CHAPTER 5
GENERAL BUILDING HEIGHTS AND AREAS;
SEPARATION OF OCCUPANCIES

SECTION BC 501
GENERAL

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

501.2 Premises identification. Approved numbers or addresses shall be provided for new buildings and shall be placed in such a position as to be clearly visible and legible from the street or roadway fronting the property. Address numbers shall be Arabic numerals or alphabet letters and shall be a minimum 4 inches (102 mm) in height and stroke of minimum 0.5 inch (12.7 mm) of a contrasting color to the background itself.

501.3 Fire Department access.

501.3.1 Frontage. Every building, exclusive of accessory buildings, shall have at least 8 percent of the total perimeter of the building adjoining a street or frontage space. For the purposes of this section, building perimeter shall be measured at that story having the maximum enclosed floor area; and buildings provided with a front yard or front setback no deeper than 30 feet (9144 mm) in compliance with the New York City Zoning Resolution shall be considered as adjoining the street or frontage space.

501.3.2 Building access. Provisions shall be made for access by the Fire Department to every building in accordance with this section.

Exception: The provisions of Section 501.3.2 shall not apply to any story that is completely protected by an automatic sprinkler system complying with Section 903.3.1. Such exception shall not apply to access to cellars or basements as required by Section 54 of the New York State Multiple Dwelling Law.

501.3.2.1 Above grade. Access shall be provided directly from the outdoors to each story below a height of 100 feet (30 480 mm) except to the first story or ground floor, by at least one window or readily identifiable access panel within each 50 feet (15240 mm) or fraction thereof of horizontal length of every wall that fronts on a street or frontage space. All windows shall be operable from the inside or breakable from both the inside and the outside, and shall have a size when open of at least 24 inches by 36 inches (610 mm by 914 mm). Panels shall be operable from both the inside and outside and shall have a height when open of 48 inches (1219 mm) and a width of at least 32 inches (813 mm). The sill of the window or panel shall not be higher than 36 inches (914 mm) above the inside floor.

Exception: Where not all of the windows are operable or breakable, the windows intended to satisfy the requirements of Section 501.3.2.1 shall be readily identifiable.

501.3.2.2 Below grade. Access shall be provided directly from the outdoors to the first basement or cellar story below grade, except as provided below, within each 100 feet (30 480 mm) or fraction thereof of horizontal length of every wall that fronts on a street or frontage space. Such access shall be by stairs, doors, windows or other means that provide an opening 48 inches (1219 mm) high and 32 inches (813 mm) wide, the sill of which shall not be higher than 36 inches (914 mm) above the inside floor. If an areaway is used to provide below grade access, the minimum horizontal dimension shall be at least one-third the depth of the areaway or 6 feet (1829 mm), whichever is less.

1. One- and two-family dwellings need not provide direct access.

2. Any building classified in Occupancy Group R-2 not more than three stories in height and with not more than two dwelling units on any story need not provide direct access when such first basement or cellar story is used for dwelling units or for uses accessory to the residential use in the building.

3. Except as provided in Item 2 above, for Group R-1 or R-2 occupancies, only one direct access from the outdoors to the first basement or cellar story consisting of a stair or door shall be required when such story is used for dwelling units or for uses accessory to the residential use in the building.

501.3.2.3 Signs obstructing openings. Where wall signs are erected to cover doors or windows of existing buildings, access panels shall be provided as necessary to comply with the requirements of Sections 501.3.2.1 and 501.3.2.2.

501.3.2.4 Location. Wherever practicable, one access opening in each story shall provide access to a stairway, or where there is no stairway at the exterior wall, one access opening in each story shall be located as close as practicable to a stairway.

SECTION BC 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 firewalls) 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.** A story partly below the grade plane and having less than one-half its clear height (measured from finished floor to finished ceiling) below the grade plane (see “Story” and “Story above grade plane” in Section 502.1).

**CELLAR.** That portion of a building that is partly or wholly underground, and having one-half or more of its clear height (measured from finished floor to finished ceiling) below the grade plane. Cellars shall not be counted as stories in measuring the height of the buildings.

**FRONTAGE SPACE.** A street; or an open space adjoining a building not less than 30 feet (9144 mm) in any dimension. Such open space shall be accessible from a street by a driveway, lane, private road or alley at least 20 feet (6096 mm) in width. Frontage space including accessways shall be permanently maintained free of all obstructions that might interfere with its use by the Fire Department.

**GRADE PLANE.** A reference plane representing the level of the curb as established by the city engineer in the Borough President’s office, measured at the center of the front of a building. Where a building faces on more than one street, the grade plane shall be the average of the levels of the curbs at the center of each front.

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

**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.

**INDUSTRIAL EQUIPMENT PLATFORM.** An unoccupied, elevated platform in an industrial occupancy 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).

**MEZZANINE.** An intermediate level or levels between the floor and ceiling of any story with an aggregate floor area of not more than one-third of the area of the room or space in which the level or levels are located (see Section 505).

**STORY ABOVE GRADE PLANE.** Any story having its finished floor surface entirely above grade plane, except that a basement shall also be considered a story above grade plane (also see “Basement” and “Story”).

**STORY.** That portion of a building included between the upper surface of a floor and the upper surface of the floor or roof next above (also see “Basement” and “Mezzanine”).

#### SECTION BC 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 and occupancy 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.

**503.1.1 Basements.** Basements need not be included in the total allowable area provided:

1. They do not exceed the area permitted for a one-story building; and
2. The finished surface of the floor above the basement does not exceed 6 feet (1829 mm) above grade plane.

**503.1.2 Special industrial occupancies.** Buildings and structures of Type I and II construction designed to house low-hazard 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.

**503.1.3 Buildings on same tax lot.** Two or more buildings on the same tax lot and under the same ownership and control 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.

**503.1.4 Type I construction.** Buildings of Type I construction permitted to be of unlimited tabular heights and areas in accordance with Table 503 are not required to comply with the special requirements that allow unlimited area buildings in Section 507 or unlimited height in Sections 503.1.2 and 504.3 or increased height and areas for other types of construction.

**503.2 Reserved.**
### TABLE 503

**ALLOWABLE HEIGHT AND BUILDING AREAS**

Height limitations shown as stories and feet above grade plane. Area limitations as determined by the definition of “Area, building,” per floor.

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SECTION BC 504
HEIGHT MODIFICATIONS

504.1 General. The heights permitted by Table 503 shall only 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 Chapter 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 story. 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 story, but shall not exceed six stories or 60 feet (18288 mm), respectively.

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

504.3 Rooftop structures. Rooftop structures including but not limited to roof tanks and their supports, ventilating, air conditioning and similar building service equipment, bulkheads, penthouses, chimneys, and parapet walls 4 feet (1219 mm) or less in height shall not be included in the height of the building or considered an additional story unless the aggregate area of all such structures exceeds 33 1/3 percent of the area of the roof of the building upon which they are erected. Rooftop structures shall be constructed in accordance with Section 1509.
SECTION BC 505
MEZZANINES

505.1 General. A mezzanine or mezzanines in compliance with this section shall be considered a portion of the floor 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).

Exception: The clear height of habitable spaces above or below mezzanines within dwelling units shall not be less than 8 feet (2438 mm).

505.2 Area limitation. The aggregate area of a mezzanine or mezzanines within a room or space shall not exceed one-third of the area of that room or space in which they are located. The enclosed portions of a room or space shall not be included in determining the permissible floor area of the mezzanine. The area of the mezzanine shall not contribute to the determination of the floor area of the room or space below.

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 503.1.2 shall not exceed two-thirds of the area of the room.

2. The aggregate area of a mezzanine or mezzanines within a dwelling unit shall not exceed one-third of the net floor area of such dwelling unit, whether or not portions of such dwelling unit are enclosed. The area of the mezzanine shall not contribute to the determination of the floor area of the dwelling unit below.

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 1013.3. 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.

Exceptions:

1. A single means of egress shall be permitted in accordance with Section 1014.1.

2. Accessible means of egress shall be provided in accordance with Section 1007.

505.4 Openness. A mezzanine shall be open and unobstructed to the room in which such mezzanine is located except for walls or railings 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 mezzanine area.

4. In industrial facilities, mezzanines used for control equipment are permitted to be glazed on all sides.

5. In Group F occupancies of unlimited area, meeting the requirements of Section 507.2 or 507.3, mezzanines or portions thereof are not required to be open to the room in which the mezzanines are located, provided that an approved fire alarm system is installed throughout the entire building or structure and notification appliances are installed throughout the mezzanines in accordance with the provisions of NFPA 72. In addition, the fire alarm system shall be initiated by automatic sprinkler water flow.

505.5 Industrial equipment platforms. Industrial 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 industrial equipment platform shall not be included in determining the fire area. Industrial 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 industrial equipment platforms within a room shall not exceed two-thirds of the area of the room in which they occur. 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 occur.

505.5.2 Fire suppression. Where located in a building that is required to be protected by an automatic sprinkler system, industrial 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 1012.1.

SECTION BC 506
AREA MODIFICATIONS

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

\[ A_l = [A + (A \times I) + (A \times I_s)] \]  
(Equation 5-1)

where:

- \( A_l \) = Allowable area per story (square feet).
GENERAL BUILDING HEIGHTS AND AREAS; SEPARATION OF OCCUPANCIES

\[ A_i = \text{Tabular area per story in accordance with Table 503 (square feet).} \]
\[ I_f = \text{Area increase factor due to frontage as calculated in accordance with Section 506.2.} \]
\[ I_s = \text{Area increase factor due to sprinkler protection as calculated in accordance with Section 506.3.} \]

506.2 Frontage increase. Where a building has more than 25 percent of its perimeter adjoining 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:

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

where:
\[ I_f = \text{Area increase factor due to frontage.} \]
\[ F = \text{Building perimeter that fronts on a public way or open space having 20 feet (6096 mm) open minimum width (feet).} \]
\[ P = \text{Perimeter of entire building (feet).} \]
\[ W = \text{Width of public way or open space (feet) in accordance with Section 506.2.1.} \]

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 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 zoning 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.

Exceptions:
2. Fire-resistance rating substitution in accordance with Table 601, Note d.

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 per 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. In Group R occupancies 6 stories or less in height, 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.

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 as nonseparated occupancies. 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 buildings with two stories above grade plane and 3 for buildings with three or more stories above grade plane.

SECTION BC 507

UNLIMITED AREA BUILDINGS

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

507.2 Sprinklered, one story. The area of a one-story, Group B, F, M or S building or a one-story Group A-4 building of other than Type V construction shall not be limited when the building is provided with an automatic sprinkler system throughout in accordance with Section 903.3.1.1, and is surrounded and adjoined on all sides by public ways or yards not less than 60 feet (18 288 mm) in width. However, in Group F-2 and S-2 occupancies, one-story rack storage facilities of Type II construction that are not accessible to the public shall not be limited in height provided that such buildings conform to the requirements of this section and NFPA 231C.

Exception: 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:

1. Exit doors directly to the outside are provided for occupants of the participant sports areas; and
Amend section 507.2 to read as follows:

507.2 Sprinklered, one story. The area of a one-story, Group B, F, M or S building or a one-story Group A-4 building of other than Type V construction shall not be limited when the building is provided with an automatic sprinkler system throughout in accordance with Section 903.3.1.1, and is surrounded and adjoined on all sides by public ways or yards not less than 60 feet (18 288 mm) in width. However, in Group F-2 and S-2 occupancies, one-story rack storage facilities of Type I and II construction that are not accessible to the public shall not be limited in height provided that such buildings conform to the requirements of this section and NFPA 231C.13.

Exception: 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:

1. Exit doors directly to the outside are provided for occupants of the participant sports areas; and

2. The building is equipped with a fire alarm system with manual fire alarm boxes installed in accordance with Section 907.
2. The building is equipped with a fire alarm system with manual fire alarm boxes installed in accordance with Section 907.

### 507.3 Sprinklered, two story
The area of a two-story, Group B, F, M or S building shall not be limited when the building is provided with an automatic sprinkler system in accordance with Section 903.3.1.1 throughout, and is surrounded and adjoined on all sides by public ways or yards not less than 60 feet (18 288 mm) in width.

### 507.4 Reduced open space
The permanent open space of 60 feet (18 288 mm) required in Sections 507.1, 507.2 and 507.3 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 fire-resistance rating of 3 hours.

### 507.5 Group A buildings
The area of a Group A-1, A-2, A-3, or A-4 building of Type IIA, IIIA or IV construction shall not be limited where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. The area of a one-story, Group A-3 building used as a house of worship, community hall, dance hall, exhibition hall, gymnasium, lecture hall, indoor swimming pool or tennis court of Type IIB 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 on all sides by public ways or yards not less than 60 feet (18 288 mm) in width.

### 507.6 High-hazard occupancy groups
Group H-2, H-3 and H-4 fire areas shall be permitted in unlimited area buildings having occupancies in Groups F and S, in accordance with the limitations of this section. Fire areas located at the perimeter of the unlimited area building shall not exceed 10 percent of the area of the building, nor the area limitations specified in Table 503 as modified by Section 506.2, based upon the percentage of the perimeter of the fire area that fronts on a street or other unoccupied space. Other fire areas shall not exceed 25 percent of the area limitations specified in Table 503. Fire-resistance-rating requirements of fire barrier assemblies shall be in accordance with Table 508.3.3.

### 507.8 Group E buildings
The area of a Group E building of Type IIA, IIIA or IV construction shall not be limited where the building is protected throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1. The area of a one-story Group E building of Type IIB 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 1017.
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 on all sides by public ways or yards not less than 60 feet (18 288 mm) in width.

### 507.9 Motion picture theaters
In buildings of Type II, IIIA and IV construction, the area of one-story motion picture theaters 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 on all sides by public ways or yards not less than 60 feet (18 288 mm) in width.

### 507.10 Group B buildings
Notwithstanding the provisions of Sections 507.2 and 507.3, the area of a Group B building of Type IIA, IIIA or IV construction shall not be limited where the building is protected throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1.

### 507.11 Group F-2 buildings
Notwithstanding the provisions of Sections 507.2 and 507.3, the area of a Group F-2 building of Type IIA, IIIA or IV construction shall not be limited where the building is protected throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1.

### 507.12 Group M buildings
Notwithstanding the provisions of Sections 507.2 and 507.3, the area of a Group M building of Type IIA, IIIA or IV construction shall not be limited where the building is protected throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1.

### 507.13 Group R buildings
The area of Group R-1 and R-2 buildings of Type IIA, IIIA or IV construction shall not be limited where the building is protected throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, as applicable.

### 507.14 Group S-2 buildings
Notwithstanding the provisions of Sections 507.2 and 507.3, the area of a Group S-2 building of Type IB, IIA, IIIA or IV construction shall not be limited where the building is protected throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1.

### SECTION BC 508
INCIDENTAL USE AREAS AND MIXED OCCUPANCIES

#### 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. For additional requirements for mixed occupancies, see Section 506.4.1.
508.2 Incidental use areas. 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. A space that is listed in Table 508.2 and is incidental to a main occupancy shall be considered an incidental use area. An incidental use area shall be classified in accordance with the main occupancy to which the use is incidental; or such area shall be classified in accordance with its actual occupancy and shall comply with Section 508.3 for mixed occupancies.

508.2.1.1 Fire protection requirements. Any additional fire protection requirements in Chapter 9 for an incidental use area shall be based upon the occupancy classification of the area’s main occupancy.

508.2.2 Separation. Incidental use areas shall be separated or protected, or both, from all other occupancies 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 fire protection system may be installed in accordance with the requirements of Table 508.2.

### TABLE 508.2

<table>
<thead>
<tr>
<th>ROOM OR AREA</th>
<th>SEPARATION*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Furnace room where any piece of equipment is over 400,000 Btu per hour input</td>
<td>2 hour; or 1 hour and provide automatic fire-extinguishing system</td>
</tr>
<tr>
<td>Furnace room where any piece of equipment is 400,000 Btu per hour input or less, except in R-3 occupancy</td>
<td>1 hour or provide automatic sprinkler systemb</td>
</tr>
<tr>
<td>Rooms with any boiler over 15 psi and 10 horsepower</td>
<td>2 hour; or 1 hour and provide automatic fire-extinguishing system</td>
</tr>
<tr>
<td>Rooms with any boiler 15 psi or less and 10 horsepower or less, except in R-3 occupancy</td>
<td>1 hour or provide automatic sprinkler system</td>
</tr>
<tr>
<td>Mechanical and/or electrical equipment room, except in R-3 occupancy</td>
<td>1 hour or provide automatic sprinkler system</td>
</tr>
<tr>
<td>Refrigerant machinery rooms</td>
<td>1 hour or provide automatic sprinkler system</td>
</tr>
<tr>
<td>Parking garage (Section 406.2)</td>
<td>2 hours; or 1 hour and provide automatic fire-extinguishing system</td>
</tr>
<tr>
<td>Hydrogen cut-off rooms</td>
<td>2-hour fire barriers and floor/ceiling assemblies in all occupancy groups</td>
</tr>
<tr>
<td>Incinerator rooms</td>
<td>2 hours and automatic sprinkler system</td>
</tr>
<tr>
<td>Paint shops, not classified as Group H, located in occupancies other than Group F</td>
<td>2 hours; or 1 hour and provide automatic fire-extinguishing system</td>
</tr>
<tr>
<td>Laboratories and vocational shops, not classified as Group H, located in Group E or I-2 occupancies</td>
<td>2 hour; or 1 hour and provide automatic fire-extinguishing system</td>
</tr>
<tr>
<td>Laundry rooms over 100 square feet, except within dwelling units</td>
<td>1 hour or provide automatic fire-extinguishing system</td>
</tr>
<tr>
<td>Storage rooms over 100 square feet, except in R-3 occupancy</td>
<td>1 hour or provide automatic fire-extinguishing system</td>
</tr>
<tr>
<td>Group I-3 cells equipped with padded surfaces</td>
<td>1 hour</td>
</tr>
<tr>
<td>Group I-2 waste and linen collection rooms</td>
<td>1 hour</td>
</tr>
<tr>
<td>Waste and linen collection rooms over 100 square feet</td>
<td>1 hour or provide automatic fire-extinguishing system</td>
</tr>
<tr>
<td>Stationary lead-acid battery systems having a liquid capacity of more than 100 gallons used for facility emergency power or uninterrupted power supplies</td>
<td>2-hour fire barriers and floor/ceiling assemblies in all occupancy groups</td>
</tr>
<tr>
<td>Rooms utilizing the electrical installation standards for “information technology rooms” as per Section 645.1 of the New York City Electrical Code</td>
<td>As may be required by the New York City Electrical Code</td>
</tr>
</tbody>
</table>

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

a. Where an automatic fire-extinguishing system is provided, it need only be provided in the incidental use room or area.
b. Multiple dwellings shall also comply with Section 65 of the New York State Multiple Dwelling Law.

508.2.2.2 Allowable area and height. The actual floor area of an incidental use area shall be treated as being in the same occupancy group as its main occupancy for the purposes of calculating allowable height and area in accordance with Section 503.1.

508.2.2.3 Separation and protection. Incidental use areas shall be separated or protected, or both, from all other occupancies in accordance with Table 508.2.
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 subdeck 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 Section 508.3.1, 508.3.2, 508.3.3 or a combination of these sections.

Exceptions:
1. Occupancies separated in accordance with Section 508.3.2.2 and 508.3.2.3. The allowable height and area 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 302.1. All 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.

2. Rooms or spaces within a Group H-2, H-3, H-4 or H-5 occupancy shall be considered a separated occupancy and shall comply with Section 508.3.3.

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

Exceptions:
1. The following accessory occupancies are permitted to occupy more than 10 percent of the floor area of the story in which they are located:
   1.1. Accessory assembly areas having a floor area less than 750 square feet (69.7 m²).
   1.2. Assembly areas that are accessory to Group E occupancies.
   1.3. Accessory religious educational rooms and religious auditoriums with occupant loads of less than 100.
2. Rooms or spaces within Group H-2, H-3, H-4 or H-5 occupancy shall not be considered accessory occupancies and shall be treated as separated occupancies in accordance with Section 508.3.3.

508.3.1.1 Occupancy classification. Each accessory occupancy shall be individually classified in accordance with Section 302.1. All code requirements shall apply to each accessory occupancy based upon its individual occupancy classification, except that the most restrictive applicable provisions of Section 403 and Chapter 9 shall apply to the entire building or portion thereof.

Exception: Code requirements for allowable height and area and for separation shall be governed by Sections 508.3.1.2 and 508.3.1.3.

508.3.1.2 Allowable height and area. The allowable height and area of the building shall be based on the allowable height and area for the main occupancy in accordance with Section 503.1. The height and area 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.

508.3.1.3 Separation. No separation is required between an accessory occupancy and its main occupancy.

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

Exception: Rooms or spaces within a Group H-2, H-3, H-4 or H-5 occupancy shall be considered a separated occupancy and shall comply with Section 508.3.3.

508.3.2.1 Occupancy classification. Nonseparated occupancies shall be individually classified in accordance with Section 302.1. All 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.

Exception: Code requirements for allowable height and area and for separation shall be governed by Sections 508.3.2.2 and 508.3.2.3.

508.3.2.2 Allowable height and area. The allowable height and area 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.

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.
### Table 508.3.3
#### Required Separation of Occupancies (Hours)\(^a\)

| USE | A-1 | A-2 | A-3 | A-4 | A-5 | B | E | F-1 | F-2 | H-1 | H-2 | H-3 | H-4 | H-5 | I-1 | I-2 | I-3 | I-4 | M | R-1 | R-2 | R-3 | S-1 | S-2 | U |
|-----|-----|-----|-----|-----|-----|---|---|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|-----|-----|-----|-----|-----|-----|-----|
| A-1 | 2   | 2   | 2   | 2   | 3   | 3  | 2 | NP  | NP  | 4   | 3   | 2   | 4   | 4   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 3   | 2   | 1 |
| A-2\(^b\) | 2   | 2   | 2   | 2   | 3   | 2  | NP | NP  | NP  | 4   | 3   | 2   | 4   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 3   | 2   | 1 |
| A-3 | 2   | 2   | 2   | 3   | 2   | 2  | NP | NP  | NP  | 4   | 3   | 2   | 4   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 3   | 2   | 1 |
| A-4 | 2   | 2   | 3   | 2   | NP  | NP  | 4   | 3   | 2   | 4   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 3   | 2   | 1 |
| A-5 | 2   | 3   | 2   | NP  | NP  | 4   | 3   | 2   | 3   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 3   | 2   | 1 |
| B | 3   | 2   | NP  | 2   | 1   | 1   | 1 | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 3   | 2   | 1 |
| E | 3   | 2   | NP  | 4   | 3   | 2   | 3   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 3   | 2   | 1 |
| F-1 | 3   | NP  | 2   | 1   | 1   | 1 | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 1 |
| F-2 | 3   | NP  | 2   | 1   | 1   | 1 | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 3   | 2   | 1 |
| H-1 | 3   | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  |
| H-2 | 3   | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  |
| H-3 | 3   | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  |
| H-4 | 3   | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  |
| H-5 | 3   | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  |
| I-1 | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 1 |
| I-2 | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 4   | 1 |
| I-3 | 4   | 4   | 4   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 1 |
| I-4 | 4   | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  | NP  |
| M | 4   | 4   | 4   | 4   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 3   | 1 |
| R-1 | 4   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 1 |
| R-2 | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 1 |
| R-3 | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 1 |
| S-1 | 3   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 1 |
| S-2 | 3   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 2   | 1 |

For SI: 1 square foot = 0.0929 m².
NP = Not Permitted.

\( ^a \) See Section 508.3.4 for reductions permitted.
\( ^b \) Occupancy separation need not be provided for storage areas serving Group B or M if any of the following conditions apply:

1. The storage area is less than 10 percent of the floor area of the story and less than 3000 square feet (278.7 m²).
2. The storage area is provided with an automatic fire-extinguishing system and is less than 3,000 square feet (278.7 m²); or
3. The storage area is less than 1,000 square feet (92.9 m²).

c. Reserved.

d. For private garages and carports, see Section 406.1.4.
e. Commercial kitchens need not be separated from the restaurant seating areas that they serve, provided:

1. The cooking equipment is vented directly to the outdoors; and
2. A draft curtain of noncombustible materials, at least 24 inches (610 mm) down from the ceiling, is provided to separate the cooking facilities from the restaurant seating areas; and
3. Sprinkler heads constructed in accordance with the provisions of this code are provided in the kitchen side of the curtain, within 24 inches (610 mm) of the curtain opening, and any other openings including doors between the kitchen and the seating areas, and spaced not more than 48 inches (1210 mm) on center for each opening that is more than 60 inches (1524 mm) wide.
GENERAL BUILDING HEIGHTS AND AREAS; SEPARATION OF OCCUPANCIES

508.3.3 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.

508.3.4 Separation. Individual occupancies shall be separated from adjacent occupancies in accordance with Table 508.3.3. Where the building is equipped throughout with an automatic sprinkler system, installed in accordance with Section 903.3.1.1, the fire-resistance ratings in Table 508.3.3 are permitted to be reduced by 1 hour, but in no case shall be less than that required for floor construction according to the type of construction, or less than 1 hour, whichever is higher.

Exception: Fire separations of Group H and I-2 occupancies shall not be permitted any reductions in fire-resistance ratings.

508.3.4.1 Construction. Required separations shall be fire barriers constructed in accordance with Section 706 or horizontal assemblies constructed in accordance with Section 711, or both, so as to completely separate adjacent occupancies.

SECTION BC 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.

509.2 Group S-2 enclosed parking garage with Group A, B, M or R above. A basement and/or the first story above grade plane of a building shall 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 and/or the first story above grade plane is of Type 1A construction and is separated from the building above with a horizontal floor assembly having a minimum 3-hour fire-resistance rating.

2. Shaft, stairway, ramp or escalator enclosures through the horizontal floor assembly shall have a minimum of 2-hour fire-resistance rating with opening protectives in accordance with Table 715.3.

Exception: Where the enclosure walls below the horizontal floor assembly have a minimum of 3-hour fire-resistance rating with opening protectives in accordance with Table 715.3, the enclosure walls extending above the horizontal floor assembly shall be permitted to have a 1-hour fire-resistance rating provided:

1. The building above the horizontal floor 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 floor assembly have a minimum 1-hour fire protection rating.

4. The building below the horizontal floor assembly is a Group S-2 enclosed parking garage, used for the parking and storage of private motor vehicles.

Exceptions:

1. Entry lobbies, mechanical rooms, accessory storage and similar uses incidental to the operation of the building shall be permitted.

2. Group A having an assembly room with an occupant load of less than 300, or Group B, M or R; and

5. The maximum building height in feet/meters as measured from the grade plane shall not exceed the limits set forth in Table 503 for the least restrictive type of construction involved.

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 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 the following conditions are met:

1. The allowable area of the structure 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 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 accessory...
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 horizontal 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.

509.5 Reserved.

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 property 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 \( \frac{1}{2} \) 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 separation assemblies between the parking occupancy and the upper occupancy shall correspond to the required fire-resistance rating prescribed in Table 508.3.3 for the occupancies 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. Means of egress from the open parking garage shall comply with Section 406.3.

509.8 Industrial uses in buildings containing Group R. No space classified as Factory Industrial Group F shall be located above the second story of any building of Type III, IV or V construction containing a space classified as Residential Group R-1 or R-2.

509.9 Separation of different tenancies. Spaces or dwelling units occupied by different tenants shall be separated by fire barriers having at least 1-hour fire-resistance ratings.

Exceptions:
1. Nonresidential spaces occupied by different tenants located in buildings that are sprinklered throughout.
2. Tenant spaces in covered mall buildings complying with Section 402.