

COMMONWEALTH OF VIRGINIA



Virginia Uniform Statewide Building Code "USBC"

(2000 Edition)

Effective October 1, 2003

**Virginia Department of Housing and Community Development
Division of Building and Fire Regulation
501 North 2nd Street
Richmond, Virginia 23219-1321**

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 2000 editions of the International Codes are incorporated by reference into this version of the USBC, it is known as the 2000 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 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 parts. Part I is an administrative chapter which contains regulations common to the USBC as a whole. Part I sets out the scope of the USBC including exemptions from regulation. It also outlines enforcing agency requirements and an appeals process for dispute resolution.

Part II of the USBC contains regulations specific to the construction of new buildings and structures and alterations, additions and change of occupancy in existing buildings and structures. Part II is divided into four articles; Article 1 contains administrative provisions for the enforcement of the code; Article 2 contains requirements specifically relating to rehabilitation; Article 3 contains retrofitting provisions, and Article 4 contains technical amendments to the model codes which are incorporated by reference in Part II.

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 contains two articles; Article 1 sets out administrative provisions for the enforcement of the code, and Article 2 contains technical amendments to the model code incorporated into Part III.

Technical Assistance

The local building departments and enforcing agencies may be contacted for further information concerning the USBC. Staff of the Virginia Department of Housing and Community Development through the Division of Building and Fire Regulation's State Building Code Administrative Office and the State Fire Marshal's regional offices are also available for technical assistance and questions. The telephone number for the State Building Code Administrative Office is (804) 371-7160 and for the State Fire Marshal's Office is (804) 371-7170.

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Part I.
GENERAL REGULATIONS.

Chapter 1.
ADMINISTRATION.

SECTION 101.0.
ADMINISTRATION; SCOPE.

101.1. Title. These regulations shall be known as the Virginia Uniform Statewide Building Code (USBC), hereinafter referred to as "this code" or "USBC." The term "chapter" means a chapter in the USBC.

101.2. Scope. The USBC prescribes mandatory building regulations for the construction and local option building regulations for the maintenance of structures, and the equipment therein including provisions for administration and enforcement. To the extent that any provisions of this code including the referenced codes or standards are not within the scope of this chapter or the Uniform Statewide Building Code Law (§ 36-97 et seq. of the Code of Virginia), those provisions are considered to be invalid. Actions under the USBC are a governmental function. To the extent the provisions of Chapter 6 of Title 36 of the Code of Virginia and the USBC are not superseded by the provisions of § 36-98.3 of the Code of Virginia and the VADR (13 VAC 5-31), the provisions of Chapter 6 of Title 36 of the Code of Virginia and the USBC shall apply to amusement devices.

Note: See the applicable provisions of Section 310 of this code for the correlation between the IBC and IRC.

101.3. Description. The USBC is divided into three parts: Part I (13 VAC 5-62-10 et seq.) sets forth the general scope, purpose and administration of the USBC, common to both Parts II and III; Part II (13 VAC 5-62-70 et seq.) sets forth the scope, administration and enforcement procedures for the mandatory enforcement of the construction provisions of the USBC and the technical amendments to the model codes and standards referenced in Part II; Part III (13 VAC 5-62-420 et seq.) sets forth the scope, administration and enforcement procedures for the local option enforcement of the maintenance provisions of the USBC and the technical amendments to the model codes and standards referenced in Part III of this code.

101.4. Purpose. The purpose of the USBC is to ensure safety to life and property from all hazards incident to structure design, construction, occupancy, repair, maintenance, renovation, removal or demolition. Structures shall be permitted to be constructed, repaired, maintained or renovated at the least possible cost

consistent with nationally recognized standards for health, safety, energy conservation, water conservation, adequate egress facilities, sanitary equipment, light and ventilation, fire safety, structural strength, and accessibility for the physically disabled.

101.5. Other codes. As provided in the Uniform Statewide Building Code Law (§ 36-97 et seq. of the Code of Virginia), the USBC shall supersede the building codes and regulations of the counties, municipalities and other political subdivisions and state agencies. "Building regulations" means any law, rule, resolution, regulation, ordinance or code, general or special, or compilation thereof, heretofore or hereafter enacted or adopted by the Commonwealth or any county or municipality, including departments, boards, bureaus, commissions, or other agencies thereof, relating to construction, reconstruction, alteration, conversion, repair, maintenance, or use of structures and buildings and installation of equipment therein. The term does not include zoning ordinances or other land use controls that do not affect the manner of construction or materials to be used in the erection, alteration or repair of a building or structure. The USBC also supersedes the provisions of local ordinances applicable to single-family residential construction that (i) regulate dwelling foundations or crawl spaces, (ii) require the use of specific building materials or finishes in construction, or (iii) require minimum surface area or numbers of windows; however, the USBC does not supersede proffered conditions accepted as a part of a rezoning application, conditions imposed upon the grant of special exceptions, special or conditional use permits or variances, conditions imposed upon a clustering of single-family homes and preservation of open space development through standards, conditions, and criteria established by a locality pursuant to subdivision 8 of § 15.2-2242 or subdivision A 12 of § 15.2-2286 of the Code of Virginia, or land use requirements in airport or highway overlay districts, or historic districts created pursuant to § 15.2-2306, or local flood plain regulations adopted as a condition of participation in the National Flood Insurance Program.

101.6. Use of model codes and referenced standards. The USBC contains provisions adopted by the BHCD, some of which change or amend provisions of the adopted model codes and referenced standards. The adopted model codes and referenced standards contain some areas of regulation outside the scope of the USBC,

as established by the BHCD and under state law. Where conflicts have been readily noted, changes have been made to the adopted model codes and referenced standards to bring them within the scope of authority; however, in some areas, judgments will have to be made by the building official/building maintenance official as to whether such unchanged provisions of the model codes and referenced standards are applicable.

101.6.1. Definitions of terms. Unless otherwise expressly stated, the definitions of terms shall, for the purposes of application of the USBC and all adopted and referenced model codes and standards, have the meanings ascribed to them by the Uniform Statewide Building Code Law (§ 36-97 et seq. of the Code of Virginia) and the Board of Housing and Community Development (BHCD).

101.6.2. Application of standards. The standards referenced in the adopted model codes and referenced standards shall be considered part of the requirements of the USBC to the prescribed extent of each such reference. Where differences occur between provisions of the USBC and referenced standards, the provisions of the USBC shall apply.

Exception: Where enforcement of a code provision would violate the conditions of the listing of the equipment or appliance, then such conditions shall apply.

101.7. Exemptions. The following are exempt from this code:

1. Equipment and related wiring installed by a provider of publicly regulated utility service or a franchised cable television operator and electrical equipment and related wiring used for radio, broadcast or cable television, telecommunications or information service transmission. Such exempt equipment and wiring shall be under the ownership and control of the service provider or its affiliates and shall be located on either public rights of way or private property for which the service provider has rights of occupancy and entry; however, the structures, including their service equipment, housing or supporting such exempt equipment and wiring shall be subject to the USBC. The installation of equipment and wiring exempted by this section shall not create an unsafe condition prohibited by the USBC.
2. Manufacturing and processing machines, including the following service equipment

associated with the manufacturing or processing machines:

- a. Electrical equipment connected after the last disconnecting means;
 - b. Plumbing piping and equipment connected after the last shutoff valve or backflow device and before the equipment drain trap; and
 - c. Gas piping and equipment connected after the outlet shutoff valve.
3. Parking lots and sidewalks, which are not part of an accessible route.
 4. Recreational equipment such as swing sets, sliding boards, climbing bars, jungle gyms, skateboard ramps, and similar equipment when such equipment is not regulated by the Virginia Amusement Device Regulations (VADR) (13 VAC 5-31).
 5. Industrialized buildings; except, the applicable requirements of this code affecting local option maintenance (Part III of this code), site preparation, footings, foundations, proper anchoring and utility connections of the unit remain in full force and effect, including issuing permits and certificates of occupancy.
 6. Manufactured homes; except, the applicable requirements of this code affecting local option maintenance (Part III of this code), site preparation, skirting installation, footings, foundations, proper anchoring and utility connections of the manufactured home remain in full force and effect, including issuing permits and certificates of occupancy.
 7. Farm buildings and structures not used for residential purposes, located on property where farming operations take place, and used primarily for any of the following uses or combination thereof:
 - a. Storage, handling, production, display, sampling or sale of agricultural, horticultural, floricultural or silvicultural products produced on the farm;
 - b. Sheltering, raising, handling, processing or sale of agricultural animals or agricultural animal products;

- c. Business or office uses relating to the farm operations;
- d. Use of farm machinery or equipment, or maintenance or storage of vehicles, machinery or equipment on the farm;
- e. Storage or use of supplies and materials used on the farm; or
- f. Implementation of best management practices associated with farm operations, in the construction of structures.

However, the following farm buildings and structures are not exempt from this code:

- (1) Farm buildings and structures lying within a flood plain or in a mudslide-prone area shall be subject to flood proofing regulations or mudslide regulations, as applicable.
- (2) A building or a portion of a building, located on a farm, that is operated as a restaurant as defined in § 35.1-1 of the Code of Virginia and licensed as such by the Board of Health under Chapter 2 (§ 35.1-11 et seq.) of Title 35.1 of the Code of Virginia.

101.8. Interpretation, application and enforcement. The provisions of the USBC and all adopted and referenced model codes and standards shall be interpreted, applied and enforced following the provisions of the Uniform Statewide Building Code Law (§ 36-97 et seq. of the Code of Virginia), the provisions of the USBC (13 VAC 5-62) and as interpreted by the State Building Code Technical Review Board (TRB).

**SECTION 102.0.
EXECUTION OF WORK.**

102.1. Performance. All construction and maintenance work shall be performed and completed to secure the results intended by the USBC.

102.2. Responsibility. It shall be the duty of every person who performs work regulated by the USBC, including but not limited to the construction, installation, maintenance or repair of a structure or equipment, to comply with the USBC.

**SECTION 103.0.
ENFORCEMENT.**

103.1. Construction enforcement responsibility. Enforcement of the provisions of the USBC governing construction is mandatory and the responsibility of the local building department. Whenever a county or a municipality does not have such department, the locality shall enter into an agreement with the local governing body of another county or municipality or with some other agency, or a state agency approved by the DHCD for such enforcement. Towns with a population of less than 3,500 may elect to administer and enforce this code; however, where the town does not elect to administer and enforce the USBC, the county in which the town is situated shall administer and enforce the USBC for the town. In the event such town is situated in two or more counties, those counties shall administer and enforce the USBC within their respective boundaries.

103.1.1. Amusement device enforcement responsibility. Inspections required by the Virginia Amusement Device Regulations (13 VAC 5-31) shall be performed by persons certified by the BHCD pursuant to subdivision 6 of § 36-137 of the Code of Virginia as competent to inspect amusement devices. Nothing in the USBC shall be construed to prohibit the local governing body from authorizing inspections to be performed by persons who are not employees of the local governing body, provided those inspectors are certified pursuant to subdivision 6 of § 36-137 of the Code of Virginia as competent to inspect amusement devices.

103.2. Existing structures. The locality shall inspect and enforce the maintenance provisions of the USBC relating to the maintenance of existing elevators except for elevators in single and two-family homes and townhouses. Such inspection and enforcement shall be carried out by an agency or department designated by the local governing body. See Article 2 (13 VAC 5-62-480) of Part III of this code. The provisions of § 36-105 of the Code of Virginia notwithstanding, the local governing body shall enforce the VADR (13 VAC 5-31) promulgated by the BHCD for existing amusement devices.

103.2.1. Residential rental units. Upon a finding by the local building department, following a complaint by a tenant of a residential rental unit that is the subject of such complaint, that there may be a violation of the unsafe maintenance provisions of the USBC, the local building department shall enforce such provisions. If the local building department receives a complaint that a violation of the unsafe maintenance provisions of the USBC exists that is an immediate and imminent threat to the health or safety of the owner or tenant of a residential dwelling unit or a nearby residential

dwelling unit, and the owner or tenant of the residential dwelling unit that is the subject of the complaint has refused to allow the building official to have access to the subject dwelling, the building official may present sworn testimony to a court of competent jurisdiction and request that the court grant the building official an inspection warrant to enable the building official to enter the dwelling for the purpose of determining whether violations of the USBC exist. The local building official shall make a reasonable effort to obtain consent from the owner or tenant of the dwelling prior to seeking the issuance of an inspection warrant under this section.

Exception: Following official action by the locality, enforcement may be the responsibility of the local enforcing agency designated to enforce the maintenance provisions of the USBC.

103.2.2. Conservation and rehabilitation districts. The local governing body may, upon an affirmative finding of the need to protect the public health, safety and welfare, require the issuance of certificates of compliance with maintenance provisions of the USBC for existing residential buildings located in conservation and rehabilitation districts designated by the local governing body, or in other areas designated as blighted pursuant to § 36-49.1:1, after inspections of such buildings upon termination of the rental tenancies or when such rental property is sold. Such certificate of compliance shall be issued in accordance with the administrative provisions of the USBC.

103.2.3. Retrofitting. The local building department shall enforce the applicable retrofitting provisions relating to fire protection equipment and system requirements for certain existing motels, hotels, hospitals, daycare facilities, dormitories, nursing homes and multi-family dwelling units and identification of disabled parking spaces mandated in Article 3 (13 VAC 5-62-230) of Part II of this code.

103.2.4. Maintenance enforcement responsibility. Enforcement of the provisions of the USBC governing maintenance of existing structures and equipment is optional within a locality and only enforceable following official action by the locality. The official action shall (i) require compliance with any or all maintenance provisions of Part III (13 VAC 5-62-420 et seq.) of the USBC and (ii) assign enforcement responsibility to the local agency or agencies of the locality's choice.

Exceptions:

1. Inspections required under Section 103.1.1, Amusement device enforcement responsibility.
2. Inspections required under Section 103.2, Existing structures.
3. Inspections required under Section 103.2.1, Residential rental units.

103.3. Enforcement terminology. The terms "local enforcing agency" and "building maintenance official" are intended to apply to the agency or agencies to which responsibility for enforcement of the provisions of the USBC governing maintenance and repair of existing structures and equipment has been assigned. The terms "building official" or "local building department" apply only to the local building official or local building department.

103.3.1. Interagency coordination. When enforcement of any portion of the USBC is assigned to an agency other than the local building department, that local enforcing agency shall coordinate its reports of inspection with the local building department.

103.3.2. Permits. Alterations, repairs, installations, construction or demolition shall be subject to the building permit, certificate of occupancy and other provisions of Parts I and II of the USBC.

103.4. State buildings. Acting through the Division of Engineering and Buildings, the Virginia Department of General Services (DGS) shall function as the building official/building maintenance official for state-owned buildings as prescribed by §36-98.1 of the Code of Virginia.

103.4.1. Review and approval. The Virginia Department of General Services (DGS) shall review and approve plans and specifications, grant modifications, and establish such rules and regulations as may be necessary to implement the USBC. The DGS shall provide for the inspection of state-owned buildings and enforcement of the USBC and standards for access by the physically disabled by delegating inspection and USBC enforcement duties to the State Fire Marshal's Office, to other appropriate state agencies having needed expertise, and to local building departments, all of which shall provide such assistance within a reasonable time and in the manner requested. State agencies and institutions occupying buildings shall pay to the

local building department the same fees as would be paid by a private citizen for the services rendered when such services are requested by the DGS. The DGS may alter or overrule any decision of the local building department after having first considered the local building department's report or other rationale given for its decision. When altering or overruling any decision of a local building department, the DGS shall provide the local building department with a written summary of its reasons for doing so.

**SECTION 104.0.
DEPARTMENT OF BUILDING INSPECTION/ENFORCING
AGENCY.**

104.1. Building official/building maintenance official. Each local building department/enforcing agency shall have an executive official in charge, hereinafter referred to as the "building official" for the local building department or the "building maintenance official" for the local enforcing agency.

Note: The building official/building maintenance official is subject to sanctions in accordance with the Virginia Certification Standards (13 VAC 5-21).

104.1.1. Appointment. The building official/building maintenance official shall be appointed in a manner selected by the locality. After permanent appointment, such official shall not be removed from office except for cause after having been afforded a full opportunity to be heard on specific and relevant charges by and before the appointing authority.

104.1.2. Notification. The appointing authority of the locality shall notify the DHCD within 30 days of the appointment or release of the permanent or acting building official/building maintenance official.

104.1.3. Qualifications. The building official/building maintenance official shall have at least five years of building experience as a licensed professional engineer or architect, building inspector, contractor, housing inspector or superintendent of building construction, with at least three years in responsible charge of work. Any combination of education and experience, which would confer equivalent knowledge and ability, shall be deemed to satisfy this requirement. The building official/building maintenance official shall have general knowledge of sound engineering practice in respect to the design and construction of structures, the basic principles of fire prevention, the accepted requirements for means of egress and the

installation of elevators and other service equipment necessary for the health, safety and general welfare of the occupants and the public. The locality may establish additional qualification requirements.

104.1.4. Certification. The permanent or acting building official/building maintenance official shall obtain certification from the BHCD in accordance with the Virginia Certification Standards (13 VAC 5-21) within one year after permanent or acting appointment.

Exception: Continuous employment by the same local governing body as the building official since before April 1, 1983 or continuous employment by the same local governing body as the building maintenance official since before April 1, 1995; however, such exempt officials shall comply with required DHCD training under the Virginia Certification Standards (13 VAC 5-21).

104.1.5. Noncertified. After permanent or acting appointment, a non-BHCD certified building official/building maintenance official shall complete a DHCD orientation seminar within 60 days. In addition, within 180 days after appointment, such official shall attend the core program of the Virginia Building Code Academy, or its equivalent in a DHCD accredited academy.

104.2. Technical assistants. The building official/building maintenance official shall, subject to any limitations imposed by the locality, appoint technical assistants and other employees for the administration and enforcement of the USBC.

Note: Technical assistants are subject to sanctions in accordance with the Virginia Certification Standards (13 VAC 5-21).

104.2.1. Notification. The building official/building maintenance official shall notify the DHCD within 60 days of the employment, contract or termination of all technical assistants for enforcement of the USBC.

104.2.2. Qualifications. A technical assistant shall have at least three years of experience in general building construction, building, fire or housing inspections, and general knowledge of plumbing, electrical or mechanical systems. Any combination of education and experience, which would confer equivalent knowledge and ability, shall be deemed to satisfy this requirement. The locality may establish additional qualification requirements.

104.2.3. Certification. Any person employed by, or under contract to, a local building department for enforcement of the USBC shall be certified in the appropriate subject area in accordance with the Virginia Certification Standards (13 VAC 5-21) within three years from permanent or acting appointment. When required by a locality to have two or more certifications, the remaining certifications shall be obtained within three years from the date of such requirement.

Exception: If continuously employed or under contract to such department to enforce Parts I and II of this code since before March 1, 1988, or continuously employed or under contract to such department to enforce Parts I and III of this code since before April 1, 1995; however, such exempt persons shall comply with required DHCD training under Virginia Certification Standards (13 VAC 5-21).

104.3. Continuing education. Any person employed by, or under contract to, a local building department for enforcement of the USBC shall attend periodic training courses as designated by the DHCD and such other training as designated by the locality.

104.4. Control of conflict of interest. The minimum standards of conduct for building officials/building maintenance officials and technical assistants shall be in accordance with the provisions of the State and Local Government Conflict of Interests Act (§ 2.2-3100 et seq. of the Code of Virginia).

SECTION 105.0.
VIOLATIONS.

105.1. Unlawful acts. It shall be unlawful to construct, alter, remove, demolish or occupy, or fail to maintain in accordance with Part III (13 VAC 5-62-420 et seq.) of the USBC, any structure or equipment regulated by the USBC, or cause or allow same to be done, in conflict with or in violation of any provision of the USBC.

105.2. Notice of violation. The building official shall issue a notice of violation to the responsible party as determined by Section 105.1 for violations of Part I or II of this code if (i) the defective work or use has not been remedied within a reasonable time following an inspection report or (ii) any other directive or order of the building official has not been complied with within a reasonable time. The building maintenance official shall be permitted to issue a notice of violation to the responsible party as determined by Section 105.1 for violations of Part I or III of this code when such

violations are discovered. The notice shall reference the USBC section that serves as the basis for such notice and direct the discontinuance and abatement of the alleged violation. The notice shall be in writing and be issued by either delivering a copy to the responsible party by mail to the last known address or delivering the notice in person or by leaving it in the possession of any person in charge of the premises, or by posting the notice in a conspicuous place if the person in charge of the premises cannot be found. The notice of violation shall indicate the right of appeal by referencing the appeals section.

105.2.1. Copies of notice. A copy of the notice shall be delivered to the owner and the permit holders under which the alleged violation falls, when not the cited responsible party, as applicable. Whenever possible, the notice should also be given to the tenants, as applicable.

105.2.2. Limitation of notice. When an alleged violation relating to construction (Part II (13 VAC 5-62-70 et seq.) of the USBC) is discovered more than two years after either (i) the certificate of occupancy is issued or the date of initial occupancy, whichever is later, or (ii) the approved final inspection for an alteration or renovation, a notice of violation shall only be issued upon advice from legal counsel to the locality that action may be taken to compel correction of the violation. The building official shall document alleged violations of the applicable edition of the USBC once compliance can no longer be compelled by prosecution under § 36-106 of the Code of Virginia.

105.2.3. Suspension or revocation of certificate of occupancy. The building official/building maintenance official may suspend or revoke a permanent or temporary certificate of occupancy for repeated failure to correct violations of the provisions of Parts I, II or III of the USBC.

105.3. Actions for violation. If the responsible party has not complied with the notice of violation, the building official/building maintenance official shall request, in writing, the legal counsel of the locality to institute the appropriate legal proceedings to restrain, correct or abate such alleged violation or to require the removal or termination of the use of the structure in violation of the provisions of the USBC or the building official/building maintenance official may issue or obtain a summons or warrant where the locality so authorizes. Compliance with a notice of violation notwithstanding, the building official may request legal proceedings be instituted for prosecution when a person, firm or corporation is served with three or more notices of violation within one calendar year for failure to obtain a required construction

permit prior to commencement of work regulated under the USBC. Also see § 19.2-8 of the Code of Virginia for limitations of prosecutions.

105.3.1. Civil penalties. Under § 36-106 of the Code of Virginia, any locality may adopt an ordinance which establishes a uniform schedule of civil penalties for violations of specified provisions of the USBC which are not abated or remedied promptly after receipt of notice of violation from the building official/building maintenance official. Designation of a particular USBC violation for a civil penalty shall be in lieu of criminal sanctions, and except for any violation resulting in injury to persons, such designation shall preclude the prosecution of a violation as a misdemeanor.

105.4. Violation penalties. Penalties, upon conviction, for violations of the USBC shall be as set out in § 36-106 of the Code of Virginia.

105.5. Abatement of violation. Conviction of a violation of the USBC shall not preclude the institution of appropriate legal action to require correction or abatement of the violation.

SECTION 106.0. APPEALS.

106.1. Local Board of Building Code Appeals (BBCA). Each locality shall have a BBCA to hear appeals as authorized herein; or it shall enter into an agreement with the local governing body of another county or municipality or with some other agency, or a state agency approved by the DHCD, to act on appeals. The BBCA shall also hear appeals under the VADR (13 VAC 5-31). The BBCA may also hear appeals under Part III (13 VAC 5-62-420 et seq.) of this code, if the locality has elected to enforce such part, or the locality may have a separate BBCA provided that each BBCA complies with this section. An appeal case decided by a BBCA or a separate BBCA shall constitute an appeal in accordance with this section and shall be final unless appealed to the State Building Code Technical Review Board (TRB).

106.2. Membership of BBCA. The BBCA shall consist of at least five members appointed by the locality for a specific term of office established by written policy. Alternate members may be appointed to serve in the absence of any regular members and as such, shall have the full power and authority of the regular members. Regular and alternate members may be reappointed. Written records of current membership, including a record of the current chairman and secretary shall be maintained in the office of the locality. In order to

provide continuity, the terms of the members may be of different length so that less than half will expire in any one-year period.

106.2.1. Chairman. The BBCA shall annually select one of its regular members to serve as chairman. In case of the absence of the chairman at a hearing, the members present shall select an acting chairman.

106.2.2. Secretary. The locality or the chief executive officer of the locality shall appoint a secretary to the BBCA to maintain a detailed record of all proceedings.

106.3. Qualifications of BBCA members. BBCA members shall be selected by the locality on the basis of their ability to render fair and competent decisions regarding application of the USBC and shall to the extent possible, represent different occupational or professional fields relating to the construction industry. At least one member should be an experienced builder and one member a licensed architect or professional engineer and one member an experienced property manager. Employees or officials of the locality shall not serve as members of the BBCA.

106.4. Disqualification of member. No member shall hear an appeal in which that member has a conflict of interest in accordance with the State and Local Government Conflict of Interests Act (§ 2.2-3100 et seq. of the Code of Virginia). Members shall not discuss the substance of an appeal with any other party or their representatives prior to any hearings.

106.5. Application for appeal. The owner of the structure, the owner's agent or any other person involved in the design, construction or maintenance of the structure may appeal the building official's/building maintenance official's decision concerning application of the USBC and the VADR (13 VAC 5-31) or refusal to grant modification to the provisions of the USBC covering the manner of construction or materials to be used in the erection, alteration, repair or maintenance of that structure. The applicant shall submit a written request for appeal, indicating specific requirements, to the BBCA within (i) 90 calendar days for construction, or (ii) 21 calendar days for maintenance, or (iii) 14 calendar days for application under the VADR (13 VAC 5-31), from the receipt of the decision to be appealed. The application shall contain the name and address of the owner of the structure and the person appealing if not the owner. A copy of the official's decision shall be submitted along with the application for appeal and maintained as part of the record. The application shall be marked by the BBCA to indicate the date received.

Failure to submit an application for appeal within the time limit established by this section shall constitute acceptance of the official's decision.

106.6. Notice of meeting. The BBCA shall meet within 30 calendar days after the date of receipt of the application for appeal or a longer period of time if agreed to by all parties to the appeal. Notice indicating the time and place of the hearing shall be sent to the parties in writing to the addresses listed on the application at least 14 calendar days prior to the date of the hearing. Less notice may be given if agreed upon by all parties to the appeal.

106.6.1. Postponement. When a quorum of the BBCA is not present to hear an appeal, any party to the appeal shall have the right to request a postponement of the hearing. The BBCA shall reschedule the appeal within 30 calendar days of the postponement, or a longer period of time if agreed to by all parties to the appeal.

106.7. Hearing procedures. All hearings before the BBCA shall be open to the public. The appellant, the appellant's representative, the locality's representative and any person whose interests are affected shall be given an opportunity to be heard. The chairman shall have the power and duty to direct the hearing, rule upon the acceptance of evidence and oversee the record of all proceedings.

106.8. Decision. The BBCA shall have the power to uphold, reverse or modify the decision of the official by a concurring vote of a majority of those present. Decisions of the BBCA shall be final if no appeal is made therefrom and all parties shall be bound by the decision.

106.8.1. Resolution. The decision of the BBCA shall be by resolution signed by the chairman and retained as part of the record by the BBCA. The following wording shall be part of the resolution:

"Upon receipt of this resolution, any person who was a party to the appeal may appeal to the State Building Code Technical Review Board by submitting an application to such Board within 21 calendar days. Application forms are available from the Office of the State Building Code Technical Review Board, 501 North Second Street, Richmond, Virginia 23219, (804) 371-7150."

Copies of the resolution shall be furnished to all parties.

106.9. Appeal to the TRB. After final determination by the BBCA, any person who was a party to the BBCA appeal may appeal to the TRB. Appeals from the decision of the official for state-owned structures shall be made directly to the TRB. Application shall be made to the TRB within 21 calendar days of receipt of the decision to be appealed. Failure to submit an application for appeal within the time limit established by this section shall constitute an acceptance of the BBCA's resolution or official's decision.

106.9.1. Information to be submitted. Copies of the official's decision and the resolution of the BBCA shall be submitted with the application for appeal to the TRB. Upon request by the Office of the TRB, the BBCA shall submit a copy of all pertinent information from the record of the appeal. In the case of state-owned buildings, the involved state agency shall submit a copy of the official's decision and other relevant information.

106.9.2. Decision of TRB. Procedures of the TRB are in accordance with Article 2 (§ 36-108 et seq.) of Chapter 6 of Title 36 of the Code of Virginia. Decisions of the TRB shall be final if no appeal is made therefrom and all parties shall be bound by the decision.

Part II.
CONSTRUCTION.

Article 1.
ADMINISTRATION.

SECTION 107.0.
APPLICABILITY.

107.1 General. The provisions of Parts I and II of the USBC shall apply to the construction, reconstruction, renovation, repair, alteration, addition to or demolition and changes of occupancy of all structures and to any work which affects an existing structure's continued compliance with the building regulations under which it was built.

107.2. When applicable. Construction for which a permit application is submitted to the building official after October 1, 2003 shall comply with the provisions of this code, except when construction documents for proposed construction were substantially complete prior to the above date and a permit application is submitted to the building official within one year after the above date. In such cases, construction shall comply with either the provisions of this code or the provisions of this code in effect immediately prior to October 1, 2003. This provision shall also apply to subsequent amendments to this code based on the effective date of such amendments.

107.3. Nonrequired equipment. Building owners may install partial or full fire protection systems or other safety equipment that was not required by the USBC in effect at the time a structure was constructed without meeting current USBC requirements, provided the installation does not create a hazardous condition. Permits for such installations shall be obtained in accordance with the USBC. The building official shall notify the fire official or fire chief when such elective system is to be installed.

107.4. State-owned structures. In accordance with § 36-98.1 of the Code of Virginia the USBC shall be applicable to all state-owned structures, with the exception that § 2.2-1159 et seq. of the Code of Virginia shall provide the standards for ready access to and use of state-owned buildings by the physically handicapped.

SECTION 108.0.
ADOPTION AND USE OF MODEL CODES AND
STANDARDS.

108.1. Adoption. The following document, as amended by the Virginia Board of Housing and Community

Development (BHCD), is adopted and incorporated by reference to be an enforceable part of the USBC:

The International Building Code 2000, hereinafter referred to as "IBC," published by the International Code Council, Inc. (ICC). Included in the IBC as major referenced standards are the following model codes also incorporated by reference: 2000 ICC International Plumbing Code (IPC); 2000 ICC International Mechanical Code (IMC); 1999 National Electrical Code (NEC) as referenced in the 2000 ICC Electrical Code (EC); 2000 International Fuel Gas Code (IFGC); 2000 ICC International Energy Conservation Code (IECC) and 2000 International Residential Code for One- and Two-Family Dwellings (IRC).

108.1.1. Supplements. The specifically identified changes contained in the 2001 Supplement and 2002 Accumulative Supplement to the International Codes shall be made to the IBC and its referenced codes and standards. See Article 4, Technical Amendments, of Part II of the USBC for such changes.

108.1.2. Appendices. Provisions in the IBC and referenced codes and standards appendices shall not apply unless specifically adopted by the BHCD. See Article 4, Technical Amendments, of Part II of the USBC for such adopted appendices.

108.1.3. Deletion. Delete IBC Chapter 1 and replace with Parts I and II of this code.

108.1.4. Use of standards. The codes and standards referenced in the IBC shall be those listed in Chapter 35 and considered part of the requirements of the USBC to the prescribed extent of each such reference.

108.2. Amendments. All requirements of the referenced codes and standards that relate to fees, permits, unsafe notices, disputes, condemnation, scope of enforcement and inspections, and all other procedural and administrative matters are deleted and replaced by the provisions of Chapter 1 (Parts I and II) of the USBC. The purpose of this provision is to eliminate overlap, conflict and duplication by providing a single standard for administration, procedural matters and enforcement of this part of the USBC.

Exceptions:

1. Special inspections are allowed to be required as provided for in Chapters 2 through 34 of the IBC.
2. IBC Section 3409 Compliance Alternatives, shall be allowed to be used by an owner as provided for in this code.
3. Historic buildings shall comply with Sections 3406 and 3408.
4. Testing requirements and requirements for the submittal of construction documents in the adopted model codes.

108.2.1. Technical Amendments. The IBC and referenced codes and standards shall also be amended as per the technical amendments contained in Article 4, Technical Amendments, of Part II of the USBC.

108.2.2. International Fire Code. Retroactive fire protection system requirements contained in the 2000 International Fire Code (IFC) shall not be enforced unless specified by the USBC, including but not limited to the following IFC sections: 903, 905 and 907.

SECTION 109.0.
DUTIES AND POWERS OF THE BUILDING OFFICIAL.

109.1. General. The building official shall enforce the provisions of the USBC as provided herein, and as interpreted by the State Building Code Technical Review Board (TRB).

109.2. Modifications. Upon application by the owner or the owner's agent, the building official may grant modification to any of the provisions of the USBC, provided the spirit and intent of the USBC are observed and public health, welfare and safety are assured.

Note: The current editions of many nationally recognized model codes and standards are referenced by the USBC. Future amendments to such codes and standards do not automatically become part of the USBC; however, the building official should consider such amendments in deciding whether a modification request should be granted.

109.2.1. Supporting data. The building official may require the application for modification to include architectural and engineering plans and specifications that include the seal of a professional

engineer or architect. The building official may require and consider a statement from a professional engineer, architect or other competent person as to the equivalency of the proposed modification.

109.2.2. Decisions. The application for modification and the final decision of the building official shall be in writing and shall be recorded with the certificate of occupancy in the permanent records of the local building department.

109.3. Delegation of duties and powers. The building official is permitted to delegate duties and powers subject to any limitations imposed by the locality and shall be responsible for assuring that delegated duties and powers are carried out in accordance with the USBC.

109.4. Department records. The building official shall keep official records of applications received, permits and certifications issued, fees collected, reports of inspections, and notices, modifications and orders issued. Such records shall be retained in the official records or shall be disposed of in accordance with General Schedule Number Six available from the Library of Virginia.

SECTION 110.0.
FEES.

110.1. Fees and fee levy. Fees may be levied by the locality in order to defray the cost of enforcement and appeals pursuant to § 36-105 of the Code of Virginia. The local building department shall collect a 1.75% levy of fees charged for building permits issued under this code and transmit it quarterly to the DHCD to support training programs of the Virginia Building Code Academy. Localities which maintain a DHCD accredited training academy shall retain such levy.

110.2. Fee schedule. The locality shall establish a fee schedule. The schedule shall incorporate unit rates, which may be based on square footage, cubic footage, cost of construction or other appropriate criteria.

110.3. When payable. A permit shall not be issued until the fees prescribed by the locality have been paid to the authorized agency, nor shall an amendment to a permit be approved until any required additional fee has been paid. The locality may authorize delayed payment of fees.

110.4. Refunds. In the case of a revocation of a permit or abandonment or discontinuance of a building project, the locality shall provide fee refunds for the portion of the work that was not completed, when requested in writing by the permit holders.

SECTION 111.0.
APPLICATION FOR PERMIT.

111.1. When required. Written application for permit shall be made to the building official and an approved permit issued by the building official before any of the following actions may be commenced:

1. Constructing, reconstructing, enlarging, altering, or demolishing a structure.
2. Changing the use of a structure either within the same group classification or to a different group classification when the new use requires greater degrees of structural strength, fire protection, exit facilities, ventilation or sanitary provisions.
3. Installing or altering any equipment which is regulated by the USBC.
4. Removing or disturbing any asbestos containing materials during demolition, alteration, renovation of or additions to structures.
5. Moving a lot line which affects an existing structure's continued compliance with the building regulations under which it was built.
6. For emergency construction, alterations or equipment replacement, the permit application shall be submitted the next working day following such emergency work.

Exceptions: Compliance with the USBC is required for permit exceptions and inspections are waived. If requested by an owner or their agent, a building permit shall be issued and the work inspected for compliance. The following are exempt from application for permit:

1. Installation of wiring and equipment (i) which operates at less than 50 volts, (ii) for network powered broadband communications systems, or (iii) exempt under Section 101.7(1), except in any case when the installation is located in a plenum, penetrates fire rated or smoke protected construction or is a component of any of the following:
 - a. Fire alarm system;
 - b. Fire detection system;
 - c. Fire suppression system;

- d. Smoke control system;
 - e. Fire protection supervisory system;
 - f. Elevator fire safety control system;
 - g. Access or egress control system or delayed egress locking or latching system;
 - h. Fire damper; or
 - i. Door control system.
2. Detached accessory structures used as tool and storage sheds, playhouses and similar uses accessory to all groups except Group F or H and detached pre-fabricated buildings housing the equipment of exempted public utilities, provided such accessory structures and pre-fabricated buildings do not exceed 150 square feet (14 m²) of building area.
 3. Tents and air-supported structures that cover an area of 900 square feet (84 m²) or less, including all connecting areas or spaces with a common means of egress or entrance and with an occupant load of 50 or less persons.
 4. Fences not part of the barrier for a swimming pool and retaining walls four feet or less in height measured from the bottom of the footing to the top of the wall, unless such walls are supporting a surcharge or impounding Class I, II or III-A liquids.
 5. Swimming pools which are 150 square feet (13.95 m²) or less in surface area, 5,000 gallons (18,925 L) or less of water capacity and 24 inches (609.6 mm) or less in depth.
 6. Work that the building official has authorized pending receipt of an application.
 7. Ordinary repairs that include, but are not limited to, the following:
 - a. Replacement of mechanical or plumbing equipment and appliances, except those fueled by gas or oil, within the dwelling unit in occupancies of Group R-2 which are four stories or

less in height and in occupancies of Groups R-3, R-4 and R-5.

- b. Replacement of roof coverings and installation or replacement of siding on Groups R-3, R-4 and R-5 structures, where such structures are located in localities where the basic wind speed is 100 miles per hour (160 km/hr) or less, determined in accordance with Table R301.2(4), in the amended 2000 International Residential Code.
- c. Installation of cabinets in all occupancies.
- d. Replacement of floor coverings and porch flooring within the dwelling unit in occupancies of Group R-2 which are four stories or less in height and in occupancies of Groups R-3, R-4 and R-5.
- e. Painting any portion of a structure, repair of plaster, interior tile and other wall coverings in all occupancies.
- f. Replacement of windows and doors and electrical switches, outlets, light fixtures and ceiling fans, within the dwelling unit in occupancies of Group R-2 which are four stories or less in height and in occupancies of Groups R-3, R-4 and R-5.
- g. Replacement of interior floor finish and covering materials.

Ordinary repairs shall not include the cutting away of any wall, partition or portion thereof, the removal or cutting of any structural beam or loadbearing support, or the removal or change of any required means of egress, or rearrangement of parts of a structure affecting the egress requirements; nor shall ordinary repairs include addition to, alteration of, replacement or relocation of any standpipe, water supply, sewer, drainage, drain leader, gas or oil, soil, waste, vent or similar piping, electric wiring or mechanical or other work affecting public health or general safety.

111.2. Permit applicant. Application for a permit shall be made by the owner or lessee of the structure or agent

of either, or by the licensed architect, professional engineer, contractor or subcontractor (or their respective agents) employed in connection with the proposed work. If the application is made by a contractor or subcontractor (or any of their respective agents), the building official shall verify that the applicant is either licensed and certified to practice in Virginia, or is exempt from licensing under the Code of Virginia. The full names and addresses of the owner, lessee and the applicant, and of the responsible officers if the owner or lessee is a corporate body, shall be stated in the application. The building official shall accept and process applications for permit through the mail. The building official shall not require the permit applicant to appear in person.

Note: Information on the types of construction exempted from the requirement for an architect's or professional engineer's seal and signature is included in the "Related Laws Package" available from DHCD.

111.2.1. Mechanics' lien agent designation. At the request of the applicant, a permit for a one- or two-family residential dwelling unit shall contain the name, mailing address, and telephone number of the mechanics' lien agent as defined in § 43-1 of the Code of Virginia. If the designation of a mechanics' lien agent is not so requested by the applicant, the permit shall state "None Designated."

111.3. Form of application. The application for permit shall be submitted on forms supplied by the building official.

111.4. Description of work. The application for permit shall contain a general description of the proposed work, its location and such additional information as required by the building official.

111.5. Construction documents. The application for permit shall be accompanied by the number of construction documents set by the locality.

Exceptions:

- 1. The building official may waive the requirement for filing construction documents when the work involved is of a minor nature.
- 2. The building official shall accept construction documents for one- and two-family dwellings which are intended to be built in reverse of the floor plans submitted, provided the accompanying site plan is approved.

111.5.1. Site plan. When required by the building official, the application for permit shall also be accompanied by a site plan showing to scale the size and location of all the proposed new construction, including wells, septic tanks and drain fields as applicable and all existing structures on the site, distances from lot lines, the established street grades and the proposed finished grades. The building official may require that the application contain the elevation of the lowest floor of the building. It shall be drawn in accordance with an accurate boundary line survey. In the case of demolition, the site plan shall show all construction to be demolished and the location and size of all existing structures that are to remain on the site. In the case of alterations, renovations, repairs and installation of equipment, the building official shall be permitted to waive submission of the site plan or any parts thereof.

111.5.1.1. Fire apparatus access roads. When fire apparatus access roads are required to be provided and maintained in accordance with adopted local ordinances that establish fire apparatus access road requirements, such requirements shall be so identified to the owner or his agent prior to the building official's approval of the building permit.

111.5.2. Engineering details. The building official may require adequate details of structural, mechanical, plumbing, and electrical work to be filed, including computations, stress diagrams and other essential technical data. All engineering plans and computations shall include the signature and seal of the professional engineer or architect responsible for the design. For buildings more than two stories in height, the building official may require that plans indicate where floor penetrations will be made for pipes, wires, conduits, and other components of the electrical, mechanical and plumbing systems when required. The construction documents shall show the materials and methods for protecting such openings in order to maintain the required structural integrity, fire-resistance ratings, and firestopping affected by such penetrations.

111.5.3. Construction document review. The building official shall cause to be examined all construction documents, site plans and applications for permits within a reasonable time after filing. Review of construction documents for new one- and two-family dwellings is not required for technical provisions of this code not related to the site, location or soil conditions when identical construction documents, alternates and amendments

for such dwellings have been approved previously for the same jurisdiction in compliance with the current edition of this code and such plans are on file with the local building department. If the application, site plan or the construction documents do not conform to the requirements of the USBC, the building official shall reject such application in writing, stating the reasons for rejection. Any construction document review comments requiring additional information, engineering details, or stating reasons for rejection of construction documents, shall be made in writing to the permit applicant.

111.5.3.1. Expedited construction document review. The building official may accept reports from an approved person or agency that the construction documents have been examined and conform to the requirements of the USBC and may establish requirements for the person or agency submitting such reports. In addition, where such reports have been submitted, the building official may expedite the issuance of the permit.

111.5.4. Approved construction documents. The building official shall stamp "Approved" or provide an endorsement in writing on all required sets of construction documents when approved. One set of such approved construction documents shall be retained by the building official and one set shall be kept at the building site, open to inspection by the building official at all reasonable times.

111.5.4.1. Approval of partial construction documents. The building official may issue a permit for the construction of foundations or any other part of a structure before the construction documents for the entire structure have been submitted, provided adequate information and detailed statements have been filed indicating compliance with the pertinent requirements of the USBC. The holder of such permit for the foundations or other part of a structure shall proceed with construction operations at the holder's risk, and without assurance that a permit for the entire structure will be granted.

111.5.4.2. Construction document approval limited. The building official's approval of construction documents shall be limited to those items within the scope of the USBC.

111.6. Change in occupancy. The owner or his agent shall, in writing, apply to and obtain from the building

official a new certificate of occupancy prior to a change in the existing occupancy classification of a structure or portion thereof. When the current USBC requires a greater degree of structural strength, fire protection, means of egress, ventilation or sanitary provision for the new occupancy, the owner or his agent shall, in writing, apply and obtain a permit from the building official. When it is impractical to achieve compliance with the USBC, the building official shall issue, upon application, modifications as provided in Section 109.2 of the USBC.

111.6.1. Reconstruction, alteration or repair.

Reconstruction, alteration or repair shall not adversely affect the performance of, or cause the structure to become unsafe and shall not be used as justification for requiring any other part of the structure to be brought into compliance with the current USBC. Work shall be done in such a way so as not to lower existing levels of health and safety. The installation of material and equipment that is neither required nor prohibited need only comply with the USBC requirements that regulate a safe installation. Material and equipment may be replaced with material and equipment of a similar kind or with greater capacity in the same location. Used material and equipment may be used as approved by the building official.

111.6.2. Equipment changes. Upon a change in the fuel source involving the installation of new equipment or appliances including but not limited to furnaces, water heaters or boilers, where not inspected by the local building department, persons performing such changes or installations shall certify to the building official that the flue liner of the chimney is operable, free of obstructions or blockages and properly sized for the connected appliances and meets the requirements of the USBC.

111.7. Functional design approval. Pursuant to § 36-98 of the Code of Virginia, certain state agencies have statutory authority to approve functional design and operation of building related activities not covered by the USBC. The building official may refuse to issue a permit until the applicant has supplied certificates of functional design approval from the appropriate state agency or agencies. For purposes of coordination, the locality may require reports to the building official by other departments as a condition for issuance of a building permit or certificate of occupancy. Such reports shall be based upon review of the plans or inspection of the project as determined by the locality. All enforcement of these conditions shall not be the responsibility of the building official, but rather the agency imposing the condition.

Note: Identified state agencies with functional design approval are listed in the "Related Laws Package" which is available from DHCD.

111.8. Amendments to application. Amendments to the application, construction documents or other records accompanying the application for permit shall be filed before completion of the work for which the permit is sought or issued. Such amendments shall be considered part of the original application and shall be filed as such.

111.9. Time limitation of application. An application for a permit shall be considered to have been abandoned six months after notification by the building official that the application is defective, unless the applicant has diligently sought to resolve any problems that are delaying issuance of the permit; except that for reasonable cause, the building official shall grant one or more extensions of time.

**SECTION 112.0.
PERMITS.**

112.1. Issuance of permits. For the purpose of establishing USBC compliance, the building official shall cause to be examined all applications for permit, construction documents and amendments thereto within a reasonable time after filing. If the application or the construction documents do not conform to the requirements of all pertinent laws and ordinances, the building official shall reject such application in writing, stating the reasons therefor. If the building official is satisfied that the proposed work conforms to the requirements of the USBC, and all pertinent laws and ordinances, a permit shall be issued as soon as practicable. The building official shall not delay the issuance of a permit in an effort to control the pace of construction of new detached one- and two-family dwellings. The building official may authorize work to commence prior to the issuance of the permit. Any special requirements relating to inspections shall be determined by the building official prior to the issuance of the building permit, and the permit applicant so informed. In addition to other information required by the USBC, building permits for new detached one-and-two family dwellings shall at the time of issuance contain such information as required in Section 111.2.1.

112.1.1. Separate and combined permits. The building official may require separate or combined permits for different areas of construction such as building construction, plumbing, electrical, and mechanical work. Permits for two or more structures on the same lot may be combined. Separate permits may be required for special construction considered appropriate by the locality.

112.1.2. Partial permits. Partial permits shall be permitted to be issued in accordance with Section 111.5.4.1.

112.1.3. Annual permits. The building official may issue an annual permit for alterations to an existing structure. The annual permit holder shall maintain a detailed record of all alterations made under the annual permit. Such record shall be available to the building official and shall be submitted to the local building department if requested by the building official.

112.1.4. Asbestos inspection prior to permit issuance; certification for reoccupancy. The building official shall not issue a building permit allowing a building for which an initial building permit was issued before January 1, 1985, to be renovated or demolished until the building official receives certification from the owner or his agent that the affected portions of the building have been inspected for the presence of asbestos by an individual licensed to perform such inspections pursuant to § 54.1-503 of the Code of Virginia and that no asbestos-containing materials were found or that appropriate response actions will be undertaken in accordance with the requirements of the Clean Air Act National Emission Standard for the Hazardous Air Pollutant (NESHAPS; 40 CFR Part 61, Subpart M), and the asbestos worker protection requirements established by the U.S. Occupational Safety and Health Administration for construction workers (29 CFR 1926.1101). Local educational agencies that are subject to the requirements established by the Environmental Protection Agency under the Asbestos Hazard Emergency Response Act (AHERA) shall also certify compliance with 40 CFR Part 763 and subsequent amendments thereto. To meet the inspection requirements above, except with respect to schools, asbestos inspection of renovation projects consisting only of repair or replacement of roofing, floorcovering, or siding materials may be satisfied by a statement that the materials to be repaired or replaced are assumed to contain friable asbestos and that asbestos installation, removal, or encapsulation will be accomplished by a licensed asbestos contractor. The provisions of this section shall not apply to single-family dwellings or residential housing with four or fewer units, unless the renovation or demolition of such buildings is for commercial or public development purposes. The provisions of this section shall not apply if the combined amount of regulated asbestos-containing material involved in the renovation or demolition is less than 260 linear

feet on pipes or less than 160 square feet on other facility components or less than 35 cubic feet off facility components where the length or area could not be measured previously. An abatement area shall not be reoccupied until the building official receives certification from the owner that the response actions will be completed and final clearances will be measured. The final clearance levels for reoccupancy of the abatement area shall be 0.01 or fewer asbestos fibers per cubic centimeter if determined by Phase Contrast Microscopy analysis (PCM) or 70 or fewer structures per square millimeter if determined by Transmission Electron Microscopy analysis (TEM).

112.2. Signature on permit. The signature of the building official or authorized representative shall be attached to every permit.

112.3. Posting of permit. A copy of the building permit shall be posted on the construction site for public inspection until the work is completed. Such posting shall include the street or lot number if one has been assigned, to be readable from a public way.

112.4. Previous permits. No changes shall be required in the plans, construction or designated use of a building for which a permit has been properly issued under a previous edition of the USBC, provided the permit has not been revoked or suspended.

112.5. Revocation of permit. The building official may revoke a permit or approval issued under the provisions of the USBC in case of any false statement, misrepresentation of fact or incorrect information supplied by the applicant in the application or construction documents on which the permit or approval was based.

112.6. Suspension of permit. Any permit issued shall become invalid if work on the site authorized by the permit is not commenced within six months after issuance of the permit, or if the authorized work on the site is suspended or abandoned for a period of six months after the time of commencing the work; however, permits issued for building equipment such as plumbing, electrical and mechanical work shall not become invalid if the building permit is still in effect. It shall be the responsibility of the permit applicant to prove to the building official that work has not been suspended or abandoned. Upon written request, the building official may grant one or more extensions of time, not to exceed one year per extension.

112.7. Compliance with code. The approved permit shall be a license to proceed with the work in accordance

with the USBC, the application for permit and any approved amendments thereto. The approved permit shall not be construed as authority to omit or amend any of the provisions of the USBC, except when modification is granted in accordance with this chapter.

**SECTION 113.0.
REGISTERED DESIGN PROFESSIONAL SERVICES.**

113.1. General. Where required by law or where determined necessary by the building official, all construction documents required for a building permit application shall be prepared by a registered design professional (RDP) licensed in this Commonwealth. The building official shall establish a procedure to ensure that construction documents are prepared by a RDP licensed in this Commonwealth where required by law. In the cases where construction documents are not required to be prepared by a RDP licensed in this Commonwealth, the construction documents shall bear the name, address and occupation of the author.

Note: Information on the types of construction exempted from the requirement for a RDP's seal and signature is included in the "Related Laws Package" available from DHCD.

113.2. Special inspections. Special inspections shall be made in accordance with Section 1704.0. Special inspectors conducting special inspections for concrete, soil, reinforcing steel, structural steel, masonry and bituminous materials shall be a RDP licensed in this Commonwealth or shall comply with ASTM E329, to include written documentation of the applicable agency's laboratory accreditation, or personnel certification, or both.

113.2.1. Permit requirement. This special inspection requirement shall be determined prior to the issuance of the permit and shall be a requisite for the permit issuance as described in this chapter.

113.2.2. Fees and costs. All fees and costs related to the performance of special professional services shall be the responsibility of the building owner.

**SECTION 114.0.
APPROVAL OF MATERIALS AND EQUIPMENT.**

114.1. Performance. Where practical, under § 36-99 of the Code of Virginia, provisions of the USBC have been stated in terms of required level of performance to facilitate the prompt acceptance of new building materials and methods. The provisions of the USBC are not intended to prohibit the use of any material or method of construction not specifically prescribed by the

USBC, provided any such alternative has been approved. An alternative material or method of construction shall be approved when the building official finds that the proposed design is satisfactory and complies with the intent of the provisions of the USBC, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed by the USBC in quality, strength, effectiveness, fire resistance, durability and safety.

114.2. Basis and approval of materials. The building official shall require that sufficient technical data be submitted to substantiate the proposed use of any material, equipment, device or assembly. If it is determined that the evidence submitted is satisfactory proof of performance for the use intended, the building official may approve its use subject to the requirements of the USBC. In determining whether any material, equipment, device or assembly complies with the USBC, the building official shall approve items listed by nationally recognized independent testing laboratories or may consider the recommendations of architects and engineers licensed in this Commonwealth.

114.3. Used materials and equipment. Used materials, equipment and devices may be used provided they have been reconditioned, tested or examined and found to be in good and proper working condition and approved for use by the building official.

114.4. Approved materials and equipment. All materials, equipment, devices and assemblies approved for use by the building official shall be constructed and installed in accordance with the conditions of such approval.

**SECTION 115.0.
INSPECTIONS.**

115.1. Right of entry. The building official and technical assistants may inspect structures for the purpose of enforcing the USBC in accordance with the authority granted by § 36-105 of the Code of Virginia. The building official and technical assistants shall carry proper credentials of office when inspecting structures in the performance of their duties under the USBC.

Note: Section 36-105 of the Code of Virginia provides, when enforcing the USBC, that any structure may be inspected at any time before completion. It also permits a local governing body to provide for the reinspection of existing structures, see Part III (13 VAC 5-62-420 et seq.) of this code.

115.2. Waived inspections. At the discretion of the inspecting authority, inspection may be waived when the construction cost is less than \$2,500.

115.3. Preliminary inspection. Before issuing a permit, the building official may examine all structures and sites for which an application for a permit has been filed.

115.4. Minimum inspections. The permit holder shall assure that the following minimum inspections have been conducted and approved by the building official when applicable to the construction or permit:

1. Inspection of footing excavations and reinforcement material for concrete footings prior to the placement of concrete.
2. Inspection of foundation systems during phases of construction necessary to assure compliance with this code.
3. Inspection of preparatory work prior to the placement of concrete.
4. Inspection of structural members and fasteners prior to concealment.
5. Inspection of electrical, mechanical and plumbing materials, equipment and systems prior to concealment.
6. Inspection of energy conservation material prior to concealment.
7. Final inspection.

115.5. Additional inspections. The building official may designate additional inspections and tests to be conducted during the construction of a structure and shall so notify the permit holder. The permit holder shall notify the building official when construction reaches a stage of completion, which requires an inspection. The permit holder requesting an inspection shall provide the building official with any ladder, scaffolding or test equipment necessary to conduct or witness the requested inspection.

115.6. In-plant inspections. When required by the provisions of the USBC, materials, equipment or assemblies shall be inspected at the point of manufacture or fabrication. The building official shall require the submittal of an evaluation report of such materials, equipment or assemblies. The evaluation report, indicating the complete details of the assembly, including a description of the assembly and its components, the basis upon which the assembly is being

evaluated, test results, and other data as necessary for the building official to determine conformance with the USBC.

115.6.1. Factory inspection. An identifying label or stamp permanently affixed to materials, equipment or assemblies indicating that a factory inspection has been made, shall be accepted instead of a written inspection report, if the intent or meaning of such identifying label or stamp is properly substantiated.

115.7. Coordination with other agencies. The building official shall cooperate with fire, health and other state and local agencies having related maintenance, inspection or functional design responsibilities. The building official shall coordinate all reports of inspections for compliance with the USBC, with inspections of fire and health officials delegated such authority, prior to issuance of a certificate of occupancy.

115.8. Reports of inspections. The building official shall either approve the work in writing or give written notice of defective work to the permit holder. Upon request of the permit holder the notice shall reference the USBC section that serves as the basis for the defects and such defects shall be corrected and reinspected before any work proceeds that would conceal such defects. A record of all reports of inspections, tests, examinations, discrepancies and approvals with the USBC, shall be maintained by the building official and shall be communicated promptly in writing to the permit holder.

115.8.1. Approved inspection agencies. The building official may accept reports of inspections and tests from approved individuals or approved inspection agencies, which satisfy qualifications and reliability requirements. Under circumstances where the building official is unable to make the inspection or test within two working days of a request or an agreed upon date, the building official shall accept reports for review from such approved individuals or agencies. Such reports shall be in writing and shall be certified by the individual inspector or by the responsible officer when the report is from an agency.

Note: Photographs, videotapes or other sources of pertinent data or information may be considered as constituting such reports and tests.

115.9. Final inspection. Upon completion of the structure, and before issuance of the certificate of occupancy, a final inspection shall be made to ensure that any defective work or discrepancies have been corrected and all work conforms with the USBC, including modifications granted, and is approved.

SECTION 116.0.
TEMPORARY STRUCTURES.

116.1. General. The building official may approve and issue a permit for temporary construction. Such permit shall be limited as to time, but such temporary construction shall not be permitted for more than one year. Upon the permit holder's written request, the building official may grant one or more extensions of time, not to exceed one year per extension.

116.2. Termination of approval. The building official may terminate such approval and order the demolition or removal of any such temporary construction.

SECTION 117.0.
MOVED STRUCTURES.

117.1. General. Any structure moved into or within the jurisdiction shall be brought into compliance with the USBC unless it meets the following requirements after relocation:

1. No change has been made in the use of the structure.
2. The structure complies with all state and local requirements that were applicable to it in its previous location and that would have been applicable to it if it had originally been constructed in the new location.
3. The structure did not become unsafe during the moving process due to structural damage or for other reasons.
4. Any alterations, reconstruction, renovations or repairs made pursuant to the move have been done in compliance with the USBC.

117.2. Certificate of occupancy. A moved structure shall not be used until a certificate of occupancy is issued for the new location.

SECTION 118.0.
DEMOLITION OF STRUCTURES.

118.1. General. Demolition permits shall not be issued until the building official receives certification from the owner or the owner's agent that the following actions have been completed:

1. The owner or the owner's agent has obtained a release from all utilities having service connections to the building or structure stating

that all service connections and appurtenant equipment have been removed or sealed and plugged in a safe manner.

2. The owner or owner's agent has given written notice to the owners of adjoining lots and to the owners of other lots affected by the temporary removal of utility wires or other facilities caused by the demolition.

118.2. Hazard prevention. When a structure is demolished or removed, the established grades shall be restored and any necessary retaining walls and fences shall be constructed as required by the provisions of Chapter 33 of this code.

SECTION 119.0.
CERTIFICATE OF OCCUPANCY.

119.1. General. A certificate of occupancy indicating completion of the work for which a permit was issued, in accordance with this code and any pertinent laws and ordinances, shall be obtained prior to any occupancy of a structure except as provided for in this section. Final inspection approval or approvals may serve as the certificate of occupancy for any addition or alteration to a structure for which a certificate of occupancy has already been issued.

119.2. Temporary occupancy. Upon the request of the permit holder, a temporary certificate of occupancy may be issued before the completion of the entire work covered by the permit provided that such portion or portions may be occupied safely prior to full completion of the structure without endangering life or public welfare.

119.3. Existing structures continued use. Upon written request from the owner or his agent, or as otherwise determined necessary by the building official, following an inspection and provided there are no violations of Part III (13 VAC 5-62-420 et seq.) of this chapter and the Virginia Statewide Fire Prevention Code (13 VAC 5-51) and the structure's use has not changed, such structure shall not be prevented from continued use and the building official shall issue a certificate of occupancy as provided for in the USBC.

119.4. Contents of certificate. Upon completion and approval of the final inspection or when a structure is entitled thereto, the building official shall issue the certificate of occupancy within five working days after receiving a request for its issuance.

The certificate of occupancy shall specify the following:

1. The edition of the USBC under which the permit is issued.
2. The group classification and occupancy in accordance with the provisions of Chapter 3.
3. The type of construction as defined in Chapter 6.
4. If an automatic sprinkler system is provided and whether or not such system was required.
5. Any special stipulations and conditions of the building permit.

119.5. Street numbers. Each structure to which a street number has been assigned shall have the number displayed so as to be readable from the public way.

119.6. Suspension or revocation of certificate of occupancy. The building official may, in writing, suspend or revoke a certificate of occupancy or compliance, or a report of inspection or test, issued under the USBC, whenever the building official discovers that such certificate or report was issued in error, or on the basis of incorrect information, or where it is determined that the structure is in repeated violation of the USBC.

**SECTION 120.0.
STOP WORK ORDER.**

120.1. Notice to owner. When the building official finds that work on any structure is being executed contrary to the provisions of the USBC or any pertinent laws and ordinances or in a manner endangering the general public, an order may be issued to stop such work immediately. The stop work order shall be in writing. It shall be given to the owner of the property involved, or to the owner's agent, or to the person doing the work. It shall state the conditions under which work may be resumed. No work covered by a stop work order shall be continued after issuance, except under the conditions stated in the order.

120.2. Application of order limited. The stop work order shall apply only to the work that was being performed contrary to the USBC or in a manner endangering the general public, provided other work in the area would not cause concealment of the work for which the stop work order was issued.

**SECTION 121.0.
UNSAFE STRUCTURES.**

121.1. Right of condemnation before completion. Any structure under construction that fails to comply with the

USBC through deterioration, improper maintenance, faulty construction, or for other reasons, and thereby becomes unsafe, unsanitary, or deficient in adequate exit facilities, and which constitutes a fire hazard, or is otherwise dangerous to human life or the public welfare, shall be deemed either a public nuisance or an unsafe structure. Any such unsafe structure shall be made safe through compliance with the USBC or shall be taken down and removed, as the building official may deem necessary, according to authority granted by the local governing body.

121.1.1. Inspection of unsafe structures; records.

The building official shall examine every structure under construction reported as unsafe, and shall prepare a report to be filed in the records of the local building department. In addition to a description of unsafe conditions found, the report shall include the use of the structure, and nature and extent of damages, if any, caused by a collapse or failure.

121.1.2. Notice of unsafe structure. If a structure under construction is found to be unsafe the building official shall issue a written notice of unsafe structure on the owner and the permit holders, describing the unsafe condition and specifying the required repairs or improvements to be made to render the structure safe, or requiring the unsafe structure or portion thereof to be taken down and removed within a stipulated time. Such notice shall require the person thus notified to declare immediately upon receipt to the building official the acceptance or rejection of the terms of the notice.

Note: Authority to condemn unsafe structures on which construction has been completed and a certificate of occupancy has been issued, or which have been occupied, is permitted to be exercised after official action by the locality under § 36-105 of the Code of Virginia (see Part III (13 VAC 5-62-420 et seq.) of this code).

121.1.3. Posting of unsafe structure notice. If the persons named in the notice of unsafe structure under construction cannot be found after diligent search, such notice shall be sent by registered or certified mail to the last known address of such persons and a copy of the notice shall be posted in a conspicuous place on the premises. Such procedure shall be deemed the equivalent of personal notice.

121.1.4. Disregard of notice. Upon refusal or neglect of the persons served with a notice of unsafe structure to comply with the requirement of the notice to abate the unsafe condition, the legal counsel of the local governing body shall be advised

of all the facts and shall be requested to institute the appropriate legal action to compel compliance.

121.1.5. Vacating structure. When during construction, in the opinion of the building official, there is actual and immediate danger of failure or collapse of a structure, or any part thereof, which would endanger life, or when any structure or part of a structure has fallen and life is endangered by occupancy of the structure, the building official may order the occupants to vacate the structure forthwith. The building official shall cause a notice to be posted at each entrance to such structure reading as follows: "This Structure is Unsafe and its Use or Occupancy has been Prohibited by the Building Official." No person shall thereafter enter such structure except for one of the following purposes: (i) to make the required repairs; (ii) to take the structure down and remove it; or (iii) to make inspections authorized by the building official.

121.1.6. Temporary safeguards and emergency repairs. When, in the opinion of the building official, there is immediate danger of collapse or failure of a structure under construction or any part thereof which would endanger life, or when a violation of this code results in a fire hazard that creates an immediate, serious and imminent threat to

the life and safety of the occupants; the building official shall cause the necessary work to be done to the extent permitted by the local governing body to render such structure or part thereof temporarily safe, whether or not legal action to compel compliance has been instituted.

121.2. Abatement or removal. Whenever the owner of a structure under construction that has been deemed to be a public nuisance or unsafe under Section 121.1, fails to comply with the requirements of the notice to abate, the building official may cause the structure to be razed or removed, according to authority granted to the building official by the locality.

Note: A locality may, after official action under §§ 15.2-900, 15.2-906 or 15.2-1115 of the Code of Virginia, maintain an action to compel a responsible party to abate, raze, or remove a public nuisance. If the public nuisance presents an imminent and immediate threat to life or property, then the locality may abate, raze, or remove such public nuisance, and the locality may bring an action against the responsible party to recover the necessary costs incurred for the provision of public emergency services reasonably required to abate any such public nuisance.

Article 2.

REHABILITATION.

SECTION 122.0. ADMINISTRATION.

122.1. Continued use. Upon written request from the owner or his agent, following an inspection and provided there are no violations of Part III (13 VAC 5-62-420 et seq.) of this code and the Virginia Statewide Fire Prevention Code (13 VAC 5-51) and the structure's use has not changed, such structure shall not be prevented from continued use and the building official shall issue a certificate of occupancy.

122.2. Conformance. The owner or his agent shall, in writing, apply to and obtain from the building official a new certificate of occupancy prior to a change in the existing occupancy classification of a structure or portion thereof. When the current USBC requires a greater degree of structural strength, fire protection, means of egress, ventilation or sanitary provision for the new occupancy, the owner or his agent shall, in writing, apply and obtain a permit from the building official. When it is impractical to achieve compliance with the USBC, the

building official shall issue, upon application, modifications as provided in Section 109.2 of the USBC.

122.3. Ordinary repairs. Under USBC section 111.1, an application for permit is not required for ordinary repairs.

122.4. Reconstruction, alteration or repair. Reconstruction, alterations and repairs shall not result in an increase in hazard to the occupants. Portions of the structure not altered and not affected by the alteration are not required to comply with the code requirements for a new structure. Work shall be done in such a way so as not to lower existing levels of health and safety. The installation of material and equipment that is neither required nor prohibited need only comply with the USBC requirements that regulate a safe installation. Material and equipment may be replaced with material and equipment of a similar kind or with greater capacity in the same location. Used material and equipment may be used as approved by the building official.

122.5. Additions. Additions to any structure shall conform to the requirements of this code for new construction. Additions shall not be made to an existing structure that will cause the existing structure to be in violation of this code. An existing structure plus alterations and additions shall comply with the height and area provisions of Chapter 5. Any portions of the structure not altered and not affected by alterations or additions are not required to comply with the USBC requirements for a new structure.

Exception: Any additions, alterations or repairs, other than ordinary repairs, that constitute substantial improvement of existing structures located in flood hazard areas established in Section 1612.3 and as defined in Section 1612.2, shall comply with the flood design requirements for new construction and all aspects of the existing structure shall be brought into compliance with the requirements for new construction for flood design.

Note: The USBC, through adoption and reference of the ICC family of model codes, provides several alternatives

for the rehabilitation, alteration, repair and change of use for existing buildings. An owner can elect to use the USBC amended technical provisions of Chapters 2 through 33 or those in Chapter 34, Compliance Alternatives. To help assist persons that are using or applying Virginia's building and fire related regulations regarding the rehabilitation and change of use for existing buildings additional information may be found in the "Virginia's Building and Fire Regulation Related Laws" package available from DHCD. The USBC modification section allows owners, design professionals and contractors to request to use provisions found in the latest editions of the ICC International Performance Code for Buildings and Facilities and the International Existing Building Code. The BHCD is required to consider adoption of these new codes as they are developed and become publicly available. Additional information and reference material relating to the rehabilitation of existing buildings is also available from DHCD.

Article 3.

RETROFITTING.

SECTION 123.0.
REQUIREMENTS.

123.1. Enforcement. The local building department shall enforce the applicable retrofitting provisions relating to fire protection equipment and system requirements for certain existing motels, hotels, hospitals, daycare facilities, dormitories, nursing homes and multi-family dwelling units and identification of disabled parking spaces mandated in this Article.

123.1.1. Smoke detectors in colleges and universities. 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 and use due diligence in maintaining in good working order 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 which is patrolled 24 hours a day by military guards.

123.1.2. Smoke detectors in certain juvenile care facilities. Battery-powered or AC-powered smoke detectors shall be installed and maintained in all local and regional detention homes, group homes, and other residential care facilities for children and juveniles which 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 and maintenance of the smoke detector devices.

123.1.3. Smoke detectors for the deaf and hearing impaired. 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, boarding and lodging houses arranged for shelter and sleeping accommodations of more than five individuals; or
3. All buildings arranged for use of 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.

123.1.4. 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.

123.1.4.1. 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.

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

123.1.5. 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 code official that the responsible party of such building or dwelling unit fails to maintain battery-powered smoke detectors in working condition.

123.1.6. 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, and shall be maintained in good working order. 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.

123.1.7. 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, and shall be maintained in good working order.

123.1.8. Identification of handicapped parking spaces by above grade signs. All parking spaces reserved for the use of handicapped persons 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 handicapped persons. 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 handicapped within the meaning of this section. All above grade handicapped parking space signs shall have the bottom edge of the sign no lower than four feet (1219 mm) nor higher than seven 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 four feet above the parking surface.

123.1.9. 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, and shall be maintained in good working order.

123.1.10. 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, and shall be maintained in good working order.

123.1.11. Fire suppression systems in dormitories.

An automatic fire suppression system shall be provided throughout all buildings having a Group R-2 fire area which are more than 75 feet (22,860 mm) or six stories above the lowest level of exit discharge and which 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 requirements of this code and Section 903.3.1.1. The automatic fire suppression system shall be installed by September 1, 1999. The chief administrative office of the college or university shall obtain a certificate of compliance from the code 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 or the 1983 or later editions of NFPA 13.

2. Any dormitory at a state-supported military college or university which is patrolled 24 hours a day by military guards.
3. Application of the requirements of Section 123.1.11 shall be modified in accordance with the following:
 - a. 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.
 - b. 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 hoist ways and machine rooms.
 - c. Sprinklers shall not be required in wardrobes in sleeping rooms which 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 the following:
 - (1) A single station smoke detector monitored by the building fire alarm system is installed in the room containing the wardrobe or closet which will activate the general alarm for the building if the single station smoke detector is not cleared within five minutes after activation;
 - (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; and

accordance with Section 701-11 (d) or 701-11 (e) of NFPA 70 – 96 shall be permitted.

- (3) The ceiling of the wardrobe, closet or room shall have a fire resistance rating of not less than 1/2 hour.
- d. 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.
- e. 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.
- f. Limited service controllers shall be permitted for fire pumps when used in accordance with their listing.
- g. Where a standby power system is required, a source of power in

123.1.12. Fire extinguishers and smoke detectors in state-regulated care facilities. In each kitchen there shall be installed and maintained at least one approved type ABC portable fire extinguisher with a minimum rating of 2A10BC. The facility shall provide and maintain at least one approved battery operated, properly installed smoke detector as a minimum (i) outside each sleeping area in the vicinity of bedrooms and bedroom hallways, and (ii) on each additional floor.

123.1.13. 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. The licensee shall maintain the smoke detector devices in good working order.

Article 4.

TECHNICAL AMENDMENTS.

SECTION 124.0.
ICC SUPPLEMENTS AND TECHNICAL AMENDMENTS.

124.1. 2001 Supplement and 2002 Accumulative Supplement. As referenced in Section 108.1.1, the following list of specifically identified changes contained in the 2001 Supplement and 2002 Accumulative Supplement to the International Codes shall be made to the model codes and standards as indicated in subsections 124.1.1 through 124.1.8.

124.1.1. Use of 2001 Supplement for the 2000 ICC International Building Code (IBC). The following provisions from the 2001 Supplement to the International Codes shall be used as part of the IBC:

- 1. 302.3.3. Separated uses.
- 2. 308.4.3. Condition 3.
- 3. 308.4.4. Condition 4.
- 4. 308.4.5. Condition 5.
- 5. 310.1. Residential Group R (Includes definitions of R-1, R-2, R-3 and R-4.).
- 6. 310.3. Required dwelling unit and sleeping unit separation.
- 7. 402.7.2.1. Openings between anchor buildings and mall.
- 8. 407.2.1. Spaces of unlimited area.
- 9. 708.1. General.

- 10. 708.3. Fire-resistance rating.
- 11. 708.4. Continuity.
- 12. 710.3. Fire-resistance rating.
- 13. Chapter 35. Referenced Standards.
 - a. NFPA 13-99.
 - b. NFPA 13D-99.
 - c. NFPA 13R-99.
 - d. NFPA 72-99.

124.1.2. Use of 2002 Accumulative Supplement for 2000 IBC. The following provisions from the 2002 Accumulative Supplement to the International Codes shall be used as part of the IBC:

- 1. 202. Definitions.
 - a. Accessible unit.
 - b. Dwelling unit or sleeping unit, Type A. (Replaces the definition of Dwelling unit, Type A in the 2000 IBC.)
 - c. Dwelling unit or sleeping unit, Type B. (Replaces the definition of Dwelling unit, Type B in the 2000 IBC.)
 - d. Dwelling unit, ground floor. (Deletes the definition.)
 - e. Dwelling unit or sleeping unit, multistory. (Replaces the definition of Dwelling unit, multistory in the 2000 IBC.)
 - f. Intended to be occupied as a residence.
 - g. Sleeping unit. (Replaces the definition of Sleeping accommodations in the 2000 IBC.)
 - h. Technically infeasible. (Relocates the definition of Technically infeasible in the 2000 IBC.)
- 2. 407.5. Automatic sprinkler system.
- 3. 407.6. Automatic fire detection.

- 4. 408.3.1. Door width.
- 5. 714.2.7. Door closing.
- 6. 716.3.2. Groups R-1, R-2, R-3 and R-4.
- 7. 716.4.2. Groups R-1 and R-2.
- 8. 903.3.2. Quick-response and residential sprinklers.
- 9. 907.2.6.1. Group I-2.
- 10. 907.2.6.2.3. Smoke detectors (Group I-3).
- 11. 907.2.8. Group R-1.
- 12. 907.2.8.1. Fire detection system.
- 13. 907.2.10.1.1. Group R-1.
- 14. 907.2.10.2. Power source.
- 15. 907.2.10.3. Interconnection.
- 16. 907.2.12.2. Emergency voice/alarm communication system (high-rise buildings).
- 17. 907.9.1.2. Groups I-1 and R-1. (Includes changes to Table 907.9.1.2.)
- 18. 1003.2.10.1. Where required.
- 19. 1003.2.11. Means of egress illumination.
- 20. 1003.3.1.1. Size of doors.
- 21. 1003.3.1.8. Locks and latches.
- 22. 1004.2.3. Egress through intervening spaces.
- 23. 1004.2.3.1. Multiple tenants.
- 24. 1004.3.2.1. Construction.
- 25. 1005.3.2. Enclosures.
- 26. 1009.1. General.
- 27. 1103.2.11. Residential Group R-1.
- 28. 1103.2.12. Day care facilities.
- 29. 1105.1. Required.

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| <ul style="list-style-type: none"> 30. 1106.2. Groups R-2 and R-3. 31. 1106.5. Location. 32. 1107. Dwelling Units and Sleeping Units. (Adds new section which includes all subsections.) 33. 1108. Special Occupancies. (Renumbers from 1107 and changes indicated subsections.) 34. 1109. Other Features and Facilities. (Renumbers from 1108 and changes indicated subsections.) 35. 1110. Signage. (Renumbers from 1109 and changes indicated subsections.) 36. 1209.2. Walls. 37. 3109.4.1.8. Dwelling wall as a barrier. 38. 3408.1. Scope. 39. 3408.7.2. Platform lifts. 40. 3408.7.8. Dwelling or sleeping units. 41. Chapter 35. Referenced Standards. <ul style="list-style-type: none"> a. ASME A18.1-99. | <ul style="list-style-type: none"> 9. R502.4. Joists under bearing partitions. 10. R602.8. Fireblocking required. 11. R905.2.7.1. Ice protection. 12. R905.4.3. Underlayment. 13. R905.5.3. Underlayment. 14. R905.6.3. Underlayment. 15. R905.7.3. Underlayment. 16. R905.8.3. Underlayment. 17. R907.3. (Deletes item 4 and Figure R907.3.) 18. M1411.3.2. Drain pipe materials and sizes. 19. M1804.2.6. Mechanical draft systems. 20. M2001.3. Valves. 21. M2002.2. Boiler low-water cutoff. 22. M2004.1. General. 23. P2903.5. Water hammer. 24. Table P2904.4.1. Water Service Pipe. 25. Table P2904.5. Water Distribution Pipe. 26. P2904.5.1. Under concrete slabs. 27. Table P2904.6. Pipe Fittings. |
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124.1.3. Use of 2001 Supplement for the 2000 ICC International Residential Code (IRC). The following provisions from the 2001 Supplement to the International Codes shall be used as part of the IRC:

- 1. R301.1.2. Engineered design.
- 2. Table 301.2(1). Climatic and Geographical Design Criteria.
- 3. R303.4.1. Light activation.
- 4. R309.2. Separation required.
- 5. R312.1.2. Landings at doors.
- 6. R313.2. Handrails required.
- 7. R315.2. Handrail grip size.
- 8. R316.2. Guardrail opening limitations.

124.1.4. Use of 2002 Accumulative Supplement for 2000 IRC. The following provisions from the 2002 Accumulative Supplement to the International Codes shall be used as part of the IRC:

- 1. R303.4. Stairway illumination.
- 2. R305.1. Minimum height.
- 3. E3802.9. Bedrooms.

124.1.5. Use of supplement for 2000 ICC International Plumbing Code (IPC). The following provisions from the 2001 Supplement to the International Codes shall be used as part of the IPC:

1. Table 403.1. Minimum Number of Required Fixtures.
2. 403.2. Separate facilities.
3. 403.4. Location of employee toilet facilities in occupancies other than assembly or mercantile.
4. 403.4.1. Travel distance.
5. 403.5. Location of employee toilet facilities in mercantile and assembly occupancies.
6. 410.1. Approval.
7. 604.9. Water hammer.
8. 706.3. (Adds new exception.)

124.1.6. Use of supplement for 2000 ICC International Energy Conservation Code (IECC). The following provisions from the 2001 Supplement to the International Codes shall be used as part of the IECC:

1. 502.2.5 Prescriptive path for additions and window replacements.
2. Table 502.2.5. (Adds new footnote.)

124.1.7. Use of supplement for 2000 ICC International Mechanical Code (IMC). The following provisions from the 2001 Supplement to the International Codes shall be used as part of the IMC:

1. 202. Definitions.
 - a. Commercial kitchen hoods. (Includes sub-definitions.)
 - b. Extra-heavy duty cooking appliance.
 - c. Fireplace stove.
2. 507.13. Capacity of hoods.
3. 507.13.1. Extra heavy duty cooking appliances.
4. 507.13.2. Heavy duty cooking appliances.
5. 507.13.3. Medium duty cooking appliances.

6. 507.13.4. Light duty cooking appliances.
7. 602.2.1. Materials exposed within plenums.
8. 602.4. Flood hazard.

124.1.8. Use of supplement for 2000 ICC International Fuel Gas Code (IFGC). The following provisions from the 2001 Supplement to the International Codes shall be used as part of the IFGC:

1. 302.4. Alterations to trusses.
2. 303.3. Prohibited locations.
3. 305.5. Construction and protection.
4. 305.6. Clearances from grade.
5. 305.7. Clearances to combustible construction.
6. 602.1. General.
7. 602.2. Flame safeguard device.
8. 604. (Changes section title.)
9. 604.1. General.
10. 605. (Includes subsections.)
11. 607.1. General.
12. 608.1. General.
13. 621.1. General.
14. 630.1. Standards.
15. 632. (Includes subsections.)
16. Chapter 7. Referenced Standards. (Includes all standards.)

124.2. Appendices. The following provisions from the appendices of the IBC shall be used as part of this code:

1. F101.2. Foundation wall ventilation openings.
2. F101.6. Pier and wood construction.
3. H101.2. Signs exempt from permits.
4. H102. Definitions. (Includes all definitions.)

- 5. H103. Location. (Includes subsection.)
- 6. H105 through H114. (Includes all subsections.)
- 7. Appendix I, Patio Covers. (Includes all subsections.)

124.3. Other changes. The following changes shall be made to the model codes and standards as indicated in this article for use as part of the USBC.

**IBC SECTION 202.
DEFINITIONS.**

Change the following definitions to read:

Building: A combination of any 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 or parts thereof" unless the context clearly requires a different meaning. For application of this code, each portion of a building which is completely separated from other portions by fire walls complying with Section 705.0 shall be considered as a separate building.

Jurisdiction: The governing body of any city, county or town or other political subdivision or state agency in this Commonwealth authorized to enforce the USBC under state law. See local governing body.

Owner: The owner or owners of the freehold of the premises or lesser estate therein, a mortgagee or vendee in possession, assignee of rents, receiver, executor, trustee or lessee in control of a building or structure.

Registered Design Professional (RDP): An architect or professional engineer, licensed to practice architecture or engineering, as defined under § 54.1-400 of the Code of Virginia.

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" and "or equipment" unless the context clearly requires a different meaning.

Add the following definitions to read:

Accessible to persons with physical disabilities or accessibility to physically disabled persons: Barrier-free provisions for the physically handicapped and aged residents of this Commonwealth.

Building maintenance official: The officer or other designated authority charged with the administration and enforcement of the maintenance provisions of the USBC for existing structures or a duly authorized representative.

Building official: The officer or other designated authority charged with the administration and enforcement of the USBC or a duly authorized representative.

Building regulations: Any law, rule, resolution, regulation, ordinance or code, general or special, or compilation thereof, heretofore or hereafter enacted or adopted by the Commonwealth or any county or municipality, including departments, boards, bureaus, commissions, or other agencies thereof, relating to construction, reconstruction, alteration, conversion, repair, maintenance, or use of structures and buildings and installation of equipment therein. The term does not include zoning ordinances or other land use controls that do not affect the manner of construction or materials to be used in the erection, alteration or repair of a building or structure.

Construction: The construction, reconstruction, alteration, repair, or conversion of buildings and structures.

Day-night average sound level (Ldn): A 24-hour energy average sound level expressed in dBA, with a 10 decibel penalty applied to noise occurring between 10 p.m. and 7 a.m.

DHCD: The Virginia Department of Housing and Community Development.

Equipment: Plumbing, heating, electrical, ventilating, air-conditioning and refrigeration equipment, elevators, dumbwaiters, escalators, and other mechanical additions or installations.

Industrialized building: A combination of one or more sections or modules, subject to state

regulations and including the necessary electrical, plumbing, heating, ventilating and other service systems, manufactured off-site and transported to the point of use for installation or erection, with or without other specified components, to comprise a finished building. Manufactured homes shall not be considered industrialized buildings for the purpose of this code.

Local building department: The agency of any local governing body charged with the administration, supervision or enforcement of the provisions of Parts I and II of Chapter 1 of the USBC, including but not limited to approval of plans, inspection of structures or issuance of permits, licenses, certificates, or similar documents. For application of the USBC, the term "department of building inspection" shall mean the local building department.

Local enforcing agency: The local agency or agencies charged by the local governing body with the administration, supervision or enforcement of the provisions of Parts I and III of Chapter 1 of the USBC. The local governing body is permitted to assign "local enforcing agency" responsibility to the "local building department."

Local governing body or locality: The governing body of any city, county or town or other political subdivision or state agency in this Commonwealth authorized to enforce the USBC under state law. See jurisdiction.

Manufactured home: A structure subject to federal regulation, which is transportable in one or more sections; is eight body feet or more in width and 40 body feet or more in length in the traveling mode, or is 320 or more square feet when erected on site; is built on a permanent chassis; is designed to be used as a single-family dwelling, with or without a permanent foundation, when connected to the required utilities; and includes the plumbing, heating, air-conditioning, and electrical systems contained in the structure.

Skirting: A weather-resistant material used to enclose the space from the bottom of the manufactured home to grade.

Sound transmission class (STC) rating: A single number characterizing the sound reduction performance of a material tested in accordance with ASTM E 90-90, "Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions."

State-regulated care facility (SRCF): A building or part thereof occupied by persons in the care of others where program regulatory oversight is provided by the Virginia Department of Social Services; Virginia Department of Mental Health, Mental Retardation and Substance Abuse Services; Virginia Department of Education; or Virginia Department of Juvenile Justice (groups I-4, A-3, R-2, R-3, R-4 and R-5 only).

Technical assistant: Any person employed by, or under contract to, a local building department or local enforcing agency for enforcing the USBC, including but not limited to inspectors and plans reviewers.

TRB: The Virginia State Building Code Technical Review Board.

VADR: means the Virginia Amusement Device Regulations (13 VAC 5-31).

Working day: Every day, except Saturdays, Sundays, and legal local, state and national holidays.

Delete the following definitions:

Agricultural building.

Existing structure.

IBC CHAPTER 3.
USE AND OCCUPANCY CLASSIFICATION.

Change subsection 302.1.1 and Table 302.1.1 to read:

302.1.1. Incidental use areas. Spaces which are incidental to the main occupancy shall be separated or protected, or both, in accordance with Table 302.1.1 and shall be classified in accordance with the main occupancy of the portion of the building in which the incidental use area is located.

Exception: Incidental use areas within and serving a dwelling unit are not required to comply with this section.

TABLE 302.1.1.
INCIDENTAL USE AREAS.

ROOM OR AREA	SEPARATION ^a
Furnace rooms where largest piece of equipment is over 400,000 Btu per hour input	1 hour or provide automatic fire-extinguishing system
Boilers over 15 psi and 10 horsepower	1 hour or provide automatic fire-extinguishing system

Refrigerant machinery rooms	1 hour or provide automatic fire-extinguishing system
Automotive parking garage in other than Group R-3	2 hours; or 1 hour and provide automatic fire-extinguishing system
Incinerator rooms	2 hours and automatic fire-extinguishing system
Paint shops, not classified as Group H, located in occupancies other than Group F	2 hours; or 1 hour and provide automatic fire-extinguishing system
Laboratories and vocational shops, not classified as Group H, located in Group E and I-2 occupancies	1 hour or provide automatic fire-extinguishing system
Laundry rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system
Storage rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system
Group I-3 padded cells	1 hour
Waste and linen collection rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system
Stationary lead-acid battery systems having a liquid capacity or more than 100 gallons (380 L) used for facility standby power, emergency power or uninterrupted power supplies	1-hour barriers and floor-ceiling assemblies in Group B, F, H, M, S and U occupancies. 2-hour fire barriers and floor-ceiling assemblies in Group A, E, I and R occupancies

For SI: 1 square foot = 0.0929 m², 1 pound per square inch = 6.9 kPa, 1 British thermal unit = 0.293 watts, 1 horsepower = 746 watts, 1 gallon = 3.785 L.

- a. Where an automatic sprinkler system is provided, it need only be provided in the incidental use room or area.

Change footnote d in Table 302.3.3 to read:

- d. Accessory assembly areas are not considered separate occupancies if the floor area is 750 square feet or less and occupied by less than 50 persons.

Add exception to subsection 303.1 to read:

Exception: A 750 square feet or less room or space used for assembly purposes by less than 50 persons and which is accessory to another group shall be included as a part of that main group.

Add exception to subsection 308.2 to read:

Exception: Group homes licensed by the Virginia Department of Mental Health, Mental Retardation and Substance Abuse Services or the Virginia Department of Social Services which house no more than eight persons with one or more resident counselors shall be classified either as a Group R-2, R-3, R-4 or R-5. Not more than five of the persons may require physical assistance from staff to respond to an emergency situation.

Add subsection 308.5.3 to read:

308.5.3 Family day homes. Family day homes licensed or certified by the Virginia Department of Social Services housing no more than twelve persons, not including staff, shall be classified either as a Group R-2, R-3 or R-5.

Add use and occupancy classification at the end of IBC subsection 310.1 to read:

R-5 Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories high with separate means of egress and their accessory structures.

Add IBC subsection 310.4 to read:

310.4. Family day homes. Family day homes licensed or certified by the Virginia Department of Social Services housing no more than twelve persons, not including staff, shall be classified either as a Group R-2, R-3 or R-5.

Add IBC subsection 310.5 to read:

310.5. Radon-resistant construction. Group R-3 and Group R-4 structures shall be subject to the radon-resistant construction requirements of Section R329 of the IRC if a locality has implemented such requirements.

Add IBC subsection 310.6 to read:

310.6. Group R-5 structures. The provisions of the 2000 International Residential Code (IRC) as amended in this article shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, removal and demolition of detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with a separate means of egress and their accessory structures (Group R-5).

Change IRC Figure R301.2(4) to Table R301.2(4) to read:

TABLE R301.2(4).
BASIC WIND SPEEDS FOR VIRGINIA LOCALITIES BASED
ON BASIC WIND SPEED (3 Second Gust) MAP.

90 V mph (m/s)	100 V mph (m/s)	110 V mph (m/s)	SPECIAL WIND REGION
All other localities	City of Chesapeake	Accomack County	Bland County

City of Franklin Gloucester County City of Hampton Isle of Wight County Lancaster County Mathews County Middlesex County City of Newport News City of Norfolk Northumberland County City of Poquoson City of Portsmouth Southampton County City of Suffolk Surry County York County	Northampton County City of Virginia Beach	Grayson County Scott County Smyth County Tazewell County Washington County Wythe County
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Note:The basic wind speed for Virginia towns shall be the same as the county in which the town is located.

Change IRC subsection R301.2.1 to read:

R301.2.1. Wind limitations. Buildings and portions thereof shall be limited by wind speed, as defined in Table R301.2(1), and construction methods in accordance with this code. Basic wind speeds shall be determined from Table R301.2(4). Where different construction methods and structural materials are used for various portions of a building, the applicable requirements of this section for each portion shall apply. Where loads for windows, skylights and exterior doors are not otherwise specified, the loads listed in Table R301.2(2) adjusted for height and exposure per Table R301.2(3), shall be used to determine design load performance requirements for windows and doors. Basic wind speed for the special wind regions indicated, near mountainous terrain, and near gorges, shall be in accordance with local jurisdiction requirements determined in accordance with Section 6.5.4 of ASCE 7.

~~Change the first sentence in IRC subsection R302.1 to read:~~

~~**R302.1. Exterior walls.** Exterior walls with a fire separation distance of less than 5 feet (1524 mm) shall have not less than a one-hour fire-resistive rating with exposure from both sides.~~

~~Change IRC subsection R302.2 to read:~~

~~**R302.2. Openings.** Openings shall not be permitted in the exterior wall of a dwelling with a fire separation distance less than 5 feet (1524 mm) or in the exterior wall of an accessory building with a fire separation distance less than 6 feet (914 mm). This distance shall be measured perpendicular to the line used to determine the fire separation distance.~~

~~**Exceptions:**~~

- ~~1. Openings shall be permitted in walls that are perpendicular to the line used to determine the fire separation distance.~~
- ~~2. Foundation vents installed in accordance with this code are permitted.~~

Change IRC subsection R302.3 to read:

R302.3. Penetrations. Penetrations located in the exterior wall of a dwelling with a fire separation distance less than 5 feet (1524 mm) shall be protected in accordance with Section R321.3.

~~**Exception:** Penetrations shall be permitted in walls that are perpendicular to the line used to determine the fire separation distance.~~

Change IRC subsection R303.6 to read:

R303.6. Required heating. Every dwelling unit or portion thereof which is to be rented, leased or let on terms either expressed or implied to furnish heat to the occupants thereof shall be provided with heating facilities capable of maintaining the room temperatures at 65°F (18°C) during the period from October 15 to May 1 during the hours between 6:30 a.m. and 10:30 p.m. of each day and not less than 60°F (16°C) during other hours when measured at a point three feet (914 mm) above the floor and three feet (914 mm) from the exterior walls. The capability of the heating system shall be based on the winter design temperature for heating facilities established by the jurisdiction.

Add IRC subsection R303.7 to read:

R303.7. Insect screens. Every door, window and other outside opening required for ventilation purposes shall be supplied with approved tightly

fitted screens of not less than 16 mesh per inch and every swinging door shall have a self-closing device.

Add IRC subsection R306.5 to read:

R306.5. Approval. Water supply sources and sewage disposal systems are regulated and approved by the Virginia Department of Health.

Change IRC subsection R310.1 to read:

R310.1. Emergency escape and rescue openings required. Basements with habitable space and each sleeping room shall have at least one openable emergency escape and rescue opening. Where emergency escape and rescue openings are provided, they shall have a sill height of not more than 44 inches (1118 mm) above the floor. Where a door opening having a threshold below the adjacent ground elevation serves as an emergency escape and rescue opening and is provided with a bulkhead enclosure, the bulkhead enclosure shall comply with Section R310.3. The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside, except that tilt-out or removable sash designed windows shall be permitted to be used. Emergency escape and rescue openings with a finished height below the adjacent ground elevation shall be provided with a window well in accordance with Section R310.2.

Exception: Dwelling units equipped throughout with an approved automatic sprinkler system installed in accordance with NFPA 13, 13R or 13D.

Change IRC subsection R310.1.1 to read:

R310.1.1. Minimum opening area. All emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet (0.530 m²), including the tilting or removal of the sash as the normal operation to comply with sections R310.1.2 and R310.1.3.

Exception: Grade floor openings shall have a minimum net clear opening of 5 square feet (0.465 m²).

Change IRC subsection R314.2 to read:

R314.2. Treads and risers. The maximum riser height shall be 8-1/4 inches (210 mm) and the minimum tread depth shall be 9 inches (254 mm). The riser height shall be measured vertically

between leading edges of the adjacent treads. The tread depth shall be measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. The walking surface of treads and landings of a stairway shall be sloped no steeper than one unit vertical in 48 units horizontal (2.0% slope). The greatest riser height within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm). The greatest tread depth within any flight of stairs shall not exceed the smallest by more than 3/8 inch (9.5 mm).

Change IRC subsection R315.1 to read:

R315.1. Handrails. Handrails having minimum and maximum heights of 34 inches and 38 inches (864 mm and 965 mm), respectively, measured vertically from the nosing of the treads, shall be provided on at least one side of stairways with three or more risers. All required handrails shall be continuous the full length of the stairs from a point directly above the top riser of a flight to a point directly above the lowest riser of the flight. Ends shall be returned or shall terminate in newel posts or safety terminals. Handrails adjacent to a wall shall have a space of not less than 1.5 inches (38 mm) between the wall and the handrail.

Exceptions:

1. Handrails shall be permitted to be interrupted by a newel post at a turn.
2. The use of a volute, turnout or starting easing shall be allowed over the lowest tread.

Add new IRC section R328 Swimming Pools, Spas and Hot Tubs and add subsection R328.1 to read:

R328.1. General. In addition to other applicable provisions of this code, swimming pools, spas and hot tubs shall comply with the provisions in Appendix G.

Add new IRC section R329 Radon-Resistant Construction and add subsection R329.1 to read:

R329.1. General. Following official action under Article 7 (§ 15.2-2280 et seq.) of Chapter 22 of Title 15.2 of the Code of Virginia by a locality in areas of high radon potential, as indicated by Zone 1 on the U.S. EPA Map of Radon Zones (IRC Figure AF101), such locality shall enforce the provisions contained in Appendix F.

Exemption: Buildings or portions thereof with crawl space foundations which are ventilated to the exterior, shall not be required to provide radon-resistant construction.

Add new IRC section R330 Sound Transmission and add subsections R330.1 and R330.2 to read:

R330.1. General. Construction assemblies separating dwelling units shall provide airborne sound insulation as required in Appendix K.

R330.2. Airport noise attenuation standards. Following official action by the local governing body under § 15.2-2295 of the Code of Virginia, all structures to be located in areas affected by above average noise levels from aircraft due to their proximity to flight operations at nearby airports as determined by the governing body having jurisdiction shall have acoustical treatment measures in accordance with the provisions of IBC Section 1206.0.

Add new IRC section R331 Patio covers and add subsection R331.1 to read:

R331.1. General. Patio covers shall comply with the provisions in Appendix H.

Change IRC subsection R401.4 to read:

R401.4. Soil tests. Localities having 20% and greater moderate and high shrink/swell potential of the jurisdictional land area shall implement an expansive soil test policy. Localities having less than 20% moderate to high shrink/swell potential of the jurisdictional land area may adopt a soil test policy. The policy shall establish minimum criteria to determine the circumstances which require testing for expansive soils and the minimum testing requirements. The policy shall be established in a manner selected by the local government having jurisdiction. When required, testing shall be in accordance with Section R403.1.8.1. When soils are determined to be expansive, foundation design shall be in accordance with Section R403.1.8. All localities shall obtain and retain as a reference guide a copy of the applicable National Cooperative Soil Survey produced cooperatively by the Natural Resources Conservation Service and the Virginia Polytechnic Institute and State University, where this survey is available. Table R401.4, List of Virginia land areas by Shrink/Swell Ratings, shall be used to determine the percentage of jurisdictional

land area which has moderate or high shrink/swell potential.

Exception: For additions to one- and two-family dwellings or slab-on-grade accessory structures and decks where there is no indication of a shrink-swell condition for the area.

TABLE R401.4.
LIST OF VIRGINIA LAND AREAS BY
SHRINK/SWELL RATINGS.

20% AND GREATER POTENTIAL	LESS THAN 20% POTENTIAL
Accomack County	Alexandria, City of
Albemarle County	Alleghany County
Amelia County	Amherst County
Appomattox County	Bath County
Arlington County	Bedford County
Augusta County	Bedford, City of
Bland County	Brunswick County
Botetourt County	Buchanan County
Buckingham County	Caroline County
Buena Vista, City of	Carroll County
Campbell County	Charlotte County
Charles City County	Charlottesville, City of
Chesapeake, City of	Clifton Forge, City of
Chesterfield County	Colonial Heights, City of
Clarke County	Covington, City of
Culpeper County	Craig County
Cumberland County	Danville, City of
Emporia, City of	Dickenson County
Fairfax County	Dinwiddie County
Fairfax, City of	Essex County
Fauquier County	Floyd County
Fluvanna County	Franklin County
Franklin, City of	Fredericksburg, City of
Frederick County	Galax, City of
Giles County	Gloucester County
Goochland County	Grayson County
Greene County	Hanover County
Greensville County	Harrisonburg, City of
Halifax County	Henrico County
Hampton, City of	Henry County
James City County	Highland County
Lee County	Hopewell, City of
Lexington, City of	Isle of Wight County
Louisa County	King and Queen County
Lynchburg, City of	King George County
Madison County	King William County
Mathews County	Lancaster County
Montgomery County	Loudoun County
Nelson County	Lunenburg County
Newport News, City of	Manassas, City of
Norfolk, City of	Martinsville, City of
Northampton County	Mecklenburg County
Orange County	Middlesex County
Page County	New Kent County
Poquoson, City of	Northumberland County
Portsmouth, City of	Norton, City of
Powhatan County	Nottoway County

Prince Edward County	Patrick County
Prince George County	Petersburg, City of
Prince William County	Pittsylvania County
Pulaski County	Rappahannock County
Radford, City of	Richmond County
Richmond, City of	Staunton, City of
Roanoke County	Warren County
Roanoke, City of	Waynesboro, City of
Rockbridge County	Williamsburg, City of
Rockingham County	Wise County
Russell County	
Salem, City of	
Scott County	
Shenandoah County	
Smyth County	
Southampton County	
Spotsylvania County	
Stafford County	
Suffolk, City of	
Surry County	
Sussex County	
Tazewell County	
Virginia Beach, City of	
Washington County	
Westmoreland County	
Winchester, City of	
Wythe County	
York County	

approved pressure preservative treated suitable for ground contact use.

- The structure is anchored to withstand the wind loads prescribed by the USBC.
- The structure shall be of light-frame construction whose vertical and horizontal structural elements are primarily formed by a system of repetitive wood or light gauge steel framing members, with walls and roof of light weight material, not slate, tile, brick or masonry.

Change IRC subsection R506.2.1 to read:

R506.2.1. Fill. Fill material shall be free of vegetation and foreign material and shall be natural non-organic material that is not susceptible to swelling when exposed to moisture. The fill shall be compacted to assure uniform support of the slab, and except where approved, the fill depth shall not exceed 24 inches (610mm) for clean sand or gravel and 8 inches (203 mm) for earth.

Add exception to IRC subsection R403.1 to read:

R403.1. General. All exterior walls shall be supported on continuous solid or fully grouted masonry or concrete footings, wood foundations, or other approved structural systems which shall be of sufficient design to accommodate all loads according to Section R301 and to transmit the resulting loads to the soil within the limitations as determined from the character of the soil. Footings shall be supported on undisturbed natural soils or engineered fill.

Exception: One-story detached accessory structures used as tool and storage sheds, playhouses and similar uses, not exceeding 256 square feet (23.7824 m²) of building area, provided all of the following conditions are met:

- The building height is not more than 12 feet.
- The maximum height from the finished floor level to grade does not exceed 18 inches.
- The supporting structural elements in direct contact with the ground shall be placed level on firm soil and when such elements are wood they shall be

Exception: Material other than natural material may be used as fill material when accompanied by a certification from a RDP and approved by the building official.

Change IRC subsection R506.2.2 to read:

R506.2.2. Base. A 4-inch-thick (102 mm) base course consisting of clean graded sand, gravel or crushed stone passing a 2-inch (51 mm) sieve shall be placed on the prepared subgrade when the slab is below grade.

Exception: A base course is not required when the concrete slab is installed on well drained or sand-gravel mixture soils classified as Group I according to the United Soil Classification System in accordance with Table R405.1. Material other than natural material may be used as base course material when accompanied by a certification from a RDP and approved by the building official.

Add IRC subsection M2201.2.1.1 to read:

M2201.2.1.1. Abandonment of home fuel tanks. When supply tanks are removed or abandoned, the fill piping, gauges and other appurtenances, except

the vent, shall be disconnected and the fill pipe plugged or removed.

Delete subsection P2602.1 General.

Change IRC subsection P2904.4 to read:

P2904.4. Water service pipe. Water service pipe shall conform to NSF 61 and shall conform to one of the standards listed in Table P2904.4.1. All water service pipe or tubing, installed underground and outside the structure, shall have a minimum working pressure rating of 160 psi at 73° F (1100 kPa at 23° C.). Where the water pressure exceeds 160 psi, piping material shall have a minimum rated working pressure equal to the highest available pressure. Plastic water service piping shall terminate within 5 feet inside the point of entry into a building. All ductile iron water service piping shall be cement mortar lined in accordance with AWWA C104.

Change IRC subsection P3114.1 to read:

P3114.1. General. Vent systems utilizing air admittance valves shall comply with this section. Individual- and branch-type air admittance valves shall conform to ASSE 1051.

Change the trap sizes as shown in the following categories of Table P3201.7:

PLUMBING FIXTURE	TRAP SIZE MINIMUM (inches)
Clothes washer standpipe	1-1/2
Shower	1-1/2

Add IRC subsection E3501.8 to read:

E3501.8. Electrical service equipment. The building official shall give permission to energize the electrical service equipment of a one- or two-family dwelling unit when all of the following requirements have been approved:

1. The service wiring and equipment, including the meter socket enclosure, shall be installed and the service wiring terminated.
2. The grounding electrode system shall be installed and terminated.
3. At least one receptacle outlet on a ground fault protected circuit shall be installed and the circuit wiring terminated.

4. Service equipment covers shall be installed.
5. The building roof covering shall be installed.
6. Temporary electrical service equipment shall be suitable for wet locations unless the interior is dry and protected from the weather.

Add new referenced standard in Chapter 43 of the IRC as follows:

STANDARD REFERENCE NUMBER	TITLE	REFERENCED IN CODE SECTION NUMBER
AWWA C104-95	Standard for Cement-Mortar Lining for Ductile-Iron Pipe and fittings for Water	P2904.4

**IBC CHAPTER 4.
SPECIAL DETAILED REQUIREMENTS BASED ON USE
AND OCCUPANCY.**

Change subsection 402.6 to read:

402.6. Types of construction. The area of any covered mall building, including anchor buildings of Types I, II, III and IV construction shall not be limited provided the covered mall building and attached anchor buildings and parking structures are surrounded on all sides by a permanent open space of not less than 60 feet (18 288 mm) in width. Anchor buildings four or more stories in height must comply with Section 503, as modified by Sections 504 and 506. The construction type of enclosed parking garages and open parking structures shall comply with Sections 406.3 and 406.4.

Change subsection 402.7.1 to read:

402.7.1. Attached garage. An attached garage for the storage of passenger vehicles having a capacity of not more than nine persons and open parking garages shall be considered as separate buildings where they are separated from the covered mall building by a fire barrier having a fire-resistance rating of at least 2 hours.

Exception: Where an open parking garage or enclosed parking garage is separated from the covered mall building or anchor building a distance greater than 10 feet (3048 mm) the provisions of Table 602 shall apply. Pedestrian

walkways and tunnels which attach the open parking garage or enclosed parking garage to the covered mall building or anchor building shall be constructed in accordance with Section 3104.

Change subsection 408.3.5 to read:

408.3.5. Sallyports. A sallyport shall be permitted in a means of egress where there are provisions for continuous and unobstructed passage through the sallyport during an emergency egress condition. A sallyport is a security vestibule with two or more doors where the intended purpose is to prevent continuous and unobstructed passage by allowing the release of only one door at a time.

Add subsection 415.1.1 to read:

415.1.1. Flammable and combustible liquids. Notwithstanding the provisions of this chapter, the storage, handling, processing, and transporting of flammable and combustible liquids shall be in accordance with the mechanical code and the fire code listed in Chapter 35 of this code. Regulations governing the installation, repair, upgrade, and closure of underground and aboveground storage tanks under the Virginia State Water Control Board regulations 9 VAC 25-91 and 9 VAC 25-580 are adopted and incorporated by reference to be an enforceable part of this code. Where differences occur between the provisions of this code and the incorporated provisions of the State Water Control Board regulations, the provisions of the State Water Control Board regulations shall apply.

Add IBC Section 419 Site Work for Manufactured Homes and Industrialized Buildings.

Add subsection 419.1 to read:

419.1. General. The provisions of this section shall apply to the installation of manufactured homes and industrialized buildings.

Add subsection 419.2 to read:

419.2. Construction. Construction work associated with the installation of a manufactured home or industrialized building shall comply with the manufacturer's installation instructions and to the extent not provided for in the manufacturer's installation instructions applicable requirements of this code. Where the manufacturer's installation instructions for manufactured homes are not available, the NCSBCS/ANSI A225.1 standard,

1994 edition, may be substituted for the manufacturer's installation instructions. Appendix E, Manufactured Housing Used As Dwellings, of the 2000 International Residential Code (IRC) shall be an acceptable alternative to this code for construction work associated with the installation of a manufactured home and for additions, alterations or repair to such homes.

Add subsection 419.2.1 to read:

419.2.1. Wind load requirements for manufactured homes. Manufactured homes shall be anchored to withstand the wind loads established by the federal regulation for the area in which the manufactured home is installed. For the purpose of this code, Wind Zone II of the federal regulation shall include the cities of Chesapeake, Norfolk, Portsmouth, and Virginia Beach.

Add subsection 419.2.2 to read:

419.2.2. Skirting requirements for manufactured homes. Manufactured homes installed or relocated shall have skirting installed within 60 days of occupancy of the home. Skirting materials shall be durable, suitable for exterior exposures and installed in accordance with the manufacturer's installation instructions. Skirting shall be secured as necessary to ensure stability, to minimize vibrations, to minimize susceptibility to wind damage and to compensate for possible frost heave. Each manufactured home shall have a minimum of one opening in the skirting providing access to any water supply or sewer drain connections under the home. Such openings shall be a minimum of 18 inches (457 mm) in any dimension and not less than three square feet (.28 m²) in area. The access panel or door shall not be fastened in a manner requiring the use of a special tool to open or remove the panel or door. On-site fabrication of the skirting by the owner or installer of the home shall be acceptable, provided that the material meets the requirements of this code.

As used in this section, "skirting" means a weather-resistant material used to enclose the space from the bottom of the manufactured home to grade.

**IBC CHAPTER 5.
GENERAL BUILDING HEIGHTS AND AREAS.**

Delete footnote "a" in Table 503.

Change subsection 506.2 to read:

506.2. Frontage increase. Every building shall adjoin or have access to a public way to receive an area increase for frontage, with the fully weighted average. Where a building has more than 25 percent of its perimeter on a public way or open space having a minimum width of 20 feet (6096 mm), the frontage increase shall be determined in accordance with the following:

$$I_f = 100 [(F/P) - 0.25] W/30 \quad \text{(Equation 5-2)}$$

where:

I_f = Area increase due to frontage (percent).

F = Building perimeter which fronts on a public way or open space having 20 feet (6096 mm) open minimum width.

P = Perimeter of entire building.

W = Minimum width of public way or open space in feet in accordance with Section 506.2.1.

Change subsection 506.2.1 to read:

506.2.1. Width limits. W must be at least 20 feet (6096mm) and the quantity W divided by 30 shall not exceed 1.0. Where the value of W varies along the perimeter of the building, the calculation performed in accordance with Equation 5-2 shall be based on the weighted average of each portion of exterior wall and open space where the value of W is between 20 and 30 feet.

Change subsection 507.2 to read:

507.2. Sprinklered, one-story. The area of a one-story, Group B, F, M or S building or a one-story Group A-4 building of other than Type V construction shall not be limited when the building is provided with an automatic sprinkler system throughout in accordance with Section 903.3.1.1, and is surrounded and adjoined by public ways or yards not less than 60 feet (18,288 mm) in width.

Exceptions:

1. Buildings and structures of Types I and II construction for rack storage facilities, which do not have access by the public shall not be limited in height provided that such buildings conform to the requirements of Section 507.1 and NFPA 13.
2. The automatic sprinkler system shall not be required in areas occupied for indoor participant sports, such as tennis, skating, swimming and

equestrian activities, in occupancies in Group A-4, provided that:

- 2.1. Exit doors directly to the outside are provided for occupants of the participant sports areas, and
- 2.2. The building is equipped with a fire alarm system with manual fire alarm boxes installed in accordance with Section 907.

**IBC CHAPTER 7.
FIRE-RESISTANCE-RATED CONSTRUCTION.**

Add subsection 701.2 to read:

701.2. Fire-resistance assembly marking. Concealed fire walls, vertical fire separation assemblies, fire partitions and smoke barriers shall be designated above ceilings and on the inside of all ceiling access doors which provide access to such fire rated assemblies by signage having letters no smaller than one inch (25.4 mm) in height. Such signage shall indicate the fire-resistance rating of the assembly and the type of assembly and be provided at horizontal intervals of no more than eight feet (2438 mm).

Note: An example of suggested formatting for the signage would be "ONE HOUR FIRE PARTITION."

Add exception 12 and 13 to subsection 707.2 to read:

12. Noncombustible shafts connecting communicating floor levels in Group I-3 occupancies where the area complies with Section 408.5. Where additional stories are located above or below, the shaft shall be permitted to continue with fire and smoke damper protection provided at the fire resistance rated floor/ceiling assembly between the noncommunicating stories.

13. A floor opening that complies with Section 408 in an occupancy in Group I-3.

Delete subsection 707.14.1 Elevator lobby.

Add exception 4 to subsection 714.2.3 to read:

4. Horizontal sliding doors in smoke barriers that comply with Section 408.3 are permitted in smoke barriers in occupancies in Group I-3.

Add subsection 714.3.3.1 to read:

714.3.3.1. Security glazing. Security glazing protected on both sides by an automatic sprinkler system shall be permitted in doors and windows in smoke barriers in Group I-3 occupancies. Individual panels of glazing shall not exceed 1,296 square inches (0.84 m²), shall be in a gasketed frame and installed in such a manner that the framing system will deflect without breaking (loading) glazing before the sprinkler system operates. The sprinkler system shall be designed to wet completely the entire surface of the affected glazing when actuated.

Change Exceptions to subsection 715.5.3.1 to read:

715.5.3.1 Penetrations of shaft enclosures. Shaft enclosures that are permitted to be penetrated by ducts and air transfer openings shall be protected with approved fire and smoke dampers installed in accordance with their listing.

Exceptions:

1. Fire and smoke dampers are not required where steel exhaust subducts extend at least 22 inches (559 mm) vertically in exhaust shafts provided there is a continuous airflow upward to the outside.
2. Fire dampers are not required where penetrations are tested in accordance with ASTM E 119 as part of the fire-resistance rated assembly.
3. Fire and smoke dampers are not required where ducts are used as part of an approved smoke-control system in accordance with Section 909.
4. Fire and smoke dampers are not required where the penetrations are in parking garage exhaust or supply shafts that are separated from other building shafts by not less than 2-hour fire-resistance-rated construction.
5. Smoke dampers are not required where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

**IBC CHAPTER 9.
FIRE PROTECTION SYSTEMS.**

Change the following definition in subsection 902.1 to read:

Automatic Fire-extinguishing System. An approved system of devices and equipment which automatically detects a fire and discharges an approved fire-extinguishing agent onto or in the area of a fire and shall include among other systems an automatic sprinkler system, unless otherwise expressly stated.

Delete subsection 903.1.2 Residential systems.

Change subsection 903.2.1.3 to read:

903.2.1.3. Group A-3. An automatic sprinkler system shall be provided throughout a fire area containing a Group A-3 occupancy where one of the following conditions exists:

1. The fire area exceeds 12,000 square feet (1115 m²).
2. In Group A-3 occupancies other than churches, the fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than the level of exit discharge.

Exception: Areas used exclusively as participant sports areas where the main floor area is located at the same level as the level of exit discharge of the main entrance and exit.

Change subsection 903.2.8 to read:

903.2.8 Group R-2. An automatic sprinkler system shall be provided throughout all buildings with a Group R-2 fire area in accordance with Sections 903.3.1.1 or 903.3.1.2. The following exceptions are permitted when the necessary water pressure or volume, or both, for the automatic sprinkler system is not available.

Exceptions:

1. Buildings which do not exceed two stories, including basements which are not considered as a story above grade, and with a maximum of 16 dwelling units per fire area. Each dwelling unit shall have at least one door opening to an exterior exit access that leads directly to the exits required to serve that dwelling unit.

2. Buildings where all dwelling units are not more than two stories above the lowest level of exit discharge and not more than one story below the highest level of exit discharge of exits serving the dwelling unit and a two-hour fire barrier is provided between each pair of dwelling units. Each bedroom of a dormitory or boarding house shall be considered a dwelling unit under this exception.

Add exception to subsection 905.2 to read:

Exception: The residual pressure of 100 psi for 2-1/2 inch hose connection and 65 psi for 1-1/2 inch hose connection is not required in buildings equipped throughout with an automatic sprinkler system in accordance with section 903.3.1.1 and where the highest floor level is not more than 150 feet above the lowest level of fire department vehicle access.

Delete subsection 905.3.2 Building area.

Change subsection 905.3.4 to read:

905.3.4. Covered mall buildings. A Covered mall building shall be equipped throughout with a standpipe system where required by Section 905.3. Covered mall buildings not required to be equipped with a standpipe system by Section 905.3 shall be equipped with Class I hose connections connected to a system sized to deliver 250 gallons per minute (946.4 L/min.) at the most hydraulically remote outlet. Hose connections shall be provided at each of the following locations:

1. Within the mall at the entrance to each exit passageway or exit.
2. At each floor level landing within enclosed stairways opening directly on the mall.
3. At exterior public entrances to the mall.

Change subsection 905.8 to read:

905.8 Dry standpipe. Dry standpipes shall not be installed.

Exception: Where subject to freezing and in accordance with NFPA 14.

Change subsection 906.1 to read:

906.1. General. Portable fire extinguishers shall be provided in occupancies and locations as required by the International Fire Code, except that portable fire extinguishers shall not be required to be installed in Group R-2 occupancies.

Change subsection 907.2.10.1.2 to read:

907.2.10.1.2. Groups R-2, R-3, R-4 and I-1. Single- or multiple-station smoke alarms shall be installed and maintained in Groups R-2, R-3, R-4 and I-1, regardless of occupant load at all of the following locations:

1. On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.
2. In each room used for sleeping purposes.

Exception: In Group R-2 occupancies equipped throughout with an automatic sprinkler system installed in accordance with either sections 903.3.1.1 or 903.3.1.2, smoke detectors are not required in bedrooms where the bedrooms are equipped with residential sprinklers.

3. In each story within a dwelling unit, including basements and cellars but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

Add exception to subsection 907.9.1.1 to read:

Exception: In Group I-3 the ceiling mounted notification device heights shall be in accordance with ICC/ANSI A117.1, Section 702.3.3.2. Wall mounted notification height shall be permitted to be 120 inches and installed in accordance with A117.1, Section 702.3.3.1.

Change subsection 909.6 to read:

909.6 Pressurization method. When approved by the building official, the means of controlling smoke shall be permitted by pressure differences across smoke barriers. Maintenance of a tenable

environment is not required in the smoke-control zone of fire origin.

Add footnote “d” to Table 910.3 to read:

- d. Smoke and heat vents are not required when storage areas are protected by early-suppression fast-response (ESFR) sprinklers installed in accordance with NFPA 13 or NFPA 231.

**IBC CHAPTER 10.
MEANS OF EGRESS.**

Change subsection 1003.2.1 to read:

1003.2.1. Multiple occupancies. Where a building contains two or more occupancies, the means of egress requirements shall apply to each portion of the building based on the occupancy of that space. Where two or more occupancies utilize portions of the same means of egress system, those egress components shall meet the more stringent requirements of all occupancies that are served.

Exception: A 750 square feet or less room or space used for assembly purposes by less than 50 persons and which is accessory to another group shall be included as a part of that main group.

Change subsection 1003.2.2 to read:

1003.2.2. Design occupant load. In determining means of egress requirements, the number of occupants for whom means of egress facilities are to be provided shall be established in accordance with Sections 1003.2.2.1, 1003.2.2.2 or 1003.2.2.3 and shall not exceed the occupant load permitted by 1003.2.2.4.

Add subsection 1003.3.1.1.2 to read:

1003.3.1.1.2. Exterior sliding doors. In dwelling units of Group R-2 buildings, exterior sliding doors which are one story or less above grade, or shared by two dwelling units, or are otherwise accessible from the outside, shall be equipped with locks. The mounting screws for the lock case shall be inaccessible from the outside. The lock bolt shall engage the strike in a manner that will prevent it from being disengaged by movement of the door.

Exception: Exterior sliding doors which are equipped with removable metal pins or charlie bars.

Add subsection 1003.3.1.1.3 to read:

1003.3.1.1.3. Entrance doors. Entrance doors to dwelling units of Group R-2 buildings shall be equipped with door viewers with a field of vision of not less than 180 degrees.

Exception: Entrance doors having a vision panel or side vision panels.

Change subsection 1003.3.1.8.2 to read:

1003.3.1.8.2. Delayed egress locks. Approved, listed, delayed egress locks shall be permitted to be installed on doors serving any occupancy including Group A-3, airport facilities, except Group A, E and H occupancies in buildings which are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or an approved automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in accordance with the items 1 through 6 below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an exit.

1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire detection system.
2. The doors unlock upon loss of power controlling the lock or lock mechanism.
3. The door locks shall have the capability of being unlocked by a signal from the fire command center.
4. The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds (67 N) is applied for 1 second to the release device. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only.

Exception: Where approved, a delay of not more than 30 seconds is permitted.

5. A sign shall be provided on the door located above and within 12 inches (305 mm) of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 SECONDS.

Exception: Where approved, such sign shall read: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 30 SECONDS.

- Emergency lighting shall be provided at the door.

Add subsection 1003.3.1.8.5 to read:

1003.3.1.8.5. Security locking arrangements. In occupancies in Groups A-3, A-4, B, E, F, I, M and S within penal facilities, doors in means of egress serving rooms or spaces occupied by persons whose movements must be controlled for security reasons shall be permitted to be locked if equipped with egress control devices which shall unlock manually and by at least one of the following means:

- Actuation of an automatic fire suppression system required by Section 903.2.
- Actuation of a key-operated manual alarm station required by Section 907.2.
- A signal from a central control station.

Add exception 7 to subsection 1003.3.3.3 to read:

- Stairways in penal facilities serving guard towers, observation stations and control rooms not more than 250 square feet (23 m²) in area shall be permitted to have risers not exceeding 8 inches (203 mm) in height and treads not less than 9 inches (229 mm) in depth.

Change Exception 2 in subsection 1004.2.2.1 to read:

- Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, the separation distance of the exit doors or exit access doorways shall not be less than one-fourth of the length of the maximum overall diagonal dimension of the area served.

Change subsection 1004.2.3 to read:

1004.2.3 Egress through intervening spaces. Egress from a room or space shall not pass through adjoining or intervening rooms or areas, except where such adjoining rooms or areas are accessory to the area served; are not a high-hazard occupancy; and provide a discernible path of egress travel to an exit. A maximum of one exit access is permitted to

pass through kitchens, store rooms, closets or spaces used for similar purposes provided such a space is not the only means of exit access. An exit access shall not pass through a room that can be locked to prevent egress. Means of egress from dwelling units or sleeping areas shall not lead through other sleeping areas, toilet rooms or bathrooms.

Exceptions:

- Means of egress are not prohibited through a kitchen area serving adjoining rooms constituting part of the same dwelling unit or guestroom.
- Means of egress are not prohibited through rooms or spaces in a high-hazard occupancy where such rooms or spaces are the same occupancy group.

Change Table 1004.3.2.1 to read:

TABLE 1004.3.2.1.
CORRIDOR FIRE-RESISTANCE RATING.

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING (hour)	
		Without sprinkler system	With sprinkler system ^b
H-1, H-2, H-3	All	1	1
H-4, H-5	Greater than 30	1	1
A, B, E, F, M, S, U	Greater than 30	1	0
R	Greater than 10	1	1/2
I-2 ^a , I-4	All	Not permitted	0
I-1, I-3	All	Not permitted	0

- For requirements for occupancies in Group I-2, see Section 407.3.
- Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

**IBC CHAPTER 11.
ACCESSIBILITY.**

Add subsection 1103.1.1 to read:

1103.1.1. Identification of accessible parking spaces. In addition to complying with applicable provisions of this chapter, all accessible parking spaces shall be identified by above grade signs. A sign or symbol painted or otherwise displayed on the pavement of a parking space shall not constitute an

above grade sign. All above grade parking space signs shall have the bottom edge of the sign no lower than four feet (1219 mm) nor higher than seven feet (2133 mm) above the parking surface. 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 four feet above the parking surface.

**IBC CHAPTER 12.
INTERIOR ENVIRONMENT.**

Add subsection 1202.4.1.3 to read:

1202.4.1.3. Insect screens. Every door, window and other outside opening for natural ventilation serving structures classified as other than a residential group containing habitable rooms, food preparation areas, food service areas, or any areas where products to be included or utilized in food for human consumption are processed, manufactured, packaged, or stored, shall be supplied with approved tightly fitting screens of not less than 16 mesh per inch and every swinging door shall have a self-closing device.

Exception: Screen doors shall not be required for out swinging doors or other types of openings which make screening impractical, provided other approved means, such as air curtains or insect repellent fans are provided.

Add subsection 1202.4.1.4 to read:

1202.4.1.4. Insect screens serving structures classified as a residential group. Every door, window and other outside opening required for natural ventilation purposes which serves a structure classified as a residential group shall be supplied with approved tightly fitted screens of not less than 16 mesh per inch and every swinging door shall have a self-closing device.

Add exception to subsection 1206.1 to read:

Exception: Section 1206.4 applies to the construction of the exterior envelope of residential structures and shall be enforced only after action by the local governing body of any county, city or town under § 15.2-2295 of the Code of Virginia.

Add subsection 1206.4 to read:

1206.4. Airport noise attenuation standards. Where the Ldn is determined to be 65 dBA or greater, the minimum STC rating of structure components shall be provided in compliance with Table 1206.4. As an alternative to compliance with Table 1206.4, structures shall be permitted to be designed and constructed so as to limit the interior noise level to no greater than 45 Ldn. Exterior structures, terrain and permanent plantings shall be permitted to be included as part of the alternative design. The alternative design shall be certified by a RDP.

Add Table 1206.4 to read:

**TABLE 1206.4.
AIRPORT NOISE ATTENUATION STANDARDS.**

LDN	STC OF EXTERIOR WALLS AND ROOF/CEILING ASSEMBLIES	STC OF DOORS AND WINDOWS
65-69	39	25
70-74	44	33
75 or greater	49	38

**IBC CHAPTER 16.
STRUCTURAL DESIGN.**

Change the following definition in section 1602.1 to read:

Boundary members. Strengthened portions along shear wall and diaphragm edges. (also called boundary elements)

Delete the following definition in section 1602.1:

Coupling beam

Change Figure 1609 to Table 1609 to read:

**TABLE 1609.
BASIC WIND SPEEDS FOR VIRGINIA LOCALITIES BASED ON BASIC WIND SPEED (3 Second Gust) MAP.**

90 V mph (m/s)	100 V mph (m/s)	110 V mph (m/s)	SPECIAL WIND REGION
All other localities	City of Chesapeake City of Franklin Gloucester County City of Hampton Isle of Wight County Lancaster County	Accomack County Northampton County City of Virginia Beach	Bland County Grayson County Scott County Smyth County Tazewell County Washington County Wythe

	Mathews County Middlesex County City of Newport News City of Norfolk Northumber- land County City of Poquoson City of Portsmouth Southampton County City of Suffolk Surry County York County		County
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Note:The basic wind speed for Virginia towns shall be the same as the county in which the town is located.

Change subsection 1609.3 to read:

1609.3. Basic wind speed. The basic wind speed, in miles per hour, for the determination of the wind loads shall be determined by Table 1609. Basic wind speed for the special wind regions indicated, near mountainous terrain, and near gorges, shall be in accordance with local jurisdiction requirements determined in accordance with Section 6.5.4 of ASCE 7.

Add subsection 1612.1.1 to read:

1612.1.1. Manufactured homes. New or replacement manufactured homes to be located in any flood hazard zone shall be placed in accordance with the applicable elevation requirements of this code.

Exception: Manufactured homes installed on sites in an existing manufactured home park or subdivision shall be permitted to be placed no less than 36 inches (914 mm) above grade in lieu of being elevated at or above the base flood elevation provided no manufactured home at the same site has sustained flood damage exceeding 50% of the market value of the home before the damage occurred.

Add exception to section 1616.3 to read:

Exception: Where the approximate fundamental period of the structure T_a in each of two orthogonal directions determined in accordance with Section

1617.4.2 is less than T_s determined in accordance with Section 1615.1.3 and Equation 16-35 is used to determine the seismic response coefficient, C_s , the Seismic Design Category is permitted to be determined based solely on the Seismic Use Group and short period spectral response acceleration, S_{DS} , in accordance with Table 1615.1.3(1).

**IBC CHAPTER 17.
STRUCTURAL TESTS AND SPECIAL INSPECTIONS.**

Change subsection 1704.1 to read:

1704.1. General. Where application is made for construction as described in this section, the owner or the RDP in responsible charge acting as the owner’s agent shall employ one or more special inspectors to provide inspections during construction on the types or work listed under Section 1704. The special inspector shall be a qualified person who shall demonstrate competence, to the satisfaction of the building official, for inspection of the particular type of construction or operation requiring special inspection. These inspections are in addition to the inspections specified in Section 115.4.

Exceptions:

1. Special inspections are not required for work of a minor nature or as warranted by conditions in the jurisdiction as approved by the building official.
2. Special inspections are not required for building components unless the design involves the practice of professional engineering or architecture as defined by the laws of this Commonwealth and regulations governing the professional registration and certification of engineers and architects.
3. Unless otherwise required by the building official, special inspections are not required for occupancies in Groups R-3, R-4 or R-5 and occupancies in Group U that are accessory to a residential occupancy including, but not limited to, those listed in Section 312.1.

Change subsection 1704.1.1 to read:

1704.1.1. Building permit requirement. The permit applicant shall submit a statement of special inspections prepared by the registered design

professional in accordance with Section 111.5. This statement shall include a complete list of materials and work requiring special inspections by this section, the inspections to be performed and a list of

the individuals, approved agencies or firms intended to be retained for conducting such inspections.

Add category 11 to Table 1704.4 to read:

VERIFICATION AND INSPECTION	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE
11. Inspection of concrete formwork, shoring and re-shoring.	—	X	ACI 318: 6.1, 6.2	1906

IBC CHAPTER 18.
SOILS AND FOUNDATIONS.

IBC CHAPTER.
27 ELECTRICAL.

Change exception to subsection 1803.4, Compacted fill material, to read:

Add subsection 2701.1.1 to read:

Exception: Compacted fill material less than 12 inches (305 mm) in depth need not comply with an approved report, provided it is a natural non-organic material that is not susceptible to swelling when exposed to moisture and it has been compacted to a minimum of 90 percent Modified Proctor in accordance with ASTM D1557. The compaction shall be verified by a qualified inspector approved by the building official. Material other than natural material may be used as fill material when accompanied by a certification from a RDP and approved by the building official.

2701.1.1. Amendment to ICC Electrical Code (EC). The following change shall be made to the 2000 ICC Electrical Code:

Add subsection 801.2.1 to read:

801.2.1. One- and two-family dwellings. The building official shall give permission to energize the electrical service equipment of a one- or two-family dwelling unit when all of the following requirements have been approved:

Change Table 1805.4.2 to read:

TABLE 1805.4.2.
FOOTINGS SUPPORTING WALLS OF
LIGHT-FRAME CONSTRUCTION ^{a, b, c, d, e f and g}

NUMBER OF FLOORS SUPPORTED BY THE FOOTING ^f	WIDTH OF FOOTING (inches)	THICKNESS OF FOUNDATION WALL (inches)
1	12	6
2	15	6
3	18	8 ^g

For SI: 1 inch = 25.4 mm.

- a. Depth of footing shall be in accordance with Section 1805.2.
- b. The ground under the floor is permitted to be excavated to the elevation of the top of the footing.
- c. Interior-stud-bearing walls are permitted to be supported by isolated footings. The footing width and length shall be twice the width shown in this table, and footings shall be spaced not more than 6 feet on center.
- d. See Section 1910 for additional requirements for footings of structures assigned to Seismic Design Categories C, D, E and F.
- e. For thickness of foundation walls, see Section 1805.5.
- f. Footings are permitted to support a roof in addition to the stipulated number of floors. Footings supporting roof only shall be as required for one floor.
- g. Plain concrete footings for Group R-3 occupancies are permitted to be 6 inches thick.

1. The service wiring and equipment, including the meter socket enclosure, shall be installed and the service wiring terminated.
2. The grounding electrode system shall be installed and terminated.
3. At least one receptacle outlet on a ground fault protected circuit shall be installed and the circuit wiring terminated.
4. Service equipment covers shall be installed.
5. The building roof covering shall be installed.
6. Temporary electrical service equipment shall be suitable for wet locations unless the interior is dry and protected from the weather.

Add subsection 2701.1.2 to read:

2701.1.2. Amendments to NFPA 70. The following changes shall be made to NFPA 70-99 listed in the 2000 ICC Electrical Code:

Change subsection 336-5 (a) (1) to read:

- (1) In any dwelling or structure exceeding four floors above grade.

**IBC CHAPTER 28.
MECHANICAL SYSTEMS.**

Add exception to subsection 2801.1 to read:

Exception: This code shall not govern the installation, alteration and repair of water heaters, boilers and pressure vessels to the extent which they are regulated by the Virginia Boiler and Pressure Vessel Regulations (16 VAC 25-50). However, the building official may require the owner of a structure to submit documentation to substantiate compliance with those regulations.

Add subsection 2801.1.1 to read:

2801.1.1. Heating facilities. Heating facilities shall be provided in structures as follows:

- 1. Every dwelling unit or portion thereof which is to be rented, leased or let on terms, either expressed or implied, to furnish heat to the occupants thereof shall be provided with heating facilities capable of maintaining the room temperature at 65°F (18°C) during the period from October 15 to May 1 during the hours between 6:30 a.m. and 10:30 p.m. of each day and not less than 60°F (16°C) during other hours when measured at a point three feet (914 mm) above the floor and three feet (914 mm) from the exterior walls. The capability of the heating system shall be based on the outside design temperature required for the locality by this code.
- 2. Every enclosed occupied work space in nonresidential structures shall be provided with heating facilities capable of producing sufficient heat during the period from October 1 to May 15 to maintain a temperature of not less than 65°F (18°C) during all working hours. The required room temperature shall be measured at a point three feet (914 mm) above the floor and three feet (914 mm) from the exterior walls.

Processing, storage and operation areas that require cooling or special temperature conditions and areas in which persons are primarily engaged in vigorous physical activities are exempt from these requirements.

Change International Fuel Gas Code (IFGC) subsection 301.1 to read:

301.1 Application. The IFGC shall apply to the installation of fuel gas piping systems, fuel gas utilization equipment, and related accessories as follows:

- 1. Coverage of piping systems shall extend from the point of delivery to the connections with gas utilization equipment. (See “point of delivery”.)
- 2. a. Systems with an operating pressure of 125 psig (862 kPa gauge) or less.
- b. Piping systems for gas-air mixtures within the flammable range with an operating pressure of 10 psig (69 kPa gauge) or less.
- c. LP-Gas piping systems with an operating pressure of 20 psig (140 kPa gauge) or less.
- 3. Piping systems requirements shall include design, materials, components, fabrication, assembly, installation, testing, inspection, operation, and maintenance.
- 4. Requirements for gas utilization equipment and related accessories shall include installation, combustion and ventilation air and venting.

301.1.1 Exemptions. The IFGC shall not apply to the following:

- 1. Portable LP-Gas equipment of all types that are not connected to a fixed fuel piping system.
- 2. Installation of farm equipment such as brooders, dehydrators, dryers, and irrigation equipment.
- 3. Raw material (feedstock) applications except for piping to special atmosphere generators.

4. Oxygen-fuel gas cutting and welding systems.
5. Industrial gas applications using gases such as acetylene and acetylenic compounds, hydrogen, ammonia, carbon monoxide, oxygen, and nitrogen.
6. Petroleum refineries, pipeline compressor or pumping stations, loading terminals, compounding plants, refinery tank farms, and natural gas processing plants.
7. Integrated chemical plants or portions of such plants where flammable or combustible liquids or gases are produced by chemical reactions or used in chemical reactions.
8. LP-Gas installations at utility gas plants.
9. Liquefied natural gas (LNG) installations.
10. Fuel gas piping in power and atomic energy plants.
11. Proprietary items of equipment, apparatus, or instruments such as gas generating sets, compressors, and calorimeters.
12. LP-Gas equipment for vaporization, gas mixing, and gas manufacturing.
13. Temporary LP-Gas piping for buildings under construction or renovation that is not to become part of the permanent piping system.
14. Installation of LP-Gas systems for railroad switch heating.
15. Installation of LP-Gas and compressed natural gas (CNG) systems on vehicles.
16. Except as provided in Section 401.1.1, gas piping, meters, gas pressure regulators, and other appurtenances used by the serving gas supplier in the distribution of gas, other than undiluted LP-Gas.

17. Building design and construction, except as specified herein.

301.1.2 Other fuels. The requirements for combustion and dilution air for gas-fired appliances shall be governed by Section 304. The requirements for combustion and dilution air for appliances operating with fuels other than fuel gas shall be regulated by the International Mechanical Code.

Add IFGC subsection 404.8.3 to read:

404.8.3. Coating application. Joints in ferrous metal piping exposed in exterior locations shall not be coated prior to testing and approval.

**IBC CHAPTER 29.
PLUMBING SYSTEMS.**

Change subsection 2901.1 to read:

2901.1. Scope. The design and installation of plumbing systems, including sanitary and storm drainage, sanitary facilities, water supplies and storm water and sewage disposal in buildings, shall comply with the requirements of this chapter and the plumbing code listed in Chapter 35.

Water supply sources and sewage disposal systems are regulated and approved by the Virginia Department of Health. Plumbing fixtures shall be connected to an approved water supply source and to an approved sanitary sewer or private sewage disposal system. Approval of pumping and electrical equipment shall be the responsibility of the building official.

Add subsection 2901.1.1 to read:

2901.1.1. Amendments to the plumbing code. The following change shall be made to the plumbing code listed in Chapter 35:

1. Delete Section 311 Toilet Facilities for Workers and subsection 311.1 General.

**IBC CHAPTER 30.
ELEVATORS AND CONVEYING SYSTEMS.**

Change subsection 3001.2 to read:

3001.2 Referenced standards. Except as otherwise provided for in this code, the design, construction, installation, alteration and repair of elevators and

conveying systems and their components shall conform to ASME A17.1, ASME A90.1, ASME B20.1, ALI-ALCTV, and ASCE 24 for construction in flood hazard areas established in Section 1612.3. Platform lifts shall comply with ASME A18.1.

Change subsection 3002.4 to read:

3002.4 Elevator car to accommodate ambulance stretcher. In buildings four stories in height or more with one or more elevators, at least one elevator shall be provided for fire department emergency access to all floors. Such elevator car shall be of such a size and arrangement to accommodate a 24-inch by 76-inch (610 mm by 1930 mm) ambulance stretcher in the horizontal, open position and shall be identified by the international symbol for emergency medical services (star of life). The symbol shall not be less than 3 inches (76 mm) high and shall be placed inside on both sides of the hoistway doorframe.

Exceptions:

1. Elevators in multistory dwelling units or guest rooms.
2. Existing buildings.
3. New buildings four stories in height or more, which the owner proposes to build without one or more elevators.

**IBC CHAPTER 31.
SPECIAL CONSTRUCTION.**

Change subsection 3104.2 to read:

3104.2. Separate structures. Connected buildings shall be considered to be separate structures.

Exceptions:

1. Buildings on the same lot in accordance with Section 503.1.3.
2. For purposes of calculating the number of Type B units required by Chapter 11, structurally connected buildings and buildings with multiple wings shall be considered one building.

Change subsection 3104.5 to read:

3104.5 Fire barriers between pedestrian walkways and buildings. Walkways shall be

separated from the interior of the building by fire barrier walls with a fire-resistance-rating of not less than 2 hours. This protection shall extend vertically from a point 10 feet (3048 mm) above the walkway roof surface or the connected building roof line, whichever is lower, down to a point 10 feet (3048 mm) below the walkway and horizontally 10 feet (3048 mm) from each side of the pedestrian walkway. Openings within the 10 foot (3048 mm) horizontal extension of the protected walls beyond the walkway shall be equipped with devices providing a 3/4-hour fire protection rating in accordance with Section 714.

Exception: The walls separating the pedestrian walkway, having a maximum height above grade of three stories or 40 feet (12,192 mm), or five stories or 55 feet (16,764 mm) where sprinklered, from a connected building are not required to have a fire-resistance rating by this section where any of the following conditions exist:

1. The distance between the connected buildings is more than 10 feet (3,048 mm), the pedestrian walkway and connected buildings are equipped throughout with an automatic sprinkler system in accordance with NFPA 13, and the wall is constructed of a tempered, wired or laminated glass wall and doors subject to the following:
 - 1.1. The glass shall be protected by an automatic sprinkler system in accordance with NFPA 13 and the sprinkler system shall completely wet the entire surface of interior sides of the glass wall when actuated.
 - 1.2. The glass shall be in a gasketed frame and installed in such a manner that the framing system will deflect without breaking (loading) the glass before the sprinkler operates.
 - 1.3. Obstructions shall not be installed between the sprinkler heads and the glass.
2. The distance between the connected buildings is more than 10 feet (3,048 mm), and both side walls of the

pedestrian walkway are at least 50 percent open with the open area uniformly distributed to prevent the accumulation of smoke and toxic gases.

3. Buildings are on the same lot, in accordance with Section 503.1.3.
4. Where exterior walls of connected buildings are required by Section 704 to have a fire-resistance rating greater than 2 hours, the walkway shall be equipped throughout with an automatic sprinkler system installed in accordance with NFPA 13.

**IBC CHAPTER 33.
SAFEGUARDS DURING CONSTRUCTION.**

Delete subsection 3305.1 Facilities required.

**IBC CHAPTER 34.
EXISTING STRUCTURES.**

Delete section 3401.2.

Delete section 3401.3.

Change subsection 3402.1 to read:

3402.1. Reconstruction, alteration or repair. Reconstruction, alterations and repairs shall not result in an increase in hazard to the occupants. Portions of the structure not altered and not affected by the alteration are not required to comply with the code requirements for a new structure. Work shall be done in such a way so as not to lower existing levels of health and safety. The installation of material and equipment that is neither required nor prohibited need only comply with the USBC requirements that regulate a safe installation. Material and equipment may be replaced with material and equipment of a similar kind or with greater capacity in the same location. Used material and equipment may be used as approved by the building official.

Add subsection 3402.1.1 to read:

3402.1.1. Additions. Additions to any structure shall conform to the requirements of the USBC for new construction. Additions shall not be made to an existing structure that will cause the existing structure to be in violation of the USBC. An existing structure plus alterations and additions shall comply

with the height and area provisions of Chapter 5. Any portions of the structure not altered and not affected by alterations or additions are not required to comply with the USBC requirements for a new structure.

Exception: Any additions, alterations or repairs, other than ordinary repairs, that constitute substantial improvement of existing structures located in flood hazard areas established in Section 1612.3 and as defined in Section 1612.2, shall comply with the flood design requirements for new construction and all aspects of the existing structure shall be brought into compliance with the requirements for new construction for flood design.

Change section 3403 to read:

**SECTION 3403.
HANDICAPPED PARKING SPACES.**

3403.1 Conformance. All parking spaces reserved for the use of handicapped persons 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 handicapped persons. 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 handicapped within the meaning of this section.

All above grade handicapped parking space signs shall have the bottom edge of the sign no lower than four feet (1219 mm) nor higher than seven 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 four feet above the parking surface.

Change section 3404 to read:

**SECTION 3404.
GLASS REPLACEMENT.**

3404.1 Conformance. The installation or replacement of glass shall be as required for safety glazing in new installations.

Change section 3405 to read:

**SECTION 3405.
CHANGE OF OCCUPANCY.**

3405.1. Conformance. The owner or his agent shall, in writing, apply to and obtain from the building official a new certificate of occupancy prior to a change in the existing occupancy classification of a structure or portion thereof. When the current USBC requires a greater degree of structural strength, fire protection, means of egress, ventilation or sanitary provision for the new occupancy, the owner or his agent shall, in writing, apply and obtain a permit from the building official. When it is impractical to achieve compliance with the USBC, the building official shall issue, upon application, modifications as provided in Section 109.2 of the USBC.

Delete section 3407.

Change section 3409.2 to read:

3409.2 Applicability. The provisions in Sections 3409.2.1 through 3409.2.5 shall not apply to existing occupancies that will continue to be, or are proposed to be, in Groups A, B, E, F, M, R, S and U unless specifically requested by the owner or his agent to apply such sections. These provisions shall not apply to buildings with occupancies in Groups H or I.

**IBC CHAPTER 35
REFERENCED STANDARDS.**

Add new referenced standard as follows:

STANDARD REFERENCE NUMBER	TITLE	REFERENCED IN CODE SECTION NUMBER
ASTM E329-02	Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction	113.2

Part III.

MAINTENANCE OF EXISTING STRUCTURES.

Article 1.

ADMINISTRATION.

SECTION 125.0.
SCOPE.

125.1. General. The provisions of this part of the USBC prescribe building maintenance regulations to be complied with in the maintenance and repair of existing structures and equipment. Such provisions are only enforceable following official action by the locality. The official action shall (i) require compliance with "any or all maintenance provisions of this part of this chapter of the USBC" and (ii) assign enforcement responsibility to the local agency or agencies of its choice. The terms "local enforcing agency" and "building maintenance official" are intended to apply to the agency or agencies to which responsibility for enforcement of this part has been assigned. The terms "building official" or "local building department" apply only to the local building official or local building department.

125.2. Purpose. The purpose of this part of the USBC is to ensure public safety, health and welfare through proper building maintenance, repair, use and continued compliance with minimum standards of building construction, energy conservation, water conservation, and physically handicapped and aged accessibility, as applicable under the building regulations in effect when the building was constructed or its use changed. Proper building maintenance and repair shall be deemed to include the maintenance, repair, testing and inspection of equipment as defined by the Uniform Statewide Building Code Law (§ 36-97 et seq. of the Code of Virginia).

SECTION 126.0.
APPLICABILITY.

126.1. Effect on other codes. Following official action by the locality, this part of Chapter 1 of the USBC shall apply to all existing structures as defined in the Uniform Statewide Building Code Law (§ 36-97 et seq. of the Code of Virginia). This part of the USBC supersedes all building maintenance codes and regulations of the counties, municipalities, political subdivisions and state agencies that have been or may be enacted or adopted. However, this will not prevent adoption in accordance with Title 15.2 of the Code of Virginia or other special or general legislation, other requirements by a locality which do not affect the manner of construction or materials to be used in the erection, alteration, repair, maintenance or use of a structure.

126.2. Pre-USBC buildings and structures. Following official action by the locality, existing buildings and structures or portions thereof constructed, altered or occupancy converted prior to September 1, 1973, shall be maintained in compliance with the provisions of this part of the USBC, to the extent that equipment, systems, devices, and safeguards which were required, provided and approved when constructed shall be maintained. No provisions of this part shall require alterations to structures or equipment unless an unsafe or unfit condition exists.

126.3. Post-USBC buildings and structures. Following official action by the locality, existing buildings and structures or portions thereof and equipment, subject to the USBC when constructed, altered or occupancy converted shall be maintained and repaired in compliance with this part of this chapter and the USBC edition in effect when constructed, altered or converted, to the extent that equipment, systems, devices, and safeguards which were required, provided and approved when constructed shall be maintained. No provisions of this part shall require alterations to structures or equipment unless an unsafe or unfit condition exists.

126.4. Limitation of application. No provision of this part of the USBC and the standards referenced therein may be used to require alterations to the design or equipment or any portion of a structure that was subject to the USBC when constructed, altered or converted as to group, and which is occupied in accordance with the certificate of occupancy issued under the applicable edition of the USBC.

126.2.5. Exemptions. Exemptions from application of this part of the USBC shall be in accordance with the exemptions from application of the USBC (see part I (13 VAC 5-62-10 et seq.) of this code); however, following official action by the locality, this part of the USBC may apply to industrialized buildings and manufactured homes.

SECTION 127.0.
USE OF MODEL CODES AND STANDARDS.

127.1. Adoption. The following document, as amended by the Board of Housing and Community Development (BHCD), is adopted and incorporated by reference to be an enforceable part of the USBC: The International Property Maintenance Code 2000, hereinafter referred to

as "IPMC," published by the International Code Council, Inc. (ICC).

127.1.1. Deletion. Delete IPMC Chapter 1 and replace with Parts I and III of this code.

127.1.2. Use of standards. The codes and standards referenced in the IPMC shall be those listed in Chapter 8 and considered part of the requirements of USBC to the prescribed extent of each such reference, as applicable under the building regulations in effect when the building was constructed or its use changed. However, no provisions of such codes and standards shall be used to require alterations to buildings, structures or equipment unless an unsafe or unhealthy condition exists.

127.2. Administrative and enforcement amendments. All requirements of the IPMC and the standards referenced therein that relate to fees, permits, unsafe notices, disputes, condemnation, scope of enforcement and inspections, and all other procedural and administrative matters are deleted and replaced by the provisions of Parts I and III of the USBC and shall be used by enforcement personnel. The purpose of this provision is to eliminate overlap, conflict and duplication by providing a single standard for administration, procedural matters and enforcement of this part of the USBC.

127.3. Other amendments. See the amendments made in Article 2 (13 VAC 5-62-480) of this part to the IPMC and its referenced standards for use as part of the USBC.

SECTION 128.0. PERMITS AND FEES.

128.1. Permits. Alterations, repairs, installations, construction or demolition shall be subject to the building permit, certificate of occupancy and other provisions of Parts I and II of the USBC.

128.2. Fees. Section 36-105 of the Code of Virginia provides that fees are permitted to be levied by the locality in order to defray the cost of enforcement and appeals.

SECTION 129.0. DUTIES AND POWERS OF THE BUILDING MAINTENANCE OFFICIAL.

129.1. General. The building maintenance official shall enforce the provisions of Parts I and III of the USBC as provided herein and as interpreted by the TRB.

129.2. Right of inspection. The building maintenance official may inspect existing structures and equipment to enforce this part of the USBC as authorized by § 36-105 of the Code of Virginia. The building maintenance official and assistants shall carry proper credentials of office when inspecting structures and equipment in the performance of duties under the USBC.

129.3. Reports of inspections. The building maintenance official shall approve the maintenance or use in writing or give written notice of defective maintenance or use to the owner and the person responsible for maintenance or use of a structure. Upon the request of the owner the notice shall reference the USBC section that serves as the basis for the defects and such defects shall be corrected within a reasonable time and reinspected. Records of all reports of inspections, tests, examinations, discrepancies, notices, approvals, modifications and orders issued shall be communicated promptly in writing to the owner and the person responsible for maintenance or use of a structure.

129.4. Inspection of unsafe structures. The building maintenance official shall examine any existing structure reported as unsafe, and shall prepare a report to be filed in the records of the local enforcing agency and a copy issued to the owner. The report shall include the use of the structure, a description of unsafe conditions found and the nature and extent of the conditions.

129.5. Modifications. The building maintenance official may grant modification to any provision of this part upon application by the owner or the owner's agent provided the spirit and intent of the USBC are observed and public health, welfare, and safety are assured.

129.5.1. Supporting data. The building maintenance official may also require and consider a statement from an architect, professional engineer or other competent person as to the equivalency of the proposed modification.

129.5.2. Application. The application for modification and the final decision of the building maintenance official shall be in writing and shall be recorded in the permanent records of the local enforcing agency.

129.6. Delegation of duties and powers. The building maintenance official may delegate duties and powers subject to any limitations imposed by the locality, but shall be responsible that any such powers and duties are carried out in accordance with the USBC.

129.7. Enforcing agency records. The building maintenance official shall keep records of reports of

inspections, tests, examinations, discrepancies, notices, approvals, fees collected, modifications and orders issued and such other matters as directed by the locality. Such records shall be retained in the official records or shall be disposed of in accordance with General Schedule Number Six available from the Library of Virginia.

129.8. Coordination with other agencies. The building maintenance official shall cooperate with fire, health and other state and local agencies having related maintenance, inspection or functional design responsibilities, and shall coordinate required inspections. The building maintenance official shall coordinate all reports of inspections for compliance with Parts I and III of the USBC, with inspections of fire and health officials delegated such authority.

SECTION 130.0. UNSAFE STRUCTURES.

130.1. General. This section shall apply to existing unsafe structures, unsafe equipment and structures unfit for human occupancy. All such structures shall either be made safe through compliance with this code or be vacated and secured against public entry, unless the building maintenance official determines that the potential for collapse requires that the unsafe structure be razed or removed in accordance with Section 130.6.4. All work shall comply with the requirements of USBC Parts I and II.

130.2. Unsafe conditions not related to maintenance. When the building maintenance official finds a condition that constitutes a serious and dangerous hazard to life or health in an existing structure which was constructed, altered, converted, or repaired before the effective date of the initial edition of the USBC, and when such condition was not caused by faulty maintenance, or by failure to comply with the applicable state and local regulations that were in effect at the time, the building maintenance official is permitted to order the minimum changes needed to remedy the hazardous condition.

130.2.1. Retrofitting. Parts I and III of the USBC do not generally provide for retrofitting of an existing structure. However, conditions may exist in older structures, because of faulty design or equipment, which constitute such serious and dangerous hazards that correction is necessary to protect life and health. It is not the intent of this section that such changes comply fully with the requirements of Parts I and II of the current edition of the USBC. Only those changes that are needed to remedy the serious and dangerous hazards to life or

health may be required by the building maintenance official.

130.3. Notice of unsafe structure. If an existing structure is found to be unsafe, the building maintenance official shall issue a notice of unsafe structure to the owner, the owner's agent or person in control of the unsafe existing structure. The notice shall specify the required repairs or improvements to be made to the structure, or require the unsafe structure, or portion of the structure to be taken down and removed within a stipulated time. The notice shall be in the form prescribed in Section 105 and delivered in accordance with section 105.2.1, except the provisions of parts (i) & (ii) of section 105.2 shall not apply. Such notice shall require the person thus notified to declare immediately upon receipt, to the building maintenance official, acceptance or rejection of the terms of the notice.

Note: Whenever possible, the notice of unsafe structure should also be given to the tenants of the unsafe structure.

130.3.1. Posting of notice. If the person named in the notice of unsafe structure and the owner cannot be found, the notice shall be sent by registered or certified mail to the last known address of such persons. A copy of the notice shall be posted in a conspicuous place on the premises. Such procedure shall be deemed the equivalent of personal notice.

130.3.2. Placarding. Upon failure of the person issued the notice of unsafe structure to comply with the notice provisions within the time given, the building maintenance official shall post a placard at each entrance to such structure that reads: "THIS STRUCTURE IS UNSAFE OR UNFIT FOR HABITATION AND ITS USE OR OCCUPANCY HAS BEEN PROHIBITED BY THE BUILDING MAINTENANCE OFFICIAL."

130.3.3. Prohibited occupancy. Upon the posting of the placard, no person shall enter such structure except upon authorization by the building maintenance official for one of the following purposes: (i) to make the required repairs, (ii) to take the structure down and remove it, or (iii) to make inspections.

130.3.4. Removal of placard. The building maintenance official shall remove the placard whenever the defect or defects upon which the notice of unsafe structure were based have been eliminated. No person shall deface or remove a placard without the approval of the building maintenance official.

130.3.5. Disregard of notice. If the person issued a notice of unsafe structure or the owner refuses or fails to comply with requirements of the notice to abate the unsafe condition, the building maintenance official may revoke the certificate of occupancy.

130.4. Vacant open structures. If a structure is vacant, open and unfit for human habitation, and is not in danger of structural collapse, the building maintenance official shall post a placard at each entrance to such structure that reads: "THIS STRUCTURE IS UNSAFE OR UNFIT FOR HABITATION AND ITS USE OR OCCUPANCY HAS BEEN PROHIBITED BY THE BUILDING MAINTENANCE OFFICIAL." The building maintenance official shall issue a report of inspection in accordance with Section 115.9. Upon the failure of the owner to comply with the report of inspection the building maintenance official shall issue a notice of violation in accordance with Section 105. Upon the failure of the owner to comply with the notice of violation the building maintenance official shall have the necessary work done to the extent permitted by the locality to make such structure secure against public entry, whether or not legal action to compel compliance has been instituted.

130.5. Authority to vacate structure. When in the opinion of the building maintenance official, there is actual and immediate danger of failure or collapse of an existing structure or any part thereof which would endanger life; or when any structure or part thereof has fallen and life is endangered by occupancy of the structure; or when any other hazardous condition poses an immediate and serious threat to life; or when a structure is declared an unsafe structure, or unfit for human habitation, the building maintenance official shall order the occupants to vacate the structure and shall post a placard at each entrance to such structure that reads: "THIS STRUCTURE IS UNSAFE OR UNFIT FOR HABITATION AND ITS USE OR OCCUPANCY HAS BEEN PROHIBITED BY THE BUILDING MAINTENANCE OFFICIAL." and shall issue a notice of unsafe structure in accordance with section 130.3.

130.6. Temporary safeguards and emergency repairs. When, in the opinion of the building maintenance official, there is immediate danger of collapse or failure of an existing structure or any part thereof which would endanger life, or when a violation of Part I (13 VAC 5-62-10 et seq.) or III (13 VAC 5-62-420 et seq.) of the

USBC results in a hazard that creates an immediate, serious and imminent threat to the life and safety of the occupants, the building maintenance official shall have the necessary work done to the extent permitted by the locality to make such structure or part thereof temporarily safe, whether or not legal action to compel compliance has been instituted. All work shall comply with the requirements of USBC Parts I 13 VAC 5-62-10 et seq. and II (13 VAC 5-62-70 et seq.).

130.6.1. Closing streets. When necessary for the public safety, the building maintenance official shall temporarily close structures and close, or order the authority having jurisdiction to close, sidewalks, streets, public ways and places adjacent to unsafe structures, and prohibit the same from being utilized.

130.6.2. Emergency repairs. For the purposes of this section, the building maintenance official shall, to the extent permitted by the locality, employ the necessary labor and materials to perform the required work as expeditiously as possible.

130.6.3. Costs of emergency repairs. The legal counsel of the locality may institute appropriate action against the owner to recover the necessary costs incurred in the performance of emergency work reasonably required to abate any such immediate danger.

130.6.4. Public removal. Whenever the owner of a structure fails to comply with the requirements of the notice of unsafe structure, the building maintenance official may cause the structure to be razed or removed, according to authority granted by the locality. If the unsafe structure presents an imminent and immediate threat to life or property, then the locality may abate, raze, or remove such unsafe structure, and bring an action against the responsible party to recover the necessary costs incurred for the provision of public emergency services reasonably required to abate any such unsafe structure, according to authority granted to the locality.

Note: A locality may, after official action under §§ 15.2-900, 15.2-906 or 15.2-1115 of the Code of Virginia, maintain an action to compel a responsible party to abate, raze, or remove a public nuisance.

Article 2.

TECHNICAL AMENDMENTS.

**SECTION 131.0.
IPMC AMENDMENTS.**

The following changes shall be made to the model codes and standards as indicated in this article for use as part of the USBC.

1. IPMC Chapter 1 was deleted in USBC, Chapter 1, Part III, Article 1.
2. Replace term "code official" with "building maintenance official" in the entire IPMC.
3. IPMC Section 202.0. General definitions.

Add the following definitions to read:

Unsafe structure: An existing structure that is judged to be dangerous to the health, safety and welfare of the occupants of the structure or the public, or an existing structure that contains unsafe equipment or is so damaged, decayed, dilapidated, structurally unsafe, or of such faulty construction or unstable foundation, that partial or complete collapse is likely. A vacant existing structure, unsecured or open, shall be deemed a fire hazard and unsafe.

Unsafe equipment: Unsafe equipment includes any boiler, heating equipment, elevator, moving stairway, electrical wiring or device, flammable liquid containers or other equipment which is in such disrepair or condition that such equipment is judged to be dangerous to the health, safety and welfare of the occupants of structures or the public.

Structure unfit for human occupancy: An existing structure that is judged to be dangerous to the health, safety and welfare of the occupants of the structure or the public because of the degree to which the structure is in disrepair or lacks maintenance, or lacks ventilation, illumination, sanitary or heating facilities or other essential equipment, or if the required plumbing and sanitary facilities are inoperable.

4. Delete IPMC subsections 302.1, 302.4, 302.8, 302.9, and 306.
5. Change IPMC subsection 302.2 to read:

302.2. Grading and drainage. All premises shall be graded and maintained to protect the foundation walls or slab of the structure from the accumulation and drainage of surface or stagnant water in accordance with the USBC.

6. Change IPMC subsection 302.3 to read:

302.3. Sidewalks and driveways. All sidewalks, walkways, stairs, driveways, parking spaces and similar spaces, regulated under the USBC, shall be kept in a proper state of repair, and maintained free from hazardous conditions. Stairs shall comply with the requirements of Sections 304 and 702.

7. Change IPMC subsection 302.5 to read:

302.5. Rodent harborage. All structures and adjacent premises shall be kept free from rodent harborage and infestation where such harborage or infestation adversely affects the structures.

8. In IPMC subsection 303.14, Insect screens, add the date "April 1" to the first bracketed DATE area and "December 1" to the second bracketed DATE area.

9. Add IPMC subsection 304.7 to read:

304.7. Lead-based paint. Interior and exterior painted surfaces of dwellings and child care facilities, including fences and outbuildings, which contain lead levels equal to or greater than 1.0 milligram per square centimeter or in excess of 0.50 percent lead by weight shall be maintained in a condition free from peeling, chipping and flaking paint or removed or covered in an approved manner. Any surface to be covered shall first be identified by approved warning as to the lead content of such surface.

10. Change IPMC subsection 305.1 to read:

305.1. Accumulation of rubbish or garbage. The interior of every structure shall be free from excessive accumulation of rubbish or garbage.

11. Delete IPMC subsections 305.2, 305.2.1, 305.3, 305.3.1 and 305.3.2.

12. Add IPMC subsections 505.5, 505.5.1 and 505.5.2 to read:

505.5. Inspection and testing of backflow prevention assemblies. Inspection and testing shall comply with Sections 505.5.1 and 505.5.2.

505.5.1. Inspections. Inspections shall be made of all backflow prevention assemblies and air gaps to determine whether they are operable.

505.5.2. Testing. Reduced pressure principle backflow preventer assemblies, double check-valve assemblies, double-detector check valve assemblies and pressure vacuum breaker assemblies shall be tested at the time of installation, immediately after repairs or relocation and at least annually. The testing procedure shall be performed in accordance with one of the following standards: ASSE 5010-1013-1, Sections 1 and 2; ASSE 5010-1015-1, Sections 1 and 2; ASSE 5010-1015-2; ASSE 5010-1015-3, Sections 1 and 2; ASSE 5010-1015-4, Sections 1 and 2; ASSE 5010-1020-1, Sections 1 and 2; ASSE 5010-1047-1, Sections 1, 2, 3 and 4; ASSE 5010-1048-1, Sections 1, 2, 3 and 4; ASSE 5010-1048-2; ASSE 5010-1048-3, Sections 1, 2, 3 and 4; ASSE 5010-1048-4, Sections 1, 2, 3 and 4; or CAN/CSA B64.10.

13. Change IPMC Section 602 and IPMC subsections 602.1 through 602.5 to read:

**SECTION 602.
HEATING AND COOLING FACILITIES.**

602.1. Facilities required. Heating and cooling facilities shall be maintained and operated in structures as required by this section.

602.2. Heat supply. Every owner and operator of any building who rents, leases or lets one or more dwelling unit, rooming unit, dormitory or guestroom on terms, either expressed or implied, to furnish heat to the occupants thereof shall supply heat during the period from October 15 to May 1 to maintain a temperature of not less than 65°F (18°C) in all habitable rooms, bathrooms, and toilet rooms.

Exception: When the outdoor temperature is below the winter outdoor design temperature for the locality, maintenance of the minimum room temperature shall not be required provided that the heating system is operating at its full design capacity. The winter outdoor design temperature for the locality shall be as indicated in Appendix D of the International Plumbing Code.

602.3. Occupiable work spaces. Indoor occupiable work spaces shall be supplied with heat during the period from October 1 to May 15 to maintain a temperature of not less than 65°F (18°C) during the period the spaces are occupied.

Exceptions:

- a. Processing, storage and operation areas that require cooling or special temperature conditions.
- b. Areas in which persons are primarily engaged in vigorous physical activities.

602.4. Cooling supply. Every owner and operator of a Group R-2 apartment building who rents, leases or lets one or more dwelling units, rooming units or guestrooms on terms, either expressed or implied, to furnish cooling to the occupants thereof shall supply cooling during the period from May 15 to October 1 to maintain a temperature of not more than 80°F (27°C) in all habitable rooms.

Exception: When the outdoor temperature is higher than the summer design temperature for the locality, maintenance of the room temperature shall not be required provided that the cooling system is operating at its full design capacity. The summer outdoor design temperature for the locality shall be as indicated in the International Energy Conservation Code.

602.5. Room temperature measurement. The required room temperatures shall be measured 3 feet (914 mm) above the floor near the center of the room and 2 feet (610 mm) inward from the center of each exterior wall.

14. Add IPMC subsection 606.3 to read:

606.3. Inspection standard. Routine or periodic inspections shall be performed in accordance with Part X of ASME A-17.1 - 96, Safety Code for Elevators and Escalators, with A17.1a-97 and A17.1b-98 Addenda. The building maintenance official may also provide for such inspection by an approved agency or through agreement with other local certified elevator inspectors. An approved agency includes any individual, partnership or corporation who has met the certification requirements established by Virginia Certification Standards (13 VAC 5-21).

APPENDIX

The following pages contain the full text of the provisions of the ICC 2001 Supplement and 2002 Accumulative Supplement to the International Codes which have been incorporated for use as part of the USBC. The text is provided under agreement with ICC. If the USBC is obtained from a data file, the following pages are available as a separate file.

ICC Supplement Provisions Used in the Virginia Uniform Statewide Building Code—2000 Edition

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ICC Supplement Provisions Used In The Virginia Uniform Statewide Building Code—2000 Edition

Note: The full code text for 124.1.1 through 124.1.8 and 124.2.

IBC

302.3.3 Separated uses. Each portion of the building shall be individually classified as to use and shall be completely separated from adjacent areas by fire barrier walls or horizontal assemblies or both having a fire-resistance rating determined in accordance with Table 302.3.3 for uses being separated. Each fire area shall comply with the code based on the use of that space. Each fire area shall comply with the height limitations based on the use of that space and the type of construction classification. In each story, the building area shall be such that the sum of the ratios of the floor area of each use divided by the allowable area for each use shall not exceed 1.

Exception. Except for Group H and I-2 areas, where the building is equipped throughout with an automatic sprinkler system, installed in accordance with Section 903.3.1.1 the fire-resistance ratings in Table 302.3.3 shall be reduced by 1 hour but to not less than 1 hour and to not less than that required for floor construction according to the type of construction.

The private garage shall be separated from the dwelling unit and its attic area by means of minimum 1/2-inch (13 mm) gypsum board applied to the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 5/8-inch Type X gypsum board or equivalent. Door openings between the garage and the dwelling unit shall be equipped with either solid wood doors not less than 1³/₈ inches (35 mm) thick, solid or honeycomb core steel doors not less than 1³/₈ inches (35 mm) thick or doors in compliance with Section 714.2.3. Openings from a private garage directly into a room used for sleeping purposes shall not be permitted.

308.4.3 Condition 3. This occupancy condition shall include buildings in which free movement is allowed within individual smoke compartments, such as within a residential unit comprised of individual sleeping units and group activity spaces, where egress is impeded by remote-controlled release of means of egress from such a smoke compartment to another smoke compartment.

308.4.4 Condition 4. This occupancy condition shall include buildings in which free movement is restricted from an occupied space. Remote-controlled release is provided to permit movement from sleeping units, activity spaces and other occupied areas within the smoke compartment to other smoke compartments.

308.4.5 Condition 5. This occupancy condition shall include buildings in which free movement is restricted from an occupied space. Staff-controlled manual release is provided to permit movement from sleeping units, activity spaces and other occupied areas within the smoke compartment to other smoke compartments.

310.1 Residential Group “R.” Residential Group R includes, among others, the use of a building or structure, or a portion

thereof, for sleeping purposes when not classed as an Institutional Group I. Residential occupancies shall include the following:

R-1 Residential occupancies where the occupants are primarily transient in nature, including:

- Boarding houses (transient)
- Hotels (transient)
- Motels (transient)

R-2 Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

- Apartment houses
- Boarding houses (not transient)
- Convents
- Dormitories
- Fraternities and sororities
- Hotels (nontransient)
- Monasteries
- Motels (nontransient)
- Vacation timeshare properties

R-3 Residential occupancies where the occupants are primarily permanent in nature and not classified as R-1, R-2, R-4 or I and where buildings do not contain more than two dwelling units, as applicable in Section 101.2 or adult and child care facilities, that provide accommodations for five or fewer persons of any age for less than 24 hours. Adult and child care facilities that are within a single family home are permitted to comply with the *International Residential Code* in accordance with Section 101.2.

R-4 Residential occupancies shall include buildings arranged for occupancy as Residential Care/Assisted Living Facilities including more than five but not more than 16 occupants, excluding staff.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3 except as otherwise provided for in this code or shall comply with the *International Residential Code* in accordance with Section 101.2.

310.3 Required dwelling unit and sleeping unit separation. Walls and floors separating dwelling units in the same building, or sleeping units in Group R-1 hotel occupancies, shall be fire partitions or horizontal assemblies as required by Sections 708 and 710.

402.7.2.1 Openings between anchor building and mall. Except for the separation between Group R-1 sleeping units and the mall, openings between anchor buildings of Types IA, IB, IIA and IIB construction and the mall need not be protected.

407.2.1 Spaces of unlimited area. Waiting areas and similar spaces constructed as required for corridors shall be permit-

ted to be open to a corridor, only where all of the following criteria are met:

1. The spaces are not occupied for patient sleeping units, treatment rooms, hazardous or incidental use areas as defined in Section 302.1.1.
2. The open space is protected by an automatic fire detection system installed in accordance with Section 907.
3. The corridors onto which the spaces open, in the same smoke compartment, are protected by an automatic fire detection system installed in accordance with Section 907, or the smoke compartment in which the spaces are located is equipped throughout with quick-response sprinklers in accordance with Section 903.3.2.
4. The space is arranged so as not to obstruct access to the required exits.

708.1 General. Wall assemblies installed as required by Sections 310.3, 402.7.2 and 1004.3.2.1 shall comply with this section. These include:

1. Walls separating dwelling units.
2. Walls separating sleeping units in occupancies in Group R-1.
3. Walls separating tenant spaces in covered mall buildings.
4. Corridor walls.

708.3 Fire-resistance rating. The fire-resistance rating of the walls shall be 1 hour.

Exceptions:

1. Corridor walls as permitted by Table 1004.3.2.1.
2. Dwelling unit and sleeping unit separations in buildings of Types IIB, IIIB and VB construction shall have fire-resistance ratings of not less than ½ hour in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

708.4 Continuity. Fire partitions shall extend from the top of the floor assembly below to the underside of the floor or roof slab or deck above or to the fire-resistance-rated floor/ceiling or roof/ceiling assembly above, and shall be securely attached thereto. If the partitions are not continuous to the deck, and where constructed of combustible construction, the space between the ceiling and the deck above shall be fireblocked or draftstopped in accordance with Sections 716.2.1 and 716.3.1 at the partition line. The supporting construction shall be protected to afford the required fire-resistance rating of the wall supported, except for tenant and sleeping unit separation walls and exit access corridor walls in buildings of Types IIB, IIIB, and VB construction.

Exceptions: (No change)

710.3 Fire-resistance rating. Unless required elsewhere in the code, smoke partitions are not required to have a fire-resistance rating.

Chapter 35. Referenced Standards.

NFPA 13—99 Installation of Sprinkler Systems 704.12, 707.2, 903.3.1.1, 903.3.2, 903.3.5.1.1, 904.11, 907.8, 1621.3.10.1, 3104.5, 3104.9

NFPA 13D—99 Installation of Sprinkler Systems in One- and Two-family Dwellings and Manufactured Homes 903.1.2, 903.3.1.3, 903.3.5.1.1

NFPA 13R—99 Installation of Sprinkler Systems in Residential Occupancies Up to and Including Four Stories in Height 903.1.2, 903.3.1.2, 903.3.5.1.1, 903.3.5.1.2, 903.4

NFPA 72—99 National Fire Alarm Code 505.4, 901.6, 903.4.1, 904.3.5, 907.2, 907.2.1, 907.2.1.1, 907.2.10, 907.2.10.4, 907.2.11.2, 907.2.11.3, 907.2.12.2.3, 907.2.12.3, 907.4, 907.5, 907.9.2, 907.10, 907.14, 907.16, 907.17, 909.12, 909.12.3, 911.1, 3006.5

202 Definitions.

ACCESSIBLE UNIT. A dwelling unit or sleeping unit that complies with this code and Chapters 1 through 9 of ICC A117.1.

DWELLING UNIT OR SLEEPING UNIT, TYPE A. A dwelling unit or sleeping unit designed and constructed for accessibility in accordance with ICC A117.1.

DWELLING UNIT OR SLEEPING UNIT, TYPE B. A dwelling unit or sleeping unit designed and constructed for accessibility in accordance with ICC A117.1, consistent with the design and construction requirements of the federal Fair Housing Act.

Delete the definition of “Dwelling Unit, Ground Floor”:

DWELLING UNIT OR SLEEPING UNIT, MULTI-STORY. A dwelling unit or sleeping unit with habitable space located on more than one story.

INTENDED TO BE OCCUPIED AS A RESIDENCE. This refers to a dwelling unit or sleeping unit that can or will be used all or part of the time as the occupant’s place of abode.

SLEEPING UNIT. A room or space in which people sleep, which can also include permanent provisions for living, eating, and either sanitation or kitchen facilities but not both. Such rooms and spaces that are also part of a dwelling unit are not sleeping units.

TECHNICALLY INFEASIBLE. An alteration of a building or a facility that has little likelihood of being accomplished because the existing structural conditions require the removal or alteration of a load-bearing member that is an essential part of the structural frame, or because other existing physical or site constraints prohibit modification or addition of elements, spaces or features which are in full and strict compliance with the minimum requirements for new construction and which are necessary to provide accessibility.

407.5 Automatic sprinkler system. Smoke compartments containing patient sleeping units shall be equipped throughout with an automatic fire sprinkler system in accordance with Section 903.3.1.1. The smoke compartments shall be equipped with approved quick-response or residential sprinklers in accordance with Section 903.3.2.

407.6 Automatic fire detection. Corridors in nursing homes (both intermediate-care and skilled nursing facilities), detoxification facilities and spaces permitted to be open to corridors

by Section 407.2 shall be protected by an automatic fire detection system installed in accordance with Section 907.

Exceptions:

1. Corridor smoke detection is not required where patient sleeping units are provided with smoke detectors that comply with UL 268. Such detectors shall provide a visual display on the corridor side of each patient sleeping unit and an audible and visual alarm at the nursing station attending each unit.
2. Corridor smoke detection is not required where patient sleeping unit doors are equipped with automatic door-closing devices with integral smoke detectors on the unit sides installed in accordance with their listing, provided that the integral detectors perform the required alerting function.

408.3.1 Door width. Doors to resident sleeping units shall have a clear width of not less than 28 inches (711 mm).

714.2.7 Door closing. Fire doors shall be self-closing or automatic-closing in accordance with this section.

Exception: Fire doors located in common walls separating sleeping units in Group R-1 shall be permitted without automatic-closing or self-closing devices.

716.3.2 Groups R-1, R-2, R-3 and R-4. Draftstopping shall be provided in floor/ceiling spaces in Group R-1 buildings, in Group R-2 buildings as applicable in Section 101.2 with three or more dwelling units, in Group R-3 buildings as applicable in Section 101.2 with two dwelling units and in Group R-4 buildings. Draftstopping shall be located above and in line with the dwelling unit and sleeping unit separations.

Exceptions:

1. Draftstopping is not required in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
2. Draftstopping is not required in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.2, provided that automatic sprinklers are also installed in the combustible concealed spaces.

716.4.2 Groups R-1 and R-2. Draftstopping shall be provided in attics, mansards, overhangs or other concealed roof spaces of Group R-2 buildings with three or more dwelling units and in all Group R-1 buildings. Draftstopping shall be installed above, and in line with, sleeping unit and dwelling unit separation walls that do not extend to the underside of the roof sheathing above.

Exceptions:

1. Where corridor walls provide a sleeping unit or dwelling unit separation, draftstopping shall only be required above one of the corridor walls.
2. Draftstopping is not required in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
3. In occupancies in Group R-2 that do not exceed four stories in height, the attic space shall be subdivided by

draftstops into areas not exceeding 3,000 square feet (279 m²) or above every two dwelling units, whichever is smaller.

4. Draftstopping is not required in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.2, provided that automatic sprinklers are also installed in the combustible concealed spaces.

903.3.2 Quick-response and residential sprinklers. Where automatic sprinkler systems are required by this code, quick-response or residential automatic sprinklers shall be installed in the following areas in accordance with Section 903.3.1 and their listings:

1. Throughout all spaces within a smoke compartment containing patient sleeping units in Group I-2 in accordance with this code.
2. Dwelling units, and sleeping units in Group R and I-1 occupancies.
3. Light-hazard occupancies as defined in NFPA 13.

907.2.6.1 Group I-2. Corridors in nursing homes (both intermediate-care and skilled nursing facilities), detoxification facilities and spaces open to the corridors shall be equipped with an automatic fire detection system.

Exceptions:

1. Corridor smoke detection is not required where patient sleeping units are provided with smoke detectors that comply with UL 268. Such detectors shall provide a visual display on the corridor side of each patient sleeping unit and shall provide an audible and visual alarm at the nursing station attending each unit.
2. Corridor smoke detection is not required where patient sleeping unit doors are equipped with automatic door-closing devices with integral smoke detectors on the unit sides installed in accordance with their listing, provided that the integral detectors perform the required alerting function.

907.2.6.2.3 Smoke detectors (Group I-3). An approved automatic smoke detection system shall be installed throughout resident housing areas, including sleeping areas and contiguous day rooms, group activity spaces and other common spaces normally accessible to residents.

Exceptions:

1. Other approved smoke-detection arrangements providing equivalent protection including, but not limited to, placing detectors in exhaust ducts from cells or behind protective guards listed for the purpose are allowed when necessary to prevent damage or tampering.
2. Sleeping units in Use Conditions II and III.
3. Smoke detectors are not required in sleeping units with four or fewer occupants in smoke compartments that are equipped throughout with an approved automatic sprinkler system.

907.2.8 Group R-1. A manual fire alarm system and an automatic fire detection system shall be installed in Group R-1 occupancies.

Exceptions:

1. A manual fire alarm system is not required in buildings not over two stories in height where all individual sleeping units and contiguous attic and crawl spaces are separated from each other and public or common areas by at least 1-hour fire partitions and each individual sleeping unit has an exit directly to a public way, exit court or yard.
2. An automatic fire detection system is not required in buildings that do not have interior corridors serving sleeping units and where sleeping units have a means of egress door opening directly to an exterior exit access that leads directly to the exits.
3. A separate fire alarm system is not required in buildings that are equipped throughout with an approved supervised automatic sprinkler system and which have a local fire alarm that meets the notification requirements of Section 907.9.2.

907.2.8.1 Fire detection system. System smoke detectors are not required in sleeping units provided that the single-station smoke alarms required by Section 907.2.10 are connected to the emergency electrical system and are annunciated by sleeping unit at a constantly attended location from which the fire alarm system is capable of being manually activated.

907.2.10.1.1 Group R-1. Single- or multiple-station smoke alarms shall be installed in all of the following locations in Group R-1:

1. In sleeping areas.
2. In every room in the path of the means of egress from the sleeping area to the door leading from the sleeping unit.
3. In each story within the sleeping unit, including basements. For sleeping units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.

907.2.10.2 Power source. In new construction, required smoke alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

Exception: Smoke alarms are not required to be equipped with battery backup in Group R-1 where they are connected to an emergency electrical system.

907.2.10.3 Interconnection. Where more than one smoke alarm is required to be installed within an individual dwelling unit in Group R-2, R-3 or R-4, or within an individual sleeping unit in Group R-1, the smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible

in all bedrooms over background noise levels with all intervening doors closed.

907.2.12.2 Emergency voice/alarm communication system (high-rise buildings). The operation of any automatic fire detector, sprinkler water-flow device or manual fire alarm box shall automatically sound an alert tone followed by voice instructions giving approved information and directions on a general or selective basis to the following terminal areas in accordance with the *International Fire Code*.

1. Elevator lobbies.
2. Corridors.
3. Rooms and tenant spaces exceeding 1,000 square feet (93 m²) in area.
4. Dwelling units in Group R-2 occupancies.
5. Sleeping units in Group R-1 occupancies.
6. Areas of refuge as defined in this code.

Exception: In Group I-1 and I-2 occupancies, the alarm shall sound in a constantly attended area and a general occupant notification shall be broadcast over the overhead page.

907.9.1.2 Groups I-1 and R-1. Group I-1 and Group R-1 sleeping units in accordance with Table 907.9.1.2 shall be provided with a visible alarm notification appliance, activated by both the in-room smoke alarm and the building fire alarm system.

**TABLE 907.9.1.2
VISIBLE AND AUDIBLE ALARMS**

NUMBER OF SLEEPING UNITS	SLEEPING UNITS WITH VISIBLE AND AUDIBLE ALARMS
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(Remainder of table unchanged)

1003.2.10.1 Where required. Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. Access to exits shall be marked by readily visible exit signs in cases where the exit or the path of egress travel is not immediately visible to the occupants. Exit sign placement shall be such that no point in an exit access corridor is more than 100 feet (30 480 mm) or the listed viewing distance for the sign, whichever is less, from the nearest visible exit sign.

Exceptions:

1. Exit signs are not required in rooms or areas which require only one exit or exit access.
2. Main exterior exit doors or gates which obviously and clearly are identifiable as exits need not have exit signs where approved by the building official.
3. Exit signs are not required in occupancies in Group U and individual sleeping units or dwelling units in Groups R-1, R-2 or R-3.
4. Exit signs are not required in sleeping areas in occupancies in Group I-3.
5. In occupancies in Groups A-4 and A-5 that include grandstand seating arrangements, exit signs are not required on the seating side of vomitories or open-

ings into seating areas where exit signs are provided in the concourse that are readily apparent from the vomitories. Egress lighting is provided to identify each vomitory or opening within the seating area in an emergency.

1003.2.11 Means of egress illumination. The means of egress, including the exit discharge, shall be illuminated at all times the building space served by the means of egress is occupied.

Exceptions:

1. Occupancies in Group U.
 - 1.1. Aisle accessways in Group A.
 - 1.2. Dwelling units and sleeping units in Groups R-1, R-2 and R-3.
 - 1.3. Sleeping units of Group I occupancies.

1003.3.1.1 Size of doors. The minimum width of each door opening shall be sufficient for the occupant load thereof and shall provide a clear width of not less than 32 inches (813 mm). Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). Where this section requires a minimum clear width of 32 inches (813 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a clear opening width of 32 inches (813 mm). The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. Means of egress doors in an occupancy in Group I-2 used for the movement of beds shall provide a clear width not less than 41 1/2 inches (1054 mm). The height of doors shall not be less than 80 inches (2032 mm).

Exceptions:

1. The minimum and maximum width shall not apply to door openings that are not part of the required means of egress in occupancies in Groups R-2 and R-3 as applicable in Section 101.2.
2. Door openings to resident sleeping units in occupancies in Group I-3 shall have a clear width of not less than 28 inches (711 mm).
3. Door openings to storage closets less than 10 square feet (0.93 m²) in area shall not be limited by the minimum width.
4. Width of door leaves in revolving doors that comply with Section 1003.3.1.3.1 shall not be limited.
5. Door openings within a dwelling unit shall not be less than 78 inches (1981 mm) in height.
6. Exterior door openings in dwelling units, other than the required exit door, shall not be less than 76 inches (1930 mm) in height.
7. Interior egress door within a dwelling unit which is not required to be adaptable or accessible.
8. Door openings required to be accessible within Type B dwelling units shall have a minimum clear width of 31 3/4 inches (806 mm).

1003.3.1.8 Locks and latches. Egress doors shall be readily

openable from the egress side without the use of a key or special knowledge or effort.

Exceptions:

1. Places of detention or restraint.
2. In buildings in occupancy Group A having an occupant load of 300 or less, Groups B, F, M, and S, and in churches, the main exterior door or doors is permitted to be equipped with key-operated locking devices from the egress side provided:
 - 2.1. The locking device is readily distinguishable as locked,
 - 2.2. A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background,
 - 2.3. The use of the key-operated locking device is revokable by the building official for due cause.
3. Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no doorknob or surface-mounted hardware.
4. Doors from individual dwelling or sleeping units of Group R occupancies having an occupant load of 10 or less are permitted to be equipped with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key or tool.

1004.2.3 Egress through intervening spaces. Egress from a room or space shall not pass through adjoining or intervening rooms or areas, except where such adjoining rooms or areas are accessory to the area served; are not a high-hazard occupancy; and provide a discernible path of egress travel to an exit. Egress shall not pass through kitchens, store rooms, closets or spaces used for similar purposes. An exit access shall not pass through a room that can be locked to prevent egress. Means of egress from dwelling units or sleeping areas shall not lead through other sleeping areas, toilet rooms or bathrooms.

Exceptions:

1. Means of egress are not prohibited through a kitchen area serving adjoining rooms constituting part of the same dwelling unit or sleeping unit.
2. Means of egress are not prohibited through adjoining or intervening rooms or spaces in a Group H occupancy when the adjoining or intervening rooms or spaces are the same or a lesser hazard occupancy group.

1004.2.3.1 Multiple tenants. Where more than one tenant occupies any one floor of a building or structure, each tenant

space, dwelling unit, and sleeping unit shall be provided with access to the required exits without passing through adjacent tenant spaces, dwelling units, and sleeping units.

1004.3.2.1 Construction. Corridors shall be fire-resistance rated in accordance with Table 1004.3.2.1. The corridor walls required to be fire-resistance rated shall comply with Section 708 for fire partitions.

Exceptions:

1. A fire-resistance rating is not required for corridors in an occupancy in Group E where each room that is used for instruction has at least one door directly to the exterior and rooms for assembly purposes have at least one-half of the required means of egress doors opening directly to the exterior. Exterior doors specified in this exception are required to be at ground level.
2. A fire-resistance rating is not required for corridors contained within a dwelling or sleeping unit in an occupancy in Group R.
3. A fire-resistance rating is not required for corridors in open parking garages.
4. A fire-resistance rating is not required for corridors in an occupancy in Group B which is a space requiring only a single means of egress complying with Section 1004.2.1.

1005.3.2 Enclosures. Interior exit stairways and exit ramps shall be enclosed with fire barriers. Enclosures four stories or more shall be 2-hour fire-resistance rated. Enclosures less than four stories shall be 1-hour fire-resistance rated. The number of stories shall be computed as all floor levels, including basements but excluding mezzanines. An exit enclosure shall not be used for any purpose other than means of egress. Enclosures shall be constructed as fire barriers in accordance with Section 706.

Exceptions:

1. In other than Groups H and I occupancies, a stairway serving an occupant load of less than 10 not more than one story above the level of exit discharge is not required to be enclosed.
2. Exits in buildings of Group A-5 where all portions of the means of egress are essentially open to the outside need not be enclosed.
3. Stairways serving and contained within a single residential dwelling unit in occupancies in Group R-2 or R-3 and sleeping units in occupancies in Group R-1 are not required to be enclosed.

1009.1 General. In addition to the means of egress required by this chapter, provisions shall be made for emergency escape and rescue in Group R as applicable in Section 101.2 and Group I-1 occupancies. Basements and sleeping rooms below the fourth story above grade plane shall have at least one exterior emergency escape and rescue opening in accordance with this section. Such opening shall open directly into a public street, public alley, yard or court.

Exceptions:

1. In other than Group R-3 occupancies as applicable in Section 101.2, buildings equipped throughout with an

approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

2. In other than Group R-3 occupancies as applicable in Section 101.2, sleeping rooms provided with a door to a fire-resistance-rated corridor having access to two remote exits in opposite directions.
3. The emergency escape and rescue opening is permitted to open onto a balcony within an atrium in accordance with the requirements of Section 404, provided the balcony provides access to an exit and the dwelling unit or sleeping unit has a means of egress that is not open to the atrium.
4. Basements with a ceiling height of less than 80 inches (2032 mm) shall not be required to have emergency escape and rescue windows.
5. High-rise buildings in accordance with Section 403.
6. Emergency escape and rescue openings are not required from basements or sleeping rooms which have an exit door or exit access door that opens directly into a public street, public alley, yard, egress court or to an exterior exit balcony that opens to a public street, public alley, yard or egress court.
7. Basements having no more than 200 square feet (18.6 square meters) in floor area and having ceiling heights less than 80 inches (2032 mm) shall not be required to have emergency escape windows.

1103.2.11 Residential Group R-1. Buildings of Group R-1 containing not more than five sleeping units for rent or hire that are also occupied as the residence of the proprietor are not required to be accessible.

1103.2.12 Day care facilities. Where a day care facility (Groups A-3, E, I-4 and R-3) is part of a dwelling unit, only the portion of the structure utilized for the day care facility is required to be accessible.

1105.1 Required. At least 50 percent but not less than one entrance to each building and structure, and each separate tenant space within the building or structure, shall comply with the accessible route provisions of this chapter.

Exceptions:

1. Entrances to spaces not required to be accessible as provided for in Sections 1107 or 1108.
2. Loading and service entrances that are not the only entrance to a building or to a tenant space.

1106.2 Groups R-2 and R-3. Two percent, but not less than one, of each type of parking space provided for occupancies in Groups R-2 and R-3, which are required to have Type A or Type B dwelling or sleeping units, shall be accessible. Where parking is provided within or beneath a building, accessible parking spaces shall also be provided within or beneath the building.

1106.5 Location. Accessible parking spaces shall be located on the shortest accessible route of travel from adjacent parking to an accessible building entrance. Accessible parking spaces shall be dispersed among the various types of parking facilities provided. In parking facilities that do not serve a particular building, accessible parking spaces shall be located on

the shortest route to an accessible pedestrian entrance to the parking facility. Where buildings have multiple accessible entrances with adjacent parking, accessible parking spaces shall be dispersed and located near the accessible entrances.

SECTION 1107 DWELLING UNITS AND SLEEPING UNITS

1107.1 General. In addition to the other requirements of this chapter, occupancies having dwelling units or sleeping units shall be provided with accessible features in accordance with Sections 1107.2 through 1107.7.5.

1107.2 Design. Dwelling units and sleeping units which are required to be accessible units shall comply with this code and the applicable portions of Chapters 1 through 9 of ICC A117.1. Type A and Type B units shall comply with the applicable portions of Chapter 10 of ICC A117.1. Units required to be Type A units are permitted to be designed and constructed as accessible units. Units required to be Type B units are permitted to be designed and constructed as accessible units or as Type A units.

1107.3 Accessible spaces. Rooms and spaces available to the general public or available for use by residents and serving accessible units, Type A units or Type B units shall be accessible. Accessible spaces shall include toilet and bathing rooms, kitchen, living and dining areas and any exterior spaces, including patios, terraces and balconies.

Exception: Recreational facilities in accordance with Section 1109.14.

1107.4 Accessible route. At least one accessible route shall connect accessible building or facility entrances with the primary entrance of each accessible unit, Type A unit and Type B unit within the building or facility and with those exterior and interior spaces and facilities that serve the units.

Exceptions:

1. If the slope of the finished ground level between accessible facilities and buildings exceeds one unit vertical in 12 units horizontal (1:12), or where physical barriers prevent the installation of an accessible route, a vehicular route with parking that complies with Section 1106 at each public or common use facility or building is permitted in place of the accessible route.
2. Exterior decks, patios, or balconies that are part of Type B units and have impervious surfaces, and that are not more than 4 inches (102 mm) below the finished floor level of the adjacent interior space of the unit.

1107.5 Group I. Occupancies in Group I shall be provided with accessible features in accordance with Sections 1107.5.1 through 1107.5.5.

1107.5.1 Group I-1. Group I-1 occupancies shall be provided with accessible features in accordance with Sections 1107.5.1.1 and 1107.5.1.2.

1107.5.1.1 Accessible units. At least 4 percent, but not less than one, of the dwelling units and sleeping units shall be accessible units.

1107.5.1.2 Type B units. In structures with four or more dwelling or sleeping units intended to be occupied as a residence, ev-

ery dwelling and sleeping unit intended to be occupied as a residence shall be a Type B unit.

Exception: The number of Type B units is permitted to be reduced in accordance with Section 1107.7.

1107.5.2 Group I-2 Nursing homes. Nursing homes of Group I-2 shall be provided with accessible features in accordance with Sections 1107.5.2.1 and 1107.5.2.2.

1107.5.2.1 Accessible units. At least 50 percent, but not less than one, of the dwelling units and sleeping units shall be accessible units.

1107.5.2.2 Type B units. In structures with four or more dwelling or sleeping units intended to be occupied as a residence, every dwelling and sleeping unit intended to be occupied as a residence shall be a Type B unit.

Exception: The number of Type B units is permitted to be reduced in accordance with Section 1107.7.

1107.5.3 Group I-2 Hospitals. In general-purpose hospitals, psychiatric facilities, detoxification facilities and residential care/assisted living facilities of Group I-2 shall be provided with accessible features in accordance with Sections 1107.5.3.1 and 1107.5.3.2.

1107.5.3.1 Accessible Units. At least 10 percent, but not less than one, of the dwelling units and sleeping units shall be accessible units.

1107.5.3.2 Type B units. In structures with four or more dwelling or sleeping units intended to be occupied as a residence, every dwelling and sleeping unit intended to be occupied as a residence shall be a Type B unit.

Exception: The number of Type B units is permitted to be reduced in accordance with Section 1107.7.

1107.5.4 Group I-2 Rehabilitation facilities. In hospitals and rehabilitation facilities of Group I-2 which specialize in treating conditions that affect mobility, or units within either which specialize in treating conditions that affect mobility, 100 percent of the dwelling units and sleeping units shall be accessible units.

1107.5.5 Group I-3. In occupancies in Group I-3, at least 5 percent, but not less than one, of the dwelling units and sleeping units shall be accessible units.

1107.6 Group R. Occupancies in Group R shall be provided with accessible features in accordance with Sections 1107.6.1 through 1107.6.4.

1107.6.1 Group R-1. Group R-1 occupancies shall be provided with accessible features in accordance with Sections 1107.6.1.1 and 1107.6.1.2.

1107.6.1.1 Accessible units. In occupancies in Group R-1, accessible dwelling units and sleeping units shall be provided in accordance with Table 1107.6.1.1. All facilities on a site shall be considered to determine the total number of accessible units. Accessible units shall be dispersed among the various classes of units. Roll-in showers provided in accessible units shall include a permanently mounted folding shower seat.

**TABLE 1107.6.1.1
ACCESSIBLE DWELLING AND SLEEPING UNITS**

TOTAL NUMBER OF UNITS PROVIDED	MINIMUM REQUIRED NUMBER OF ACCESSIBLE UNITS ASSOCIATED WITH ROLL-IN SHOWERS	TOTAL NUMBER OF REQUIRED ACCESSIBLE UNITS
1 to 25	0	1
26 to 50	0	2
51 to 75	1	4
76 to 100	1	5
101 to 150	2	7
151 to 200	2	8
201 to 300	3	10
301 to 400	4	12
401 to 500	4	13
501 to 1,000	1% of total	3% of total
Over 1,001	10 plus 1 for each 100 over 1,000	30 plus 2 for each 100 over 1,000

1107.6.1.2 Type B units. In structures with four or more dwelling or sleeping units intended to be occupied as a residence, every dwelling and sleeping unit intended to be occupied as a residence shall be a Type B unit.

Exception: The number of Type B units is permitted to be reduced in accordance with Section 1107.7.

1107.6.2 Group R-2. Type A and Type B units shall be provided in occupancies in Group R-2 in accordance with Sections 1107.6.2.1 and 1107.6.2.2.

1107.6.2.1 Type A units. In occupancies in Group R-2 containing more than 20 dwelling units or sleeping units, at least 2 percent, but not less than one, of the units shall be a Type A unit. All units on a site shall be considered to determine the total number of units and the required number of Type A units. Type A units shall be dispersed among the various classes of units.

Exceptions:

1. The number of Type A units is permitted to be reduced in accordance with Section 1107.7.
2. Existing structures on a site shall not contribute to the total number of units on a site.

1107.6.2.2 Type B units. Where there are four or more dwelling units or sleeping units intended to be occupied as a residence in a single structure, every dwelling unit and sleeping unit intended to be occupied as a residence shall be a Type B unit.

Exception: The number of Type B units is permitted to be reduced in accordance with Section 1107.7.

1107.6.3 Group R-3. In occupancies in Group R-3 where there are four or more dwelling units or sleeping units intended to be occupied as a residence in a single structure, every dwelling and sleeping unit intended to be occupied as a residence shall be a Type B unit.

Exception: The number of Type B units is permitted to be reduced in accordance with Section 1107.7.

1107.6.4 Group R-4. Group R-4 occupancies shall be provided with accessible features in accordance with Sections 1107.6.4.1 and 1107.6.4.2.

1107.6.4.1 Accessible units. At least one of the dwelling or sleeping units shall be an accessible unit.

1107.6.4.2 Type B units. In structures with four or more dwelling or sleeping units intended to be occupied as a residence, every dwelling and sleeping unit intended to be occupied as a residence shall be a Type B unit.

Exception: The number of Type B units is permitted to be reduced in accordance with Section 1107.7.

1107.7 General exceptions. Where specifically permitted by Sections 1107.5 or 1107.6, the required number of Type A and Type B units is permitted to be reduced in accordance with Sections 1107.7.1 through 1107.7.5.

1107.7.1 Buildings without elevator service. Where no elevator service is provided in a building, only the dwelling and sleeping units that are located on stories indicated in Sections 1107.7.1.1 and 1107.7.1.2 are required to be Type A and Type B units. The number of Type A units shall be determined in accordance with Section 1107.6.2.

1107.7.1.1 One story with Type B units required. At least one story containing dwelling units or sleeping units intended to be occupied as a residence shall be provided with an accessible entrance from the exterior of the building and all units intended to be occupied as a residence on that story shall be Type B units.

1107.7.1.2 Additional stories with Type B units. On all other stories that have a building entrance in proximity to arrival points intended to serve units on that story, as indicated in Items 1 and 2, all dwelling units and sleeping units intended to be occupied as a residence served by that entrance on that story shall be Type B units.

1. Where the slopes of the undisturbed site measured between the planned entrance and all vehicular or pedestrian arrival points within 50 feet of the planned entrance are 10 percent or less, and
2. Where the slopes of the planned finished grade measured between the entrance and all vehicular or pedestrian arrival points within 50 feet of the planned entrance are 10 percent or less.

Where no such arrival points are within 50 feet (15 240 mm) of the entrance, the closest arrival point shall be used unless that arrival point serves the story required by Section 1107.7.1.1.

1107.7.2 Multistory units. A multistory dwelling or sleeping unit which is not provided with elevator service is not required to be a Type B unit. Where a multistory unit is provided with external elevator service to only one floor, the floor provided with elevator service shall be the primary entry to the unit, shall comply with the requirements for a Type B unit, and a toilet facility shall be provided on that floor.

1107.7.3 Elevator service to the lowest story with units. Where elevator service in the building provides an accessible route only to the lowest story containing dwelling or sleeping units intended to be occupied as a residence, only the units on that story which are intended to be occupied as a residence are required to be Type B units.

1107.7.4 Site impracticality. On a site with multiple nonelevator buildings, the number of units required by Section 1107.7.1 to be Type B units is permitted to be reduced to a percentage which is equal to the percentage of the entire site having grades, prior to development, which are less than 10 percent, provided that all of the following conditions are met:

1. Not less than 20 percent of the units required by Section 1107.7.1 on the site are Type B units;
2. Units required by Section 1107.7.1, where the slope between the building entrance serving the units on that story and a pedestrian or vehicular arrival point is no greater than 8.33 percent, are Type B units,
3. Units required by Section 1107.7.1, where an elevated walkway is planned between a building entrance serving the units on that story and a pedestrian or vehicular arrival point and the slope between them is 10 percent or less are Type B units, and
4. Units served by an elevator in accordance with Section 1107.7.3 are Type B units.

1107.7.5 Base flood elevation. The required number of Type A and Type B units shall not apply to a site where the lowest floor or the lowest structural building members of nonelevator buildings are required to be at or above the base flood elevation resulting in:

1. A difference in elevation between the minimum required floor elevation at the primary entrances and vehicular and pedestrian arrival points within 50 feet (15 240 mm) exceeding 30 inches (762 mm), and
2. A slope exceeding 10 percent between the minimum required floor elevation at the primary entrances and vehicular and pedestrian arrival points within 50 feet (15 240 mm).

Where no such arrival points are within 50 feet (15 240 mm) of the primary entrances, the closest arrival point shall be used.

SECTION 1108 SPECIAL OCCUPANCIES

1108.1 General. In addition to the other requirements of this chapter, the requirements of Sections 1108.2 through 1108.3.1 shall apply to specific occupancies.

1108.2 Assembly area seating. Assembly areas with fixed seating shall comply with Sections 1108.2.1 through 1108.2.4.1. Dining areas shall comply with Sections 1108.2.5 through 1108.2.5.2.

1108.2.1 Services. *(Text not revised)*

1108.2.2 Wheelchair spaces. In theaters, bleachers, grandstands and other fixed seating assembly areas, accessible wheelchair spaces shall be provided in accordance with Table 1108.2.2. At least one seat for a companion shall be provided beside each wheelchair space.

**TABLE 1108.2.2
ACCESSIBLE WHEELCHAIR SPACES**

(Table not revised)

1108.2.2.1 Wheelchair space clusters. Accessible wheelchair spaces shall be grouped in wheelchair space clusters in accordance with Table 1108.2.2.1.

Exception: In fixed seating assembly areas where sightlines require more than one step for a rise in elevation between rows, the minimum required number of wheelchair space clusters in that area shall be one-half of that required by Table 1108.2.2.1.

**TABLE 1108.2.2.1
WHEELCHAIR SPACE CLUSTERS**

(Table not revised)

1108.2.3 Dispersion of wheelchair space clusters. *(Text not revised)*

1108.2.3.1 Multilevel assembly seating areas. *(Text not revised)*

1108.2.3.2 Separation between clusters. *(Text not revised)*

1108.2.4 Assistive listening systems. *(Text not revised)*

1108.2.4.1 Receivers. Receivers shall be provided for assistive listening systems in accordance with Table 1108.2.4.1. Twenty-five percent of receivers, but not less than two, shall be hearing-aid compatible.

**TABLE 1108.2.4.1
RECEIVERS FOR ASSISTIVE LISTENING SYSTEMS**

(Table not revised)

1108.2.5 Dining areas. *(Text not revised)*

1108.2.5.1 Fixed or built-in seating or tables. *(Text not revised)*

1108.2.5.2 Dining counters. *(Text not revised)*

Delete current Sections 1107.3 through 1107.3.3 (Revised and relocated as new Sections 1107.5 through 1107.5.5).

Delete current Section 1107.4. (Section 1107.4 has been relocated to Section 1103.2.12).

Delete current Sections 1107.5 through 1107.5.7 (Revised and relocated as Sections 1107.3, 1107.4 and 1107.6 through 1107.7.5).

Revise and renumber current Section 1107.6 to 1108.3 as shown:

1108.3 Self-service storage facilities. Self-service storage facilities shall provide accessible individual self-storage spaces in accordance with Table 1108.3.

**TABLE 1108.3
ACCESSIBLE SELF-SERVICE STORAGE FACILITIES**

(Table not revised)

1108.3.1 Dispersion. Accessible individual self-service storage spaces shall be dispersed throughout the various classes of spaces provided. Where more classes of spaces are provided than the number of required accessible spaces, the number of accessible spaces shall not be required to exceed that required by Table 1108.3. Accessible spaces are permitted to be dispersed in a single building of a multibuilding facility.

Revise and renumber current Section 1108 to Section 1109 as shown:

SECTION 1109 OTHER FEATURES AND FACILITIES

1109.1 General. Accessible building features and facilities shall be provided in accordance with Sections 1109.2 through 1109.15.

Exception: Type A and Type B dwelling and sleeping units shall comply with ICC A117.1.

1109.2 Toilet and bathing facilities. Toilet rooms and bathing facilities shall be accessible. Where a floor level is not required to be connected by an accessible route, the only toilet rooms or bathing facilities provided within the facility shall not be located on the inaccessible floor. At least one of each type of fixture, element, control or dispenser in each accessible toilet room and bathing facility shall be accessible.

Exceptions:

1. In toilet rooms or bathing facilities accessed only through a private office, not for common or public use, and intended for use by a single occupant, any of the following alternatives are allowed:
 - 1.1. Doors are permitted to swing into the clear floor space provided the door swing can be reversed to meet the requirements in ICC A117.1,
 - 1.2. The height requirements for the water closet in ICC A117.1 are not applicable,
 - 1.3. Grab bars are not required to be installed in a toilet room, provided that reinforcement has been installed in the walls and located so as to permit the installation of such grab bars, and
 - 1.4. The requirement for height, knee and toe clearance shall not apply to a lavatory.
2. This section is not applicable to toilet and bathing facilities that serve dwelling units or sleeping units that are not required to be accessible by Section 1107.
3. Where multiple single-user toilet rooms or bathing facilities are clustered at a single location and contain fixtures in excess of the minimum required number of plumbing fixtures, at least 5 percent, but not less than one room for each use at each cluster, shall be accessible.
4. Toilet room fixtures that are in excess of those required by the *International Plumbing Code* and that are designated for use by children in day care and primary school occupancies.

1109.2.1 Unisex toilet and bathing rooms. *(Text not revised)*

Section 1109.2.1.1 Standard. *(Text not revised)*

1109.2.1.2 Unisex toilet rooms. Unisex toilet rooms shall include only one water closet and only one lavatory. A unisex bathing room in accordance with Section 1109.2.1.3 shall be considered a unisex toilet room.

Exception: A urinal is permitted to be provided in addition to the water closet in a unisex toilet room.

Sections 1109.2.1.3 thru 1109.6. *(Text not revised)*

Section 1109.7

1109.7 Lifts. Platform (wheelchair) lifts shall not be a part of a required accessible route in new construction.

Exceptions: Platform (wheelchair) lifts are permitted for:

1. An accessible route to a performing area in occupancies in Group A.
2. An accessible route to wheelchair spaces required by Section 1108.2.2.
3. An accessible route to spaces that are not open to the general public with an occupant load of not more than five.
4. An accessible route within a dwelling or sleeping unit.
5. An accessible route to wheelchair seating spaces located in outdoor dining terraces in A-5 occupancies where the means of egress from the dining terraces to a public way is open to the outdoors.

Sections 1109.8 thru 1109.13.1. *(Text not revised)*

1109.14 Recreational facilities. Recreational facilities shall be provided with accessible features in accordance with Sections 1109.14.1 through 1109.14.3.

1109.14.1 Facilities serving a single building. In Group R-2 and R-3 occupancies where recreational facilities are provided serving a single building containing Type A or Type B units, 25 percent, but not less than one, of each type of recreational facility shall be accessible. Every recreational facility of each type on a site shall be considered to determine the total number of each type that are required to be accessible.

1109.14.2 Facilities serving multiple buildings. In Group R-2 and R-3 occupancies on a single site where multiple buildings containing Type A or Type B units are served by recreational facilities, 25 percent, but not less than one, of each type of recreational facility serving each building shall be accessible. The total number of each type of recreational facility that is required to be accessible shall be determined by considering every recreational facility of each type serving each building on the site.

1109.14.3 Other occupancies. All recreational facilities not falling within the purview of Sections 1109.14.1 or 1109.14.2 shall be accessible.

1109.15 Stairways. Stairways located along accessible routes connecting floor levels that are not connected by an elevator shall be designed and constructed to comply with ICC A117.1 and Chapter 10.

Revise and renumber current Section 1109 to 1110:

**SECTION 1110
SIGNAGE**

1110.1 Signs. *(Text not revised)*

1110.2 Directional signage. Directional signage indicating the route to the nearest like accessible element shall be provided at the following locations. These directional signs shall include the International Symbol of Accessibility:

1. Inaccessible building entrances.
2. Inaccessible public toilets and bathing facilities.
3. Elevators not serving an accessible route.

4. At each separate-sex toilet and bathing room indicating the location of the nearest unisex toilet or bathing room where provided in accordance with Section 1109.2.1.
5. At exits and elevators serving a required accessible space, but not providing an approved accessible means of egress, signage shall be provided in accordance with Section 1003.2.13.6.

1110.3 Other signs. Signage indicating special accessibility provisions shall be provided as shown:

1. In assembly areas required to comply with Section 1108.2.4, a sign notifying the general public of the availability of assistive listening systems shall be provided at ticket offices or similar locations.
2. At each door to an exit stairway, signage shall be provided in accordance with Section 1003.2.10.3.
3. At areas of refuge, signage shall be provided in accordance with Sections 1003.2.13.5.3 through 1003.2.13.5.5.
4. At areas for assisted rescue, signage shall be provided in accordance with Section 1003.2.13.7.3.

1209.2 Walls. Walls within 2 feet (610 mm) of urinals and water closets shall have a smooth, hard, nonabsorbent surface, to a height of 4 feet (1219 mm) above the floor, and except for structural elements, the materials used in such walls shall be of a type that is not adversely affected by moisture.

Exceptions:

1. Dwelling units and sleeping units.
2. Toilet rooms that are not accessible to the public and which have not more than one water closet.

Accessories such as grab bars, towel bars, paper dispensers and soap dishes, provided on or within walls, shall be installed and sealed to protect structural elements from moisture.

3109.4.1.8 Dwelling wall as a barrier. Where a wall of a dwelling serves as part of the barrier, one of the following shall apply:

1. Doors with direct access to the pool through that wall shall be equipped with an alarm which produces an audible warning when the door and its screen are opened. The alarm shall sound continuously for a minimum of 30 seconds immediately after the door is opened and be capable of being heard throughout the house during normal household activities. The alarm shall automatically reset under all conditions. The alarm shall be equipped with a manual means to temporarily deactivate the alarm for a single opening. Such deactivation shall last no more than 15 seconds.

onds. The deactivation switch shall be located at least 54 inches (1372 mm) above the threshold of the door.

2. The pool shall be equipped with a power safety cover which complies with ASTM F 1346.
3. Other means of protection, such as self-closing doors with self-latching devices, which are approved by the administrative authority, shall be accepted so long as the degree of protection afforded is not less than the protection afforded by Section 3109.4.1.8, Item 1 or 2.

3408.1 Scope. The provisions of Sections 3408.1 through 3408.8.5 apply to maintenance, change of occupancy, additions and alterations to existing buildings, including those identified as historic buildings.

Exception: Type B dwelling or sleeping units required by Section 1107 are not required to be provided in existing buildings and facilities.

3408.7.2 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.

3408.7.8 Dwelling or sleeping units. Where I-1, I-2, I-3, R-1, R-2 or R-4 dwelling or sleeping units are being altered or added, the requirements of Section 1107 for accessible or Type A units and Chapter 9 for accessible alarms apply only to the quantity of spaces being altered or added.

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IRC

R301.1.2 Engineered design. When a building of otherwise conventional light-frame construction contains structural elements not conforming to this code, these elements shall be designed in accordance with accepted engineering practice. The extent of such design need only demonstrate compliance of nonconventional elements with other applicable provisions and shall be compatible with the performance of the conventional framed system. Engineered design in accordance with the *International Building Code* is permitted for all buildings and structures, and parts thereof, included in the scope of this code.

R303.4.1 Light activation. The control for activation of the required interior stairway lighting shall be accessible at the

**TABLE R301.2(1)
CLIMATIC AND GEOGRAPHIC DESIGN CRITERIA**

GROUND SNOW LOAD	Wind	SEISMIC DESIGN CATEGORY ⁹	SUBJECT TO DAMAGE FROM				Winter Design Temp ^f	Ice Shield Underlayment Required ⁱ	Flood Hazards ^h
	SPEED ^e (mph)		Weathering ^a	Frost Line Depth ^b	Termite ^c	Decay ^d			

(No change to Footnotes a – h)

i. In accordance with Sections R905.2.7.1, R905.4.3, R905.5.3, R905.6.3, R905.7.3 and R905.8.3, for areas where the average daily temperature in January is 25° F (-4° C) or less, or where there has been a history of local damage from the effects of ice damming, the jurisdiction shall fill in this part of the table with "YES". Otherwise, the jurisdiction shall fill in this part of the table with "NO".

top and bottom of each stairway without traversing any steps. The illumination of exterior stairways shall be controlled from inside the dwelling unit.

Exception: Lights that are continuously illuminated or automatically controlled.

R309.2 Separation required. The garage shall be separated from the residence and its attic area by not less than ½-inch (12.7 mm) gypsum board applied to the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than 5/8-inch Type X gypsum board or equivalent. Where the separation is a floor-ceiling assembly, the structure supporting the separation shall also be protected by not less than ½-inch (12.7 mm) gypsum board or equivalent.

R312.1.2 Landings at doors. (Renumbered in the 2002 Accumulative Supplement as R311.4.3). There shall be a floor or landing on each side of each exterior door.

Exception: Where a stairway of two or fewer risers is located on the exterior side of a door, other than the required exit door, a landing is not required for the exterior side of the door.

The floor or landing at the exit door required by Section R311.4.1 shall not be more than 1.5 inches (38 mm) lower than the top of the threshold. The floor or landing at exterior doors other than the exit door required by Section R311.4.1 shall not be required to comply with this requirement but shall have a rise no greater than that permitted in Section R311.5.3.

Exception: The landing at an exterior doorway shall not be more than 7 ¾ inches (197 mm) below the top of the threshold, provided the door, other than an exterior storm or screen door does not swing over the landing.

The width of each landing shall not be less than the door served. Every landing shall have a minimum dimension of 36 inches (914 mm) measured in the direction of travel.

R313.2 Handrails required. (Renumbered in the 2002 Accumulative Supplement as R311.6.3). Handrails shall be provided on at least one side of all ramps exceeding a slope of one unit vertical in 12 units horizontal (8.33-percent slope).

R315.2 Handrail grip size. (Renumbered in the 2002 Accumulative Supplement as R311.5.6.3). All required handrails shall be of one of the following types or provide equivalent graspability.

1. Type I. Handrails with a circular cross section shall have an outside diameter of at least 1 ¼ inches (32 mm) and not greater than 2 inches (51 mm). If the handrail is not circular it shall have a perimeter dimension of at least 4 inches (102 mm) and not greater than 6 ¼ inches (160 mm) with a maximum cross section of dimension of 2 ¼ inches (57 mm).
2. Type II. Handrails with a perimeter greater than 6 ¼ inches (160 mm) shall provide a graspable finger recess area on both sides of the profile. The finger recess shall begin within a distance of ¾ inches (19 mm) measured vertically from the tallest portion of the profile and achieve a depth of at least 5/16 inches (8 mm) within 7/8 inches (22 mm) below the widest portion of the profile. This required depth shall continue for at least 3/8 inches (10 mm) to a level that is not less than 1 ¾ inches (45 mm) below the tallest portion of the profile. The minimum width of the handrail

above the recess shall be 1 ¼ inches (32 mm) to a maximum of 2 ¾ inches (70 mm). Edges shall have a minimum radius of 0.01 inches (0.25 mm).

R316.2 Guardrail opening limitations. Required guards on open sides of stairways, raised floor areas, balconies and porches shall have intermediate rails or ornamental closures which do not allow passage of a sphere 4 inches (102 mm) or more in diameter.

Exceptions:

1. The triangular openings formed by the riser, tread and bottom rail of a guard at the open side of a stairway are permitted to be of such a size that a sphere 6 inches (152 mm) cannot pass through.
2. Openings for required guards on the sides of stair treads shall not allow a sphere 4 ¾ inches (107 mm) to pass through.

R502.4 Joists under bearing partitions. Joists under parallel bearing partitions shall be of adequate size to support the load. Double joists, sized to adequately support the load, that are separated to permit the installation of piping or vents shall be full-depth solid blocked with lumber not less than 2 inches (51 mm) in nominal thickness spaced not more than 4 feet (1219 mm) on center.

R602.8 Fireblocking required. Fireblocking shall be provided to cut off all concealed draft openings (both vertical and horizontal) and to form an effective fire barrier between stories, and between a top story and the roof space. Fireblocking shall be provided in wood-frame construction in the following locations.

1. In concealed spaces of stud walls and partitions, including furred spaces, at the ceiling and floor levels. Concealed horizontal furred spaces shall also be fireblocked at intervals not exceeding 10 feet (3048). Batts or blankets of mineral or glass fiber or other approved nonrigid materials shall be allowed as fireblocking in walls constructed using parallel rows of studs or staggered studs.

(2 through 6 unchanged)

R905.2.7.1 Ice protection. In areas where the average daily temperature in January is 25EF (-4EC) or less or when Table R301.2(1) criteria so designate, an ice barrier that consists of a least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet, shall be used in lieu of normal underlayment and extend from the eave's edge to a point at least 24 inches (610 mm) inside the exterior wall line of the building.

R905.4.3 Underlayment. In areas where the average daily temperature in January is 25EF (-4EC) or less, or when Table R301.2(1) criteria so designate, an ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet, shall be used in lieu of normal underlayment and extend from the eave's edge to a point at least 24 inches (610 mm) inside the exterior wall line of the building. Underlayment shall comply with ASTM D 226, Type I.

R905.5.3 Underlayment. In areas where the average daily temperature in January is 25EF (-4EC) or less, or when Table

R301.2(1) criteria so designate, an ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet, shall extend from the eave's edge to a point at least 24 inches (610 mm) inside the exterior wall line of the building. Underlayment shall comply with ASTM D 226, Type I.

R905.6.3 Underlayment. In areas where the average daily temperature in January is 25EF (-4EC) or less, or when Table R301.2(1) criteria so designate, an ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet, shall extend from the eave's edge to a point at least 24 inches (610 mm) inside the exterior wall line of the building. Underlayment shall comply with ASTM D 226, Type I.

R905.7.3 Underlayment. In areas where the average daily temperature in January is 25BF (-4BC) or less, or when Table R301.2(1) criteria so designate, an ice barrier that consists of at least two layers of underlayment cemented together or of a self-adhering polymer modified bitumen sheet, shall extend from the eave's edge to a point at least 24 inches (610 mm) inside the exterior wall line of the building. Underlayment shall comply with ASTM D 226, Type I.

R905.8.3 Underlayment. In areas where the average daily temperature in January is 25EF (-4EC) or less, or when Table R301.2(1) criteria so designate, an ice barrier that consists of at least two layers of underlayment cemented together or a self-adhering polymer modified bitumen sheet, shall extend from the edge of the eave to a point at least 24 inches (610 mm) inside the exterior wall line of the building. Underlayment shall comply with ASTM D 226, Type I.

R907.3 Recovering versus replacement. New roof coverings shall not be installed without first removing all existing layers of roof coverings 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 wood shake, slate, clay, cement or asbestos-cement tile.
3. Where the existing roof has two or more applications of any type of roof covering.

Exceptions: *(No change)*

M1411.3.2 Drain pipe materials and sizes. Components of the condensate disposal system shall be cast iron, galvanized steel, copper, polybutylene, polyethylene, ABS, CPVC or PVC pipe or tubing. All components shall be selected for the pressure and temperature rating of the installation. Condensate waste and drain line size shall be not less than 3/4-inch (91 mm) internal diameter and shall not decrease in size from the drain pan connection to the place of condensate disposal. Where the drain pipes from more than one unit are manifolded together for condensate drainage, the pipe or tubing shall be sized in accordance with an approved method. All horizontal sections of drain piping shall be installed in uniform alignment at a uniform slope.

M1804.2.6 Mechanical draft systems. Mechanical draft systems shall be installed in accordance with their listing, the manu-

facturer's installation instructions and, except for direct vent appliances, the following requirements:

1. *(No change)*
2. The vent terminal shall be located not less than 4 feet (1219 mm) below, 4 feet (1219 mm) horizontally from or 1 foot (305 mm) above any door, window or gravity air inlet into a dwelling.
3. The vent termination point shall not be located closer than 3 feet (914 mm) to an interior corner formed by two walls perpendicular to each other.
4. *(No change)*

M2001.3 Valves. Every boiler or modular boiler shall have a shutoff valve in the supply and return piping.

For multiple boiler or multiple modular boiler installations, each boiler or modular boiler shall have individual shutoff valves in the supply and return piping.

Exception: Shutoff valves are not required in a system having a single low-pressure steam boiler.

M2002.2 Boiler low-water cutoff. All steam and hot water boilers shall be protected with a low-water cutoff control. The low-water cutoff shall automatically stop the combustion operation of the appliance when the water level drops below the lowest safe water level as established by the manufacturer.

M2004.1 General. Water heaters utilized both to supply potable hot water and to provide hot water for space heating shall be installed in accordance with this chapter, Chapter 24, Chapter 28, and the manufacturer's installation instructions.

P2903.5 Water hammer. The flow velocity of the water distribution system shall be controlled to reduce the possibility of water hammer. A water-hammer arrestor shall be installed where quick-closing valves are utilized. Water-hammer arrestors shall be installed in accordance with the manufacturer's specifications. Water-hammer arrestors shall conform to ASSE 1010.

P2904.5.1 Under concrete slabs. Inaccessible water-distribution piping under slabs shall be copper water tube minimum Type M, brass, ductile iron pressure pipe, galvanized steel-pipe, cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pressure pipe, chlorinated polyvinyl chloride (CPVC) or polybutylene (PB) or cross-linked polyethylene (PEX) plastic pipe or tubing—all to be installed with approved fittings or bends. The minimum pressure rating for plastic pipe or tubing installed under slabs shall be 100 psi at 180°F (689 kPa at 82°C).

R303.4 Stairway illumination. All interior and exterior stairways shall be provided with a means to illuminate the stairs, including the landings and treads. Interior stairways shall be provided with an artificial light source located in the immediate vicinity of each landing of the stairway. For interior stairs the artificial light sources shall be capable of illuminating treads and landings to levels not less than 1 foot-candle (11 lux) measured at the center of treads and landings. Exterior stairways shall be provided with an artificial light source located in the immediate vicinity of the top landing of the

stairway. Exterior stairways providing access to a basement from the outside grade level shall be provided with an artificial light source located in the immediate vicinity of the bottom landing of the stairway.

Exception: An artificial light source is not required at the top and bottom landing, provided an artificial light source is located directly over each stairway section.

R305.1 Minimum height. Habitable rooms, hallways, corridors, bathrooms, toilet rooms, laundry rooms and basements shall have a ceiling height of not less than 7 feet (2134 mm). The required height shall be measured from the finish floor to the lowest projection from the ceiling.

Exceptions:

1. Beams and girders spaced not less than 4 feet(1219 mm) on center may project not more than 6 inches (152 mm) below the required ceiling height.
2. Ceilings in basements without habitable spaces may project to within 6 feet, 8 inches (2032 mm) of the finish floor; and beams, girders, ducts or other obstructions may project to within 6 feet, 4 inches (1931 mm) of the finished floor.
3. Not more than 50 percent of the required floor area of a room or space is permitted to have a sloped ceiling less than 7 feet (2134 mm) in height with no portion of the required floor area less than 5 feet (1524 mm) in height.
4. Bathrooms shall have a minimum ceiling height of 6 feet 8 inches (2036 mm) over the fixture and at the front clearance area for fixtures as shown in Figure R307.2. A shower or tub equipped with a showerhead shall have a minimum ceiling height of 6 feet 8 inches (2036 mm) above a minimum area 30 inches (762 mm) by 30 inches (762 mm) at the showerhead.

E3802.9 Bedrooms. All branch circuits that supply 125-volt, single-phase, 15- and 20-ampere receptacle outlets installed in bedrooms shall be protected by arc-fault circuit interrupters.

403.2 Separate facilities. Where plumbing fixtures are required, separate facilities shall be provided for each sex.

Exceptions:

(No change to Exceptions 1, 2 and 3)

4. Separate facilities shall not be required in mercantile occupancies in which the maximum occupant load is 50 or less.

403.4 Location of employee toilet facilities in occupancies other than assembly or mercantile. Access to toilet facilities in occupancies other than mercantile and assembly occupancies shall be from within the employees’ working area. Employee facilities shall be either separate facilities or combined employee and public facilities.

Exception: Facilities that are required for employees in storage structures or kiosks, and are located in adjacent structures under the same ownership, lease or control, shall be a maximum travel distance of 500 feet (152 m) from the employees’ regular working area.

403.4.1 Travel distance. The required toilet facilities in occupancies other than assembly or mercantile shall be located not more than one story above or below the employee’s working area and the path of travel to such facilities shall not exceed a distance of 500 feet (152 m).

Exception: The location and maximum travel distances to required employee toilet facilities in factory and industrial occupancies are permitted to exceed that required in Section 403.4.1, provided the location and maximum travel distance are approved by the code official.

**TABLE P2904.4.1
WATER SERVICE PIPE**

MATERIAL	STANDARD
Acrylonitrile butadiene styrene (ABS) plastic pipe	ASTM D 1527; ASTM D 2282
Asbestos-cement pipe	ASTM C 296
Brass pipe	ASTM B 43
Chlorinated polyvinyl chloride (CPVC) plastic pipe	ASTM D 2846; ASTM F 441; ASTM F 442; CSA B137.6
Copper or copper-alloy pipe	ASTM B 42; ASTM B 302
Copper or copper-alloy tubing (Type K, WK, L, WL, M or WM)	ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447
Cross-linked polyethylene (PEX) plastic tubing	ASTM F 876; ASTM F 877; CSA CAN/CSA-B137.5
Cross-linked polyethylene/ aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe	ASTM F 1281; CSA CAN/CSA B137.10
Ductile iron water pipe	AWWA C115; AWWA C151
Galvanized steel pipe	ASTM A 53
Polybutylene (PB) plastic pipe and tubing	ASTM D 2662; ASTM D 2666; ASTM D 3309; CSA B137.8
Polyethylene/aluminum/ polyethylene (PE-AL-PE) pipe	ASTM F 1282; CSA CAN/CSA-B137.9
Polyethylene (PE) plastic pipe	ASTM D 2239; CAN/CSA-B137.1
Polyethylene (PE) plastic tubing	ASTM D 2737; CSA B137.1

403.5 Location of employee toilet facilities in mercantile and assembly occupancies. Employees shall be provided with toilet facilities in building and tenant spaces utilized as restaurants, nightclubs, places of public assembly and mercantile occupancies. The employee facilities shall be either separate facilities or combined employee and public facilities. The required toilet facilities shall be located not more than one story above or below the employee's work area and the path of travel to such facilities, in other than covered malls, shall not exceed a distance of 500 feet (152 m). The path of travel to required facilities in covered malls shall not exceed a distance of 300 feet (91 m).

Exception: Employee toilet facilities shall not be required in tenant spaces where the travel distance from the main entrance of the tenant space to a central toilet area does not exceed 300 feet (91 m) and such central toilet facilities are located not more than one story above or below the tenant space.

410.1 Approval. Drinking fountains shall conform to ASME A112.19.1, ASME A112.19.2 or ASME A112.19.9, and water coolers shall conform to ARI 1010. Drinking fountains and wa-

ter coolers shall conform to NSF 61, Section 9. Where water is served in restaurants, drinking fountains shall not be required. In other occupancies where drinking fountains are required, bottled water coolers shall be permitted to be substituted for not more than 50 percent of the required drinking fountains.

604.9 Water-hammer. The flow velocity of the water distribution system shall be controlled to reduce the possibility of water hammer. A water-hammer arrestor shall be installed where quick-closing valves are utilized. Water-hammer arrestors shall be installed in accordance with the manufacturer's specifications. Water-hammer arrestors shall conform to ASSE 1010.

Section 706.3

Exception: Back-to-back water closet connections to double sanitary tees shall be permitted where the horizontal developed length between the outlet of the water closet and the connection to the double sanitary tee is 18 inches (457 mm) or greater.

**TABLE P2904.5
WATER DISTRIBUTION PIPE**

MATERIAL	STANDARD
Brass pipe	ASTM B 43
Chlorinated polyvinyl chloride (CPVC) plastic pipe and tubing	ASTM D 2846; ASTM F 441; ASTM F 442; CSA B137.6
Copper or copper-alloy pipe	ASTM B 42; ASTM B 302
Copper or copper-alloy tubing (Type K, WK, L, WL, M or WM)	ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447
Cross-linked polyethylene (PEX) plastic tubing	ASTM F 877; CSA CAN/CSA-B137.5
Cross-linked polyethylene/aluminum/cross-linked polyethylene (PEX-AL-PEX) pipe	ASTM F 1281; CSA CAN/CSA-B137.10
Galvanized steel pipe	ASTM A 53
Polybutylene (PB) plastic pipe and tubing	ASTM D 3309; CSA CAN3-B137.8

**TABLE P2904.6
PIPE FITTINGS**

MATERIAL	STANDARD
Acrylonitrile butadiene styrene (ABS) plastic	ASTM D 2468
Cast iron	ASME B16.4; ASME B16.12
Chlorinated polyvinyl chloride (CPVC) plastic	ASTM F 437; ASTM F 438; ASTM F 439
Copper or copper alloy	ASME B16.15; ASME B16.18; ASME B16.22; ASME B16.23; ASME B16.26; ASME B16.29; ASME B16.32
Gray iron and ductile iron	AWWA C110; AWWA C153
Malleable iron	ASME B16.3
Metal Insert Fittings Utilizing a Copper Crimp Ring for SDR9 (PEX) Tubing	ASTM F 1807
Polyethylene (PE) plastic	ASTM D 2609
Polyvinyl chloride (PVC) plastic	ASTM D 2464; ASTM D 2466; ASTM D 2467; CSA CAN/CSA-B137.2
Steel	ASME B16.9; ASME B16.11; ASME B16.28

**TABLE 403.1
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES**

(see Sections 403.2 and 403.3)

NO.	CLASSIFICATION	USE GROUP	DESCRIPTION	WATER CLOSETS (URINALS SEE SECTION 419.2)		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAIN (SEE SECTION 410.1)	OTHER
				Male	Female	Male	Female			
1	Assembly (see Sections 403.2, 403.5 and 403.6)	A-1	Theaters usually with fixed seats and other buildings for the performing arts and motion pictures	1 per 125	1 per 65	1 per 200		—	1 per 500	1 service sink
		A-2	Nightclubs, bars, taverns, dance halls and buildings for similar purposes	1 per 40	1 per 40	1 per 75		—	1 per 500	1 service sink
			Restaurants, banquet halls and food courts	1 per 75	1 per 75	1 per 200		—	1 per 500	1 service sink
		A-3	Auditoriums without permanent seating, art galleries, exhibition halls, museums, lecture halls, libraries, arcades and gymnasiums	1 per 125	1 per 65	1 per 200		—	1 per 500	1 service sink
			Passenger terminals and transportation facilities	1 per 500	1 per 500	1 per 750		—	1 per 1,000	1 service sink
		A-3	Places of worship and other religious services. Churches without assembly halls ^b	1 per 150	1 per 75	1 per 200		—	1 per 1,000	1 service sink
		A-4	Coliseums, arenas, skating rinks, pools and tennis courts for indoor sporting events and activities	1 per 75 for the first 1500 and 1 per 120 for the remainder	1 per 40 for the first 1500 and 1 per 60 for the remainder	1 per 200	1 per 150	—	1 per 1,000	1 service sink
		A-5	Stadiums, amusement parks, bleachers and grandstands for outdoor sporting events and activities	1 per 75 for the first 1500 and 1 per 120 for the remainder	1 per 40 for the first 1500 and 1 per 60 for the remainder	1 per 200	1 per 150	—	1 per 1,000	1 service sink

TABLE 403.1 (continued)
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES

(see Sections 403.2 and 403.3)

NO.	CLASSIFICATION	USE GROUP	DESCRIPTION	WATER CLOSETS (URINALS SEE SECTION 419.2)		LAVATORIES		BATHTUB/ SHOWER	DRINKING FOUNTAIN (SEE SECTION 410.1)	OTHER
				Male	Female	Male	Female			
2	Business (see Sections 403.2, 403.4 and 403.6)	B	Buildings for the transaction of business, professional services, other services involving merchandise, office buildings, banks, light industrial and similar uses	1 per 50		1 per 80		—	1 per 100	1 service sink
3	Educational	E	Educational facilities	1 per 50		1 per 50		—	1 per 100	1 service sink
4	Factory and industrial	F-1 and F-2	Structures in which occupants are engaged in work fabricating, assembly or processing of products or materials	1 per 100		1 per 100		(see Section 411)	1 per 400	1 service sink
5	Institutional	I-1	Residential care	1 per 10		1 per 10		1 per 8	1 per 100	1 service sink
		I-2	Hospitals, ambulatory nursing home patients ^c	1 per room ^d		1 per room ^d		1 per 15	1 per 100	1 service sink per floor
			Employees, other than residential care ^c	1 per 25		1 per 35		—	1 per 100	—
			Visitors, other than residential care	1 per 75		1 per 100		—	1 per 500	—
		I-4	Adult daycare and childcare ^c	1 per 15		1 per 15		1 per 15 ^e	1 per 100	1 service sink
		I-3	Prisons ^c	1 per cell		1 per cell		1 per 15	1 per 100	1 service sink
		I-3	Reformatories, detention centers, and correctional centers ^c	1 per 15		1 per 15		1 per 15	1 per 100	1 service sink

TABLE 403.1 (continued)
MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES

(see Sections 403.2 and 403.3)

NO.	CLASSIFICATION	USE GROUP	DESCRIPTION	WATER CLOSETS (URINALS SEE SECTION 419.2)		LAVATORIES		BATHTUB/ SHOWER	DRINKING FOUNTAIN (SEE SECTION 410.1)	OTHER
				Male	Female	Male	Female			
6	Mercantile (see Sections 403.2, 403.5 and 403.6)	M	Retail stores, service stations, shops, salesrooms, markets and shopping centers	1 per 500		1 per 750		—	1 per 1,000	1 service sink
7	Residential	R-1	Hotels, motels, boarding houses (transient)	1 per guestroom		1 per guestroom		1 per guestroom	—	1 service sink
		R-2	Dormitories, fraternities, sororities and boarding house (not transient)	1 per 10		1 per 10		1 per 8	1 per 100	1 service sink
		R-2	Apartment house	1 per dwelling unit		1 per dwelling unit		1 per dwelling unit	—	1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per 20 dwelling units
		R-3	One- and two-family dwellings	1 per dwelling unit		1 per dwelling unit		1 per dwelling unit	—	1 kitchen sink per dwelling unit; 1 automatic clothes washer connection per dwelling unit
		R-4	Residential care/assisted living facilities	1 per 10		1 per 10		1 per 8	1 per 100	1 service sink
8	Storage (see Sections 403.2 and 403.4)	S-1 S-2	Structures for the storage of goods, warehouses, storehouse and freight depots, low and moderate hazard.	1 per 100		1 per 100		See Section 411	1 per 1,000	1 service sink

(Footnotes unchanged)

IECC

502.2.5 Prescriptive path for additions and window replacements. As an alternative to demonstrating compliance with Section 402 or 502.2, additions with a conditioned floor area less than 500 square feet (46.5 m²) to existing single-family residential buildings and structures shall meet the prescriptive envelope component criteria in Table 502.2.5 for the designated heating degree days (HDD) applicable to the location. The *U*-factor of each individual fenestration product (windows, doors and skylights) shall be used to calculate an area-weighted average fenestration product *U*-factor for the addition, which shall not exceed the applicable listed values in Table 502.2.5. For additions, other than sunroom additions, the total area of fenestration products shall not exceed 40 percent of the gross wall and roof area of the addition. The *R*-values for opaque thermal envelope components shall be equal to or greater than the applicable listed values in Table 502.2.5. Replacement fenestration products (where the entire unit, including the frame, sash and glazing, is replaced) shall meet the prescriptive fenestration *U*-factor criteria in Table 502.2.5 for the designated HDD applicable to the location. Conditioned sunroom additions shall be served by a separate heating or cooling system, or shall be controlled as a separate zone of the existing system. Fenestration products used in additions and as replacement windows in accordance with this section shall also meet the requirements of Section 502.1.5 in locations with HDD less than 3,500.

Exception: Replacement skylights shall have a maximum *U*-factor of 0.50 when installed in any location above 1,999 HDD.

Table 502.2.5 Add new footnote ‘e’ as shown: (EC30-00)

Fenestration <i>U</i> -factor ^e
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e. Sunroom additions that maintain thermal isolation shall be required to have a maximum *U*-factor of 0.50 in locations ≥ 2,000 HDD.

IMC

202-DEFINITIONS.

COMMERCIAL KITCHEN HOODS:

Backshelf Hood. A backshelf hood is also referred to as a low-proximity hood, or as a sidewall hood where wall mounted. Its front lower lip is low over the appliance(s) and is “set back” from the front of the appliance(s). It is always closed to the rear of the appliances by a panel where free-standing, or by a panel or wall where wall mounted, and its height above the cooking surface varies. (This style of hood can be constructed with partial end panels to increase its effectiveness in capturing the effluent generated by the cooking operation).

Double Island Canopy Hood. A double island canopy hood is placed over back-to-back appliances or appliance lines. It is open on all sides and overhangs both the fronts and the sides of the appliance(s). It could have a wall panel between the backs of the appliances. (The fact that exhaust air is drawn from both sides of the double canopy to meet in the center causes each side of this hood to emulate a wall canopy hood, and thus it functions much the same with or without an actual wall panel between the backs of the appliances).

Eyebrow Hood. An eyebrow hood is mounted directly to the face of an appliance, such as an oven and dishwasher, above the opening(s) or door(s) from which effluent is emitted, extending past the sides and overhanging the front of the opening to capture the effluent.

Pass-over Hood. A pass-over hood is a free-standing form of a backshelf hood constructed low enough to pass food over the top.

Single Island Canopy Hood. A single island canopy hood is placed over a single appliance or appliance line. It is open on all sides and overhangs the front, rear, and sides of the appliance(s). (A single island canopy is more susceptible to cross drafts and requires a greater exhaust air flow than an equivalent sized wall-mounted canopy to capture and contain effluent generated by the cooking operation(s)).

Wall Canopy Hood. A wall canopy exhaust hood is mounted against a wall above a single appliance or line of appliance(s), or it could be free-standing with a back panel from the rear of the appliances to the hood. It overhangs the front and sides of the appliance(s) on all open sides. (The wall acts as a back panel, forcing the makeup air to be drawn across the front of the cooking equipment, thus increasing the effectiveness of the hood to capture and contain effluent generated by the cooking operation(s)).

EXTRA-HEAVY-DUTY COOKING APPLIANCE. Extra-heavy-duty cooking appliances include appliances utilizing solid fuel such as wood, charcoal, briquettes, and mesquite as the primary source of heat for cooking.

FIREPLACE STOVE. A free-standing chimney-connected solid-fuel-burning heater, designed to be operated with the fire chamber doors in either the open or closed position.

507.13 Capacity of hoods. Commercial food service hoods shall exhaust a minimum net quantity of air determined in accordance with this section and Sections 507.13.1 through 507.13.4. The net quantity of exhaust air shall be calculated by subtracting any air flow supplied directly to a hood cavity from the total exhaust flow rate of a hood. Where any combination of Extra-heavy-duty, heavy-duty, medium-duty, and light-duty cooking appliances are utilized under a single hood, the highest exhaust rate required by this section shall be used for the entire hood.

507.13.1 Extra-heavy-duty cooking appliances. The minimum net airflow for Type I hoods used for extra-heavy-duty cooking appliances shall be determined as follows:

Type of Hood	CFM per linear foot of hood
Wall-mounted canopy	550
Single island canopy	700
Double island canopy (per side)	550
Backshelf/pass-over	Not allowed
Eyebrow	Not allowed

507.13.2 Heavy-duty cooking appliances. The minimum net airflow for Type I hoods used for heavy-duty cooking appliances shall be determined as follows:

Type of Hood	CFM per linear foot of hood
Wall-mounted canopy	400
Single island canopy	600
Double island canopy (per side)	400
Backshelf/pass-over	400
Eyebrow	Not allowed

507.13.3 Medium-duty cooking appliances. The minimum net airflow for Type I hoods used for medium-duty cooking appliances shall be determined as follows:

Type of Hood	CFM per linear foot of hood
Wall-mounted canopy	300
Single island canopy	500
Double island canopy (per side)	300
Backshelf/pass-over	300
Eyebrow	250

507.13.4 Light-duty cooking appliances. The minimum net airflow for Type I hoods used for light-duty cooking appliances and food service preparation and cooking operations approved for use under a Type II hood shall be determined as follows:

Type of Hood	CFM per linear foot of hood
Wall-mounted canopy	200
Single island canopy	400
Double island canopy (per side)	250
Backshelf/pass-over	250
Eyebrow	250

602.2.1 Materials exposed within plenums. Except as required by Sections 602.2.1.1 through 602.2.1.4, materials exposed within plenums shall be noncombustible or shall have a flame spread index of not more than 25 and a smoke-developed index of not more than 50 when tested in accordance with ASTM E 84.

Exceptions:

1. Rigid and flexible ducts and connectors shall conform to Section 603.
2. Duct coverings, linings, tape and connectors shall conform to Sections 603 and 604.
3. This section shall not apply to materials exposed within plenums in one- and two-family dwellings.
4. This section shall not apply to smoke detectors.

5. Combustible materials enclosed in approved gypsum board assemblies or enclosed in materials listed and labeled for such application.

602.4 Flood hazard. For structures located in flood hazard areas, plenum spaces shall be located above the design flood elevation or shall be designed and constructed to prevent water from entering or accumulating within the plenum spaces during floods up to the design flood elevation. If the plenum spaces are located below the design flood elevation, they shall be capable of resisting hydrostatic and hydrodynamic loads and stresses, including the effects of buoyancy, during the occurrence of flooding to the design flood elevation.

IFGC

302.4 Alterations to trusses. Truss members and components shall not be cut, drilled, notched, spliced or otherwise altered in any way without the written concurrence and approval of a registered design professional. Alterations resulting in the addition of loads to any member (e.g., HVAC equipment, water heaters), shall not be permitted without verification that the truss is capable of supporting such additional loading.

303.3 Prohibited locations. Appliances shall not be located in, or obtain combustion air from, any of the following rooms or spaces:

1. Sleeping rooms.
2. Bathrooms.
3. Toilet rooms.
4. Storage closets.
5. Surgical rooms.

Exceptions:

1. Direct-vent appliances that obtain all combustion air directly from the outdoors.
2. Vented room heaters, wall furnaces, vented decorative appliances and decorative appliances for installation in vented solid fuel-burning fireplaces, provided that the room is not a confined space and the building is not of unusually tight construction.
3. A single wall-mounted unvented room heater equipped with an oxygen depletion safety shutoff system and installed in a bathroom provided that the input rating does not exceed 6000 Btu per hour (1.76kW) and the bathroom is not a confined space.
4. A single wall-mounted unvented room heater equipped with an oxygen depletion safety shutoff system and installed in a bedroom provided that the input rating does not exceed 10,000 Btu per hour (2.93 kW) and the bedroom is not a confined space.
5. Appliances installed in an enclosure in which all combustion air is taken from the outdoors, in accordance with Section 304.11. Access to such enclosure shall be through a solid weather-stripped door, equipped with an approved self-closing device.

305.5 Construction and protection. Boiler rooms and furnace rooms shall be protected as required by the *International Building Code*.

305.6 Clearances from grade. Equipment and appliances installed at grade level shall be supported on a level concrete slab or other approved material extending above adjoining grade or shall be suspended a minimum of 6 inches (152 mm) above adjoining grade.

305.7 Clearances to combustible construction. Heat-producing equipment and appliances shall be installed to maintain the required clearances to combustible construction as specified in the listing and manufacturer's instructions. Such clearances shall be reduced only in accordance with Section 308. Clearances to combustibles shall include such considerations as door swing, drawer pull, overhead projections or shelving and window swing. Devices such as door stops or limits and closers shall not be used to provide the required clearances.

602.1 General. Decorative appliances for installation in approved solid fuel-burning fireplaces shall be tested in accordance with ANSI Z21.60 and shall be installed in accordance with the manufacturer's installation instructions. Manually lighted natural gas decorative appliances shall be tested in accordance with ANSI Z21.84.

602.2 Flame safeguard device. Decorative appliances for installation in approved solid fuel-burning fireplaces, with the exception of those tested in accordance with ANSI Z21.84, shall utilize a direct ignition device, an ignitor or a pilot flame to ignite the fuel at the main burner, and shall be equipped with a flame safeguard device. The flame safeguard device shall automatically shut off the fuel supply to a main burner or group of burners when the means of ignition of such burners becomes inoperative.

SECTION 604 VENTED GAS FIREPLACES (DECORATIVE APPLIANCES)

604.1 General. Vented gas fireplaces shall be tested in accordance with ANSI Z21.50, shall be installed in accordance with

the manufacturer's installation instructions and shall be designed and equipped as specified in Section 602.2.

SECTION 605 (IFGC) VENTED GAS FIREPLACE HEATERS

605.1 General. Vented gas fireplace heaters shall be installed in accordance with the manufacturer's installation instructions, shall be tested in accordance with ANSI Z21.88 and shall be designed and equipped as specified in Section 602.2.

607.1 General. Vented wall furnaces shall be tested in accordance with ANSI Z21.49 or Z21.86/CSA 2.32 and shall be installed in accordance with the manufacturer's installation instructions.

608.1 General. Floor furnaces shall be tested in accordance with ANSI Z21.48 or Z21.86/CSA 2.32 and shall be installed in accordance with the manufacturer's installation instruction.

621.1 General. Vented room heaters shall be tested in accordance with ANSI Z21.11.1 or Z21.86/CSA 2.32, shall be designed and equipped as specified in Section 602.2 and shall be installed in accordance with the manufacturer's installation instructions.

630.1 Standards. Boilers shall be listed in accordance with the requirements of ANSI Z21.13 or UL 795. If applicable, the boiler shall be designed and constructed in accordance with the requirements of ASME CSD-1 and as applicable, the ASME Boiler and Pressure Vessel Code Sections I, II, IV, V and IX and NFPA 85.

SECTION 632 FUEL CELL POWER PLANTS

632.1 General. Stationary fuel cell power plants shall be tested in accordance with ANSI Z21.83 and shall be installed in accordance with the manufacturer's installation instructions.

CHAPTER 7

REFERENCED STANDARDS

Change the following referenced standards to read as shown:

ANSI American National Standard Institute
25 West 43rd Street 4th Floor
New York, NY 10036

Standard reference number	Title	Referenced in code section number
Z21.1—00	Household Cooking Gas Appliances	622.1
Z21.5.1—99	Gas Clothes Dryers - Volume I - Type 1 Clothes Dryers	612.1
Z21.5.2—99	Gas Clothes Dryers - Volume II - Type 2 Clothes Dryers with Z21.5.2a-99 and Z21.5.2b-99 Addendum	612.1, 613.3
Z21.10.3—98	Gas Water Heaters - Volume III - Storage, Water Heaters with Input Ratings Above 75,000 Btu per hour, Circulating and Instantaneous Water Heaters—with Z21.10.3a-99 Addenda	623.1
Z21.11.2—96	Gas-Fired Room Heaters-Volume II-Unvented Room Heaters—with Z21.11.2a-97 and Z21.11.2b-98 Addendum	620.1
Z21.13—99	Gas-Fired Low-Pressure Steam and Hot Water Boilers—with Addenda Z21.13a-1993 and Z21.13b-1994	630.1
Z21.40.1—96	Gas-Fired Absorption Summer Air Conditioning Appliances—with Z21.40.1a-98 Addenda	626.1
Z21.40.2—96	Gas Fired Work Activated Air Conditioning and Heat Pump Appliances (Internal Combustion)—with Z21.40.2a-97 Addenda	626.1
Z21.47—00	Gas-Fired Central Furnaces—with Addenda Z21.47a- 00	617.1
Z21.50—98	Vented Gas Fireplaces	604.1
Z21.56—98	Gas-Fired Pool Heaters—with Z21.56a-99 Addenda	622.1
Z21.83—98	Fuel Cell Power Plants	632.1
Z21.84—99	Manually-Lighted, Decorative Gas Appliances for Installation in Solid Fuel Burning Fireplaces	602.1, 602.2
Z21.86—98/CSA 2.32M98	Gas-Fired Vented Space Heating Appliances	607.1, 608.1, 621.1
Z21.88—99	Vented Gas Fireplace Heaters	605.1
Z83.4—99	Direct Gas-Fired Make-Up Air Heaters	610.1
Z83.6—90 (1998)	Gas-Fired Infrared Heaters	629.1
Z83.18—00	Direct Gas-Fired Industrial Air Heaters	611.1

ASME American Society of Mechanical Engineers
Three Park Avenue
New York, NY 10016-5990

Standard reference number	Title	Referenced in code section number
B1.20.192—	Pipe Threads, General Purpose (inch)	403.9
B16.1—98	Cast Iron Pipe Flanges and Flanged Fittings, Class 25, 125, 250, and 800	403.12
B16.20—98	Metallic Gaskets for Pipe Flanges: Ring-Joint, Spiral-Wound, and Jacketed with B16.20a-2000 Addenda	403.12
B16.33—90	Manually Operated Metallic Gas Valves for Use in Gas Piping Systems up to 125 psig (Sizes 1/2 through 2)	409.1.1
B36.10M— 00	Welded and Seamless Wrought-Steel Pipe	403.4.2
ASME—01	ASME Boiler and Pressure Vessel Code (2001 Edition)	630.1
CSD-1—98	Controls and Safety Devices for Automatically Fired Boilers with the ASME CSD-1a-1999 Addenda	630.1

ASTM ASTM International
100 Barr Harbor Drive
West Conshohocken, PA 19428-2959

Standard reference number	Title	Referenced in code section number
A 53/A 53M—00)	Specification for Pipe, Steel, Black and Hot Dipped Zinc-Coated Welded and Seamless	403.4.2
A 106—99	Specification for Seamless Carbon Steel Pipe for High-Temperature Service	403.4.2
A 539—99	Specification for Electric Resistance-Welded Coiled Steel Tubing for Gas and Fuel Oil Lines	403.5.1

ASTM-continued

B 88—99 Specification for Seamless Copper Water Tube	403.5.2
B 210—00 Specification for Aluminum and Aluminum-Alloy Drawn Seamless Tubes	403.5.3
B 241/B 241M-00 Specification for Aluminum and Aluminum-Alloy, Seamless Pipe and Seamless Extruded Tube	403.4.4, 403.5.3
B 280—99 Specification for Seamless Copper Tube for Air Conditioning and Refrigeration Field Service	403.5.2
C 64—94 Specification for Refractories for Incinerators and Boilers	503.10.2.5
C 315—00 Specification for Clay Flue Linings	501.12
D 2513—00 Specification for Thermoplastic Gas Pressure Pipe, Tubing, and Fittings	403.6, 403.11, 404.14.2

AWWA American Water Works Association
6666 West Quincy Avenue
Denver, CO 80235

Standard reference number	Title	Referenced in code section number
C111—00	Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings	403.12

IAS International Approval Services
8501 East Pleasant Valley Road
Cleveland, OH 44131

Standard reference number	Title	Referenced in code section number
IAS 8—93	Requirements for Gas-Fired Log Lighters for Wood Burning Fireplaces	603.1

NFPA National Fire Protection Association
1 Batterymarch Park
P.O. Box 9101
Quincy, MA 02269-9101

Standard reference number	Title	Referenced in code section number
58—01	Liquified Petroleum Gases Code	401.2, 402.5.1, 4.3.6.2, 403.11
85—01	Boiler and Combustion Systems Hazards Code	630.1
85—01	Boiler and Combustion Systems Hazards Code	630.1
85—01	Boiler and Combustion Systems Hazards Code	630.1
211—00	Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances	503.5.2, 503.5.3, 503.5.6.1, 503.5.6.3

UL Underwriters Laboratories
333 Pfingsten Road
Northbrook, IL 60062-2096

Standard reference number	Title	Referenced in code section number
UL 127—96	Factory-Built Fireplaces - with Revisions thru November 1999	620.7
UL 641—95	Low Temperature Venting Systems, Type L-with Revisions thru April 1999	502.1,
UL 795—99	Commercial-Industrial Gas Heating Equipment	609.1,617.1,630.1

IBC APPENDICES

F101.2 Foundation wall ventilation openings. Foundation wall ventilator openings shall be covered for their height and width with perforated sheet metal plates no less than 0.070 inch (1.8 mm) thick, expanded sheet metal plates not less than 0.047 inch (1.2 mm) thick, cast iron grills or grating, extruded aluminum load-bearing vents or with hardware cloth of 0.035 inch (0.89 mm) wire or heavier. The openings therein shall not exceed 1/4 inch (6.4 mm).

F101.6 Pier and wood construction.

H101.2 Signs exempt from permits. The following signs are exempt from the requirements to obtain a permit before erection:

1. Painted nonilluminated signs.
2. Temporary signs announcing the sale or rent of property.
3. Signs erected by transportation authorities.
4. Projecting signs not exceeding 2.5 square feet (0.23 m²).
5. The changing of moveable parts of an approved sign that is designed for such changes, or the repainting or repositioning of display matter shall not be deemed an alteration.

SECTION H102 DEFINITIONS

H102.1 General. Unless otherwise expressly stated, the following words and terms shall, for the purposes of this appendix, have the meanings shown herein. Refer to Chapter 2 of the *International Building Code* for general definitions.

COMBINATION SIGN. A sign incorporating any combination of the features of pole, projecting and roof signs.

DISPLAY SIGN. The area made available by the sign structure for the purpose of displaying the advertising message.

ELECTRIC SIGN. A sign containing electrical wiring, but not including signs illuminated by an exterior light source.

GROUND SIGN. A billboard or similar type of sign which is supported by one or more uprights, poles or braces in or upon the ground other than a combination sign or pole sign, as defined by this code.

POLE SIGN. A sign wholly supported by a sign structure in the ground.

PORTABLE DISPLAY SURFACE. A display surface temporarily fixed to a standardized advertising structure which is regularly moved from structure to structure at periodic intervals.

PROJECTING SIGN. A sign other than a wall sign, which projects from and is supported by a wall of a building or structure.

ROOF SIGN. A sign erected upon or above a roof or parapet of a building or structure.

SIGN. Any letter, figure, character, mark, plane, point, marquee sign, design, poster, pictorial, picture, stroke, stripe, line, trademark, reading matter or illuminated service, which shall be constructed, placed, attached, painted, erected, fastened or manufactured in any manner whatsoever, so that the same shall be used for the attraction of the public to any place, subject, person, firm, corporation, public performance, article, machine or

merchandise, whatsoever, which is displayed in any manner outdoors. Every sign shall be classified and conform to the requirements of that classification as set forth in this chapter.

SIGN STRUCTURE. Any structure which supports or is capable of supporting a sign as defined in this code. A sign structure is permitted to be a single pole and is not required to be an integral part of the building.

WALL SIGN. Any sign attached to or erected against the wall of a building or structure, with the exposed face of the sign in a plane parallel to the plane of said wall.

SECTION H103

LOCATION

H103.1 Location restrictions. Signs shall not be erected, constructed or maintained so as to obstruct any fire escape or any window or door or opening used as a means of egress or so as to prevent free passage from one part of a roof to any other part thereof. A sign shall not be attached in any form, shape or manner to a fire escape, nor be placed in such manner as to interfere with any opening required for ventilation.

SECTION H105

DESIGN AND CONSTRUCTION

H105.1 General requirements. Signs shall be designed and constructed to comply with the provisions of this code for use of materials, loads and stresses.

H105.2 Permits, drawings and specifications. Where a permit is required, as provided in Chapter 1, construction documents shall be required. These documents shall show the dimensions, material and required details of construction, including loads, stresses and anchors.

H105.3 Wind load. Signs shall be designed and constructed to withstand wind pressure as provided for in Chapter 16.

H105.4 Seismic load. Signs designed to withstand wind pressures shall be considered capable of withstanding earthquake loads, except as provided for in Chapter 16.

H105.5 Working stresses. In outdoor advertising display signs, the allowable working stresses shall conform to the requirements of Chapter 16. The working stresses of wire rope and its fastenings shall not exceed 25 percent of the ultimate strength of the rope or fasteners.

Exceptions:

1. The allowable working stresses for steel and wood shall be in accordance with the provisions of Chapters 22 and 23.
2. The working strength of chains, cables, guys or steel rods shall not exceed one-fifth of the ultimate strength of such chains, cables, guys or steel.

H105.6 Attachment. Signs attached to masonry, concrete or steel shall be safely and securely fastened by means of metal anchors, bolts or approved expansion screws of sufficient size and anchorage to safely support the loads applied.

SECTION H106 ELECTRICAL

H106.1 Illumination. A sign shall not be illuminated by other than electrical means, and electrical devices and wiring shall be installed in accordance with the requirements of the ICC *Electrical Code*. Any open spark or flame shall not be used for display purposes unless specifically approved.

H106.1.1 Internally illuminated signs. Except as provided for in Sections 402.14 and 2611, where internally illuminated signs have sign facings of wood or approved plastic, the area of such facing section shall not be more than 120 square feet (11.16 m²) and the wiring for electric lighting shall be entirely enclosed in the sign cabinet with a clearance of not less than 2 inches (51 mm) from the facing material. The dimensional limitation of 120 square feet (11.16 m²) shall not apply to sign facing sections made from flame-resistant-coated fabric (ordinarily known as “flexible sign face plastic”) that weighs less than 20 ounces per square yard (678 g/m²) and which, when tested in accordance with NFPA 701, meets the requirements of both the small-scale test and the large-scale test, or which, when tested in accordance with an approved test method, exhibits an average burn time for 10 specimens of 2 seconds or less and a burning extent of 15 centimeters or less.

H106.2 Electrical service. Signs that require electrical service shall comply with the ICC *Electrical Code*.

SECTION H107 COMBUSTIBLE MATERIALS

H107.1 Use of combustibles. Wood, approved plastic or plastic veneer panels as provided for in Chapter 26, or other materials of combustible characteristics similar to wood, used for moldings, cappings, nailing blocks, letters and latticing, shall comply with Section H109.1, and shall not be used for other ornamental features of signs, unless approved.

H107.1.1 Plastic materials. Notwithstanding any other provisions of this code, plastic materials which burn at a rate no faster than 2.5 inches per minute (64 mm/s) when tested in accordance with ASTM D 635 shall be deemed approved plastics and can be used as the display surface material and for the letters, decorations and facings on signs and outdoor display structures.

H107.1.2 Electric sign faces. Individual plastic facings of electric signs shall not exceed 200 square feet (18.6 m²) in area.

H107.1.3 Area limitation. If the area of a display surface exceeds 200 square feet (18.6 m²), the area occupied or covered by approved plastics shall be limited to 200 square feet (18.6 m²) plus 50 percent of the difference between 200 square feet (18.6 m²) and the area of display surface. The area of plastic on a display surface shall not in any case exceed 1,100 square feet (102 m²).

H107.1.4 Plastic appurtenances. Letters and decorations mounted on an approved plastic facing or display surface can be made of approved plastics.

SECTION H108 ANIMATED DEVICES

H108.1 Fail-safe device. Signs that contain moving sections or ornaments shall have fail-safe provisions to prevent the section or ornament from releasing and falling or shifting its center of gravity more than 15 inches (381 mm). The fail-safe device shall be in addition to the mechanism and the mechanism’s housing which operate the movable section or ornament. The fail-safe device shall be capable of supporting the full dead weight of the section or ornament when the moving mechanism releases.

SECTION H109 GROUND SIGNS

H109.1 Height restrictions. The structural frame of ground signs shall not be erected of combustible materials to a height of more than 35 feet (10668 mm) above the ground. Ground signs constructed entirely of noncombustible material shall not be erected to a height of greater than 100 feet (30 480 mm) above the ground. Greater heights are permitted where approved and located so as not to create a hazard or danger to the public.

H109.2 Required clearance. The bottom coping of every ground sign shall be not less than 3 feet (914 mm) above the ground or street level, which space can be filled with platform decorative trim or light wooden construction.

H109.3 Wood anchors and supports. Where wood anchors or supports are embedded in the soil, the wood shall be pressure treated with an approved preservative.

SECTION H110 ROOF SIGNS

H110.1 General. Roof signs shall be constructed entirely of metal or other approved noncombustible material except as provided for in Sections H106.1.1 and H107.1. Provisions shall be made for electric grounding of metallic parts. Where combustible materials are permitted in letters or other ornamental features, wiring and tubing shall be kept free and insulated therefrom. Roof signs shall be so constructed as to leave a clear space of not less than 6 feet (1829 mm) between the roof level and the lowest part of the sign and shall have at least 5 feet (1524 mm) clearance between the vertical supports thereof. No portion of any roof sign structure shall project beyond an exterior wall.

Exception: Signs on flat roofs with every part of the roof accessible.

H110.2 Bearing plates. The bearing plates of roof signs shall distribute the load directly to or upon masonry walls, steel roof girders, columns or beams. The building shall be designed to avoid overstress of these members.

H110.3 Height of solid signs. A roof sign having a solid surface shall not exceed, at any point, a height of 24 feet (7315 mm) measured from the roof surface.

H110.4 Height of open signs. Open roof signs in which the uniform open area is not less than 40 percent of total gross area shall not exceed a height of 75 feet (22 860 mm) on buildings of Type 1 or Type 2 construction. On buildings of other construction types, the height shall not exceed 40 feet (12 192 mm).

mm). Such signs shall be thoroughly secured to the building upon which they are installed, erected or constructed by iron, metal anchors, bolts, supports, chains, stranded cables, steel rods or braces and they shall be maintained in good condition.

H110.5 Height of closed signs. A closed roof sign shall not be erected to a height greater than 50 feet (15 240 mm) above the roof of buildings of Type 1 or Type 2 construction, nor more than 35 feet (10 668 mm) above the roof of buildings of Type 3, 4 or 5 construction.

SECTION H111 WALL SIGNS

H111.1 Materials. Wall signs which have an area exceeding 40 square feet (3.72 m²) shall be constructed of metal or other approved noncombustible material, except for nailing rails and as provided for in Sections H106.1.1 and H107.1.

H111.2 Exterior wall mounting details. Wall signs attached to exterior walls of solid masonry, concrete or stone shall be safely and securely attached by means of metal anchors, bolts or expansion screws of not less than $\frac{3}{8}$ inch (9.5 mm) diameter and shall be embedded at least 5 inches (127 mm). Wood blocks shall not be used for anchorage, except in the case of wall signs attached to buildings with walls of wood. A wall sign shall not be supported by anchorages secured to an unbraced parapet wall.

H111.3 Extension. Wall signs shall not extend above the top of the wall, nor beyond the ends of the wall to which the signs are attached unless such signs conform to the requirements for roof signs, projecting signs or ground signs.

SECTION H112 PROJECTING SIGNS

H112.1 General. Projecting signs shall be constructed entirely of metal or other noncombustible material and securely attached to a building or structure by metal supports such as bolts, anchors, supports, chains, guys or steel rods. Staples or nails shall not be used to secure any projecting sign to any building or structure. The dead load of projecting signs not parallel to the building or structure and the load due to wind pressure shall be supported with chains, guys or steel rods having net cross-sectional dimension of not less than $\frac{3}{8}$ inch (9.5 mm) diameter. Such supports shall be erected or maintained at an angle of at least 45 percent (0.78 rad) with the horizontal to resist the dead load and at angle of 45 percent (0.78 rad) or more with the face of the sign to resist the specified wind pressure. If such projecting sign exceeds 30 square feet (2.8 m²) in one facial area, there shall be provided at least two such supports on each side not more than 8 feet (2438 mm) apart to resist the wind pressure.

H112.2 Attachment of supports. Supports shall be secured to a bolt or expansion screw that will develop the strength of the supporting chains, guys or steel rods, with a minimum $\frac{5}{8}$ -inch (15.9 mm) bolt or lag screw, by an expansion shield. Turn buckles shall be placed in chains, guys or steel rods supporting projecting signs.

H112.3 Wall mounting details. Chains, cables, guys or steel rods used to support the live or dead load of projecting signs are permitted to be fastened to solid masonry walls with expansion

bolts or by machine screws in iron supports, but such supports shall not be attached to an unbraced parapet wall. Where the supports must be fastened to walls made of wood, the supporting anchor bolts must go through the wall and be plated or fastened on the inside in a secure manner.

H112.4 Height limitation. A projecting sign shall not be erected on the wall of any building so as to project above the roof or cornice wall or above the roof level where there is no cornice wall; except that a sign erected at a right angle to the building, the horizontal width of which sign is perpendicular to such a wall and does not exceed 18 inches (457 mm), is permitted to be erected to a height not exceeding 2 feet (610 mm) above the roof or cornice wall or above the roof level where there is no cornice wall. A sign attached to a corner of a building and parallel to the vertical line of such corner shall be deemed to be erected at a right angle to the building wall.

H112.5 Additional loads. Projecting sign structures which will be used to support an individual on a ladder or other servicing device, whether or not specifically designed for the servicing device, shall be capable of supporting the anticipated additional load, but not less than a 100-pound (445 N) concentrated horizontal load and a 300-pound (1334 N) concentrated vertical load applied at the point of assumed or most eccentric loading. The building component to which the projecting sign is attached shall also be designed to support the additional loads.

SECTION H113 MARQUEE SIGNS

H113.1 Materials. Marquee signs shall be constructed entirely of metal or other approved noncombustible material except as provided for in Sections H106.1.1 and H107.1.

H113.2 Attachment. Marquee signs shall be attached to approved marquees that are constructed in accordance with Section 3106.

H113.3 Dimensions. Marquee signs, whether on the front or side, shall not project beyond the perimeter of the marquee.

H113.4 Height limitation. Marquee signs shall not extend more than 6 feet (1829 mm) above, nor 1 foot (305 mm) below such marquee, but under no circumstances shall the sign or signs have a vertical dimension greater than 8 feet (2438 mm).

SECTION H114 PORTABLE SIGNS

H114.1 General. Portable signs shall conform to requirements for ground, roof, projecting, flat and temporary signs where such signs are used in a similar capacity. The requirements of this section shall not be construed to require portable signs to have connections to surfaces, tie-downs or foundations where provisions are made by temporary means or configuration of the structure to provide stability for the expected duration of the installation.

**TABLE 4-A
SIZE, THICKNESS AND TYPE OF GLASS PANELS IN SIGNS**

MAXIMUM SIZE OF EXPOSED PANEL		MINIMUM THICKNESS OF GLASS (inches)	TYPE OF GLASS
Any dimension (inches)	Area (square inches)		
30	500	1/8	Plain, plate or wired
45	700	3/16	Plain, plate or wired
144	3,600	1/4	Plain, plate or wired
> 144	> 3,600	1/4	Wired glass

For SI: 1 inch = 25.4 mm, 1 square inch = 645 mm².

**TABLE 4-B
THICKNESS OF PROJECTION SIGN**

PROJECTION (feet)	MAXIMUM THICKNESS (feet)
5	2
4	2.5
3	3
2	3.5
1	4

For SI: 1 foot = 304.8 mm.

APPENDIX I PATIO COVERS

SECTION I101 GENERAL

I101.1 General. Patio covers shall be permitted to be detached from or attached to dwelling units. Patio covers shall be used only for recreational, outdoor living purposes and not as carports, garages, storage rooms or habitable rooms. Openings shall be permitted to be enclosed with insect screening, approved translucent or transparent plastic not more than 0.125 inch (3.2 mm) in thickness, glass conforming to the provisions of Chapter 24 or any combination of the foregoing.

SECTION I102 DEFINITIONS

I102.1 General. The following word and term shall, for the purposes of this appendix, have the meaning shown herein.

PATIO COVERS. One story structures not exceeding 12 feet (3657 mm) in height. Enclosure walls shall be permitted to be of any configuration, provided the open or glazed area of the longer wall and one additional wall is equal to at least 65 percent of the area below a minimum of 6 feet 8 inches (2032 mm) of each wall, measured from the floor.

SECTION I103 EXTERIOR OPENINGS

I103.1 Light, ventilation and emergency egress. Exterior openings required for light and ventilation shall be permitted to open into a patio structure. However, the patio structure shall be unenclosed if such openings are serving as emergency egress or rescue openings from sleeping rooms. Where such exterior openings serve as an exit from the dwelling unit, the patio structure, unless unenclosed, shall be provided with exits conforming to the provision of Chapter 10.

SECTION I104 STRUCTURAL PROVISIONS

I104.1 Design loads. Patio covers shall be designed and constructed to sustain, within the stress limits of this code, all dead loads plus a minimum vertical live load of 10 pounds per square foot (0.48 kN/m²) except that snow loads shall be used where such snow loads exceed this minimum. Such patio covers shall be designed to resist the minimum wind and seismic loads set forth in this code.

I104.2 Footings. In areas with a frost depth of zero, a patio cover shall be permitted to be supported on a concrete slab on grade without footings, provided the slab conforms to the provisions of Chapter 19 of this code, is not less than 3 1/2 inches (89 mm) thick and further provided that the columns do not support loads in excess of 750 pounds (3.36 kN) per column.