sections 804.2, 804.3, 804.4, 805, 806, 807, 808, 809, 810, and 811, their entirety, of the IEBC.

**SECTION 805
MEANS OF EGRESS
(Section deleted)**

**SECTION 806
ACCESSIBILITY
(Section deleted)**

**SECTION 807
STRUCTURAL
(Section deleted)**

**SECTION 808
ELECTRICAL
(Section deleted)**

**SECTION 809
MECHANICAL
(Section deleted)**

**SECTION 810
PLUMBING
(Section deleted)**

**SECTION 811
ENERGY CONSERVATION
(Section deleted)**

Change the title of Chapter 9 of the IEBC to read:

CHAPTER 9

HISTORIC BUILDINGS

Change Sections 901.1 and 901.2 of the IEBC to read:

901.1 Scope. It is the intent of this chapter to provide means for the preservation of historic *buildings*. The provisions of this code relating to construction involving historic *buildings* shall not be mandatory unless such a construction constitutes a life safety hazard. Accessibility shall be provided in accordance with Section 405.

901.2 Report. The code official shall be permitted to require that a historic *building* undergoing repair, *alteration* or *change of occupancy* be investigated and evaluated by an RDP or other qualified person or agency as a condition of determining compliance with this code.

Add Section 901.3 to the IEBC to read:

901.3 Special occupancy exceptions. When a *building* in Group R-3 is also used for Group A, B, or M purposes such as museum tours, exhibits, and other public assembly activities, or for museums less than 3,000 square feet (279 m²), the code official may determine that the occupancy is Group B when life-safety conditions can be demonstrated in accordance with Section 901.2. Adequate means of egress in such *buildings*, which may include a means of maintaining doors in an open position to permit egress, a limit on *building* occupancy to an occupant load permitted by the means of egress capacity, a limit on occupancy of certain areas or floors, or supervision by a person knowledgeable in the emergency exiting procedures, shall be provided.

Change the title of Section 902 of the IEBC to read:

SECTION 902

FLOOD HAZARD AREAS

Change Section 902.1 of the IEBC to read:

902.1 Flood hazard areas. In flood hazard areas, if all proposed work, including repairs, work required because of a *change of occupancy*, and *alterations*, constitutes *substantial improvement*, then the *existing building* shall comply with Section 1612 of the International Building Code, or Section R322 of the International Residential Code, as applicable.

Exception: If an historic *building* will continue to be an historic *building* after the proposed work is completed, then the proposed work is not considered

a *substantial improvement*. For the purposes of this exception, an historic *building* is:

1. Listed or preliminarily determined to be eligible for listing in the National Register of Historic Places;
2. Determined by the Secretary of the U.S. Department of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined to qualify as an historic district; or
3. Designated as historic under a state or local historic preservation program that is approved by the Department of Interior.

Delete Section 902.2 of the IEBC.

902.2 Boiler and furnace equipment rooms. (Section deleted)

Change the title of Section 903 of the IEBC to read:

SECTION 903

REPAIRS

Change Sections 903.1 through 903.3, including subsections, of the IEBC to read:

903.1 General. Repairs to any portion of an historic *building* or *structure* shall be permitted with original or like materials and original methods of construction, subject to the provisions of this chapter. 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.

903.2 Moved buildings. Foundations of moved historic *buildings* and *structures* shall comply with the VCC. Moved historic *buildings* shall otherwise be considered an historic *building* for the purposes of this code. Moved historic *buildings* and *structures* shall be sited so that exterior wall and opening requirements comply with the VCC or with the compliance alternatives of this code.

903.3 Replacement. 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.

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Replacement glazing in hazardous locations shall comply with the safety glazing requirements of Chapter 24 of the VCC.

Exception: Glass block walls, louvered windows, and jalousies repaired with like materials.

Change the title of Section 904 of the IEBC to read:

SECTION 904 FIRE SAFETY

Change Sections 904.1 and 904.2, deleting subsections, of the IEBC to read:

904.1 Scope. Except as provided in Section 901, historic *buildings* undergoing *alterations*, changes of occupancy, or that are moved shall comply with this section.

904.2 General. Every historic *building* that does not conform to the construction requirements specified in this code for the occupancy or use and that constitutes a distinct fire hazard as defined herein shall be provided with an approved automatic fire-extinguishing system as determined appropriate by the code official. However, an automatic fire-extinguishing system shall not be used to substitute for, or act as an alternative to, the required number of exits from any facility.

Add Sections 904.3 through 904.12, including subsections, to the IEBC to read:

904.3 Means of egress. Existing door openings and corridor and stairway widths less than those specified elsewhere in this code shall be permitted, provided there is sufficient width and height for a person to pass through the opening or traverse the means of egress. The front or main exit doors need not swing in the direction of the path of exit travel, provided that other approved means of egress having sufficient capacity to serve the total occupant load are provided.

904.4 Transoms. In fully sprinklered *buildings* of Group R-1, R-2 or R-3 occupancy, existing transoms in corridors and other fire-resistance-rated walls may be maintained if fixed in the closed position. A sprinkler shall be installed on each side of the transom.

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

904.6 Stairway enclosure. In *buildings* of three stories or less, exit enclosure construction shall limit the spread of smoke by the use of tight-fitting doors and solid elements. Such elements are not required to have a fire-resistance rating.

904.7 One-hour fire-resistant assemblies. Where 1-hour fire-resistance-rated construction is required by these provisions, it need not be provided, regardless of construction or occupancy, where the existing wall and ceiling finish is wood or metal lath and plaster.

904.8 Glazing in fire-resistance-rated systems. Historic glazing materials are permitted in interior walls required to have a 1-hour fire-resistance rating where the opening is provided with approved smoke seals and the area affected is provided with an automatic sprinkler system.

904.9 Stairway railings. Grand stairways shall be accepted without complying with the handrail and guard requirements. Existing handrails and guards at all stairways shall be permitted to remain, provided they are not structurally dangerous.

904.10 Guards. Guards shall comply with Sections 904.10.1 and 904.10.2.

904.10.1 Height. Existing guards shall comply with the requirements of Section 501.2.

904.10.2 Guard openings. The spacing between existing intermediate railings or openings in existing ornamental patterns shall be accepted. Missing elements or members of a guard may be replaced in a manner that will preserve the historic appearance of the *building* or *structure*.

904.11 Exit signs. Where exit sign or egress path marking location would damage the historic character of the *building*, alternative exit signs are permitted with approval of the code official. Alternative signs shall identify the exits and egress path.

904.12 Automatic fire-extinguishing systems. Every historical *building* that cannot be made to conform to the construction requirements specified in the VCC for the occupancy or use and that constitutes a distinct fire hazard shall be deemed to be in compliance if provided with an approved automatic fire-extinguishing system.

Exception: When the code official approves an alternative life-safety system.

Change the title of Section 905 of the IEBC to read:

SECTION 905 ALTERATIONS

Change Section 905.1 to the IEBC to read:

905.1 General. The provisions of Chapter 6, as applicable, shall apply to facilities designated as historic

structures that undergo *alterations*, unless technically infeasible.

Delete Sections 905.2 and 905.3 of the IEBC.

905.2 Means-of-egress lighting. (Section deleted)

905.3 Exit signs. (Section deleted)

Change the title of Section 906 of the IEBC to read:

SECTION 906 CHANGE OF OCCUPANCY

Change Sections 906.1 and 906.2 of the IEBC to read:

906.1 General. Historic *buildings* undergoing a *change of occupancy* shall comply with the applicable provisions of Chapter 7, except as specifically permitted in this chapter. When Chapter 7 requires compliance with specific requirements of Chapter 6 and when those requirements are subject to the exceptions in Section 903, the same exceptions shall apply to this section.

906.2 Building area. The allowable floor area for historic *buildings* undergoing a *change of occupancy* shall be permitted to exceed by 20 percent the allowable areas specified in Chapter 5 of the VCC.

Add Sections 906.3 through 906.14 to the IEBC to read:

906.3 Location on property. Historic *structures* undergoing a change of use to a higher hazard category in accordance with Section 707.1 may use alternative methods to comply with the fire-resistance and exterior opening protective requirements. Such alternatives shall comply with Section 901.2.

906.4 Occupancy separation. Required occupancy separations of 1 hour may be omitted when the *building* is provided with an approved automatic sprinkler system throughout.

906.5 Roof covering. Regardless of occupancy or use group, Roof-covering materials not less than Class C, when tested in accordance with ASTM E 108 or UL 790, shall be permitted where a fire-retardant roof covering is required.

906.6 Means of egress. Existing door openings and corridor and stairway widths less than those that would be acceptable for non-historic *buildings* under these provisions shall be permitted, provided there is sufficient width and height for a person to pass through the opening or traverse the exit and that the capacity of the exit system is adequate for the occupant load, or where other operational controls to limit occupancy are approved by the code official.

906.7 Door swing. Existing front doors need not swing in the direction of exit travel, provided that other approved exits having sufficient capacity to serve the total occupant load are provided.

906.8 Transoms. In corridor walls required by these provisions to be fire-resistance rated, existing transoms may be maintained if fixed in the closed position, and fixed wired glass set in a steel frame or other approved glazing shall be installed on one side of the transom.

Exception: Transoms conforming to Section 904.4 shall be accepted.

906.9 Finishes. Where interior finish materials are required to have a flame spread index of Class C or better, when tested in accordance with ASTM E 84 or UL 723, existing nonconforming materials shall be surfaced with approved fire-retardant paint or finish.

Exception: Existing nonconforming materials need not be surfaced with an approved fire-retardant paint or finish where the *building* is equipped throughout with an automatic sprinkler system installed in accordance with the VCC and the nonconforming materials can be substantiated as being historic in character.

906.10 One-hour fire-resistant assemblies. Where 1-hour fire-resistance-rated construction is required by these provisions, it need not be provided, regardless of construction or occupancy, where the existing wall and ceiling finish is wood lath and plaster.

906.11 Stairways and guards. Existing stairways shall comply with the requirements of these provisions. The code official shall grant alternatives for stairways and guards if alternative stairways are found to be acceptable or are judged to meet the intent of these provisions. Existing stairways shall comply with Section 904.

Exception: For *buildings* less than 3,000 square feet (279 m²), existing conditions are permitted to remain at all stairways and guards.

906.12 Exit signs. Where exit signs would damage the historic character of the *building* or *structure*, alternative locations shall be permitted. Such signs shall identify the exits and exit path.

906.13 Exit stair live load. Existing stairways in *buildings* changed to a Group R-1 or R-2 occupancy shall be permitted where it can be shown that the stairway can support a 75-pounds-per-square-foot (366 kg/m²) live load.

906.14 Natural light. When the natural light requirements of Section 709.1 will lead to loss of historic

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character or historic materials in the *building*, the existing level of natural lighting shall be considered acceptable.

Change the title of Section 907 of the IEBC to read:

SECTION 907 STRUCTURAL

Change Section 907.1 of the IEBC to read:

907.1 General. Historic *buildings* shall comply with the applicable structural provisions for the work as classified in Section 103.10.

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

Delete Sections 907.2 through 907.4 of the IEBC.

907.2 New structural elements. (Section deleted)

907.3 Existing structural elements carrying gravity loads. (Section deleted)

907.4 Existing structural elements resisting lateral loads. (Section deleted)

907.4.1 Evaluation and analysis. (Section deleted)

907.4.2 Substantial structural alteration. (Section deleted)

907.4.3 Seismic Design Category F. (Section deleted)

907.4.4 Limited structural alteration. (Section deleted)

907.4.5 Wall anchors for concrete and masonry buildings. (Section deleted)

907.4.6 Bracing for unreinforced masonry parapets. (Section deleted)

Delete Section 908 of the IEBC in its entirety.

SECTION 908 ENERGY CONSERVATION (Section deleted)

Change the title of Chapter 10 of the IEBC to read:

CHAPTER 10

MOVED BUILDINGS AND STRUCTURES

Change the title of Section 1001 of the IEBC to read:

SECTION 1001 GENERAL

Change Sections 1001.1 through 1001.3, deleting subsections, of the IEBC to read:

1001.1 Scope. This chapter provides requirements for *moved buildings and structures*.

1001.2 Conformance. Any repair, *alteration*, or *change of occupancy* undertaken within the *moved building* or *structure* shall comply with the requirements of this code applicable to the work being performed. Any field-fabricated elements shall comply with the requirements of the VCC or the International Residential Code as applicable.

1001.3 Required inspection and repairs. The code official shall be authorized to inspect, or to require approved professionals to inspect at the expense of the owner, the various structural parts of a *moved building* or *structure* to verify that structural components and connections have not sustained structural damage. Any repairs required by the code official as a result of such inspection shall be made prior to the final approval.

Change the title of Section 1002 of the IEBC to read:

SECTION 1002 REQUIREMENTS

Change Sections 1002.1 and 1002.2 and add Section 1002.2.1 to the IEBC to read:

1002.1 Location on the lot. The *building* or *structure* shall be located on the lot in accordance with the requirements of the VCC or the International Residential Code as applicable.

1002.2 Foundation. The foundation system of *moved buildings and structures* shall comply with the VCC or the International Residential Code as applicable.

1002.2.1 Connection to the foundation. The connection of the *moved building* or *structure* to the foundation shall comply with the VCC or the International Residential Code as applicable.

Add Sections 1002.3 through 1002.6, including subsections, to the IEBC to read:

1002.3 Wind loads. *Buildings and structures* shall comply with VCC or International Residential Code wind provisions at the new location as applicable.

Exceptions:

1. Detached one- and two-family dwellings and Group U occupancies where wind loads at the new location are not higher than those at the previous location.
2. Structural elements whose stress is not increased by more than 10 percent.

1002.4 Seismic loads. *Buildings and structures* shall comply with VCC or International Residential Code seismic provisions at the new location as applicable.

Exceptions:

1. *Structures* in Seismic Design Categories A and B and detached one- and two-family dwellings in Seismic Design Categories A, B and C where the seismic loads at the new location are not higher than those at the previous location.
2. Structural elements whose stress is not increased by more than 10 percent.

1002.5 Snow loads. *Buildings and structures* shall comply with VCC or International Residential Code snow loads as applicable where snow loads at the new location are higher than those at the previous location.

Exception: Structural elements whose stress is not increased by more than 5 percent.

1002.6 Flood hazard areas. If moved into a flood hazard area, *buildings and structures* shall comply with Section 1612 of the VCC, or Section R322 of the International Residential Code, as applicable.

Delete Sections 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1011, and 1012 of the IEBC in their entirety.

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**SECTION 1003
BUILDING ELEMENTS AND MATERIALS
(Section deleted)**

**SECTION 1004
FIRE PROTECTION
(Section deleted)**

**SECTION 1005
MEANS OF EGRESS
(Section deleted)**

**SECTION 1006
ACCESSIBILITY
(Section deleted)**

**SECTION 1007
STRUCTURAL
(Section deleted)**

**SECTION 1008
ELECTRICAL
(Section deleted)**

**SECTION 1009
MECHANICAL
(Section deleted)**

**SECTION 1010
PLUMBING
(Section deleted)**

**SECTION 1011
OTHER REQUIREMENTS
(Section deleted)**

**SECTION 1012
CHANGE OF OCCUPANCY CLASSIFICATION
(Section deleted)**

Change the title of Chapter 11 of the IEBC to read:

CHAPTER 11

RETROFIT REQUIREMENTS

Add Section 1101 to the IEBC to read:

SECTION 1101 GENERAL

Add Section 1101.1 through 1101.17, including subsections, to the IEBC to read:

1101.1 Scope. In accordance with Section 103.7 of the VCC and as set out herein, the following *buildings* are required to be provided with certain fire protection equipment or systems or other retrofitted components.

1101.2 Smoke detectors in colleges and universities. In accordance with § 36-99.3 of the Code of Virginia, college and university *buildings* containing dormitories for sleeping purposes shall be provided with battery-powered or AC-powered smoke detector devices installed therein in accordance with this code in effect on July 1, 1982. All public and private college and university dormitories shall have installed such detectors regardless of when the *building* was constructed. The chief administrative office of the college or university shall obtain a certificate of compliance with the provisions of this subsection from the building official of the locality in which the college or university is located or, in the case of state-owned *buildings*, from the Director of the Virginia Department of General Services. The provisions of this section shall not apply to any dormitory at a state-supported military college or university that is patrolled 24 hours a day by military guards.

1101.3 Smoke detectors in certain juvenile care facilities. In accordance with § 36-99.4 of the Code of Virginia, battery-powered or AC-powered smoke detectors shall be installed in all local and regional detention homes, group homes, and other residential care facilities for children and juveniles that are operated by or under the auspices of the Virginia Department of Juvenile Justice, regardless of when the *building* was constructed, by July 1, 1986, in accordance with the provisions of this code that were in effect on July 1, 1984. Administrators of such homes and facilities shall be responsible for the installation of the smoke detector devices.

1101.4 Smoke detectors for the deaf and hearing-impaired. In accordance with § 36-99.5 of the Code of Virginia, smoke detectors providing an effective intensity of not less than 100 candela to warn a deaf or hearing-impaired individual shall be provided, upon

request by the occupant to the landlord or proprietor, to any deaf or hearing-impaired occupant of any of the following occupancies, regardless of when constructed:

1. All dormitory *buildings* arranged for the shelter and sleeping accommodations of more than 20 individuals;
2. All multiple-family dwellings having more than two dwelling units, including all dormitories and boarding and lodging houses arranged for shelter and sleeping accommodations of more than 5 individuals; or
3. All *buildings* arranged for use as one-family or two-family dwelling units.

A tenant shall be responsible for the maintenance and operation of the smoke detector in the tenant's unit.

A hotel or motel shall have available no fewer than one such smoke detector for each 70 units or portion thereof, except that this requirement shall not apply to any hotel or motel with fewer than 35 units. The proprietor of the hotel or motel shall post in a conspicuous place at the registration desk or counter a permanent sign stating the availability of smoke detectors for the hearing impaired. Visual detectors shall be provided for all meeting rooms for which an advance request has been made.

1101.5 Assisted living facilities (formerly known as adult care residences or homes for adults). Existing assisted living facilities licensed by the Virginia Department of Social Services shall comply with this section.

1101.5.1 Fire protective signaling system and fire detection system. A fire protective signaling system and an automatic fire detection system meeting the requirements of the USBC, Volume I, 1987 Edition, Third Amendment, shall be installed in assisted living facilities by August 1, 1994.

Exception: Assisted living facilities that are equipped throughout with a fire protective signaling system and an automatic fire detection system.

1101.5.2 Single-station and multiple-station smoke detectors. Battery or AC-powered single-

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station and multiple-station smoke detectors meeting the requirements of the USBC, Volume I, 1987 Edition, Third Amendment, shall be installed in assisted living facilities by August 1, 1994.

Exception: Assisted living facilities that are equipped throughout with single-station and multiple-station smoke detectors.

1101.6 Smoke detectors in buildings containing dwelling units. AC-powered smoke detectors with battery backup or an equivalent device shall be required to be installed to replace a defective or inoperative battery-powered smoke detector located in *buildings* containing one or more dwelling units or rooming houses offering to rent overnight sleeping accommodations when it is determined by the building official that the responsible party of such *building* or dwelling unit fails to maintain battery-powered smoke detectors in working condition.

1101.7 Fire suppression, fire alarm, and fire detection systems in nursing homes and facilities. Fire suppression systems as required by the edition of this code in effect on October 1, 1990, shall be installed in all nursing facilities licensed by the Virginia Department of Health by January 1, 1993, regardless of when such facilities or institutions were constructed. Units consisting of certified long-term care beds located on the ground floor of general hospitals shall be exempt from the requirements of this section.

Fire alarm or fire detector systems, or both, as required by the edition of this code in effect on October 1, 1990, shall be installed in all nursing homes and nursing facilities licensed by the Virginia Department of Health by August 1, 1994.

1101.8 Fire suppression systems in hospitals. Fire suppression systems shall be installed in all hospitals licensed by the Virginia Department of Health as required by the edition of this code in effect on October 1, 1995, regardless of when such facilities were constructed.

1101.9 Identification of disabled parking spaces by above grade signage. All parking spaces reserved for the use of persons with disabilities shall be identified by above grade signs, regardless of whether identification of such spaces by above grade signs was required when any particular space was reserved for the use of persons with disabilities. A sign or symbol painted or otherwise displayed on the pavement of a parking space shall not constitute an above grade sign. Any parking space not identified by an above grade sign shall not be a parking space reserved for the disabled within the meaning of this section. All above grade disabled parking space signs shall have the bottom edge of the sign no lower than 4

feet (1219 mm) nor higher than 7 feet (2133 mm) above the parking surface. Such signs shall be designed and constructed in accordance with the provisions of Chapter 11 of this code. All disabled parking signs shall include the following language: "PENALTY, \$100-500 Fine, TOW-AWAY ZONE." Such language may be placed on a separate sign and attached below existing above grade disabled parking signs, provided that the bottom edge of the attached sign is no lower than 4 feet above the parking surface.

1101.10 Smoke detectors in hotels and motels. Smoke detectors shall be installed in hotels and motels as required by the edition of VR 394-01-22, USBC, Volume II, in effect on March 1, 1990, by the dates indicated, regardless of when constructed.

1101.11 Sprinkler systems in hotels and motels. By September 1, 1997, an automatic sprinkler system shall be installed in hotels and motels as required by the edition of VR 394-01-22, USBC, Volume II, in effect on March 1, 1990, regardless of when constructed.

1101.12 Fire suppression systems in dormitories. An automatic fire suppression system shall be provided throughout all *buildings* having a Group R-2 fire area that are more than 75 feet (22,860 mm) or 6 stories above the lowest level of exit discharge and are used, in whole or in part, as a dormitory to house students by any public or private institution of higher education, regardless of when such *buildings* were constructed, in accordance with the edition of this code in effect on August 20, 1997, and the requirements for sprinkler systems under the edition of the NFPA 13 standard referenced by that code. The automatic fire suppression system shall be installed by September 1, 1999. The chief administrative officer of the college or university shall obtain a certificate of compliance from the building official of the locality in which the college or university is located or, in the case of state-owned *buildings*, from the Director of the Virginia Department of General Services.

Exceptions:

1. *Buildings* equipped with an automatic fire suppression system in accordance with Section 903.3.1.1 of the 1983 or later editions of NFPA 13.
2. Any dormitory at a state-supported military college or university that is patrolled 24 hours a day by military guards.
3. Application of the requirements of this section shall be modified in accordance with the following:

- 3.1. *Building* systems, equipment, or components other than the fire suppression system shall not be required to be added or upgraded except as necessary for the installation of the fire suppression system and shall only be required to be added or upgraded where the installation of the fire suppression system creates an unsafe condition.
- 3.2. Residential sprinklers shall be used in all sleeping rooms. Other sprinklers shall be quick response or residential unless deemed unsuitable for a space. Standard response sprinklers shall be used in elevator hoistways and machine rooms.
- 3.3. Sprinklers shall not be required in wardrobes in sleeping rooms that are considered part of the *building* construction or in closets in sleeping rooms when such wardrobes or closets (i) do not exceed 24 square feet (2.23 m²) in area, (ii) have the smallest dimension less than 36 inches (914 mm), and (iii) comply with all of the following:
 - 3.3.1. A single-station smoke detector monitored by the *building* fire alarm system is installed in the room containing the wardrobe or closet that will activate the general alarm for the *building* if the single station smoke detector is not cleared within five minutes after activation.
 - 3.3.2. The minimum number of sprinklers required for calculating the hydraulic demand of the system for the room shall be increased by two and the two additional sprinklers shall be corridor sprinklers where the wardrobe or closet is used to divide the room. Rooms divided by a wardrobe or closet shall be considered one room for the purpose of this requirement.
 - 3.3.3. The ceiling of the wardrobe, closet, or room shall have a fire resistance rating of not less than 1/2 hour.
- 3.4. Not more than one sprinkler shall be required in bathrooms within sleeping rooms or suites having a floor area between 55 square feet (5.12 m²) and 120 square feet (11.16 m²), provided the sprinkler is located to protect the lavatory area and the plumbing fixtures are of a noncombustible material.
- 3.5. Existing standpipe residual pressure shall be permitted to be reduced when the standpipe serves as the water supply for the fire suppression system, provided the water supply requirements of NFPA 13-94 are met.
- 3.6. Limited service controllers shall be permitted for fire pumps when used in accordance with their listing.
- 3.7. Where a standby power system is required, a source of power in accordance with Section 701-11 (d) or 701-11 (e) of NFPA 70-96 shall be permitted.

1101.13 Fire extinguishers and smoke detectors in SRCFs. SRCFs shall be provided with at least one approved type ABC portable fire extinguisher with a minimum rating of 2A10BC installed in each kitchen. In addition, SRCFs shall provide at least one approved and properly installed battery operated smoke detector outside of each sleeping area in the vicinity of bedrooms and bedroom hallways and on each additional floor.

1101.14 Smoke detectors in adult day care centers. Battery-powered or AC-powered smoke detector devices shall be installed in all adult day care centers licensed by the Virginia Department of Social Services, regardless of when the *building* was constructed. The location and installation of the smoke detectors shall be determined by the provisions of this code in effect on October 1, 1990. The licensee shall obtain a certificate of compliance from the building official of the locality in which the center is located or, in the case of state-owned *buildings*, from the Director of the Virginia Department of General Services.

1101.15 Posting of occupant load. Every room or space that is an assembly occupancy, and where the occupant load of that room or space is 50 or more, shall have the occupant load of the room or space as determined by the building official posted in a conspicuous place, near the main exit or exit access doorway from the room or space. Posted signs shall be of an approved legible permanent

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design and shall be maintained by the owner or owner's authorized agent.

1101.16 ALFSTs. Existing ALFSTs, regardless of when constructed, shall by October 1, 2011, meet the applicable requirements of API 653 and TFI RMIP for suitability for service and inspections and shall provide a secondary containment system complying with Section 426.3 of the VCC.

1101.17 Standards for replacement glass. In accordance with § 36-99.2 of the Code of Virginia, any replacement glass installed in *buildings* constructed prior to the first edition of the USBC shall meet the quality and installation standards for glass installed in new *buildings* as are in effect at the time of installation. In addition, as a requirement of this code, the installation or replacement of glass in *buildings* constructed under any edition of the USBC shall be as required for new installations.

Delete Sections 1102 through 1106 of the IEBC in their entirety.

Change the title of Chapter 12 of the IEBC to read:

CHAPTER 12

CONSTRUCTION SAFEGUARDS

Change Sections 1201.1 through 1201.4 to the IEBC to read:

1201.1 Scope. The provisions of this chapter shall govern safety during construction that is under the jurisdiction of this code and the protection of adjacent public and private properties.

1201.2 Storage and placement. Construction equipment and materials shall be stored and placed so as not to endanger the public, the workers or adjoining property for the duration of the construction project.

1201.3 Alterations, repairs, and additions. Required exits, existing structural elements, fire protection devices, and sanitary safeguards shall be maintained at all times during *alterations*, repairs, or additions to any *building or structure*.

Exceptions:

1. When such required elements or devices are being altered or repaired, adequate substitute provisions shall be made.
2. When the *existing building* is not occupied.

1201.4 Manner of removal. Waste materials shall be removed in a manner which prevents injury or damage to persons, adjoining properties, and public rights-of-way.

Add Sections 1201.5 through 1201.7, including subsections, to read:

1201.5 Fire safety during construction. Fire safety during construction shall comply with the applicable requirements of the International Building Code and the applicable provisions of Chapter 33 of the International Fire Code.

1201.6 Protection of pedestrians. Pedestrians shall be protected during construction and demolition activities as required by Section 1201.6.1 through 1201.6.7 and Table 1201.6. Signs shall be provided to direct pedestrian traffic.

1201.6.1 Walkways. A walkway shall be provided for pedestrian travel in front of every construction and demolition site unless the applicable governing

authority authorizes the sidewalk to be fenced or closed. Walkways shall be of sufficient width to accommodate the pedestrian traffic, but in no case shall they be less than 4 feet (1219 mm) in width. Walkways shall be provided with a durable walking surface. Walkways shall be accessible in accordance with Chapter 11 of the International Building Code and shall be designed to support all imposed loads and in no case shall the design live load be less than 150 pounds per square foot (psf) (7.2 kN/m²).

1201.6.2 Directional barricades. Pedestrian traffic shall be protected by a directional barricade where the walkway extends into the street. The directional barricade shall be of sufficient size and construction to direct vehicular traffic away from the pedestrian path.

1201.6.3 Construction railings. Construction railings shall be at least 42 inches (1067 mm) in height and shall be sufficient to direct pedestrians around construction areas.

1201.6.4 Barriers. Barriers shall be a minimum of 8 feet (2438 mm) in height and shall be placed on the side of the walkway nearest the construction. Barriers shall extend the entire length of the construction site. Openings in such barriers shall be protected by doors which are normally kept closed.

1201.6.4.1 Barrier design. Barriers shall be designed to resist loads required in Chapter 16 of the International Building Code unless constructed as follows:

1. Barriers shall be provided with 2 x 4 top and bottom plates.
2. The barrier material shall be a minimum of 3/4 inch (19.1 mm) boards or 1/4 inch (6.4 mm) wood structural use panels.
3. Wood structural use panels shall be bonded with an adhesive identical to that for exterior wood structural use panels.

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4. Wood structural use panels 1/4 inch (6.4 mm) or 1/16 inch (1.6 mm) in thickness shall have studs spaced not more than 2 feet (610 mm) on center.
5. Wood structural use panels 3/8 inch (9.5 mm) or 1/2 inch (12.7 mm) in thickness shall have studs spaced not more than 4 feet (1219 mm) on center, provided a 2-inch by 4-inch (51 mm by 102 mm) stiffener is placed horizontally at the mid-height where the stud spacing exceeds 2 feet (610 mm) on center.
6. Wood structural use panels 5/8 inch (15.9 mm) or thicker shall not span over 8 feet (2438 mm).
2. Posts not less than 4 × 6 shall be provided on both sides of the roof and spaced not more than 12 feet (3658 mm) on center.
3. Stringers not less than 4 × 12 shall be placed on edge upon the posts.
4. Joists resting on the stringers shall be at least 2 × 8 and shall be spaced not more than 2 feet (610 mm) on center.
5. The deck shall be planks at least 2 inches (51 mm) thick or wood structural panels with an exterior exposure durability classification at least 23/32 inch (18.3 mm) thick nailed to the joists.
6. Each post shall be knee-braced to joists and stringers by 2 × 4 minimum members 4 feet (1219 mm) long.
7. A 2 × 4 minimum curb shall be set on edge along the outside edge of the deck.

1201.6.5 Covered walkways. Covered walkways shall have a minimum clear height of 8 feet (2438 mm) as measured from the floor surface to the canopy overhead. Adequate lighting shall be provided at all times. Covered walkways shall be designed to support all imposed loads. In no case shall the design live load be less than 150 psf (7.2 Kn/M²) For the entire *structure*.

Exception: Roofs and supporting *structures* of covered walkways for new, light-frame construction not exceeding two stories above grade plane are permitted to be designed for a live load of 75 psf (3.6 kN/m²) or the loads imposed on them, whichever is greater. In lieu of such designs, the roof and supporting *structure* of a covered walkway are permitted to be constructed as follows:

1. Footings shall be continuous 2 × 6 members.

1201.6.6 Repair, maintenance and removal. Pedestrian protection required by Section 1201.6 shall be maintained in place and kept in good order for the entire length of time pedestrians may be endangered. The owner or the owner's agent, upon the completion of the construction activity, shall immediately remove walkways, debris and other obstructions and leave such public property in as good a condition as it was before such work was commenced.

**TABLE 1201.6
PROTECTION OF PEDESTRIANS**

HEIGHT OF CONSTRUCTION	DISTANCE OF CONSTRUCTION TO LOT LINE	TYPE OF PROTECTION REQUIRED
8 feet or less	Less than 5 feet	Construction railings
	5 feet or more	None
More than 8 feet	Less than 5 feet	Barrier and covered walkway
	5 feet or more, but not more than one-fourth the height of construction	Barrier and covered walkway
	5 feet or more, but between one-fourth and one-half the height of construction	Barrier
	5 feet or more, but exceeding one-half the height of construction	None

1201.6.7 Adjacent to excavations. Every excavation on a site located 5 feet (1524 mm) or less from the street lot line shall be enclosed with a barrier not less than 6 feet (1829 mm) high. Where located more than 5 feet (1524 mm) from the street lot line, a barrier shall be erected when required by the code official. Barriers shall be of adequate strength to resist wind pressure as specified in Chapter 16 of the International Building Code.

1201.7 Facilities required. Sanitary facilities shall be provided during construction or demolition activities in accordance with the International Plumbing Code.

Change the title of Section 1202 of the IEBC to read:

SECTION 1202 PROTECTION OF ADJOINING PROPERTIES

Change Section 1202.1 of the IEBC to read:

1202.1 Protection required. Adjoining public and private property shall be protected from damage during construction and demolition work. Protection must be provided for footings, foundations, party walls, chimneys, skylights and roofs. Provisions shall be made to control water runoff and erosion during construction or demolition activities. The person making or causing an excavation to be made shall provide written notice to the owners of adjoining *buildings* advising them that the excavation is to be made and that the adjoining *buildings* should be protected. Said notification shall be delivered not less than 10 days prior to the scheduled starting date of the excavation.

Delete Sections 1202.2 through 1202.4 of the IEBC.

1202.2 Unsafe conditions. (Section deleted)

1202.3 Relocated buildings. (Section deleted)

1202.4 Replacement. (Section deleted)

Change the title of Section 1203 of the IEBC to read:

SECTION 1203 TEMPORARY USE OF STREETS, ALLEYS AND PUBLIC PROPERTY

Change Sections 1203.1 through 1203.3 to the IEBC to read:

1203.1 Storage and handling of materials. The temporary use of streets or public property for the storage or handling of materials or equipment required for construction or demolition, and the protection provided to the public shall comply with the provisions of the applicable governing authority and this chapter.

1203.2 Obstructions. Construction materials and equipment shall not be placed or stored so as to obstruct access to fire hydrants, standpipes, fire or police alarm boxes, catch basins or manholes, nor shall such material or equipment be located within 20 feet (6.1 m) of a street intersection, or placed so as to obstruct normal observations of traffic signals or to hinder the use of public transit loading platforms.

1203.3 Utility fixtures. Building materials, fences, sheds or any obstruction of any kind shall not be placed so as to obstruct free approach to any fire hydrant, fire department connection, utility pole, manhole, fire alarm box, or catch basin, or so as to interfere with the passage of water in the gutter. Protection against damage shall be provided to such utility fixtures during the progress of the work, but sight of them shall not be obstructed.

Delete Sections 1203.4 through 1203.12, including subsections of the IEBC.

1203.4 Transoms. (Section deleted)

1203.5 Interior finishes. (Section deleted)

1203.6 Stairway enclosure. (Section deleted)

1203.7 One-hour fire-resistant assemblies. (Section deleted)

1203.8 Glazing in fire-resistance-rated systems. (Section deleted)

1203.9 Stairway railings. (Section deleted)

1203.10 Guards. (Section deleted)

1203.10.1 Height. (Section deleted)

1203.10.2 Guard openings. (Section deleted)

1203.11 Exit signs. (Section deleted)

1203.12 Automatic fire-extinguishing systems. (Section deleted)

Change the title of Section 1204 of the IEBC to read:

SECTION 1204 FIRE EXTINGUISHERS

Change Sections 1204.1 and 1204.2 of the IEBC to read:

1204.1 Where required. All *structures* under construction, *alteration*, or demolition shall be provided with not less than one approved portable fire extinguisher in accordance with Section 906 of the International

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Building Code and sized for not less than ordinary hazard as follows:

1. At each stairway on all floor levels where combustible materials have accumulated.
2. In every storage and construction shed.
3. Additional portable fire extinguishers shall be provided where special hazards exist including, but not limited to, the storage and use of flammable and combustible liquids.

1204.2 Fire hazards. The provisions of this code and of the International Fire Code shall be strictly observed to safeguard against all fire hazards attendant upon construction operations.

Change the title of Section 1205 of the IEBC to read:

SECTION 1205 MEANS OF EGRESS

Change Sections 1205.1 and 1205.2 of the IEBC to read:

1205.1 Stairways required. Where a *building* has been constructed to a *building* height of 50 feet (15 240 mm) or four stories, or where an *existing building* exceeding 50 feet (15 240 mm) in *building* height is altered, at least one temporary lighted stairway shall be provided unless one or more of the permanent stairways are erected as the construction progresses.

1205.2 Maintenance of means of egress. Required means of egress shall be maintained at all times during construction, demolition, remodeling or alterations and additions to any *building*.

Exception: Approved temporary means of egress systems and facilities.

Deleted Sections 1205.3 through 1205.15 of the IEBC.

1205.3 Location on property. (Section deleted)

1205.4 Occupancy separation. (Section deleted)

1205.5 Roof covering. (Section deleted)

1205.6 Means of egress. (Section deleted)

1205.7 Door swing. (Section deleted)

1205.8 Transoms. (Section deleted)

1205.9 Finishes. (Section deleted)

1205.10 One-hour fire-resistant assemblies. (Section deleted)

1205.11 Stairways and guards. (Section deleted)

1205.12 Exit signs. (Section deleted)

1205.13 Exit stair live load. (Section deleted)

1205.14 Natural light. (Section deleted)

1205.15 Accessibility requirements. (Section deleted)

Change the title of Section 1206 to read:

SECTION 1206 STANDPIPE SYSTEMS

Change Sections 1206.1 through 1206.2 and add Section 1206.3 to the IEBC to read:

1206.1 Where required. In *buildings* required to have standpipes by Section 905.3.1 of the International Building Code, not less than one standpipe shall be provided for use during construction. Such standpipes shall be installed prior to construction exceeding 40 feet (12 192 mm) in height above the lowest level of fire department vehicle access. Such standpipe shall be provided with fire department hose connections at accessible locations adjacent to usable stairways. Such standpipes shall be extended as construction progresses to within one floor of the highest point of construction having secured decking or flooring.

1206.2 Buildings being demolished. Where a *building* or portion of a *building* is being demolished and a standpipe is existing within such a *building*, such standpipe shall be maintained in an operable condition so as to be available for use by the fire department. Such standpipe shall be demolished with the *building* but shall not be demolished more than one floor below the floor being demolished.

1206.3 Detailed requirements. Standpipes shall be installed in accordance with the provisions of Chapter 9 of the International Building Code.

Exception: Standpipes shall be either temporary or permanent in nature, and with or without a water supply, provided that such standpipes conform to the requirements of Section 905 of the International Building Code as to capacity, outlets and materials.

Add Section 1207 to read:

SECTION 1207 AUTOMATIC SPRINKLER SYSTEM

Add Sections 1207.1 and 1207.2 to the IEBC to read:

1207.1 Completion before occupancy. In portions of a *building* where an automatic sprinkler system is required by this code, it shall be unlawful to occupy those portions of the *building* until the automatic sprinkler system installation has been tested and approved, except as provided in Section 110.3.

1207.2 Operation of valves. Operation of sprinkler control valves shall be permitted only by properly authorized personnel and shall be accompanied by notification of duly designated parties. When the sprinkler protection is being regularly turned off and on to facilitate connection of newly completed segments, the sprinkler control valves shall be checked at the end of each work period to ascertain that protection is in service.

Add Section 1208 to read:

SECTION 1208 ACCESSIBILITY

Add Section 1208.1 to the IEBC to read:

1208.1 Construction sites. *Structures, sites, and equipment* directly associated with the actual process of construction, including but not limited to scaffolding, bridging, material hoists, material storage, or construction trailers are not required to be accessible.

Add Section 1209 to the IEBC to read:

SECTION 1209 WATER SUPPLY FOR FIRE PROTECTION

Add Section 1209.1 to the IEBC to read:

1209.1 When required. An approved water supply for fire protection, either temporary or permanent, shall be made available as soon as combustible material arrives on the site.

Change the title of Chapter 13 of the IEBC to read:

CHAPTER 13

REFERENCED STANDARDS

Add the following referenced standards to the IEBC to read:

Standard reference number	Title	Referenced in code section number
API 653-09	Tank Inspection, Repair, <i>Alteration</i> and Reconstruction	1101.16
ASCE/SEI 7-10	American Society of Civil Engineers Structural Engineering Institute	305.2.1, 603.7.4, 603.7.6
ASCE/SEI 41-13	American Society of Civil Engineers Structural Engineering Institute	305.2, 305.2.1, 305.2.2, 502.2.2.1, 502.2.2.3, 803.3
ASHRAE 62.1-2013	American Society of Heating, Refrigerating and Air Conditioning Engineers	603.9.1
ASME A17.1/CSA B44-2013	American Society of Mechanical Engineers	404.4.2, 604.3.1.2
ASME A17.3-2008	American Society of Mechanical Engineers	604.3.1.2
ASME A18.1-2008	American Society of Mechanical Engineers	404.4.3
ASTM E 84-13A	ASTM International	906.9
ASTM E 108-11	ASTM International	906.5
ASTM F 2006-10	ASTM International	304.2
ASTM F 2090-10	ASTM International	304.2
ICC A117.1-09	Accessible and Usable <i>Buildings</i> and Facilities	404.4.2, 404.4.3, 404.4.10
IFC-15	International Fire Code	603.5.4.1
NFPA 13-13	Standard for the Installation of Sprinkler Systems	1101.12
NFPA 13R-13	Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height	603.5.2.5
NFPA 70-14	National Electrical Code	504.1.1, 504.1.2, 504.1.3, 504.1.4, 504.1.5, 603.8.1, 603.8.3.4, 603.8.3.7, 708.1, 708.2, 708.3,
NFPA 72-13	National Fire Alarm and Signaling Code	603.5.2.5, 603.5.4
NFPA 99-15	Health Care Facilities Code	504.1.4
NFPA 101-15	Life Safety Code	603.6
UL 723-08	Standard for Test for Surface Burning Characteristics of Building Materials with Revisions Through September 2010	906.9
UL 790-04	Standard Test Methods for Tests of Roof Coverings with Revisions through October 2008	906.7
TFI RMIP-09	Aboveground Storage Tanks Containing Liquid Fertilizer, Recommended Mechanical Integrity Practices	1101.16

Change the title of Chapter 14 of the IEBC to read:

CHAPTER 14

COMPLIANCE ALTERNATIVE – CHANGE OF OCCUPANCY

Change Section 1401.1 of the IEBC to read:

1401.1 Scope. The provisions of this chapter are intended to maintain or increase the current degree of public safety, health, and general welfare in *existing buildings* or *structures*, while permitting changes of occupancy without requiring full compliance with Chapter 7, except where compliance with other provisions of this code is specifically required in this chapter.

Exception: The provisions of this chapter shall not apply to *buildings* with occupancies in Group H or I.

Change Section 1401.1.1 of the IEBC to read:

1401.1.1 Complete change of occupancy. Where an entire *existing building* undergoes a *change of occupancy*, the applicable provisions of this chapter for the new occupancy shall be used to determine compliance with this code.

Exception: Plumbing, mechanical and electrical systems in *buildings* undergoing a *change of occupancy* shall be subject to any applicable requirements of Chapter 7.

Change Section 1401.1.2 of the IEBC to read:

1401.1.2 Partial change of occupancy. Where a portion of the *building* undergoes a *change of occupancy* and that portion is separated from the remainder of the *building* with fire barrier or horizontal assemblies having a fire-resistance rating as required by Table 508.4 of the VCC or Section R317 of the International Residential Code for the separate occupancies, or with approved compliance alternatives, the portion changed shall be made to conform to the provisions of this chapter.

Where a portion of the *building* undergoes a *change of occupancy* and that portion is not separated from the remainder of the *building* with fire barriers or horizontal assemblies having a fire-resistance rating as required by Table 508.4 of the VCC or Section R317 of the International Residential Code for the separate occupancies, or with approved compliance alternatives, the provisions of this chapter which apply to each occupancy shall apply to the entire *building*. Where there are conflicting provisions, those requirements which are

the most restrictive shall apply to the entire *building* or *structure*.

Change Section 1401.2 and delete Sections 1401.2.1 through 1401.2.5 of the IEBC.

1401.2 Accessibility requirements. All portions of the *buildings* proposed for *change of occupancy* to *existing buildings* or *structures*, shall conform to the applicable accessibility provisions of Chapter 4.

Change Section 1401.3 of the IEBC to read:

1401.3 Acceptance. For changes of occupancy to *existing buildings* that are evaluated in accordance with this chapter, compliance with this chapter shall be accepted by the code official.

Change Section 1401.3.1 and delete Sections 1401.3.2 and 1401.3.3 of the IEBC.

1401.3.1 Compliance with flood hazard provisions. In flood hazard areas, *buildings* or *structures* that are evaluated in accordance with this chapter shall comply with Section 1612 of the VCC, or Section R322 of the International Residential Code, as applicable if the work covered by this chapter constitutes *substantial improvement*.

Change Section 1401.4 of the IEBC to read:

1401.4 Investigation and evaluation. For proposed work covered by this chapter, the *building* owner shall cause the *existing building* to be investigated and evaluated in accordance with the provisions of Sections 1401.4 through 1401.9.

Change Section 1401.4.1 of the IEBC to read:

1401.4.1 Structural analysis. The owner shall have a structural analysis of the *existing building* made to determine adequacy of structural systems for the proposed *alteration*, addition or *change of occupancy*. The analysis shall demonstrate that the *building* with the work completed is capable of resisting the loads specified in Chapter 16 of the VCC.

Change Section 1401.4.2 of the IEBC to read:

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1401.4.2 Submittal. The results of the investigation and evaluation as required in Section 1401.4, along with proposed compliance alternatives, shall be submitted to the code official.

Change Section 1401.4.3 of the IEBC to read:

1401.4.3 Determination of compliance. The code official shall determine whether the *existing building*, with the proposed *change of occupancy*, complies with the provisions of this section in accordance with the evaluation process in Sections 1401.5 through 1401.9.

Change Section 1401.5 of the IEBC to read:

1401.5 Evaluation. The evaluation shall be comprised of three categories: fire safety, means of egress, and general safety, as defined in Sections 1401.5.1 through 1401.5.3.

Change Section 1401.5.1 of the IEBC to read:

1401.5.1 Fire safety. Included within the fire safety category are the structural fire resistance, automatic fire detection, fire alarm, automatic sprinkler system and fire suppression system features of the facility.

Change Section 1401.5.2 of the IEBC to read:

1401.5.2 Means of egress. Included within the means of egress category are the configuration, characteristics, and support features for means of egress in the facility.

Change Section 1401.5.3 of the IEBC to read:

1401.5.3 General safety. Included within the general safety category are the fire safety parameters and the means-of-egress parameters.

Change Section 1401.6 of the IEBC to read:

1401.6 Evaluation process. The evaluation process specified herein shall be followed in its entirety to evaluate *existing buildings*. Table 1401.7 shall be utilized for tabulating the results of the evaluation. References to other sections of this code indicate that compliance with those sections is required in order to gain credit in the evaluation herein outlined. In applying this section to a *building* with mixed occupancies, where the separation between the mixed occupancies does not qualify for any category indicated in Section 1401.6.16, the score for each occupancy shall be determined, and the lower score determined for each section of the evaluation process shall apply to the entire *building*.

Where the separation between the mixed occupancies qualifies for any category indicated in Section 1401.6.16, the score for each occupancy shall apply to each portion,

or smoke compartment of the *building* based on the occupancy of the space.

Change Section 1401.6.1 of the IEBC to read:

1401.6.1 Building height and number of stories. The value for *building* height and number of stories shall be the lesser value determined by the formula in Section 1401.6.1.1. Section 504 of the International Building Code shall be used to determine the allowable height and number of stories of the *building*. Subtract the actual *building* height from the allowable height and divide by 12 1/2 feet (3810 mm). Enter the height value and its sign (positive or negative) in Table 1401.7 under Safety Parameter 1401.6.1, *Building Height*, for fire safety, means of egress, and general safety. The maximum score for a *building* shall be 10.

Change Section 1401.6.2 of the IEBC to read:

1401.6.2 Building area. The value for *building* area shall be determined by the formula in Section 1401.6.2.2. Section 506 of the VCC and the formula in Section 1401.6.2.1 shall be used to determine the allowable area of the *building*. Subtract the actual *building* area from the allowable area and divide by 1,200 square feet (112 m²). Enter the area value and its sign (positive or negative) in Table 1401.7 under Safety Parameter 1401.6.2, *Building Area*, for fire safety, means of egress and general safety. In determining the area value, the maximum permitted positive value for area is 50 percent of the fire safety score as listed in Table 1401.8, Mandatory Safety Scores.

Change Section 1401.6.4 of the IEBC to read:

1401.6.4 Tenant and dwelling unit separations. Evaluate the fire-resistance rating of floors and walls separating tenants, including dwelling units, and not evaluated under Sections 1401.6.3 and 1401.6.5.

Change Section 1401.6.7 of the IEBC to read:

1401.6.7 HVAC systems. Evaluate the ability of the HVAC system to resist the movement of smoke and fire beyond the point of origin. Under the categories in Section 1401.6.7.1, determine the appropriate value and enter that value into Table 1401.7 under Safety Parameter 1401.6.7, HVAC Systems, for fire safety, means of egress, and general safety.

Change Section 1401.6.8 of the IEBC to read:

1401.6.8 Automatic fire detection. Evaluate the smoke detection capability based on the location and operation of automatic fire detectors in accordance with Section 907 of the VCC and the International Mechanical Code. Under the categories and occupancies in Table 1401.6.8, determine the appropriate value and enter that value into

Table 1401.7 under Safety Parameter 1401.6.8, Automatic Fire Detection, for fire safety, means of egress, and general safety.

Change Section 1401.6.8.1 of the IEBC to read:

1401.6.8.1 Categories. The categories for automatic fire detection are:

1. Category a—None.
2. Category b—Existing smoke detectors in HVAC systems.
3. Category c—Smoke detectors in HVAC systems. The detectors are installed in accordance with the requirements for new *buildings* in the International Mechanical Code.
4. Category d—Smoke detectors throughout all floor areas other than individual sleeping units, tenant spaces and dwelling units.
5. Category e—Smoke detectors installed throughout the floor area.
6. Category f—Smoke detectors in corridors only.

Change Section 1401.6.14 of the IEBC to read:

1401.6.14 Elevator control. Evaluate the passenger elevator equipment and controls that are available to the fire department to reach all occupied floors. Emergency recall and in-car operation of elevators shall be provided in accordance with the building code under which the *building* or the affected portion thereof was constructed or previously approved. Under the categories and occupancies in Table 1401.5.14, determine the appropriate value and enter that value into Table 1401.7 under Safety Parameter 1401.5.14, Elevator Control, for fire safety, means of egress and general safety. The values shall be zero for a single-story *building*.

Change Section 1401.6.14.1 of the IEBC to read:

1401.6.14.1 Categories. The categories for elevator controls are:

1. Category a—No elevator.
2. Category b—Any elevator without Phase I emergency recall operation and Phase II emergency in-car operation.
3. Category c—All elevators with Phase I emergency recall operation and Phase II emergency in-car operation as required by the

building code under which the *building* or the affected portion thereof was constructed or previously approved.

4. Category d—All meet Category c; or Category b where permitted to be without Phase I emergency recall operation and Phase II emergency in-car operation; and at least one elevator that complies with new construction requirements serves all occupied floors.

Change Section 1401.6.16 of the IEBC to read:

1401.6.16 Mixed occupancies. Where a *building* has two or more occupancies that are not in the same occupancy classification, the separation between the mixed occupancies shall be evaluated in accordance with this section. Where there is no separation between the mixed occupancies or the separation between mixed occupancies does not qualify for any of the categories indicated in Section 1401.6.16.1, the *building* shall be evaluated as indicated in Section 1401.6, and the value for mixed occupancies shall be zero. Under the categories and occupancies in Table 1401.6.16, determine the appropriate value and enter that value into Table 1401.7 under Safety Parameter 1401.6.16, Mixed Occupancies, for fire safety and general safety. For *buildings* without mixed occupancies, the value shall be zero.

Change Section 1401.6.17 of the IEBC to read:

1401.6.17 Automatic sprinklers. Evaluate the ability to suppress a fire based on the installation of an automatic sprinkler system in accordance with Section 903.3.1.1 of the VCC. "Required sprinklers" shall be based on the requirements of this code. Under the categories and occupancies in Table 1401.6.17, determine the appropriate value and enter that value into Table 1401.7 under Safety Parameter 1401.6.17, Automatic Sprinklers, for fire safety, means of egress divided by 2, and general safety. High-rise *buildings* defined in Chapter 2 of the VCC that undergo a *change of occupancy* to Group R shall be equipped throughout with an automatic sprinkler system in accordance with Section 403 of the VCC and Chapter 9 of the VCC.

Change Section 1401.6.20 of the IEBC to read:

1401.6.20 Smoke compartmentation. Evaluate the smoke compartments for compliance with Section 407.5 of the VCC. Under the categories and occupancies in Table 1401.6.20, determine the appropriate smoke compartmentation value (SCV) and enter that value into Table 1401.7 under Safety Parameter 1401.6.20, Smoke Compartmentation, for fire safety, means of egress and general safety. Delete Chapter 15 of the IEBC in its entirety.

CHAPTER 15

CONSTRUCTION SAFEGUARDS
(Chapter deleted)

Delete Chapter 16 of the IEBC in its entirety.

CHAPTER 16
REFERENCED STANDARDS
(Chapter deleted)