

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.** The value of  $W$  shall 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 the value of  $W$  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. Where two or more buildings are on the same plot,  $W$  shall be measured from the exterior face of a building to the exterior face of an opposing building, as applicable.

**Exception:** The value 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 plot 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 *building 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 *building 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 Group H-1.
2. The *automatic sprinkler system* increase shall not apply to the *building area* of an occupancy in Group H-2 or H-3. For *buildings* containing such occupancies, the allowable *building area* shall be determined in accordance with Section 508.4.2, with the sprinkler system increase applicable only to the portions of the building not classified as Group H-2 or H-3.
3. *Fire-resistance rating* substitution in accordance with Table 601, Note d.