

INTERIOR ENVIRONMENT (Chapter 12)

<input checked="" type="checkbox"/> Ventilation openings (1203)	<input checked="" type="checkbox"/> Sound transmission (1207)
<input checked="" type="checkbox"/> Temperature control (1204)	<input checked="" type="checkbox"/> Interior space dimensions (1208)
<input type="checkbox"/> Lighting (1205)	<input type="checkbox"/> Access to unoccupied spaces (1209)
<input type="checkbox"/> Yards or courts (1206)	<input type="checkbox"/> Surrounding materials (1210, 2509)

BUILDING ENVELOPE (Chapters 13*, 14, 15)

*See Energy Conservation Code Plan Review Record

EXTERIOR WALLS (Chapter 14)

<input checked="" type="checkbox"/> Performance requirements (1403)	<input checked="" type="checkbox"/> Exterior wall coverings/MCM's (1405, 1407)
<input type="checkbox"/> Materials (1404)	<input type="checkbox"/> Combustible material restrictions (1406)

ROOF ASSEMBLIES AND ROOFTOP STRUCTURES (Chapter 15)

<input checked="" type="checkbox"/> Weather protection (1503)	<input checked="" type="checkbox"/> Materials (1506)
<input checked="" type="checkbox"/> Flashing (1503.2, 1507.2.9, 1507.3.9, 1507.5.6, 1507.7.6, 1507.8.7, 1507.9.8)	<input checked="" type="checkbox"/> Roof coverings (1507)
<input checked="" type="checkbox"/> Performance requirements (1504)	<input checked="" type="checkbox"/> Roof insulation (1508)
<input checked="" type="checkbox"/> Fire classification (1505)	<input type="checkbox"/> Rooftop structures (1509)
	<input type="checkbox"/> Reroofing (1510)

STRUCTURAL SYSTEMS (Chapters 16, 17, 18)

STRUCTURAL DESIGN (Chapter 16)

STRUCTURAL DESIGN CALCULATIONS

<input type="checkbox"/> Submitted for all structural members (106.1, 106.1.1)	<input type="checkbox"/> Live load reduction (1603.1.1, 1607.9, 1607.10)
	<input type="checkbox"/> Roof live loads (1603.1.2, 1607.11)

DESIGN LOADS ON CONSTRUCTION DOCUMENTS (1603)

Uniformly distributed floor live loads (1603.1.1, 1607)

Floor Area Use	Loads Shown	Roof snow loads (1603.1.3, 1608)
		<input type="checkbox"/> Ground snow load, P_g (1608.2)
		<input type="checkbox"/> If $P_g > 10$ psf, flat-roof snow load, P_f (1608.3)
		<input type="checkbox"/> If $P_g > 10$ psf, snow exposure factor, C_e (Table 1608.3.1)
		<input type="checkbox"/> If $P_g > 10$ psf, snow load importance factor, I_s (Table 1604.5)
		<input type="checkbox"/> Roof thermal factor, C_t (Table 1608.3.2)
		<input type="checkbox"/> Sloped roof snowload, P_s (1608.4)

NOTES: N.R. — Not required
N.A. — Not applicable

ADMINISTRATION (Chapter 1)

<input checked="" type="checkbox"/> Complete construction documents (106.1, 106.2)	<input checked="" type="checkbox"/> Signed/sealed construction documents (106.1, State laws vary)
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BUILDING PLANNING (Chapters 3, 4, 5, 6)

OCCUPANCY CLASSIFICATION (302.0-312.0)

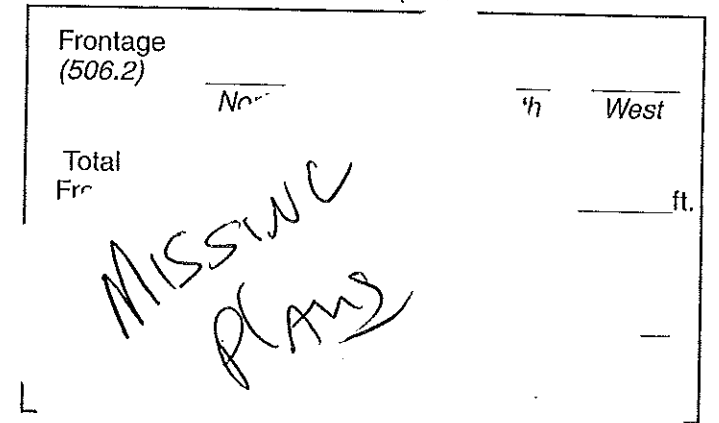
<input checked="" type="checkbox"/> Single Occupancy (302.1)	<input type="checkbox"/> Incidental use areas (302.1.1)
<input checked="" type="checkbox"/> Mixed Occupancy (302.2)	<input type="checkbox"/> Accessory use areas (302.2)

GENERAL BUILDING LIMITATIONS (Chapters 5 & 6)

Apply Case 1 to determine the allowable height and area and permitted types of construction for a building containing a single occupancy or nonseparated mixed occupancies. Apply Case 2 to determine the allowable height and area and permitted types of construction for a building containing separated mixed occupancies.

AREA MODIFICATIONS TO TABLE 503

% of Allowable tabular area, A_t (Table 503)	<u>100%</u>
% Increase for frontage, I_f (506.2)	+ <u>0%</u>
% Increase for automatic sprinklers, I_s (506.3)	+ <u>200%</u>
Total percentage factor	= <u>300%</u>
Conversion factor	<u>3</u> Total percentage factor ÷ 100%



CASE 1 — SINGLE OCCUPANCY OR NC

Using Table 503, identify the allowable height and area of the single mixed occupancies. Construction types that provide an allowable tabular area and allowable heights (as modified by Section 504) equal to or greater than the actual building area and height.

DETERMINE CONSTRUCTION TYPE

Actual building area	<u>42,000</u> ft ²	Allowable area	<u>78,000</u> ft ² <i>Allowe.</i>
Adjusted building area	<u>28,000</u> ft ²	conversion factor	<u>2.8</u>
Actual building height	<u>2</u> feet <u>45</u> stories <i>w/ basement</i>	Total floor area (all stories)	<u>42,000</u> ft ²
Allowable building height	_____ feet _____ stories	Allowable floor area (all stories)	_____ ft ²
Permitted types of construction	<u>2B</u>	Allowable area per floor (A _f) × number of stories (maximum 3)	_____ ft ²
Type of construction assumed for review (602.1.1)	<u>2B</u>	Compliance verified (Single Occ. or Nonsep.)	_____

CASE 2 — MIXED OCCUPANCY SEPARATED USES (302.3.2)

Using Table 503, identify the allowable height and area of each of the separated uses within the building. Construction types that provide, for each story of the building, tabular areas (as modified by Section 506) which result in a sum of the ratios of 1.00 or less and allowable heights (as modified by Section 504) equal to or greater than the actual height of the use are permitted.

Story	Group	Actual floor area	Adjusted floor area*	Actual height	Allowable height
_____	_____	_____ ft ²	_____ ft ²	_____ ft _____ stories	_____ ft _____ stories
_____	_____	_____ ft ²	_____ ft ²	_____ ft _____ stories	_____ ft _____ stories
_____	_____	_____ ft ²	_____ ft ²	_____ ft _____ stories	_____ ft _____ stories
_____	_____	_____ ft ²	_____ ft ²	_____ ft _____ stories	_____ ft _____ stories
_____	_____	_____ ft ²	_____ ft ²	_____ ft _____ stories	_____ ft _____ stories
_____	_____	_____ ft ²	_____ ft ²	_____ ft _____ stories	_____ ft _____ stories
_____	_____	_____ ft ²	_____ ft ²	_____ ft _____ stories	_____ ft _____ stories

Adjusted floor area *
 $\sum \frac{\text{Actual floor area}}{\text{Allow. tab. area, } A_t \text{ (Table 503)}} = \text{_____} + \text{_____} + \text{_____} + \text{_____} = \text{_____} \leq 1.00$

*Adjusted floor area = actual floor area + conversion factor

CHECK ALLOWABLE AREA (506.4)

Allowable area per floor (A_a)
 $\frac{\text{conversion factor}}{\text{tabular area (Table 503)}} \times \text{_____} = \text{_____ ft}^2$ Permitted types of construction _____

Total floor area (all stories) _____ ft² Type of construction assumed for review (602.1.1) _____

Allowable floor area (all stories)
 $\frac{\text{Allowable area per floor (A}_a\text{)}}{\text{number of stories (maximum 3)}} \times \text{_____} = \text{_____ ft}^2$ Compliance verified (Mixed Occ. Separated) _____

MEZZANINES (505)

_____ Area limitation (505.2)	N/A	_____ Openness (505.4)
_____ Egress (505.3)	N/A	_____ Equipment platforms (505.5)

UNLIMITED AREA BUILDINGS (507)

_____ Unsprinklered, one story (507.1)	N/A	_____ High-hazard use groups (507.6)
_____ Sprinklered, one story (507.2)	N/A	_____ Aircraft paint hangar (507.7)
_____ Two story (507.3)	N/A	_____ Group E buildings (507.8)
_____ Reduced open space (507.4)	N/A	_____ Motion picture theaters (507.9)
_____ Group A-3 buildings (507.5)	N/A	

SPECIAL PROVISIONS (508)

_____ Special condition applicable (508.1)	_____ Compliance verified
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SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY (Chapter 4)

COVERED MALL BUILDINGS (402)	_____ Standpipe system (402.8.1)
_____ Egress (402.4, 402.11)	_____ Smoke control (402.9)
_____ Mall width (402.5)	_____ Kiosk requirements (402.10)
_____ Unlimited area (402.6)	_____ Emergency voice/alarm (402.12, 402.13)
_____ Fire separations (402.7)	_____ Plastic signs (402.14)
_____ Automatic sprinkler system (402.8)	_____ Fire department access (402.15)

MEANS OF EGRESS (continued)

GENERAL MEANS OF EGRESS

_____ ✓ Design requirements (1003.2 - 1003.7)	_____ Door landings/Thresholds/Arrangement (1008.1.4 - 1008.1.7)
_____ ✓ Means of egress illumination (1006)	_____ Door hardware (1008.1.8, 1008.1.9)
_____ ✓ Exit signs (1011)	_____ ✓ Stairways (1009)
_____ ✓ Accessible means of egress (1007)	_____ ✓ Handrails (1009.11)
_____ Means of egress doors (1008.1-1008.1.2)	_____ ✓ Roof access (1009.12)
_____ Special doors/Gates/Turnstiles (1008.1.3, 1008.2, 1008.3)	_____ ✓ Ramps (1010)
	_____ ✓ Guards (1012)

EXIT ACCESS

_____ ✓ Door number and arrangement (1013.2, 1014.1, 1014.2)	_____ Egress balconies (1013.5, 1015.3)
_____ ✓ Exit access travel distance (1013.3, 1015.1)	_____ Corridors (1016)
_____ ✓ Aisles (1013.4)	_____ Air movement in corridors (1016.4)

EXITS / EXIT DISCHARGE

_____ ✓ Exits/Exit doors (1017, 1018)	_____ Horizontal exits (1021)
_____ ✓ Interior exit stairways (1019)	_____ Exterior exit ramps/stairways (1022)
_____ Exit passageways (1020)	_____ Exit discharge (1023)

OTHER MEANS OF EGRESS

_____ Miscellaneous egress requirements (1014.3 - 1014.6)	_____ Assembly aisles & features (1024.6 - 1024.15)
_____ Bleachers (1024.1.1)	_____ Emergency escape and rescue (1025)
_____ Assembly exits & egress (1024.2 - 1024.5)	

ACCESSIBILITY* (Chapter 11)

_____ Scoping requirements (1103)	_____ Dwelling units and sleeping units (1107)
_____ ✓ Accessible route (1104)	_____ ✓ Special occupancies (1108)
_____ ✓ Accessible entrances (1105)	_____ ✓ Features and facilities (1109)
_____ ✓ Parking and passenger loading (1106)	_____ ✓ Signage (1110)

*Also see Accessibility Plan Review Record

EXTERIOR WALLS (continued)

- Opening protection (704.8, 704.12, 704.14)
- Vertical fire spread protection (704.9, 704.10)
- Parapets (704.11)

FIRE BARRIERS (706)

- 2 Shaft enclosures (706.3.1)
- 2 Exit enclosures (706.3.2, 706.3.3)
- Horizontal exits (706.3.4)
- Incidental use areas (706.3.5)
- 2 Mixed occupancy and fire area separations (706.3.6, 706.3.7)

SHAFTS (707)

- Exceptions (707.2)
- 2 Construction (707.3 - 707.14)

INTERIOR FINISHES (Chapter 8)

- Smoke development (803.1)
- Flame spread (803.1)
- Non-textile finish (803.2)
- Floor finish (804)
- Decorations and trim (805)

FIRE PROTECTION (Chapter 9)

AUTOMATIC SPRINKLER SYSTEMS (903)
(Where required)

- Assembly (A-1, A-2, A-3, A-4, A-5) (903.2.1)
- Educational (E) (903.2.2)
- Factory/Industrial (F-1) (903.2.3)
- High-hazard (H-1, H-2, H-3, H-4, H-5) (903.2.4)
- Institutional (I-1, I-2, I-3, I-4) (407.5, 903.2.5)
- Mercantile (M) (903.2.6)
- Residential (R) (903.2.7)
- Storage/Repair garage (S-1) (903.2.8)
- Parking garages (903.2.9)
- Windowless story (903.2.10.1)
- Rubbish and linen chutes (903.2.10.2)
- Buildings over 55 ft. high (903.2.10.3)
- Incidental use areas (302.1.1)

OTHER FIRE RESISTANT CONSTRUCTION

- Fire walls (705)
- Fire partitions (708)
- Smoke barriers (709)
- Smoke partitions (710)
- Penetrations (712)
- Fire resistant joint systems (713)
- Opening protectives (715)
- Dampers (716)
- Concealed spaces (717)
- Thermal and sound-insulating materials (719)

Additional required systems
(Table 903.2.13)

International Fire Code (IFC 903.2.13)

AUTOMATIC SPRINKLER SYSTEMS* (903)
(Design)

- Shop drawings (106.1.1.1)
- NFPA 13 system (903.3.1.1)
- NFPA 13R system (903.3.1.2)
- NFPA 13D system (903.3.1.3)
- Quick-response and residential heads (903.3.2)
- Actuation (903.3.4)
- Water supply (903.3.5)
- Hose connections (903.3.6, 903.3.7)
- Sprinkler monitoring and alarms (903.4, 907.13)

* Also see Fire Code Sprinkler Plan Review Record

ALTERNATIVE AUTOMATIC FIRE-EXTINGUISHING SYSTEMS (904)

- Installation (904.3)
- Wet-chemical systems (904.5)
- Dry-chemical systems (904.6)
- Foam systems (904.7)
- Carbon dioxide systems (904.8)
- Halon systems (904.9)
- Clean-agent systems (904.10)
- Commercial cooking systems (904.2.1, 904.11)

STANDPIPE SYSTEMS (905)

- Installation standards (905.2)
- Building height (905.3.1)
- Group A (905.3.2)
- Covered malls (905.3.3)
- Stages (905.3.4)
- Underground buildings (905.3.5)
- Helistops/heliports (905.3.6)
- Hose connections and locations (905.1, 905.4, 905.5, 905.6)
- Cabinets (905.7)
- Dry standpipes (905.8)
- Valve supervision (905.9)

PORTABLE FIRE EXTINGUISHERS (906)

- Required locations - IFC (906.1)

FIRE ALARM AND DETECTION SYSTEMS (907)
(Where required)

- Construction documents (907.1.1)
- Assembly (A-1, A-2, A-3, A-4, A-5) (907.2.1)
- Business (B) (907.2.2)
- Educational (E) (907.2.3)
- Factory (F-1, F-2) (907.2.4)
- High-hazard (H-1, H-2, H-3, H-4, H-5) (907.2.5)
- Institutional (I-1, I-2, I-3, I-4) (907.2.6)
- Mercantile (M) (907.2.7)
- Residential (R-1, R-2) (907.2.8, 907.2.9)

Single/multiple station smoke alarms (907.2.10)

- High rise buildings (907.2.12)
- Atriums (907.2.13)
- Other buildings/areas (907.2.11, 907.2.14 - 907.2.23)

FIRE ALARM AND DETECTION SYSTEMS (907)
(Design)

- Residential smoke alarm power source (907.2.10.2)
- Residential smoke alarm interconnection (907.2.10.3)
- Location/Power supply/Wiring (907.3 - 907.5)
- Activation/Presignal/Zones (907.6 - 907.8)
- Alarm notification appliances (907.9)
- Detectors (907.10 - 907.12)
- Monitoring (907.14)

EMERGENCY ALARM SYSTEMS (908)

- Detection system applicable (908.1 - 908.6)

SMOKE CONTROL SYSTEMS (909)

- Where required (402.9, 404.4, 405.5, 408.8, 410.3.7.2, 1019.1.8, 1024.6.2.1)
- Design requirements (909.1 - 909.4)
- Smoke barriers (909.5)
- Pressurization method (909.6)
- Airflow method (909.7)
- Exhaust method (909.8)
- Equipment/Power (909.10, 909.11)
- Detection and control (909.12 - 909.18)
- Smokeproof enclosures (909.20)
- Underground buildings (909.21)

SMOKE AND HEAT VENTS (910)

- Requirements (910.1 - 910.3)
- Mechanical alternative (910.4)

FIRE COMMAND CENTER (911)

- Features (911.1)