

CHAPTER 5

GENERAL BUILDING HEIGHTS AND AREAS

SECTION 501 GENERAL

501.1 Scope. The provisions of this chapter control the height and area of structures hereafter erected and additions to existing structures.

[F] 501.2 Address numbers. Buildings shall have approved address numbers, building numbers or approved building identification placed in a position that is plainly legible and visible from the street or road fronting the property. These numbers shall contrast with their background. Address numbers shall be Arabic numerals or alphabetical letters. Numbers shall be a minimum of 4 inches (102 mm) high for occupancies in Group R and not less than 5 inches (127 mm) for other occupancies with a minimum stroke width of 0.5 inch (12.7 mm).

501.2.1 Enforcement by building official - owners to affix and maintain building numbers. The building official shall determine the address of any property in the City in accordance with the numbering system established in this Chapter.

Whenever the irregularity of plats; the changing direction of streets, avenues or other highways; the interruption of the continuity of highways or any other condition causes doubt or difference of opinion as to the correct number of any piece of property or any building thereon, the number shall be determined by the building official. The building official shall be guided by the specific provisions of this chapter as far as they are applicable and when not applicable, by such rules as are established to carry out the intent of this chapter.

The owner of any building or other structure shall maintain the street number of each building and structure in a conspicuous place over or near the principal street entrance or entrances, or in other conspicuous places as is necessary for the easy locating of such address.

Exception: Where there are multiple buildings on a site, the building official is permitted to waive the requirement for posting an address on appurtenant or accessory buildings where individual identification of each building is not essential.

Where a property has frontage along more than one named street, or for any other property, where there may be confusion regarding the address of a building or structure, the building official is permitted to require the complete address, including street number and street name to be conspicuously posted.

Buildings served by a private road or a common driveway shall post their address number(s) at the head of the road or driveway in a manner that can be easily read from the intersecting street. Where the existing street grid may not adequately allow for the assignment of street addresses that will promote the easy locating of such addresses, or for any other reason consistent with the intent of this chapter, the building official is permitted to assign a name to the pri-

vate road or common driveway that shall be used for addressing purposes. In addition, the building official is permitted to require one or more property owners along the road or driveway to post a sign displaying the assigned name at a location near the intersection of the road or driveway with a named public street.

Should the building official find that any building, structure or premises is not provided with numbers as herein required, or is not correctly numbered, the building official shall notify the owner, agent or tenant of the correct street number and shall require that the same shall be properly placed, in accordance with the provisions of this chapter, within a reasonable length of time. It is a violation for any person to fail to comply with such notice.

501.2.2 Numbering system prescribed. The numerical designation of all doorways and entrances to buildings and lots fronting upon the named right-of-ways of the City are established in accordance with the following system:

Except where otherwise specified, 100 numbers are allotted to each block, provided that where a named right-of-way intervenes between consecutively numbered right-of-ways, 50 numbers shall be allotted for each block. One whole number is allotted to each 20 feet (6096 mm) of frontage in each block; even numbers shall be used on the northerly side of named right-of-ways extending in an easterly and westerly direction and on the easterly side of named right-of-ways extending in a northerly and southerly direction. Odd numbers shall be used on the southerly side of named right-of-ways extending in an easterly and westerly direction and on the westerly side of named right-of-ways extending in a northerly and southerly direction.

In the case of irregular named right-of-ways, the frontages shall be numbered as near as may be according to the uniform series of block numbers with which they most nearly correspond.

501.2.3 Numbering of buildings.

501.2.3.1 Numbering of buildings downtown. Between Yesler Way and Denny Way all frontages upon named right-of-ways extending in a northerly and southerly direction and lying west of Broadway, East Union Street, Minor Avenue and Melrose Avenue shall be numbered as follows:

Yesler Way to Fir Street number 100 and upwards, Fir Street to Spruce Street number 150 and upwards, Spruce Street to Alder Street number 200 and upwards, continuing by consecutive hundreds to Pine Street; Pine Street to Olive Way number 1600 and upwards, Olive Way to Howell Street number 1700 and upwards, Howell Street to Stewart Street number 1800 and upwards, Stewart Street to Virginia Street number 1900 and upwards, continuing by consecutive hundreds to Denny Way.

Between East Yesler Way and East Denny Way all frontages upon named right-of-ways extending in a northerly and southerly direction and lying east of Broadway, East Union Street, Minor Avenue and Melrose Avenue shall be numbered as follows:

East Yesler Way to East Fir Street number 100 and upwards, East Fir Street to East Spruce Street number 150 and upwards, East Spruce Street to East Alder Street number 200 and upwards, continuing by consecutive hundreds to East Marion Street; East Marion Street to East Spring Street number 900 and upwards, East Spring Street to East Union Street number 1100 and upwards, East Union Street to East Pike Street number 1400 and upwards, continuing by consecutive hundreds to East Denny Way.

Between East Yesler Way and East Denny Way all frontages upon named right-of-ways extending in an easterly and westerly direction and lying west of Broadway, East Union Street, Minor Avenue and Melrose Avenue shall be numbered as follows:

Southwesterly from Elliott Avenue, or Alaskan Way if south of Lenora Street, number 51 and downwards; Elliott Avenue (or Alaskan Way) to Western Avenue number 52 and upwards; Western Avenue to First Avenue number 76 and upwards; First Avenue to Second Avenue number 100 and upwards, continuing northeasterly to Broadway, East Union Street, Minor Avenue, or Melrose Avenue by consecutive hundreds.

Between East Yesler Way and East Denny Way all frontages upon named right-of-ways extending in an easterly and westerly direction and lying east of Broadway, East Union Street, Minor Avenue and Melrose Avenue shall be numbered as follows:

Melrose Avenue to Bellevue Avenue number 300 and upwards, Bellevue Avenue to Summit Avenue number 400 and upwards, continuing by consecutive hundreds to Broadway.

Broadway to Tenth Avenue number 900 and upwards, Tenth Avenue to Eleventh Avenue number 1000 and upwards, continuing by consecutive hundreds corresponding with the numbered series of avenues eastward to Lake Washington.

On East Olive Way eastward from Melrose Avenue, the street numbers shall run upwards consecutively, eastward from the existing street numbers that are west of the Melrose Avenue intersection.

501.2.3.2 Numbering of buildings south of downtown and east of the East Waterway. South of Yesler Way the frontages upon the named right-of-ways extending in a northerly and southerly direction shall be numbered as follows:

Yesler Way (or East Yesler Way) to South Washington Street number 100 and upwards, South Washington Street to South Main Street number 200 and upwards, South Main Street to South Jackson Street number 300 and upwards, South Jackson Street to South King Street number 400 and upwards, continuing by consecutive

hundreds to South Barton Place, with blocks and streets on Rainier Avenue South being taken as the controlling series.

South of South Barton Place, 51st Avenue South shall be taken as the controlling series to the southern City limits.

On Second Avenue Extension South from Fourth Avenue South to Yesler Way, the frontages shall be numbered as follows:

From Fourth Avenue South to South Jackson Street number 100 and upwards, South Jackson Street to South Main Street number 200 and upwards, South Main Street to South Washington Street number 300 and upwards, South Washington Street to Yesler Way number 400 and upwards.

South of Yesler Way the frontages upon named right-of-ways extending in an easterly and westerly direction shall be numbered as follows:

Westward from First Avenue South to the Harbor Line or East Waterway number 99 and downwards, First Avenue South to Occidental Avenue South number 100 and upwards, Occidental Avenue South to Second Avenue South number 150 and upwards, Second Avenue South to Third Avenue South number 200 and upwards, continuing by consecutive hundreds to Sixth Avenue South; Sixth Avenue South to Maynard Avenue South number 600 and upwards, Maynard Avenue South to Seventh Avenue South number 650 and upwards, Seventh Avenue South to Eighth Avenue South (or Airport Way south of South Hinds Street) number 700 and upwards, Eighth Avenue South (or Airport Way south of South Hinds Street) to Airport Way South (or Ninth Avenue South south of South Hinds Street) number 800 and upwards, Airport Way South (or Ninth Avenue South south of South Hinds Street) to Interstate-5 number 900 and upwards, continuing eastward by consecutive hundreds corresponding with the numbered series of avenues to Lake Washington.

501.2.3.3 Numbering of buildings between downtown and the Lake Washington Ship Canal. North of Denny Way, East Denny Way and East Howell Street east of Madrona Drive the frontages upon the named right-of-ways extending in a northerly and southerly direction shall be numbered as follows:

Denny Way (and East or West Denny Way) to John Street (and East or West John Street) number 100 and upwards, continuing by consecutive hundreds, the blocks and streets on Queen Anne Avenue North being taken as a controlling series for numbering purposes west of Fairview Avenue North (or Fairview Avenue East) and south of Bertona Street (or West Bertona Street); 36th Avenue West being taken as the controlling series for numbering purposes west of Fairview Avenue North (or Fairview Avenue East) and north of Bertona Street (or West Bertona Street); 10th Avenue East being taken as the controlling series for numbering purposes east of Fairview Avenue North (or Fairview Avenue East).

Between Queen Anne Avenue North and Eastlake Avenue East (East Galer being the northeast boundary of this subsection) the frontages on the named right-of-ways extending in an easterly and westerly direction shall be numbered as follows:

Queen Anne Avenue North to First Avenue North number 1 and upwards, First Avenue North to Warren Avenue North number 100 and upwards, Warren Avenue North to Second Avenue North number 150 and upwards, Second Avenue North to Third Avenue North number 200 and upwards, continuing by consecutive hundreds corresponding to the numbered series of avenues with half hundreds in the case of Nob Hill, Taylor, Bigelow, Mayfair, and Dexter Avenues North, to Ninth Avenue North; Ninth Avenue North to Westlake Avenue North number 900 and upwards, Westlake Avenue North to Terry Avenue North number 950 and upwards, Terry Avenue North to Boren Avenue North number 1000 and upwards, Boren Avenue North to Fairview Avenue North number 1100 and upwards, Fairview Avenue North to Minor Avenue North number 1150 and upwards, Minor Avenue North to Pontius Avenue North number 1200 and upwards, Pontius Avenue North to Yale Avenue North number 1250 and upwards, Yale Avenue North to Eastlake Avenue East number 1300 and upwards.

East of Eastlake Avenue East (or Fairview Avenue East north of East Galer Street) and North of East Denny Way the frontages upon the named east-west right-of-ways extending in an easterly and westerly direction shall be numbered as follows:

Eastlake Avenue East to Melrose Avenue East number 200 and upwards continuing by consecutive hundreds eastward to Broadway East; Broadway East to Tenth Avenue East number 900 and upwards, Tenth Avenue East to Federal Avenue East number 1000 and upwards, Federal Avenue East to Eleventh Avenue East number 1050 and upwards, Eleventh Avenue East to Twelfth Avenue East number 1100 and upwards, continuing by consecutive hundreds eastward to Lake Washington.

West of Queen Anne Avenue North the frontages upon named east-west right-of-ways extending in an easterly and westerly direction shall be numbered westward as follows:

Queen Anne Avenue North to First Avenue West number 1 and upwards, First Avenue West to Second Avenue West number 100 and upwards, continuing by consecutive hundreds westward.

501.2.3.4 Numbering of buildings north of the Lake Washington Ship Canal. The plan for the numbering of frontages upon the various named right-of-ways in that portion of the City of Seattle lying north of the Lake Washington Ship Canal is established as follows:

The frontages upon the named right-of-ways extending in a northerly and southerly direction shall be numbered in accordance with the designations of the

intersecting numbered streets as follows: northward from the State Harbor Line, number 2900 and upwards.

The frontages upon the named right-of-ways extending in an easterly and westerly direction shall be numbered as follows:

West from First Avenue Northwest, commencing with 100, and continuing west in correspondence with the numbers of the avenues to Puget Sound.

East from First Avenue Northwest, commencing with 100 and continuing as follows: East from Palatine Avenue North, 200 and upwards; from Greenwood Avenue North, 300 and upwards; from Phinney Avenue North, 400 and upwards; from Francis Avenue North, 450 and upwards; from Dayton Avenue North, 500 and upwards; from Evanston Avenue North, 600 and upwards; from Fremont Avenue North, 700 and upwards; from North Park Avenue North, 800 and upwards; from Linden Avenue North, 900 and upwards (800 and upwards south of North 65th Street); from Aurora Avenue North, 900 and upwards (1100 and upwards north of North 65th Street); from Winslow Place North, 950 and upwards; from Whitman Avenue North 1000 and upwards; from Albion Place North, 1050 and upwards; from Woodland Park Avenue North, 1100 and upwards; from Nesbit Avenue North, 1150 and upwards; from Midvale Avenue North, 1200 and upwards; from Lenora Place North, 1250 and upwards; from Stone Avenue North (Stone Way North south of North 46th Street), 1300 and upwards; from Interlake Avenue North, 1400 and upwards; from Ashworth Avenue North, 1500 and upwards; from Carr Place North, 1550 and upwards; from Woodlawn Avenue North, 1600 and upwards, from Densmore Avenue North, 1700 and upwards; from Caroline Avenue North and Courtland Place North, 1750 and upwards; from Wallingford Avenue North, 1800 and upwards; from Burke Avenue North and Canfield Place North, 1900 and upwards; from Stroud Avenue North and Wayne Place North, 2000 and upwards; from Meridian Avenue North, 2100 and upwards; from Bagley Avenue North, 2200 and upwards; from Corliss Avenue North, 2300 and upwards; from Sunnyside Avenue North, 2400 and upwards; and from Eastern Avenue North, 2500 and upwards.

East from First Avenue Northeast, commencing with 100, and continuing east in correspondence with the numbered avenues to Lake Washington.

501.2.3.5 Numbering buildings on Harbor Island. The frontages upon named right-of-ways extending in a northerly and southerly direction shall be numbered as follows:

Southwest Massachusetts Street to Southwest Florida Street, number 1700 and upwards; Southwest Florida Street to Southwest Lander Street, number 2500 and upwards; Southwest Lander Street to Southwest Hanford Street, number 2700 and upwards; Southwest Hanford Street to Southwest Spokane Street, number 3200 and upwards.

The frontages upon named right-of-ways extending in an easterly and westerly direction shall be numbered as follows:

The East Waterway to 11th Avenue Southwest, number 900 and upwards; 11th Avenue Southwest to 13th Avenue Southwest, number 1100 and upwards; 13th Avenue Southwest to 16th Avenue Southwest, number 1300 and upwards; 16th Avenue Southwest to the West Waterway, number 1600 and upwards.

501.2.3.6 Numbering buildings west of the West Waterway and the Duwamish Waterway. The frontages upon named right-of-ways extending in a northerly and southerly direction, shall be numbered as follows:

North of Southwest Andover Street, commencing with 3800 and continuing north to the Duwamish Head by consecutive hundreds, the blocks and streets on California Avenue Southwest being taken as the controlling series for numbering purposes.

South of Southwest Andover Street, commencing with 4000 and continuing south to Southwest Roxbury Street by consecutive hundreds, the blocks and streets of California Avenue Southwest being taken as the controlling series for numbering purposes.

South of Southwest Roxbury Street, commencing with 9600 and continuing south to the south City limits by consecutive hundreds, in correspondence with the numbers of the intersecting streets.

The frontages upon named right-of-ways extending in an easterly and westerly direction, shall be numbered as follows:

West of California Avenue Southwest, commencing with 4300 and continuing westward in correspondence with the numbers of the intersecting avenues to Puget Sound.

East of California Avenue Southwest, commencing with 4200 and continuing eastward in correspondence with the numbers of the intersecting avenues to the Duwamish Waterway.

**SECTION 502
DEFINITIONS**

502.1 Definitions. The following words and terms shall, for the purposes of this chapter and as used elsewhere in this code, have the meanings shown herein.

AREA, BUILDING. The area included within surrounding exterior walls (or exterior walls and fire walls) exclusive of vent shafts and courts. Areas of the building not provided with surrounding walls shall be included in the building area if such areas are included within the horizontal projection of the roof or floor above.

BASEMENT. ~~((That portion of a building))~~ A story that is partly or completely below grade plane (see “Story above grade plane” in Section 202). A basement shall be considered as a story above grade plane where the finished surface of the floor or roof next above the basement is:

1. More than 6 feet (1829 mm) above grade plane; or
2. More than 12 feet (3658 mm) above the finished ground level ~~((at any point:))~~ for more than 25 feet (7620 mm) of

the perimeter. Required driveways up to 22 feet (6706 mm) shall not be considered in calculating the 25 foot distance if there is at least 10 feet (3048 mm) between the driveway and all portions of the 25-foot area. See Figure 502.1.

EQUIPMENT PLATFORM. An unoccupied, elevated platform used exclusively for mechanical systems or industrial process equipment, including the associated elevated walkways, stairs and ladders necessary to access the platform (see Section 505.5).

GRADE PLANE. A reference plane representing the average of finished ground level adjoining the building at exterior walls. Where the finished ground level slopes away from the exterior walls, the reference plane shall be established by the lowest points within the area between the building and the lot line or, where the lot line is more than 6 feet (1829 mm) from the building, between the building and a point 6 feet (1829 mm) from the building.

For grade of structures built over water, see Section 421.2.

HEIGHT, BUILDING. The vertical distance from grade plane to the average height of the highest roof surface.

HEIGHT, STORY. The vertical distance from top to top of two successive finished floor surfaces; and, for the topmost story, from the top of the floor finish to the top of the ceiling joists or, where there is not a ceiling, to the top of the roof rafters.

MEZZANINE. An intermediate level or levels between the floor and ceiling of any story and in accordance with Section 505.

**SECTION 503
GENERAL HEIGHT AND AREA LIMITATIONS**

503.1 General. The height and area for buildings of different construction types shall be governed by the intended use of the building and shall not exceed the limits in Table 503 except as modified hereafter. Each part of a building included within the exterior walls or the exterior walls and fire walls where provided shall be permitted to be a separate building.

Interpretation I503a: An unenclosed and uncovered roof deck shall not be considered a story for the purpose of determining the number of stories in a building.

Interpretation I503b: In stepped or terraced buildings, the number of stories is the number counted from the first story above grade plane of the lowest building segment to the top story of the highest building segment. For purposes of this interpretation, portions of buildings divided by fire walls shall be considered separate buildings.

503.1.1 Special industrial occupancies. Buildings and structures designed to house special industrial processes that require large areas and unusual heights to accommodate craneways or special machinery and equipment, including, among others, rolling mills; structural metal fabrication shops and foundries; or the production and distribution of electric, gas or steam power, shall be exempt from the height and area limitations of Table 503.

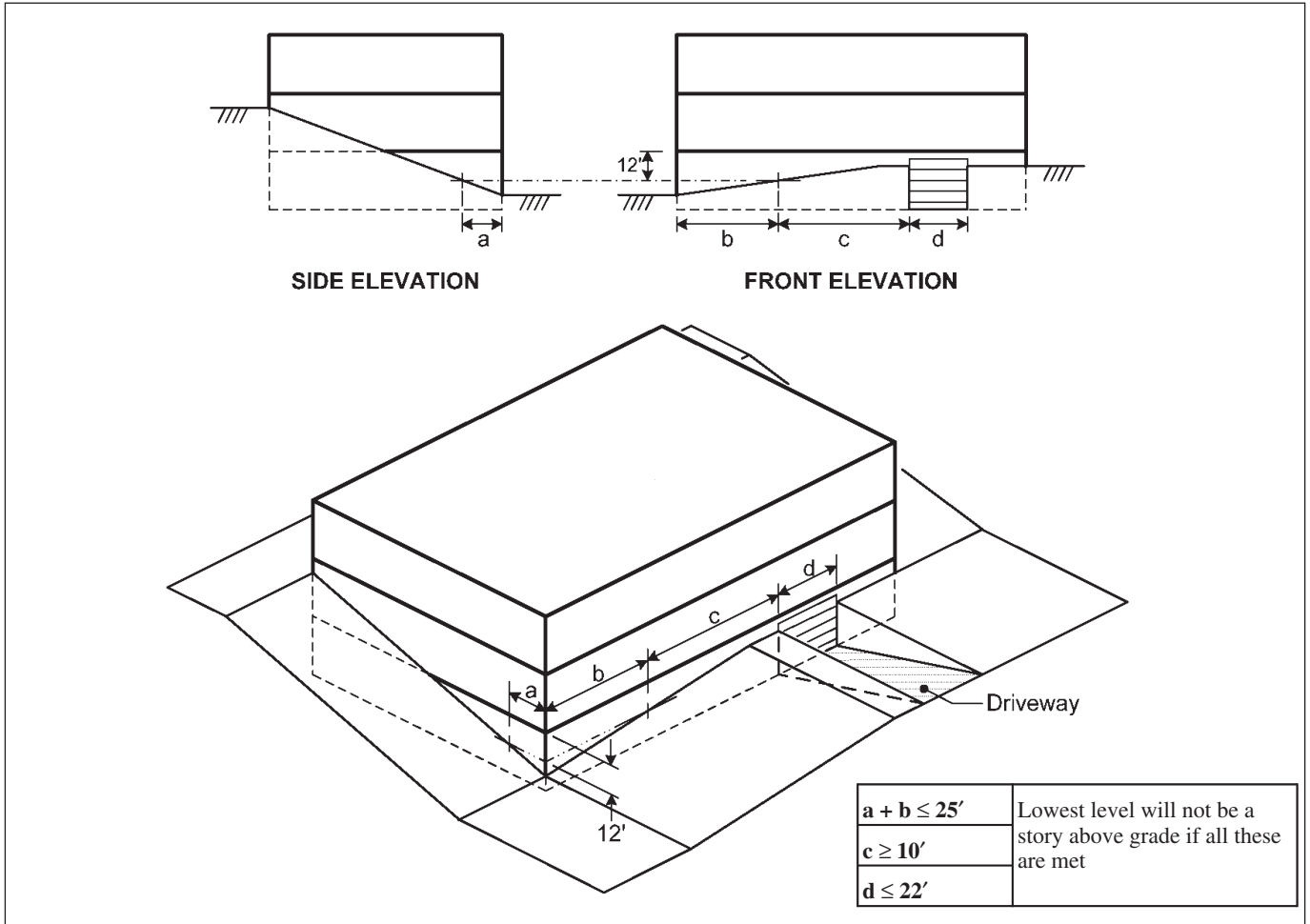


FIGURE 502.1
BASEMENT

503.1.2 Buildings on same lot. Two or more buildings on the same lot shall be regulated as separate buildings or shall be considered as portions of one building if the height of each building and the aggregate area of buildings are within the limitations of Table 503 as modified by Sections 504 and 506. The provisions of this code applicable to the aggregate building shall be applicable to each building.

503.1.3 Type I construction. Buildings of Type I construction permitted to be of unlimited tabular heights and areas are not subject to the special requirements that allow unlimited area buildings in Section 507 or unlimited height in Sections 503.1.1 and 504.3 or increased height and areas for other types of construction.

ter 9 and is entirely surrounded by public ways or yards not less in width than one and one-half times the height of the building.

504.2 Automatic sprinkler system increase. Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the value specified in Table 503 for maximum height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one. These increases are permitted in addition to the area increase in accordance with Sections 506.2 and 506.3. For Group R buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.2, the value specified in Table 503 for maximum height is increased by 20 feet (6096 mm) and the maximum number of stories is increased by one, but shall not exceed 60 feet (18 288 mm) or four stories, respectively.

**SECTION 504
HEIGHT**

504.1 General. The height permitted by Table 503 shall be increased in accordance with this section.

Exception: The height of one-story aircraft hangars, aircraft paint hangars and buildings used for the manufacturing of aircraft shall not be limited if the building is provided with an automatic fire-extinguishing system in accordance with Chap-

Exceptions:

1. Fire areas with an occupancy in Group I-2 of Type IIB, III, IV or V construction.
2. Fire areas with an occupancy in Group H-1, H-2, H-3 or H-5.
3. Fire-resistance rating substitution in accordance with Table 601, Note e.

TABLE 503
ALLOWABLE HEIGHT AND BUILDING AREAS^a
 Height limitations shown as stories and feet above grade plane.
 Area limitations as determined by the definition of "Area, building," per story

GROUP	HGT(feet) HGT(S)	TYPE OF CONSTRUCTION								
		TYPE I		TYPE II		TYPE III		TYPE IV	TYPE V	
		A	B	A	B	A	B	HT	A	B
A-1	S A	UL UL	5 UL	3 15,500	2 8,500	3 14,000	2 8,500	3 15,000	2 11,500	1 5,500
A-2	S A	UL UL	11 UL	3 15,500	2 9,500	3 14,000	2 9,500	3 15,000	2 11,500	1 6,000
A-3	S A	UL UL	11 UL	3 15,500	2 9,500	3 14,000	2 9,500	3 15,000	2 11,500	1 6,000
A-4	S A	UL UL	11 UL	3 15,500	2 9,500	3 14,000	2 9,500	3 15,000	2 11,500	1 6,000
A-5	S A	UL UL	UL UL	UL UL	UL UL	UL UL	UL UL	UL UL	UL UL	UL UL
B	S A	UL UL	11 UL	5 37,500	4 23,000	5 28,500	4 19,000	5 36,000	3 18,000	2 9,000
E	S A	UL UL	5 UL	3 26,500	2 14,500	3 23,500	2 14,500	3 25,500	1 18,500	1 9,500
F-1	S A	UL UL	11 UL	4 25,000	2 15,500	3 19,000	2 12,000	4 33,500	2 14,000	1 8,500
F-2	S A	UL UL	11 UL	5 37,500	3 23,000	4 28,500	3 18,000	5 50,500	3 21,000	2 13,000
H-1	S A	1 21,000	1 16,500	1 11,000	1 7,000	1 9,500	1 7,000	1 10,500	1 7,500	NP NP
H-2 ^d	S A	UL 21,000	3 16,500	2 11,000	1 7,000	2 9,500	1 7,000	2 10,500	1 7,500	1 3,000
H-3 ^d	S A	UL UL	6 60,000	4 26,500	2 14,000	4 17,500	2 13,000	4 25,500	2 10,000	1 5,000
H-4	S A	UL UL	7 UL	5 37,500	3 17,500	5 28,500	3 17,500	5 36,000	3 18,000	2 6,500
H-5	S A	4 UL	4 UL	3 37,500	3 23,000	3 28,500	3 19,000	3 36,000	3 18,000	2 9,000
I-1	S A	UL UL	9 55,000	4 19,000	3 10,000	4 16,500	3 10,000	4 18,000	3 10,500	2 4,500
I-2	S A	UL UL	4 UL	2 15,000	1 11,000	1 12,000	NP NP	1 12,000	1 9,500	NP NP
I-3	S A	UL UL	4 UL	2 15,000	1 10,000	2 10,500	1 7,500	2 12,000	2 7,500	1 5,000
I-4	S A	UL UL	5 60,500	3 26,500	2 13,000	3 23,500	2 13,000	3 25,500	1 18,500	1 9,000
M	S A	UL UL	11 UL	4 21,500	4 12,500	4 18,500	4 12,500	4 20,500	3 14,000	1 9,000
R-1	S A	UL UL	11 UL	4 24,000	4 16,000	4 24,000	4 16,000	4 20,500	((3)) ₄ 12,000	2 7,000
R-2	S A	UL UL	11 UL	4 24,000	4 16,000	4 24,000	4 16,000	4 20,500	((3)) ₄ 12,000	2 7,000
R-3	S A	UL UL	11 UL	4 UL	4 UL	4 UL	4 UL	4 UL	((3)) ₄ UL	3 UL
((R-4	S A	UL UL	11 UL	4 24,000	4 16,000	4 24,000	4 16,000	4 20,500	3 12,000	2 7,000))
S-1	S A	UL UL	11 48,000	4 26,000	3 17,500	3 26,000	3 17,500	4 25,500	3 14,000	1 9,000
S-2 ^{b, c}	S A	UL UL	11 79,000	5 39,000	4 26,000	4 39,000	4 26,000	5 38,500	4 21,000	2 13,500
U ^c	S A	UL UL	5 35,500	4 19,000	2 8,500	3 14,000	2 8,500	4 18,000	2 9,000	1 5,500

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m².

UL = Unlimited, NP = Not permitted.

- a. See the following sections for general exceptions to Table 503:
 1. Section 504.2, Allowable height increase due to automatic sprinkler system installation.
 2. Section 506.2, Allowable area increase due to street frontage.
 3. Section 506.3, Allowable area increase due to automatic sprinkler system installation.
 4. Section 507, Unlimited area buildings.
- b. For open parking structures, see Section 406.3.
- c. For private garages, see Section 406.1.
- d. See Section 415.5 for limitations.

504.3 Roof structures. Towers, spires, steeples and other roof structures shall be constructed of materials consistent with the required type of construction of the building except where other construction is permitted by Section 1509.2.1. Such structures shall not be used for habitation or storage. The structures shall be unlimited in height if of noncombustible materials and shall not extend more than 20 feet (6096 mm) above the allowable height if of combustible materials (see Chapter 15 for additional requirements).

SECTION 505 MEZZANINES

505.1 General. A mezzanine or mezzanines in compliance with Section 505 shall be considered a portion of the story below. Such mezzanines shall not contribute to either the building area or number of stories as regulated by Section 503.1. The area of the mezzanine shall be included in determining the fire area defined in Section 702. The clear height above and below the mezzanine floor construction shall not be less than 7 feet (2134 mm).

Interpretation I505.1: Mezzanines within individual dwelling units shall not be located above other dwelling units or common space other than corridors.

505.2 Area limitation. The aggregate area of a mezzanine or mezzanines within a room shall not exceed (~~one-third~~) one-half of the floor area of that room or space in which they are located. The enclosed portion of a room shall not be included in a determination of the floor area of the room in which the mezzanine is located. In determining the allowable mezzanine area, the area of the mezzanine shall not be included in the floor area of the room.

Exceptions:

1. The aggregate area of mezzanines in buildings and structures of Type I or II construction for special industrial occupancies in accordance with Section 503.1.1 shall not exceed two-thirds of the floor area of the room.

~~((2. The aggregate area of mezzanines in buildings and structures of Type I or II construction shall not exceed one-half of the floor area of the room in buildings and structures equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 and an approved emergency voice/alarm communication system in accordance with Section 907.2.12.2.))~~

2. The area of the mezzanine floor within a dwelling unit shall not exceed one-half of the area of the main floor of the dwelling unit.

Interpretation I505.2: Only such main floor area conforming to clear height requirements of Section 505.1 shall be used in calculating the allowable area of the mezzanine floor.

505.3 Egress. Each occupant of a mezzanine shall have access to at least two independent means of egress where the common path of egress travel exceeds the limitations of Section 1014.3. Where a stairway provides a means of exit access from a mezzanine, the maximum travel distance includes the distance traveled on the stairway measured in the plane of the tread nosing. Accessible means of egress shall be provided in accordance with Section 1007.

Exception: A single means of egress shall be permitted in accordance with Section 1015.1.

505.4 Openness. A mezzanine shall be open and unobstructed to the room in which such mezzanine is located except for walls not more than 42 inches (1067 mm) high, columns and posts.

Exceptions:

1. Mezzanines or portions thereof are not required to be open to the room in which the mezzanines are located, provided that the occupant load of the aggregate area of the enclosed space does not exceed 10.
2. A mezzanine having two or more means of egress is not required to be open to the room in which the mezzanine is located if at least one of the means of egress provides direct access to an exit from the mezzanine level.
3. Mezzanines or portions thereof are not required to be open to the room in which the mezzanines are located, provided that the aggregate floor area of the enclosed space does not exceed 10 percent of the allowable mezzanine area.
4. In industrial facilities, mezzanines used for control equipment are permitted to be glazed on all sides.
5. In other than Groups H and I occupancies no more than two stories in height above grade plane and equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, a mezzanine having two or more means of egress shall not be required to be open to the room in which the mezzanine is located.

505.5 Equipment platforms. Equipment platforms in buildings shall not be considered as a portion of the floor below. Such equipment platforms shall not contribute to either the building area or the number of stories as regulated by Section 503.1. The area of the equipment platform shall not be included in determining the fire area. Equipment platforms shall not be a part of any mezzanine and such platforms and the walkways, stairs and ladders providing access to an equipment platform shall not serve as a part of the means of egress from the building.

505.5.1 Area limitations. The aggregate area of all equipment platforms within a room shall not exceed two-thirds of the area of the room in which they are located. Where an equipment platform is located in the same room as a mezzanine, the area of the mezzanine shall be determined by Section 505.2 and the combined aggregate area of the equipment platforms and mezzanines shall not exceed two-thirds of the room in which they are located.

[F] 505.5.2 Fire suppression. Where located in a building that is required to be protected by an automatic sprinkler system, equipment platforms shall be fully protected by sprinklers above and below the platform, where required by the standards referenced in Section 903.3.

505.5.3 Guards. Equipment platforms shall have guards where required by Section 1013.1.

**SECTION 506
AREA MODIFICATIONS**

506.1 General. The areas limited by Table 503 shall be permitted to be increased due to frontage (I_f) and automatic sprinkler system protection (I_s) in accordance with the following:

$$A_a = \{A_t + [A_t \times I_f] + [A_t \times I_s]\} \quad \text{(Equation 5-1)}$$

where:

A_a = Allowable area per story (square feet).

A_t = Tabular area per story in accordance with Table 503 (square feet).

I_f = Area increase factor due to frontage as calculated in accordance with Section 506.2.

I_s = Area increase factor due to sprinkler protection as calculated in accordance with Section 506.3.

506.1.1 Basements. ~~((A single basement that is not a)~~ Basements below the first story above grade plane need not be included in the total allowable area, provided each such basement does not exceed the area permitted for a building with no more than one story above grade plane.

506.2 Frontage increase. Every building shall adjoin or have access to a public way to receive an area increase for frontage. 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:

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

where:

I_f = Area increase due to frontage.

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

P = Perimeter of entire building (feet).

W = Width of public way or open space (feet) in accordance with Section 506.2.1.

506.2.1 Width limits. “W” must be at least 20 feet (6096 mm). 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 greater than or equal to 20 feet (6096 mm). Where W exceeds 30 feet (9144 mm), a value of 30 feet (9144 mm) shall be used in calculating the weighted average, regardless of the actual width of the open space.

Exception: The quantity of W divided by 30 shall be permitted to be a maximum of 2 when the building meets all requirements of Section 507 except for compliance with the 60-foot (18 288 mm) public way or yard requirement, as applicable.

506.2.2 Open space limits. Such open space shall be either on the same lot or dedicated for public use and shall be accessed from a street or approved fire lane.

506.3 Automatic sprinkler system increase. Where a building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, the area limitation in Table 503 is permitted to be increased by an additional 200 percent ($I_s = 2$) for buildings with more than one story above grade plane and an additional 300 percent ($I_s = 3$) for buildings with no more than one story above grade plane. These increases are permitted in addition to the height and story increases in accordance with Section 504.2.

Exception: The area limitation increases shall not be permitted for the following conditions:

1. The automatic sprinkler system increase shall not apply to buildings with an occupancy in Use Group H-1.
2. The automatic sprinkler system increase shall not apply to the floor area of an occupancy in Use Group H-2 or H-3. For mixed-use buildings containing such occupancies, the allowable area shall be calculated in accordance with Section 508.3.3.2, with the sprinkler increase applicable only to the portions of the building not classified as Use Group H-2 or H-3.
3. Fire-resistance rating substitution in accordance with Table 601, Note e.

506.4 Area determination. The maximum area of a building with more than one story above grade plane shall be determined by multiplying the allowable area of the first story (A_a), as determined in Section 506.1, by the number of stories above grade plane as listed below:

1. For buildings with two stories above grade plane, multiply by 2;
2. For buildings with three or more stories above grade plane, multiply by 3; and
3. No story shall exceed the allowable area per story (A_a), as determined in Section 506.1, for the occupancies on that story.

Exceptions:

1. Unlimited area buildings in accordance with Section 507.
2. The maximum area of a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.2 shall be determined by multiplying the allowable area per story (A_a), as determined in Section 506.1, by the number of stories above grade plane.

Note: NFPA 13R sprinkler systems are limited to buildings of Group R up to and including four stories in height. See Section 903.3.1.2.

506.4.1 Mixed occupancies. In buildings with mixed occupancies, the allowable area per story (A_a) shall be based on the most restrictive provisions for each occupancy when the mixed occupancies are treated according to Section 508.3.2. When the occupancies are treated according to Section 508.3.3 as separated occupancies, the maximum total building area shall be such that the sum of the ratios for each such area on all floors as calculated according to Section 508.3.3.2 shall not exceed 2 for two-story buildings and 3 for buildings three stories or higher.

SECTION 507 UNLIMITED AREA BUILDINGS

507.1 General. The area of buildings of the occupancies and configurations specified herein shall not be limited.

507.2 Nonsprinklered, one story. The area of a one-story, Group F-2 or S-2 building shall not be limited when the building is surrounded and adjoined by public ways or yards not less than 60 feet (18 288 mm) in width.

507.3 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 Type I and II construction for rack storage facilities that do not have access by the public shall not be limited in height, provided that such buildings conform to the requirements of Sections 507.2 and 903.3.1.1 and NFPA 230.
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.
3. Group A-1 and A-2 occupancies of other than Type V construction shall be permitted, provided:
 - 3.1. All assembly occupancies are separated from other spaces as required for separated uses in Section 508.3.3.4 with no reduction allowed in the fire-resistance rating of the separation based upon the installation of an automatic sprinkler system;
 - 3.2. Each Group A occupancy shall not exceed the maximum allowable area permitted in Section 503.1; and
 - 3.3. All required exits shall discharge directly to the exterior.

507.4 Two story. The area of a two-story, Group B, F, M or S building shall not be limited when the building is equipped throughout with an automatic sprinkler system 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.

507.5 Reduced open space. The permanent open space of 60 feet (18 288 mm) required in Sections 507.2, 507.3, 507.4, 507.6 and 507.10 shall be permitted to be reduced to not less than 40 feet (12 192 mm), provided the following requirements are met:

1. The reduced open space shall not be allowed for more than 75 percent of the perimeter of the building.
2. The exterior wall facing the reduced open space shall have a minimum fire-resistance rating of 3 hours.
3. Openings in the exterior wall facing the reduced open space shall have opening protectives with a minimum fire protection rating of 3 hours.

507.6 Group A-3 buildings. The area of a one-story, Group A-3 building used as a place of religious worship, community hall, dance hall, exhibition hall, gymnasium, lecture hall, indoor swimming pool or tennis court of Type II construction shall not be limited when all of the following criteria are met:

1. The building shall not have a stage other than a platform.
2. The building shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
3. The assembly floor shall be located at or within 21 inches (533 mm) of street or grade level and all exits are provided with ramps complying with Section 1010.1 to the street or grade level.
4. The building shall be surrounded and adjoined by public ways or yards not less than 60 feet (18 288 mm) in width.

507.7 Group H occupancies. Group H-2, H-3 and H-4 occupancies shall be permitted in unlimited area buildings containing Group F and S occupancies, in accordance with Sections 507.3 and 507.4 and the limitations of this section. The aggregate floor area of the Group H occupancies located at the perimeter of the unlimited area building shall not exceed 10 percent of the area of the building nor the area limitations for the Group H occupancies as specified in Table 503 as modified by Section 506.2, based upon the percentage of the perimeter of each Group H fire area that fronts on a street or other unoccupied space. The aggregate floor area of Group H occupancies not located at the perimeter of the building shall not exceed 25 percent of the area limitations for the Group H occupancies as specified in Table 503. Group H fire areas shall be separated from the rest of the unlimited area building and from each other in accordance with Table 508.3.3 For two-story unlimited area buildings, the Group H fire areas shall not be located above the first story unless permitted by the allowable height in stories and feet as set forth in Table 503 based on the type of construction of the unlimited area building.

507.8 Aircraft paint hangar. The area of a one-story, Group H-2 aircraft paint hangar shall not be limited where such aircraft paint hangar complies with the provisions of Section 412.4 and is entirely surrounded by public ways or yards not

less in width than one and one-half times the height of the building.

507.9 Group E buildings. The area of a one-story Group E building of Type II, IIIA or IV construction shall not be limited when the following criteria are met:

1. Each classroom shall have not less than two means of egress, with one of the means of egress being a direct exit to the outside of the building complying with Section 1018.
2. The building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
3. The building is surrounded and adjoined by public ways or yards not less than 60 feet (18 288 mm) in width.

507.10 Motion picture theaters. In buildings of Type II construction, the area of a one-story motion picture theater 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.

507.11 Covered mall buildings and anchor stores. The area of covered mall buildings and anchor stores not exceeding three stories in height that comply with Section 402.6 shall not be limited.

SECTION 508 MIXED USE AND OCCUPANCY

508.1 General. Where a building or portion thereof contains two or more occupancies or uses, the building or portion thereof shall comply with the applicable provisions of this section.

508.2 Incidental uses. Incidental use areas shall comply with the provisions of this section.

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

508.2.1 Occupancy classification. An incidental use area shall be classified in accordance with the occupancy of that portion of the building in which it is located or the building shall be classified as a mixed occupancy and shall comply with Section 508.3.

08 **Exception:** Elevator machine rooms shall be separated
08 according to Table 508.2.

508.2.2 Separation. Incidental use areas shall be separated or protected, or both, in accordance with Table 508.2.

508.2.2.1 Construction. Where Table 508.2 requires a fire-resistance-rated separation, the incidental use area shall be separated from the remainder of the building by a fire barrier constructed in accordance with Section 706 or a horizontal assembly constructed in accordance with Section 711, or both. Where Table 508.2 permits an automatic fire-extinguishing system without a fire barrier, the incidental use area shall be separated from the remainder of the building by construction capable of resisting the passage of smoke. The partitions shall extend from the floor to the underside of the fire-resistance-rated floor/ceiling assembly or fire-resistance-rated roof/ceiling assembly above or to the underside of the floor or roof sheathing, or sub deck

above. Doors shall be self- or automatic closing upon detection of smoke in accordance with Section 715.4.7.3. Doors shall not have air transfer openings and shall not be undercut in excess of the clearance permitted in accordance with NFPA 80.

508.2.3 Protection. Where an automatic fire-extinguishing system or an automatic sprinkler system is provided in accordance with Table 508.2, only the incidental use areas need be equipped with such a system.

508.3 Mixed occupancies. Each portion of a building shall be individually classified in accordance with Section 302.1.

Where a building contains more than one occupancy group, the building or portion thereof shall comply with Sections 508.3.1, 508.3.2, 508.3.3 or a combination of these sections.

Exceptions:

1. Occupancies separated in accordance with Section 509.
2. Where required by Table 415.3.2, areas of Group H-1, H-2 or H-3 occupancies shall be located in a separate and detached building or structure.

[W] 3. Offices, mercantile, food preparation establishments for off-site consumption, personal care salons or similar uses in Group R dwelling units, which are conducted primarily by the occupants of a dwelling unit and are secondary to the use of the unit for dwelling purposes, and which do not exceed 500 square feet (46.5 m²).

508.3.1 Accessory occupancies. Accessory occupancies are those occupancies subsidiary to the main occupancy of the building or portion thereof. Aggregate accessory occupancies shall not occupy more than 10 percent of the area of the story in which they are located and shall not exceed the tabular values in Table 503, without height and area increases in accordance with Sections 504 and 506 for such accessory occupancies.

Exceptions:

1. Accessory assembly areas having a floor area less than 750 square feet (69.7 m²) are not considered separate occupancies.
2. Assembly areas that are accessory to Group E occupancies are not considered separate occupancies except when applying the assembly occupancy requirements of Chapter 11.
3. Accessory religious educational rooms and religious auditoriums with occupant loads of less than 100 are not considered separate occupancies.

508.3.1.1 Occupancy classification. Accessory occupancies shall be individually classified in accordance with Section 302.1. Code requirements shall apply to each portion of the building based on the occupancy classification of that accessory space, except that the most restrictive applicable provisions of Section 403 and Chapter 9 shall apply to the entire building or portion thereof.

**TABLE 508.2
INCIDENTAL USE AREAS**

ROOM OR AREA	SEPARATION AND/OR PROTECTION
Furnace room where any piece of equipment is over 400,000 Btu per hour input	1 hour or provide automatic fire-extinguishing system
Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower	1 hour or provide automatic fire-extinguishing system
Refrigerant machinery rooms	1 hour or provide automatic sprinkler system
Parking garage (Section 406.2)	2 hours; or 1 hour and provide automatic fire-extinguishing system
Hydrogen cut-off rooms, not classified as Group H	1-hour in Group B, F, M, S and U occupancies. 2-hour in Group A, E, I and R occupancies.
Incinerator rooms	2 hours and automatic sprinkler 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 or 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 cells equipped with padded surfaces	1 hour
Group I-2 waste and linen collection rooms	1 hour
Waste and linen collection rooms over 100 square feet	1 hour or provide automatic fire-extinguishing system
Stationary storage battery systems having a liquid capacity of more than ((100)) 50 gallons used for facility standby power, emergency power or uninterrupted power supplies	1-hour in Group B, F, M, S and U occupancies. 2-hour in Group A, E, I and R occupancies.
Elevator machine rooms	<u>1 hour or as required for elevator hoistway, whichever is greater. Automatic-closing doors are not permitted.</u>

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

508.3.1.2 Allowable area and height. The allowable area and height of the building shall be based on the allowable area and height for the main occupancy in accordance with Section 503.1. The height of any accessory occupancy shall not exceed the tabular values in Table 503, without height and area increases in accordance with Sections 504 and 506 for such accessory occupancies.

dance with Sections 504 and 506 for such accessory occupancies.

508.3.1.3 Separation. No separation is required between accessory occupancies or the main occupancy.

Exception: Group H-2, H-3, H-4 or H-5 occupancies shall be separated from all other occupancies in accordance with Section 508.3.3.

508.3.2 Nonseparated occupancies. Buildings or portions of buildings that comply with the provisions of this section shall qualify as nonseparated occupancies.

508.3.2.1 Occupancy classification. Nonseparated occupancies shall be individually classified in accordance with Section 302.1. Code requirements shall apply to each portion of the building based on the occupancy classification of that space except that the most restrictive applicable provisions of Section 403 and Chapter 9 shall apply to the entire building or portion thereof.

508.3.2.2 Allowable area and height. The allowable area and height of the building or portion thereof shall be based on the most restrictive allowances for the occupancy groups under consideration for the type of construction of the building in accordance with Section 503.1.

508.3.2.3 Separation. No separation is required between occupancies.

Exception: Group H-2, H-3, H-4 or H-5 occupancies shall be separated from all other occupancies in accordance with Section 508.3.3.

508.3.3 Separated occupancies. Buildings or portions of buildings that comply with the provisions of this section shall qualify as separated occupancies.

508.3.3.1 Occupancy classification. Separated occupancies shall be individually classified in accordance with Section 302.1. Each fire area shall comply with this code based on the occupancy classification of that portion of the building.

508.3.3.2 Allowable area. In each story, the building area shall be such that the sum of the ratios of the actual floor area of each occupancy divided by the allowable area of each occupancy shall not exceed one.

508.3.3.3 Allowable height. Each occupancy shall comply with the height limitations based on the type of construction of the building in accordance with Section 503.1. The height, in both feet and stories, of each fire area shall be measured from grade plane. This measurement shall include the height, in both feet and stories, of intervening fire areas.

Exception: Special provisions permitted by Section 509.

508.3.3.4 Separation. Individual occupancies shall be separated from adjacent occupancies in accordance with Table 508.3.3

508.3.3.4.1 Construction. Required separations shall be fire barriers constructed in accordance with Section 706 or horizontal assemblies constructed in

**TABLE 508.3.3
REQUIRED SEPARATION OF OCCUPANCIES (HOURS)**

OCCUPANCY	A ^e , E		I		R ^d		F-2, S-2 ^{c,d} , U ^d		B ^b , F-1, M ^b , S-1		H-1		H-2		H-3, H-4, H-5	
	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS
A ^e , E ^e	N	N	1	2	1	2	N	1	1	2	NP	NP	3	4	2	3 ^a
I	—	—	N	N	1	NP	1	2	1	2	NP	NP	3	NP	2	NP
R ^d	—	—	—	—	N	N	1	2	1	2	NP	NP	3	NP	2	NP
F-2, S-2 ^{c,d} , U ^d	—	—	—	—	—	—	N	N	1	2	NP	NP	3	4	2	3 ^a
B ^b , F-1, M ^b , S-1	—	—	—	—	—	—	—	—	N	N	NP	NP	2	3	1	2 ^a
H-1	—	—	—	—	—	—	—	—	—	—	N	NP	NP	NP	NP	NP
H-2	—	—	—	—	—	—	—	—	—	—	—	—	N	NP	1	NP
H-3, H-4, H-5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	N	NP

For SI: 1 square foot = 0.0929 m².

S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.

NS = Buildings not equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.

N = No separation requirement.

NP = Not permitted.

a. For Group H-5 occupancies, see Section 903.2.4.2.

b. Occupancy separation need not be provided for storage areas within Groups B and M if the:

1. Area is less than 10 percent of the floor area;
2. Area is equipped with an automatic fire-extinguishing system and is less than 3,000 square feet; or
3. Area is less than 1,000 square feet.

c. Areas used only for private or pleasure vehicles shall be allowed to reduce separation by 1 hour.

d. See Section 406.1.4.

e. Commercial kitchens need not be separated from the restaurant seating areas that they serve.

accordance with Section 711, or both, so as to completely separate adjacent occupancies.

Exceptions:

1. No separation is required between Group A-2 or A-3 and Group B or M occupancies when both are protected by an automatic sprinkler system.
2. Subject to the approval of the building official, unprotected openings are permitted in separations between parking areas and enclosed portions of buildings such as entry lobbies and similar areas provided:
 - 2.1. The floors of the enclosed building with unprotected openings are protected by an automatic sprinkler system;
 - 2.2. The openings are glazed with either tempered or laminated glazing materials;
 - 2.3. When required by the building official, the glazing is protected on the parking side with a sprinkler system designed to wet the entire glazed surface; and
 - 2.4. The parking areas are used primarily for passenger loading and unloading and vehicle drive-through uses.

**SECTION 509
SPECIAL PROVISIONS**

509.1 General. The provisions in this section shall permit the use of special conditions that are exempt from, or modify, the specific requirements of this chapter regarding the allowable heights and areas of buildings based on the occupancy classification and type of construction, provided the special condition complies with the provisions specified in this section for such condition and other applicable requirements of this code.

Interpretation I509: Each subsection of Section 509 is a distinct modification of other provisions of Chapter 5, and is not permitted to be used in combination with any other subsection of Section 509.

509.2 ((Group S-2 enclosed or open parking garage with Group A, B, M, R or S above.)) Podium buildings. ((A basement)) Basements and((/or)) the first ((story)) one or two stories above grade plane of a building shall be permitted to be considered as a separate and distinct building for the purpose of determining area limitations, continuity of fire walls, limitation of number of stories and type of construction when all of the following conditions are met((:)).

1. ((The basement)) Basements and((/or)) the first ((story)) one or two stories above grade plane ((is)) are of Type IA construction and ((is)) are separated from the building above with a horizontal assembly having a minimum 3-hour fire-resistance rating.
2. Shaft, stairway, ramp or escalator enclosures through the horizontal assembly shall have not less than a 2-hour

fire-resistance rating with opening protectives in accordance with Table 715.4.

Exception: Where the enclosure walls below the horizontal assembly have not less than a 3-hour fire-resistance rating with opening protectives in accordance with Table 715.4, the enclosure walls extending above the horizontal assembly shall be permitted to have a 1-hour fire-resistance rating, provided:

1. The building above the horizontal assembly is not required to be of Type I construction;
 2. The enclosure connects less than four stories; and
 3. The enclosure opening protectives above the horizontal assembly have a minimum 1-hour fire protection rating.
3. Stairways permitted to be constructed of wood above the horizontal assembly are also permitted to be constructed of wood below the horizontal assembly. See Section 1002 for the definition of stairway.
- ~~3. The building above the horizontal assembly shall be permitted to have multiple Group A uses, each with an occupant load of less than 300, or Group B, M, R or S uses.)~~
4. The buildings contain only multiple Group A uses, each with an occupant load of less than 300; Group B; Group M; Group R-1; Group R-2; Group R-3; or Group S-2 parking garage used exclusively for the parking and storage of private motor vehicles.
- ~~4. The building below the horizontal assembly is a Group S-2 enclosed or open parking garage, used for the parking and storage of private motor vehicles.~~

Exceptions:

1. ~~Entry lobbies, mechanical rooms and similar uses incidental to the operation of the building shall be permitted.~~
2. ~~Multiple Group A uses, each with an occupant load of less than 300, or Group B or M uses shall be permitted, in addition to those uses incidental to the operation of the building (including storage areas), provided that the entire structure below the horizontal assembly is protected throughout by an approved automatic sprinkler system.)~~
5. The maximum ((building)) height in feet of the entire structure shall not exceed the limits set forth in Section 503 for the building having the smaller allowable height as measured from the grade plane.
6. The height of the entire structure shall not exceed 7 stories above grade plane.
7. All portions of the buildings above and below the 3-hour horizontal assembly shall be protected throughout with an automatic sprinkler system that complies with Section 903.3.1.1 in buildings with two stories below the horizontal assembly.

8. Occupied areas shall be not more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

Exception: Roof decks with an occupant load of less than 10 are permitted to be located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access.

9. Exit enclosures in buildings with two stories above grade plane below the separation shall be pressurized in accordance with Section 909.21 for low-rise stairways.

[W] 509.3 Group S-2 enclosed parking garage with Group S-2 open parking garage above. A Group S-2 enclosed parking garage (~~located in the basement or first story~~) with no more than one story above grade plane and located below a Group S-2 open parking garage shall be classified as a separate and distinct building for the purpose of determining the type of construction ((when) where the following conditions are met:

1. The allowable area of the ((structure)) building shall be such that the sum of the ratios of the actual area divided by the allowable area for each separate occupancy shall not exceed 1.0.
2. The Group S-2 enclosed parking garage is of Type I or II construction and is at least equal to the fire-resistance requirements of the Group S-2 open parking garage.
3. The height and the number of ((the floors above the basement)) tiers of the Group S-2 open parking garage shall be limited as specified in Table 406.3.5.
4. The floor assembly separating the Group S-2 enclosed parking garage and Group S-2 open parking garage shall be protected as required for the floor assembly of the Group S-2 enclosed parking garage. Openings between the Group S-2 enclosed parking garage and Group S-2 open parking garage, except exit openings, shall not be required to be protected.
5. The Group S-2 enclosed parking garage is used exclusively for the parking or storage of private motor vehicles, but shall be permitted to contain an office, waiting room and toilet room having a total area of not more than 1,000 square feet (93 m²), and mechanical equipment rooms incidental to the operation of the building.

509.4 Parking beneath Group R. Where a maximum one-story above grade plane Group S-2 parking garage, enclosed or open, or combination thereof, of Type I construction or open of Type IV construction, with grade entrance, is provided under a building of Group R, the number of stories to be used in determining the minimum type of construction shall be measured from the floor above such a parking area. The floor assembly between the parking garage and the Group R above shall comply with the type of construction required for the parking garage and shall also provide a fire-resistance rating not less than the mixed occupancy separation required in Section 508.3.3. The Group R occupancy shall be no more than four stories in height.

509.5 Group R-2 buildings of Type IIIA construction. The height limitation for buildings of Type IIIA construction in Group R-2 shall be increased to six stories and 75 feet (22 860 mm) where the first-floor construction above the basement has a fire-resistance rating of not less than 3 hours and the floor

area is subdivided by 2-hour fire-resistance-rated fire walls into areas of not more than 3,000 square feet (279 m²).

509.6 Group R-2 buildings of Type IIA construction. The height limitation for buildings of Type IIA construction in Group R-2 shall be increased to nine stories and 100 feet (30 480 mm) where the building is separated by not less than 50 feet (15 240 mm) from any other building on the lot and from lot lines, the exits are segregated in an area enclosed by a 2-hour fire-resistance-rated fire wall and the first-floor construction has a fire-resistance rating of not less than 1½ hours.

509.7 Open parking garage beneath Groups A, I, B, M and R. Open parking garages constructed under Groups A, I, B, M and R shall not exceed the height and area limitations permitted under Section 406.3. The height and area of the portion of the building above the open parking garage shall not exceed the limitations in Section 503 for the upper occupancy. The height, in both feet and stories, of the portion of the building above the open parking garage shall be measured from grade plane and shall include both the open parking garage and the portion of the building above the parking garage.

509.7.1 Fire separation. Fire barriers constructed in accordance with Section 706 or horizontal assemblies constructed in accordance with Section 711 between the parking occupancy and the upper occupancy shall correspond to the required fire-resistance rating prescribed in Table 508.3.3 for the uses involved. The type of construction shall apply to each occupancy individually, except that structural members, including main bracing within the open parking structure, which is necessary to support the upper occupancy, shall be protected with the more restrictive fire-resistance-rated assemblies of the groups involved as shown in Table 601. Means of egress for the upper occupancy shall conform to Chapter 10 and shall be separated from the parking occupancy by fire barriers having at least a 2-hour fire-resistance rating as required by Section 706 with self-closing doors complying with Section 715 or horizontal assemblies having at least a 2-hour fire-resistance rating as required by Section 711, with self-closing doors complying with Section 715. Means of egress from the open parking garage shall comply with Section 406.3.

509.8 Group B or M with Group S-2 open parking garage above. Group B or M uses located in the basement or first story below a Group S-2 open parking garage shall be classified as a separate and distinct building for the purpose of determining the type of construction when all of the following conditions are met:

1. The basement or first story shall be Type I or II construction, but not less than the type of construction required for the open parking garage above. The height and area of the basement or first story shall not exceed the limitations in Section 503 for the Group B or M uses.
2. The height and area of the open parking garage shall not exceed the limitations permitted under Section 406.3. The height, in both feet and stories, of the open parking garage shall be measured from grade plane and include both the open parking garage and the basement or first story.

3. Fire separation assemblies between the open parking garage and the basement or first story use group shall correspond to the required fire-resistance rating prescribed by Table 508.3.3
4. Exits serving the open parking garage shall discharge directly to a street or public way and shall be separated from the basement or first story use group by not less than 2-hour fire barriers constructed in accordance with Section 706 or 2-hour horizontal assemblies constructed in accordance with Section 711, or both, with opening protectives in accordance with Table 715.4.