

## CHAPTER 5

# ALTERATIONS—LEVEL 1

### SECTION 501 GENERAL

**501.1 Scope.** Level 1 alterations as described in Section 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.

**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 *International Building Code*.

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

### SECTION 502 SPECIAL USE AND OCCUPANCY

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

### SECTION 503 BUILDING ELEMENTS AND MATERIALS

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

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

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

|| [FG] **503.3.1 International Fuel Gas Code.** Reserved.

### SECTION 504 FIRE PROTECTION

**504.1 General.** Alterations shall be done in a manner that maintains the level of fire protection provided.

### SECTION 505 MEANS OF EGRESS

**505.1 General.** Means of egress for buildings undergoing alteration shall comply with the requirements of Section 501.1 and the scoping provisions of Chapter 1 where applicable.

### SECTION 506 ACCESSIBILITY

**506.1 General.** A building, facility, or element that is altered shall comply with the applicable provisions in Sections 506.1.1 through 506.1.12, Chapter 11 of the *International Building Code*, and ICC 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 506.2.
2. Accessible means of egress required by Chapter 10 of the *International Building Code* are not required to be provided in existing buildings and facilities.
3. Type B dwelling or sleeping units required by Section 1107 of the *International Building Code* are not required to be provided in existing buildings and facilities.

**506.1.1 Entrances.** Where an alteration includes alterations to an entrance, and the building or facility has an accessible entrance on an accessible route, the altered entrance is not required to be accessible unless required by Section 506.2. Signs complying with Section 1110 of the *International Building Code* shall be provided.

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

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

**506.1.4 Ramps.** Where steeper slopes than allowed by Section 1010.2 of the *International Building Code* are necessitated by space limitations, the slope of ramps in or providing access to existing buildings or facilities shall comply with Table 506.1.4.

**TABLE 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

For SI: 1 inch = 25.4 mm.

**506.1.5 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.

**506.1.6 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.

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

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

**506.1.9 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. In existing construction, one of two or more fixtures (water closets and/or urinals) may be removed to create space for one accessible stall in each existing toilet room. This may result in the reduction of one required water closet, which shall be permitted when this reduction is needed to create a conforming accessible toilet stall. Reduction in the number of required fixtures in accordance with this section shall not be permitted where a urinal had been previously used to reduce the minimum number of required water closets. Any alteration under this section shall not reduce other accessibility requirements, including, but not limited to, required clear floor spaces and maneuvering spaces.

**506.1.10 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.

**506.1.11 Thresholds.** The maximum height of thresholds at doorways shall be  $\frac{3}{4}$  inch (19.1 mm). Such thresholds shall have beveled edges on each side.

**506.1.12 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.

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

**SECTION 507  
STRUCTURAL**

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

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

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

**Exceptions:**

1. Structural elements whose stress is not increased by more than 5 percent.
2. Buildings constructed in accordance with the *International Residential Code* or the conventional

construction methods of the *International Building Code* and where the additional dead load from the equipment is not increased by more than 5 percent.

**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 reroofing permit is issued. Such parapet bracing and wall anchors shall be designed in accordance with the reduced *International Building Code* level seismic forces as specified in Section 407.1.1.3 and design procedures of Section 407.1.1.1.

**507.3 Roof diaphragm.** Where roofing materials are removed from more than 50 percent of the roof diaphragm of a building or section of a building where the roof diaphragm is a part of the main windforce-resisting system the integrity of the roof diaphragm shall be evaluated and if found deficient because of insufficient or deteriorated connections, such connections shall be provided or replaced.

