

**DISTRICT OF COLUMBIA
DEPARTMENT OF CONSUMER AND REGULATORY AFFAIRS**

NOTICE OF FINAL RULEMAKING

ERRATA

The Director of the Department of Consumer and Regulatory Affairs (DCRA) published, in the D.C. Register at 51 DCR 292, January 9, 2004, a Notice of Final Rulemaking adopting Title 12 of the District of Columbia Municipal Regulations (DCMR), the Construction Codes Supplement of 2003; 2000 edition of the International Code Council (ICC) International Building Code; the 2000 edition of the ICC International Residential Code; the 2000 edition of the ICC International Fuel Gas Code; the 2000 edition of the ICC International Mechanical Code; the 2000 edition of the ICC International Plumbing Code; the 2000 edition of the ICC International Property Maintenance Code; the 2000 edition of the ICC International Fire Code; the 2000 edition of the ICC International Energy Conservation Code; the D.C. Existing Buildings Code Supplement of 2003 and; the 1996 edition of the NFPA National Electrical Code.

The notice failed to include the text of the D.C. Existing Buildings Code Supplement of 2003 (DCMR 12 J). The text of DCMR 12J was included in the proposed rulemaking and was approved by the Council of the District of Columbia on December 2, 2003.

On January 30, 2004 an ERRATA was published to correct the omission and publish the text of the D.C. Existing Buildings Code Supplement of 2003 (DCMR 12 J). The January 30th ERRATA failed to contain all of the chapters of DCMR 12J. The entire index and text are set forth below.

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**DISTRICT OF COLUMBIA
BUILDING CODE SUPPLEMENT OF 2003
DCMR 12J
EXISTING BUILDINGS CODE**

**CHAPTER 1
ADMINISTRATION AND ENFORCEMENT**

SECTION EX-101 GENERAL

Administration and enforcement of this Code shall be governed by Chapter 1 of Title 12A of the District of Columbia Municipal Regulations.

[RESERVED]

CHAPTER 2 DEFINITIONS

SECTION EX-201 GENERAL

EX-201.1 Scope. Unless otherwise expressly stated, the following words and terms shall, for the purposes of this code, have the meanings shown in this chapter.

EX-201.2 Interchangeability. Words used in the present tense include the future; words stated in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural, the singular.

EX-201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in the other *Construction Codes*, such terms shall have the meanings ascribed to them as in those codes.

EX-201.4 Terms not defined. Where terms are not defined through the methods authorized by this chapter, such terms shall have ordinarily accepted meanings such as the context implies.

SECTION EX-202 GENERAL DEFINITIONS

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

Alteration. Any construction or renovation to an existing structure other than repair or addition, including: (1) reconfiguration of any space; (2) addition or elimination of any door or window; (3) reconfiguration or extension of any system; or (4) installation of any additional equipment. Alterations are classified as Level 1, Level 2 and Level 3.

Change of Occupancy. A change in the purpose or level of activity within a building or structure that involves a change in application of the requirements of this code.

Dangerous. Any building or structure or any individual **structural** member with any of the structural conditions or defects described below shall be deemed dangerous:

1. The stress in a member or portion thereof, due to all factored dead and live loads, is more than one and one third the nominal strength allowed in the *Building Code* for new buildings of similar structure, purpose or location;
2. Any portion, member or appurtenance thereof likely to fail, or to become detached or dislodged, or to collapse and thereby injure persons;

3. Any portion of a building, or any member, appurtenance or ornamentation on the exterior thereof is not of sufficient strength or stability, or is not so anchored, attached or fastened in place so as to be capable of resisting a wind pressure of two thirds of that specified in the *Building Code* for new buildings of similar structure, purpose or location without exceeding the nominal strength permitted in the *Building Code* for such buildings;
4. The building, or any portion thereof, is likely to partially or completely collapse because of (a) dilapidation, deterioration or decay; (b) construction in violation of the *Building Code*; (c) the removal, movement or instability of any portion of the ground necessary for the purpose of supporting such building; (d) the deterioration, decay or inadequacy of its foundation; (e) damage due to fire, earthquake, wind or flood; or (f) any other similar cause; or
5. The exterior walls or other vertical structural members list, lean or buckle to such an extent that a plumb line passing through the center of gravity does not fall inside the middle one third of the base.

Equipment or Fixture. Any plumbing, heating, electrical, ventilating, air conditioning, refrigerating and fire protection equipment, and elevators, dumb waiters, escalators, boilers, pressure vessels and other mechanical facilities or installations, which are related to building services. Equipment or fixture shall not include manufacturing, production or process equipment, but shall include connections from building service to process equipment.

Existing Building. A building or structure that was erected and occupied or issued a certificate of occupancy at least one year before a construction permit application for renovation of that building or structure was made to DCRA.

Fire Resistance Rating. The fire resistance ratings of building assemblies and structural elements shall be determined in accordance Section 703 of the *Building Code*. The fire resistance rating of existing building assemblies which have not been rated in accordance with Section 703 of the *Building Code* shall be determined in accordance with the procedures set forth in *HUD Guideline of Fire Ratings of Archaic Materials and Assemblies*, as listed in Chapter 14.

Flood Hazard Area. The greater of the following two areas:

1. The area within a flood plain subject to a 1 percent or greater chance of flooding in any year; or
2. The area designated as a flood hazard area on a community's flood hazard map, or otherwise legally designated.

Historic Building. Any building or structure that is (a) listed in the State or National Register of Historic Places, (b) designated as a historic property under local or state designation, law, or survey, (c) certified as a contributing resource within a National Register listed or locally designated historic district, or (d) with an opinion or certification that the property is eligible to be listed on the National

or State Registers of Historic Places either individually or as a contributing building to a historic district by the State Historic Preservation Officer or the Keeper of the National Register of Historic Places.

Load Bearing Element. Any column, girder, beam, joist, truss, rafter, wall, floor or roof sheathing which supports any vertical load in addition to its own weight, and/or any lateral load.

Rehabilitation. Any construction work undertaken in an existing building that includes repair, renovation, modification, reconstruction, change of occupancy or addition.

Rehabilitation, Seismic. Work conducted to improve the seismic lateral force resistance of an existing building.

Renovation. The change, strengthening, or addition of load bearing elements; or the refinishing, replacing, bracing, strengthening, upgrading, or extensive repair of existing materials, elements, components, equipment, or fixtures. The term "renovation" shall not include reconfiguration of space or interior or exterior painting.

Repair The patching, restoration, or minor replacement of materials, elements, components, equipment, or fixtures for the purpose of maintaining these materials, elements, components, equipment, or fixtures in good or sound condition.

Seismic Loading. The assumed forces prescribed herein, related to the response of the structure to earthquake motions, to be used in the analysis and design of the structure and its components.

Substantial Damage. For the purpose of determining compliance with the flood provisions of this code, damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Substantial Improvement. For the purpose of determining compliance with the flood provisions of this code, any repair, alteration, addition, or improvement of a building or structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the improvement or repair is started. If the structure has sustained substantial damage, any repairs are considered substantial improvement regardless of the actual repair work performed. The term does not, however, include either:

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

Substantial Structural Damage. A condition where:

1. In any story, the vertical elements of the lateral force resisting system, in any direction and taken as a whole, have suffered damage such that the lateral load-carrying capacity has been reduced by more than 20 percent from its pre-damaged condition; or
2. The vertical load carrying components supporting more than 30 percent of the structure's floor or roof area have suffered a reduction in vertical load carrying capacity to below 75% of the *Building Code* required strength levels calculated by either the strength or allowable stress method.

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 that are in full and strict compliance with the minimum requirements for new construction and which are necessary to provide accessibility.

Unsafe Buildings or Equipment. Buildings or existing equipment that are unsanitary or deficient because of inadequate means of egress facilities, inadequate light and ventilation, or which constitute a fire hazard, or are otherwise dangerous to human life or the public welfare, or which involve illegal or improper occupancy or inadequate maintenance, shall be deemed an unsafe condition.

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

CHAPTER 3 CLASSIFICATION OF WORK

SECTION EX-301 GENERAL

EX-301.1 Scope. The work performed on an existing building shall be classified in accordance with this chapter.

EX-301.2 Work area. The work area, as defined in Chapter 2, shall be identified on the construction documents.

EX-301.3 Compliance alternatives. The provisions of Chapters 4 through 10 are not applicable where the building complies with Chapter 12.

EX-301.4 Occupancy and Use. When determining the appropriate application of the referenced sections of this code, the occupancy and use of a building shall be determined in accordance with Chapter 3 of the *Building Code*.

SECTION EX-302 REPAIRS

EX-302.1 Scope. Repairs, as defined in Chapter 2, include the patching or restoration of materials, elements, equipment or fixtures for the purpose of maintaining such materials, elements, equipment or fixtures in good or sound condition.

EX-302.2 Application. Repairs shall comply with the provisions of Chapter 4.

SECTION EX-303 ALTERATION - LEVEL 1

EX-303.1 Scope. Level 1 alterations include the removal and replacement, or the covering of existing materials, elements, equipment or fixtures using new materials, elements, equipment or fixtures that serve the same purpose.

EX-303.2 Application. Level 1 alterations shall comply with the provisions of Chapter 5.

SECTION EX-304 ALTERATION - LEVEL 2

EX-304.1 Scope. Level 2 alterations include the reconfiguration of space, the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment.

EX-304.2 Application. Level 2 alterations shall comply with the provisions of Chapter 5 for Level 1 alterations as well as the provisions of Chapter 6.

SECTION EX-305 ALTERATION - LEVEL 3

EX-305.1 Scope. Level 3 alterations apply where the work area exceeds 50% of the aggregate area of the building

EX-305.2 Application. Level 3 alterations shall comply with the provisions of Chapters 5 and 6 for Level 1 and 2 alterations, respectively, as well as the provisions of Chapter 7.

SECTION EX-306 CHANGE OF OCCUPANCY

EX-306.1 Scope. Change of occupancy provisions apply where the activity is classified a change of occupancy as defined in Chapter 2.

EX-306.2 Application. Changes of occupancy shall comply with the provisions of Chapter 8.

SECTION EX-307 ADDITIONS

EX-307.1 Scope. Provisions for additions shall apply where work is classified an addition as defined in Chapter 2.

EX-307.2 Application. Additions to existing buildings shall comply with the provisions of Chapter 9.

SECTION EX-308 HISTORIC BUILDINGS

EX-308.1 Scope. Historic buildings provisions shall apply to buildings classified as historic as defined in Chapter 2.

EX-308.2 Application. Except as specifically provided for in Chapter 10, historic buildings shall comply with applicable provisions of this code for the type of work being performed

SECTION EX-309 RELOCATED BUILDINGS

EX-309.1 Scope. Relocated buildings provisions shall apply to relocated or moved buildings.

EX-309.2 Application. Relocated buildings shall comply with the provisions of Chapter 11.

CHAPTER 4 REPAIRS

SECTION EX-401 GENERAL

EX-401.1 Scope. Repairs, as described in Section EX-302, shall comply with the requirements of this Chapter. Repairs to historic buildings shall comply with this chapter, except as modified in Chapter 10.

EX-401.2 Permitted materials. Except as otherwise required herein, work shall be done using materials permitted by the applicable code for new construction or using like materials such that no hazard to life, health or property is created.

EX-401.3 Design values for existing materials and construction: The incorporation of existing materials, construction and detailing into the structural system shall be permitted when approved by the code official. Minimum quality levels and maximum strength values shall comply with the *Existing Buildings Code*.

EX-401.4 Conformance. The work shall not make the building less conforming with the building, plumbing, mechanical, fuel gas, electrical or fire codes of the District of Columbia, or with alternative materials, design and methods of construction or any previously approved plans, modifications, alternate methods or compliance alternatives, than it was before the repair was undertaken.

EX-401.5 Flood hazard areas. In flood hazard areas, repairs that constitute substantial improvement shall require that the building comply with *Building Code* Section 1612.

SECTION EX-402 SPECIAL USE AND OCCUPANCY

EX-402.1 General. Repair of buildings, classified as special use or occupancy as described in the *Building Code*, shall comply with the requirements of this chapter.

SECTION EX-403 BUILDING ELEMENTS AND MATERIALS

EX-403.1 Hazardous materials. Hazardous materials no longer permitted, such as asbestos and lead-based paint, shall not be used.

EX-403.2 Glazing in hazardous locations. Replacement glazing in hazardous locations shall comply with the Safety Glazing requirements of the *Building Code* or *Residential Code* as applicable.

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

SECTION EX-404 FIRE PROTECTION

EX-404.1 General. Repairs shall be done in a manner that maintains the level of fire protection provided.

SECTION EX-405 MEANS OF EGRESS

EX-405.1 General. Repairs shall be done in a manner that maintains the level of protection provided for the means of egress.

SECTION EX-406 ACCESSIBILITY

EX-406.1 General. Repairs shall be done in a manner that maintains the level of accessibility provided.

SECTION EX-407 STRUCTURAL

EX-407.1 General. Repairs of structural elements shall comply with this section.

EX-407.1.1 Seismic Design. Seismic evaluation and design of an existing building and its components shall be based upon the assumed forces related to the response of the structure to earthquake motions,

EX-407.1.1.1 Evaluation and design procedures. The seismic evaluation and design of an existing building shall be based upon the procedures specified in the *Building Code*, ASCE 31-XX, or FEMA 356.

EX-407.1.1.2 IBC level seismic forces. When seismic forces are required to meet the *Building Code* level, they shall be based upon 100% of the values in the *Building Code* or FEMA 356. Where FEMA 356 is used, the FEMA 356 Basic Safety Objective (BSO) shall be used for buildings in Seismic Use Group I. For Buildings in other Seismic Use Groups the applicable FEMA 356 performance levels shown in Table EX-407.1.1.2 for BSE-1 and BSE-2 Earthquake Hazard Levels shall be used.

EX-407.1.1.3 Reduced IBC level seismic forces. When seismic forces are allowed to meet reduced *Building Code* levels, they shall be based upon 75% of the assumed forces prescribed in the *Building Code*, the applicable performance level of ASCE 31-XX as shown in Table EX-407.1.1.2, or the applicable performance level for the BSE-1 Earthquake Hazard Level of FEMA 356 shown in Table EX-407.1.1.2.

**TABLE EX-407.1.1.2
IBC SEISMIC USE GROUP EQUIVALENTS TO FEMA 356
AND ASCE 31-XX PERFORMANCE LEVELS (NOTE 1)**

Seismic Use Group (Based on IBC Table 1604.5)	Performance Levels of ASCE 31-XX and FEMA 356 BSE-1 Earthquake Hazard Level	Performance Levels of FEMA 356 BSE-2 Earthquake Hazard Level
I	Life Safety (LS)	Collapse Prevention (CP)
II	Note 2	Note 2
III	Immediate Occupancy (IO)	Life Safety (LS)
IV	Life Safety (LS)	Collapse Prevention (CP)

Notes :

1. The charging provisions for Seismic Use Group equivalents to ASCE 31-XX and FEMA 356 BSE-1 for Reduced *Building Code* Level Seismic Forces are in Section EX-407.1.1.3.
2. Performance Levels for Seismic Use Group II shall be taken as half way between the Performance levels specified for Seismic Use Group I and III.

EX-407.1.2 Wind design. Wind design of existing buildings shall be based upon the procedures specified in the *Building Code* or the *Residential Code* as applicable.

EX-407.2 Reduction of strength. Repairs shall not reduce the structural strength or stability of the building, structure or any individual member thereof.

Exceptions:

1. Such reduction shall be allowed provided the capacity is not reduced to below the *Building Code* levels.

2. In the alteration of buildings erected before July 1, 1925, the code official is authorized to allow a maximum reduction of 30 percent of the specified minimum live loads in Table 1607.1, with a minimum live load for other than residential buildings of 40 psf (1.92 kN/m²), provided official live load placards are posted showing this reduced live load.

EX-407.3 Damaged buildings. Damaged buildings shall be repaired in accordance with this section.

EX-407.3.1 New structural frame members. New structural frame members, used in the repair of damaged buildings, including anchorage and connections, shall comply with the *Building Code*.

Exception: For the design of new structural frame members connected to existing structural frame members, the use of reduced *Building Code* level seismic forces as specified in Section EX-407.1.1.3 shall be permitted.

EX-407.3.2 Substantial structural damage. Buildings which have sustained substantial structural damage shall comply with this section.

EX-407.3.2.1 Engineering evaluation and analysis. An engineering evaluation and analysis which establishes the structural adequacy of the damaged building shall be prepared by a registered design professional and submitted to the code official. The evaluation and analysis may assume that all damaged structural elements and systems have their original strength and stiffness. The seismic analysis shall be based upon one of the procedures specified in Section EX-407.1.1

EX-407.3.2.1.1 Extent of repair. The evaluation and analysis shall demonstrate that the building once repaired complies with the wind and seismic provisions of the *Building Code*.

Exception: The seismic design level for the repair design shall be the higher of Building Code in effect at the time of original construction and reduced *Building Code* level seismic forces as specified in Section EX-407.1.1.3.

EX-407.3.3 Below substantial structural damage. Repairs to buildings damaged to a level below the substantial structural damage level as defined in Section EX-202 shall be allowed to be made with the materials, methods and strengths in existence prior to the damage unless such existing conditions are dangerous as defined in Chapter 2. New structural frame members, as defined in Chapter 2, shall comply with Section EX-407.3.1.

EX-407.3.4 Other uncovered structural elements. Where in the course of conducting repairs, other uncovered structural elements are found to be unsound or otherwise structurally deficient, such elements shall be made to conform to the requirements of Section EX-407.3.2.1.1.

EX-407.3.5 Flood hazard areas. In flood hazard areas, damaged buildings that sustain substantial damage shall be brought into compliance with *Building Code* Section 1612.

SECTION EX-408 ELECTRICAL

EX-408.1 Material. Existing electrical wiring and equipment undergoing repair shall be allowed to be repaired or replaced with like material.

Exceptions:

1. Replacement of electrical receptacles shall comply with the applicable requirements of Article 210-7-(d) of NFPA 70.
2. Plug fuses of the Edison-base type shall be used for replacements only where there is no evidence of over fusing or tampering per applicable requirements of Article 240-51-(b) of NFPA 70.
3. For replacement of non-grounding-type receptacles with grounding-type receptacles and for branch circuits that do not have an equipment grounding conductor in the branch circuitry, the grounding conductor of a grounding type receptacle outlet shall be permitted to be grounded to any accessible point on the grounding electrode system, or to any accessible point on the grounding electrode conductor in accordance with Article 250-130-(c) of NFPA 70.
4. Non-"hospital grade" receptacles in patient bed locations of Group 1-2 shall be replaced with "hospital grade" receptacles, as required by NFPA 99 and Art. 517 of NFPA 70.
5. Frames of electric ranges, wall-mounted ovens, counter-mounted cooking units, clothes dryers, and outlet or junction boxes that are part of the existing branch circuit for these appliances shall be permitted to be grounded to the grounded circuit conductor in accordance with Art. 250-140 of NFPA 70.

SECTION EX-409 MECHANICAL

EX-409.1 General. Existing mechanical systems undergoing repair shall comply with Section EX-401.1. and the scoping provisions of Chapter 1 where applicable.

EX-490.2 Drains in elevator pits: Drains installed in an elevator pit shall discharge by means of an indirect waste pipe, into an approved receptor such as a 55 gallon holding drum located outside of the elevator pit or hoistway in an accessible location. Provisions shall be made for maintenance of the trap of drains in elevator pits without having to gain access to the elevator pit or hoistway.

EX-409.2.1 Sumps in elevator pits: Sumps may be installed. Where drains are not provided to prevent the accumulation of water, sump pumps may be provided.

SECTION EX-410 PLUMBING

EX-410.1 Materials. The following plumbing materials and supplies shall not be used:

1. Sheet and tubular copper and brass trap and tailpiece fittings less than the minimum wall thickness of .027" (0.69 mm).
2. Solder having more than 0.2% lead in the repair of potable water systems.
3. Water closets having a concealed trap seal or an unventilated space or having walls that are not thoroughly washed at each discharge in accordance with ASME A112.19.2.
4. The following types of joints shall be prohibited:
 - (a) Cement or concrete joints.
 - (b) Mastic or hot-pour bituminous joints.
 - (c) Joints made with fittings not approved for the specific installation.
 - (d) Joints between different diameter pipes made with elasto-meric rolling O-rings.
 - (e) Solvent-cement joints between different types of plastic pipe.
 - (f) Saddle-type fittings.
5. The following type of traps are prohibited:
 - (a) Traps that depend on moving parts to maintain the seal.
 - (b) Bell traps
 - (c) Crown-vented traps
 - (d) Traps not integral with a fixture and that depend on interior partitions for the seal, except those traps constructed of an approved material that is resistant to corrosion and degradation.

EX-410.2 Water closet replacement. When any water closet is replaced, the replacement water closet shall comply with the *Plumbing Code*. The maximum water consumption flow rates and quantities for all replaced water closets shall be 1.6 gallons (6 L) per flushing cycle.

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

SECTION EX-411 FUEL GAS

EX-411.1 General. Repairs and replacement of parts shall be done in such a manner as to preserve the original approval or listing.

EX-411.2 Piping. Defects in pipe or tubing or fittings shall not be repaired. Defective pipe, tubing, and fittings shall be replaced. Pipe, fittings, valves, or other material shall not be reused unless they

are free of foreign materials and have been ascertained to be adequate for the service intended.

EX-411.2.1 Testing. Where a section of a piping system is repaired or replaced, the affected section shall be pressure tested in accordance with Section FG-406 of the *DC Fuel Gas Code*.

Exception: Minor repairs, requiring no more than 10 piping joints, shall not require a pressure test, provided the work is inspected and connections are tested with a non-corrosive leak-detecting fluid or other leak-detecting methods approved by the code official.

EX-411.3 Venting systems. Where repairs are made to a venting system or to an appliance connected to a venting system, the flue passageway shall be inspected to ascertain that it is clear and free of obstructions or debris, and shall be cleaned if necessary.

CHAPTER 5 ALTERATIONS - LEVEL 1

SECTION EX-501 GENERAL

EX-501.1 Scope. Level 1 alterations, as described in Section EX-303 shall comply with the requirements of this Chapter. Level 1 alterations to historic buildings shall comply with this chapter, except as modified in Chapter 10.

EX-501.2 Conformance. An existing building or portion thereof shall not be altered such that the building becomes less safe than its existing condition.

Exception: Where the current level of safety or sanitation is proposed to be reduced, the portion altered shall conform to the requirements of the *Building Code*.

EX-501.3 Flood hazard areas. In flood hazard areas, alterations that constitute substantial improvement shall require that the building comply with *Building Code* Section 1612.

SECTION EX-502 SPECIAL USE AND OCCUPANCY

EX-502.1 General. Alteration of buildings, classified as special use and occupancy as described in *Building Code*, shall comply with the requirements of Section EX-501.1 and the scoping provisions of Chapter 1 where applicable.

SECTION EX-503 BUILDING ELEMENTS AND MATERIALS

EX-503.1 Interior finishes. All newly installed interior finishes shall comply with the flame spread requirements of the *Building Code*.

EX-503.2 Carpeting. New carpeting used as an interior floor finish material shall comply with the radiant flux requirements of the *Building Code*.

EX-503.3 Materials and methods: All new work shall comply with materials and methods requirements in the *Building Code*, *Mechanical Code*, *Fuel Gas Code*, *Plumbing Code*, *Energy Code* and *Electrical Code* as applicable, that specify material standards, detail of installation and connection, joints, penetrations and continuity of any element, component or system in the building.

EX-503.3.1 Fuel gas piping systems. Existing fuel gas piping systems shall not be required to be resized where the alteration does not increase the load nor increase the longest length of the piping system.

EX-503.3.2 Pressure testing. Where an existing fuel gas piping system is extended or a new branch is installed, only the newly-installed piping shall be required to be pressure tested.

Connections between the new and existing piping shall be tested with a non-corrosive leak-detecting fluid or other leak-detecting methods approved by the code official.

SECTION EX-504 FIRE PROTECTION

(Not used)

SECTION EX-505 MEANS OF EGRESS

EX-505.1 General. Means of egress for buildings undergoing alteration shall comply with the requirements of Section EX-501.2 and the scoping provisions of Chapter 1 where applicable.

EX-505.2 Use of Exit and Exit Access Enclosures: Exits and exit access corridors shall comply with *Building Code* Section 1004.3.2.4.

Exception: Existing exit access corridors that serve areas undergoing Level 1 Alterations shall be allowed to be used as air return plenums where the following four conditions are verified:

1. The existing HVAC system already uses the corridor as a return plenum.
2. The HVAC system remains as existing, except for rearrangement of terminal branches, relocation of supply diffusers, or replacement in kind of equipment.
3. The transfers from the altered space, to the corridor, shall be equipped with an approved smoke damper arranged to close upon detection of smoke on either side of the transfer.
4. The corridor is not a grade passageway.

EX-505.3 Allowance for Fire Resistance Upgrading: When improving the fire resistance rating of the enclosure of stairways, exit access passageways or corridors complying with Sections EX-605.11.1 through EX-605.11.2, a tolerance of up to 1- 1/2-inch (38 mm) shall be allowed in the minimum width of those elements of egress. When improving the fire resistance rating of a wall assembly on one side of stairways, exit access passageways or corridors complying with Section EX-605.11, a tolerance of up to 3/4 inch (19 mm) shall be allowed in the minimum width of those elements of egress.

SECTION EX-506 ACCESSIBILITY

EX-506.1 Accessibility. A building, facility or element that is altered shall comply with the applicable provisions in Chapter 11 of the *Building Code*, Sections EX-506.1.1 thru EX-506.1.15 and ICC/ANSI A117.1, unless technically infeasible. Where compliance with this section is

technically infeasible, the alteration shall provide access to the maximum extent technically feasible.

Exceptions:

1. The altered element or space is not required to be on an accessible route, unless required by Section EX-506.2.
2. Accessible means of egress required by Chapter 10 of the *Building Code* are not required to be provided in existing buildings and facilities.
3. Type B dwelling units required by Section 1107.6.2 of the *Building Code* are not required to be provided in existing buildings and facilities.

EX-506.1.1 Elevators. Altered elements of existing elevators shall comply with ASME A17.1 and ICC/ANSI A117.1. Such elements shall also be altered in elevators programmed to respond to the same hall call control as the altered elevator.

EX-506.1.2 Platform lifts. Platform (wheelchair) lifts complying with ICC/ANSI A117.1 and installed in accordance with ASME A17.1 shall be permitted as a component of an accessible route.

EX-506.1.3 Ramps. Where steeper slopes than allowed by Section 1003.3.4.1 of the *Building Code* are necessitated by space limitations, the slope of ramps in or providing access to existing buildings or facilities shall comply with Table EX-506.1.4.

EX-506.1.4 Dining areas. An accessible route to raised or sunken dining areas, or to outdoor seating areas is not required provided that the same services and decor are provided in an accessible space usable by any occupant and not restricted to use by people with a disability.

EX-506.1.5 Performance areas. Where it is technically infeasible to alter performance areas to be on an accessible route, at least one of each type of performance area shall be made accessible.

EX-506.1.6 Assembly areas. Seating shall adjoin an accessible route that also serves as a means of egress. Where it is technically infeasible to disperse accessible seating throughout an altered assembly area, wheelchair spaces shall be dispersed, to the maximum extent feasible, in accordance with the priorities established in Section 1108.2.3 of the *Building Code*. In existing assembly seating areas with a mezzanine, where the main level provides three-fourths or more of the total seating capacity, wheelchair spaces are permitted to be dispersed on the main level. At least one seat for a companion shall be provided beside each wheelchair space.

EX-506.1.7 Sleeping rooms and accommodations. Where I-1 sleeping rooms, I-2 sleeping rooms or patient rooms, I-3 residential units, or R-1 and R-2 sleeping accommodations are being altered, the requirements of Section 1107 of the *Building Code* for accessible rooms and Chapter 9 for accessible alarms apply only to the quantity of spaces being altered or added.

EX-506.1.8 Toilet rooms. Where it is technically infeasible to alter existing toilet and bathing facilities to be accessible, an accessible unisex toilet or bathing facility is permitted. The unisex facility shall be located on the same floor and in the same area as the existing facilities.

Exception: Where the existing toilet facilities are located on a non-accessible floor, the accessible facilities shall be located on an accessible floor.

EX-506.1.9 Dressing, fitting and locker rooms. Where it is technically infeasible to provide accessible dressing, fitting or locker rooms at the same location as similar types of rooms, one accessible room on the same level shall be provided. Where separate sex facilities are provided, accessible rooms for each sex shall be provided. Separate sex facilities are not required where only unisex rooms are provided.

Exception: Where the existing toilet facilities are located on a non-accessible floor, the accessible facilities shall be located on an accessible floor.

EX-506.1.10 Check-out aisles. Where check-out aisles are altered in facilities having a selling space of 5,000 square feet (465 m²) or more, at least one check-out aisle serving each function shall be made accessible.

EX-506.1.11 Dispersion of seating at fixed or built-in tables, counters, or work surfaces. Accessible seating at fixed or built-in tables, counters or work surfaces shall be distributed throughout the space or facility as much as technically feasible.

EX-506.1.12 Sales and service counters. Where it is technically infeasible for existing counters for sales or distribution of goods or services to be made accessible, an accessible auxiliary counter shall be provided.

EX-506.1.13 Thresholds. The maximum height of thresholds at doorways shall be 3/4 inch (19.1 mm). Such threshold shall have beveled edges on each side.

EX-506.1.14 Extent of application. An alteration of an existing element, space, or area of a building or facility shall not impose a requirement for greater accessibility than that which would be required for new construction. Alterations shall not reduce or have the effect of reducing accessibility of a building, portion of a building, or facility.

EX-506.2 Alterations affecting an area containing a primary function. Where an alteration affects the accessibility to, or contains an area of primary function, the route to the primary function area shall be accessible. The accessible route to the primary function area shall include toilet facilities or drinking fountains serving the area of primary function. For the purposes of complying with Section EX-506.2, an area of primary function shall be defined by applicable provisions of 49 CFR Part 37.43(c) or 28 CFR Part 36.403.

Exceptions:

1. The costs of providing the accessible route is not required to exceed 20 percent of the costs of the alterations affecting the area of primary function.
2. This provision does not apply to alterations limited solely to windows, hardware, operating controls, electrical outlets and signs.
3. This provision does not apply to alterations limited solely to mechanical systems, electrical systems, installation or alteration of fire protection systems, and abatement of hazardous materials.
4. This provision does not apply to alterations undertaken for the primary purpose of increasing the accessibility of an existing building, facility or element.

**TABLE EX-506.1.4
RAMPS**

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

SECTION EX-507 STRUCTURAL

EX-507.1 General. Where alteration work includes replacement of equipment that is supported by the building, or where a re-roofing permit is required, the structural provisions of this section shall apply.

EX-507.2 Design criteria. Existing structural components supporting alteration work shall comply with this section.

EX-507.2.1 Replacement of roofing or equipment. Where replacement of roofing or equipment results in additional dead loads, structural components supporting such re-roofing or equipment shall comply with the vertical load requirements of the *Building Code*.

Exceptions:

1. Structural elements whose stress is not increased by more than 5 percent.
2. Buildings constructed in accordance with the *Residential Code* or the conventional construction methods of the *Building Code* and where the additional dead load from the equipment is not increased by more than 5 percent.

EX-507.2.2 Parapet bracing and wall anchors for reroof permits. Unreinforced masonry bearing wall buildings classified as Seismic Design Category D, E or F shall have parapet bracing and wall anchors installed at the roof line whenever a re-roofing permit is issued. Such parapet bracing and wall anchors shall be designed in accordance with the reduced *Building Code* level seismic forces as specified in Section 407.1.1.3 and design procedures of Section 407.1.1.1.

EX-507.3 Roof diaphragm. Where roofing materials are removed from more than 50% of the roof diaphragm of a building or section of a building where the roof diaphragm is a part of the main wind force resisting system the integrity of the roof diaphragm shall be evaluated and if found deficient due to insufficient or deteriorated connections such connections shall be provided or replaced.

CHAPTER 6 ALTERATIONS LEVEL 2

SECTION EX-601 GENERAL

EX-601.1 Scope. Level 2 alterations, as described in Section EX-304 shall comply with the requirements of this Chapter.

Exceptions:

1. Buildings in which the reconfiguration is exclusively the result of compliance with the accessibility requirements of Section EX-506.2 shall be permitted to comply with Chapter 5.
2. The Additional Restrictions listed in Sections EX-603.2.1, EX-603.6, EX-605.3, and EX-605.4 shall not be mandatory for alterations affecting areas of less than 500 square feet (46.5 m²) provided:
 - a. There is no change or occupancy as defined in Chapter 2 of the *Building Code*;
 - b. There is no increase in hazard; and
 - c. The repairs or alterations do not adversely affect the existing means of egress or any required fire resistance rating.

EX-601.2 Alteration level 1 compliance. In addition to the requirements of this chapter, all work shall comply with the requirements of Chapter 5.

EX-601.3 Compliance. All new construction elements, components and systems and spaces shall comply with the requirements of the *Building Code*.

Exceptions:

1. Windows may be added without requiring compliance with the light and ventilation requirements of the *Building Code*.
2. Newly installed electrical equipment shall comply with the requirements of Section EX-608.0.
3. The length of dead end corridors in newly constructed spaces need only comply with the provisions of Section EX-605.6.
4. The minimum ceiling height of the newly created habitable and occupiable spaces and corridors shall be 7 feet. A lower clearance than set forth in Exceptions to Section 1207.2 of the *Building Code* is permitted in special cases where the Code Official determines that a lower clearance will pose no undue health and safety hazard to the occupants.

SECTION EX-602 SPECIAL USE AND OCCUPANCY

EX-602.1 General. Alteration of buildings, classified as special use and occupancy as described in the *Building Code*, shall comply with the requirements of Section EX-601.1 and the scoping provisions of Chapter 1 where applicable.

SECTION EX-603 BUILDING ELEMENTS AND MATERIALS

EX-603.1 Scope. The requirements of this section are limited to work areas in which Level 2 alterations are being performed, and shall apply beyond the work area where specified.

EX-603.2 Vertical openings. Existing vertical openings shall comply with the provisions of Sections EX-603.2.1, EX-603.2.2 and EX-603.2.2.

EX-603.2.1 Existing Vertical Openings. All existing interior vertical openings connecting two or more floors shall be enclosed with approved assemblies having a fire resistance rating of not less than one hour with approved opening protectives.

Exceptions:

1. Where vertical opening enclosure is not required by the *Building Code* or the *Fire Code*.
2. Interior vertical openings other than stairways may be blocked at the floor and ceiling of the work area by installation of not less than two inches (50.8 mm) of solid wood or equivalent construction.
3. The enclosure shall not be required where:
 - 3.1. connecting the main floor and mezzanines; or
 - 3.2. all the following conditions are met:
 - (a) The communicating area has a low hazard occupancy, or has a moderate hazard occupancy which is protected throughout by an automatic sprinkler system, and
 - (b) The lowest or next to the lowest level is a street floor; and
 - (c) The entire area is open and unobstructed in a manner such that it may be assumed that a fire in any part of the interconnected spaces will be readily obvious to all of the occupants; and
 - (d) Exit capacity is sufficient to provide egress simultaneously for all the occupants of all levels by considering all areas to be a single floor area for the determination of required exit capacity; and
 - (e) Each floor level, considered separately, has at least one-half of its individual required exit capacity provided by an exit or exits leading

directly out of that level without having to traverse another communicating floor level or be exposed to the smoke or fire spreading from another communicating floor level.

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

Exceptions:

1. In A-1 occupancies, the enclosure shall not be required for a main exit (where required in Section 1008.1 of the *Building Code*) where all of the following conditions are met:
 - a. A maximum of three stories are connected by the existing, unenclosed stair;
 - b. Fully enclosed exits, complying with Section 1105.32 of the *Building Code*, are provided with an egress capacity of at least 117% of the total occupant load;
 - c. Building is protected by an approved automatic fire alarm system with smoke detectors located in all corridors, lobbies and commons;
 - d. Building is equipped throughout by an approved automatic fire suppression system.
2. In A-3 and A-4 occupancies, an enclosure shall not be required for existing, unenclosed interior exits provided all of the following conditions are met:
 - (a) A maximum of two stories are connected by the existing, unenclosed stair;
 - (b) The area of the larger connecting story does not exceed 3500 square feet;
 - (c) Fully enclosed exits, complying with Section 1105.32 of the *Building Code*, are provided with an egress capacity of at least 50% of the total occupant load;
 - (d) Work area for Level 2 Alterations is protected by an approved automatic fire alarm system with smoke detectors located in all corridors, lobbies and commons
 - (e) Work Area for Level 2 Alterations is equipped throughout by an approved automatic fire suppression system.
5. In Group B Occupancies, a minimum 30 minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section EX-603.2.1 shall not be required:
 - (a) In a building not exceeding 3,000 square feet (279 m²) floor; or

- (b) When the building is protected throughout by an approved automatic fire sprinkler system.
6. In Group E Occupancies, the enclosure shall not be required for vertical openings not exceeding three stories when the building is protected throughout by an approved automatic fire sprinkler
7. In Group F Occupancies, the enclosure shall not be required under the following conditions:
- (a) For vertical openings not exceeding three stories; or
 - (b) In special purpose occupancies when necessary for manufacturing operations and direct access is provided to at least one protected stairway; or
 - (c) In buildings which are protected throughout by an approved automatic sprinkler system.
8. In Group H Occupancies, the enclosure shall not be required for vertical openings not exceeding three stories where necessary for manufacturing operations and where every floor level has direct access to at least two remote enclosed stairways or other approved exits.
9. In Group M Occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section EX-603.2.1, shall not be required under the following conditions:
- (a) Openings connect only two floor levels; or
 - (b) Occupancies are protected throughout by an approved automatic sprinkler system.
10. In Group R-1 Occupancies, the enclosure shall not be required for vertical openings not exceeding three stories where:
- (a) In buildings which are protected throughout by an approved automatic sprinkler system; or
 - (b) In buildings with less than 25 guest rooms where every sleeping room above the second floor is provided with direct access to a fire escape or other approved second exit by means of an approved exterior door or window having a sill height of not greater than 44 inches (1118 mm) and where:
 - (c) Any exit access corridor exceeding eight feet (2438 mm) in length which serves two means of egress, one of which is an unprotected vertical opening, shall have at least one of the means of egress separated from the vertical opening by a one hour fire barrier; and

- (d) The building is protected throughout by an automatic fire alarm system, installed and supervised in accordance with the *Building Code*.
11. In Group R-2 Occupancies, a minimum 30-minute enclosure shall be provided to protect all vertical openings not exceeding three stories. This enclosure, or the enclosure specified in Section EX-603.2.1, shall not be required under the following conditions:
- (a) Vertical openings not exceeding two stories with not more than four dwelling units per floor; or
 - (b) In buildings which are protected throughout by an approved automatic sprinkler system; or
 - (c) In buildings with not more than four dwelling units per floor where every sleeping room above the second floor is provided with direct access to a fire escape or other approved second exit by means of an approved exterior door or window having a sill height of not greater than 44 inches (1118 mm) and the building is protected throughout by an automatic fire alarm system, complying with Section EX-604.4.
12. One-and two-family dwellings.
13. Group S Occupancies, where connecting more than two floor levels, or where connecting not more than three floor levels and the structure is equipped throughout with an approved automatic sprinkler system.
14. Group S Occupancies, vertical opening protection is not required for open parking garages and ramps.

EX-603.2.2 Supplemental shaft and floor opening enclosure requirements. Where the work area on any floor exceeds 50 percent of that floor area, the enclosure requirements of Section EX-603.2 shall apply to vertical openings other than stairways throughout the floor:

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

EX-603.2.3 Supplemental stairway enclosure requirements. Where the work area on any floor exceeds 50 percent of that floor area, stairways that are part of the means of egress serving the work area shall at a minimum be enclosed with smoke tight construction on the highest work area floor and all floors below.

Exception: Where stairway enclosure is not required by the *Building Code* or the *Fire Code*.

EX-603.3 Smoke barriers. Smoke barriers in Group I-2 shall be installed where required by Sections EX-603.3.1 and EX-603.3.2.

EX-603.3.1 Compartmentation. Where the work area is on a story used for sleeping rooms for more than 30 patients, the story shall be divided into not less than two compartments by smoke barrier walls complying with Section EX-603.3.2 such that each compartment does not exceed 22,500 square feet (2093 m²) and the travel distance from any point to reach a door in the required smoke barrier shall not exceed 200 feet (60 960 mm).

Exception: Where neither the length nor width of the smoke compartment exceeds 150 feet (45 720 mm), the travel distance to reach the smoke barrier door shall not be limited.

EX-603.3.2 Fire-resistance rating. The smoke barriers shall be fire resistance rated for 30 minutes and constructed in accordance with the *Building Code*.

EX-603.4 Interior finish. The interior finish of walls and ceilings in exits and corridors in any work area shall comply with the requirements of the *Building Code*.

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

EX-603.4.1 Supplemental interior finish requirements. Where the work area on any floor exceeds 50 percent of the floor area, Section EX-603.4 shall also apply to the interior finish in exits and corridors serving the work area throughout the floor.

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

EX-603.5 Guards. The requirements of Sections EX-603.5.1 and EX-603.5.2 shall apply in all work areas.

EX-603.5.1 Minimum requirement. Every portion of a floor, such as a balcony or a loading dock that is more than 30 inches (762 mm) above the floor or grade below and not provided with guards, or those in which the existing guards are judged to be in danger of collapsing, shall be provided with guards.

EX-603.5.2 Design. Where there are no guards or existing guards must be replaced, the guards shall be designed and installed in accordance with the *Building Code*.

EX-603.6 Enclosure of Existing Corridors. All existing corridors which are part of a path of egress travel to an exit, when they serve a Level 2 Alteration Work area, shall comply with Section EX-604.2.2 or shall be enclosed with approved assemblies having a fire resistance rating of not less than ½ hour, subject to the exceptions and additional requirements in Sections EX-603.6.1 through

Exception: Existing corridor walls constructed of wood lath and plaster in good condition or ½-inch-thick (12.7 mm) gypsum wallboard shall be permitted.

EX – 603.6.1 Supplemental Requirements for Use Group B.

- 1. Corridors with required capacity between 30 and 50 persons.** The work area shall be equipped with an approved, automatic fire suppression system.
- 2. Corridors with required capacity greater than 50 persons.** Enclosure shall comply with the requirements of the *Building Code* for new construction.

SECTION EX-604 FIRE PROTECTION

EX-604.1 Scope. The requirements of this section shall be limited to work areas in which Level 2 alterations are being performed, and where specified they shall apply throughout the floor on which the work areas are located, or otherwise beyond the work area.

EX-604.2 Automatic sprinkler systems. Automatic sprinkler systems shall be provided in accordance with the requirements of Sections EX-604.2.1 through EX-604.2.5. Installation requirements shall be in accordance with the *Building Code*.

EX-604.2.1 High rise buildings. In high rise buildings, work areas that include exits or corridors shared by more than one tenant or serving an occupant load greater than 30 persons, or 50 percent of the floor area, whichever is less, shall be provided with automatic sprinkler protection. Automatic sprinkler protection shall be provided throughout the exit access corridors and common areas including toilet rooms, mechanical, electrical and telephone spaces, equipment rooms and similar spaces located on the same floor as the work area.

EX-604.2.1.1 Partially sprinklered floors. When automatic sprinkler protection has been installed on any part of a floor per Section EX-604.2.1, all subsequent Level 2 Alteration work on the floor shall be provided with automatic sprinkler protection.

EX-604.2.1.2 Supplemental automatic sprinkler system requirements. Where the work area on any floor exceeds 50 percent of that floor area, automatic sprinkler protection shall be provided throughout the floor on which the work area is located.

Exception: Automatic sprinkler protection shall not be required in tenant spaces that are entirely outside the work area and separated from the work area by a 1-hour fire partition.

EX-604.2.1.3 Alterations to 75% of floors. Where 75% of the building floors are partially sprinklered per Section EX-604.2.1.1, the building shall comply with the following additional requirements:

1. **Standby Power, Light and Emergency Systems.** Comply with Section 403.10 of the *Building Code*.
2. **Emergency voice/Alarm system.** Comply with Section 403.6 of the *Building Code*.

EX-604.2.1.4. Deferred Compliance. In cases of warranted hardship, compliance with applicable fire suppression related requirements in existing high-rise buildings can be temporarily deferred upon approval of an Alternative Fire Protection Compliance Plan by the code official. The submittal of the compliance plan for approval is the responsibility of the owner, who has the burden of proof of all invoked circumstances. The submittal requirements for the compliance plan will be established by the code official. The owner is responsible for the full and timely implementation of all conditions of the approved plan. When the code official deems that lack of implementation of the conditions of the approved compliance plan is having a significant impact on the safety of the public or of the occupants of the building, the code official is authorized to rescind the approval of the plan and the owner shall forfeit the right to the previously granted temporary deferral of compliance. Thereupon, the owner shall take immediate steps to bring the building into compliance with the deferred requirements, within a reasonable period. When the code official deems that delays in compliance adversely affect the general safety, health and welfare of the occupants and the public, the code official is authorized to revoke any certificate of occupancy issued in connection with the approval of the compliance plan.

EX-604.2.1.5 Required Covenants: A covenant complying with Section 106.6.5 shall be required, before an Alternative Fire Protection Compliance Plan submitted under Section EX-604.2.1.4 can be approved.

EX-604.2.2 Groups A, E, F-1, H, I, M, R-1, R-2, R-4, S-1 and S-2. In buildings with occupancies in Groups A, E, F-1, H, I, M, R-1, R-2, R-4, S-1 and S-2, work areas that include exits or corridors shared by more than one tenant or serving an occupant load greater than 30 shall be provided with automatic sprinkler protection where both of the following conditions occur:

1. The work area would be required to be provided with automatic sprinkler protection in accordance with the *Building Code* applicable to new construction; and
2. The work area exceeds 50% of the floor area.

Exception: Work areas in Group R Occupancies 3 stories or less in height.

EX-604.2.2.1 Mixed uses. In work areas containing mixed uses, one or more of which requires automatic sprinkler protection in accordance with Section EX-604.2.2, such protection shall not be required throughout the work area provided that the uses requiring such protection are separated from those not requiring protection by fire resistive construction having a minimum two-hour rating for Use Group H,

and a minimum one-hour rating for all other use groups.

EX-604.2.3 Windowless stories. Work located in a windowless story as determined in accordance with the *Building Code* shall be sprinklered where the work area would be required to be sprinklered under the provisions of the *Building Code* as a newly constructed building.

EX-604.2.4 Other required suppression systems In buildings and areas listed in Table 903.2.15 of the *Building Code*, work areas include exits or corridors shared by more than one tenant or serving an occupant load greater than 30 shall be provided with sprinkler protection where the work area would be required to be provided with automatic sprinkler protection in accordance with the *Building Code* applicable to new construction.

EX-604.2.5 Supervision. Fire sprinkler systems required by this Section shall be supervised by one of the following methods:

1. Approved central station system in accordance with NFPA 72;
2. Approved proprietary system in accordance with NFPA 72;
3. Approved remote station system of the jurisdiction in accordance with NFPA 72; or
4. Approved local alarm service which will cause the sounding of an alarm in accordance with NFPA 72.

Exceptions: Supervision is not required for the following:

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

EX-604.3 Standpipes. Where the work area includes exits or corridors shared by more than one tenant and is located more than 50 feet (15240 mm) above or below the lowest level of fire department access, a standpipe system shall be provided. Standpipes shall have an approved fire department connection with hose connections at each floor level above or below the lowest level of fire department access. Standpipe systems shall be installed in accordance with the *Building Code*.

Exceptions:

1. No pump shall be required provided that the standpipes are capable of accepting delivery by fire department apparatus of a minimum of 250 gpm at 65 psi (946 L/m at 448KPa) to the topmost floor in buildings equipped throughout with an automatic sprinkler system or a

minimum of 500 gpm at 65 psi (1892 L/m at 448KPa) to the topmost floor in all other buildings. Where the standpipe terminates below the topmost floor, the standpipe shall be designed to meet (gpm/psi) (L/m/KPa) requirements of this exception for possible future extension of the standpipe.

2. The interconnection of multiple standpipe risers shall not be required.

EX-604.4 Fire alarm and detection. An approved fire alarm system shall be installed in accordance with Sections EX-604.4.1 through EX-604.4.1.9. Where automatic sprinkler protection is provided in accordance with Section EX-604.2 and connected to the building fire alarm system, automatic heat detection required by this section shall not be required. An approved automatic fire detection system shall be installed in accordance with the provisions of this code and NFPA 72. Devices, combinations of devices, appliances and equipment shall be approved. The automatic fire detectors shall be smoke detectors, except an approved alternate type of detector shall be installed in spaces such as boiler rooms where, during normal operation, products of combustion are present in sufficient quantity to actuate a smoke detector.

EX-604.4.1 Occupancy requirements. A fire alarm system shall be installed in accordance with Sections EX-604.4.1.1 through EX-604.4.1.7. Existing alarm notification appliances shall be automatically activated throughout the building. Where the building is not equipped with a fire alarm system, alarm notification appliances within the work area shall be provided and automatically activated.

Exceptions:

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

EX-604.4.1.1 Group E. A fire alarm system shall be installed in works areas in Group E occupancies as required by the *Fire Code* for existing Group E occupancies.

EX-604.4.1.2 Group I-1. A fire alarm system shall be installed in work areas in Group I-1 residential care/assisted living facilities as required by the *Fire Code* for existing Group I-1 occupancies.

EX-604.4.1.3 Group I-2. A fire alarm system shall be installed in work areas in Group I-2 occupancies as required by the *Fire Code* for existing Group I-2 occupancies.

EX-604.4.1.4 Group I-3. A fire alarm system shall be installed in work areas Group I-3 occupancies as required by the *Fire Code* for existing Group I-3 occupancies.

EX-604.4.1.5 Group R-1. A fire alarm system shall be installed in Group R-1 occupancies as required by the *Fire Code* for existing Group R-1 occupancies.

EX-604.4.1.6 Group R-2. A fire alarm system shall be installed in work areas of Group R-2 apartment buildings as required by the *Fire Code* for existing Group R-2 occupancies.

EX-604.4.1.7 Group R-4. A fire alarm system shall be installed in work areas of Group R-4 residential care/assisted living facilities as required by the *Fire Code* for existing Group R-4 occupancies.

EX-604.4.2 Supplemental fire alarm system requirements. Where the work area on any floor exceeds 50 percent of that floor area, Section EX-604.4.1 shall apply throughout the floor.

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

EX-604.4.3 Smoke Alarms. Individual guestrooms and individual dwelling units in any work area in Group R- 1, R-2, R-3, R-4 and I-1 shall be provided with smoke alarms in accordance with the *Fire Code*.

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

SECTION EX-605 MEANS OF EGRESS

EX-605.1 Scope. The requirements of this section shall be limited to work areas that include exits or corridors shared by more than one tenant within the work area in which Level 2 alterations are being performed, and where specified, they shall apply throughout the floor on which the work areas are located, or otherwise beyond the work area.

EX-605.2 General. The means of egress shall comply with the requirements of this section.

Exceptions:

1. Means of egress conforming to the requirements of the *Building Code* under which the building was constructed shall be considered as complying means of egress if, in the opinion of the code official, they do not constitute a distinct hazard to life.
2. For Level 2 alterations in buildings existing before March 21, 1989, capacity of egress components for all exits serving the work area shall comply with Section EX-605.11.

EX-605.2.1 Use of Exit and Exit Access Enclosures: Use of exit and exit access corridors in compliance with Section 505.2 shall be allowed.

EX-605.3 Number of exits. The number of exits shall be in accordance with Sections EX-605.3.1 through EX-605.3.3.