Index Summary

New Chicago Building Code

By Edward E. Reddersen
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INDEX SUMMARY of the New
CHICAGO BUILDING CODE
WITH COMPLETE CROSS REFERENCES

Compiled by
EDWARD E. REDDERSSEN

Architect
ILLINOIS • MINNESOTA • WISCONSIN

Structural Engineer
ILLINOIS

Plan Examiner
DEPARTMENT OF BUILDINGS, CITY OF CHICAGO
SINCE 1914
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Edward E. Reddersen
FOREWORD

No member of the Department of Buildings of the City of Chicago, and no member of any other department of the City of Chicago has had any hand, directly or indirectly, in the compilation of this Index Summary. No part of this Index, therefore, can be considered in any sense as any official wording or interpretation of the Building Code. Such wording or interpretation as contained in the Index is solely the responsibility of the author. His experience as Plan Examiner, Department of Buildings, City of Chicago, since 1914, has fitted him to know the needs of architects, engineers, and builders, and it is believed, to satisfy those needs with the first adequate index of any Chicago Building Code.

Since it is inevitable that errors and ambiguities should creep into this tremendously detailed work, the author will appreciate any notice of such errors or discrepancies. It should be noticed, however, that many apparent errors are due to conflicts in the code itself and not to the Index.

This Index Summary does not include:—
The Electrical Code
The Fire Prevention Code
Chapter 83 Water Supply and Distribution Systems
Chapter 84 Steam Boilers and Unfired Pressure Vessels
Chapter 85 Mechanical Refrigeration
The Zoning Ordinance
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OCCUPANCY CHAPTERS INDEX SUMMARIES:

These include complete detailed indexes of the individual chapters mentioned below. Each is a specialized index for a particular class or group of related occupancies and should be used for design purposes. Such chapters can be used as a "check list" to insure that all Code requirements of a specialized character are complied with.

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<td>1 1 2 1</td>
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<td>10 1</td>
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    Sash and frame, wood or metal
    Top of sash, 6 in. above top of required opening
    40% of glass to open
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    Top of sash, 6 in. higher than top of wall openings
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- Felt, asbestos or rag with pitch or tar
- Metal: Ferrous, 1/40th in. thick
- Non-ferrous, 1/64th in. thick
- Non-combustible composition tile
- Insulation permitted under covering
- Wood shingles
- Permitted on existing 3 story frame buildings
- Prohibited on buildings: Increased in area
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Definitions of various Types:
- Flat: Slope 15° or less
- Medium: Slope 15°+ to 60°
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Dormers:
- Masonry construction required when:
  - Length is over 50% of parallel wall below
  - To be same construction as roof
- Exits, flat roofs: Buildings 3 stories or less:
  - Stair required in schools
  - Metal ladder, or stair required on all other buildings
- Exits, flat roofs: Buildings over 3 stories:
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- Opening: Min. 24 in. X 24 in.
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Connections
Continuous.
Lateral support
Non-continuous

\[ \frac{l}{b} \] relations

Trussed steel.

Bending stresses, allowable.

Bolts: Construction specifications

Buildings over 50 ft. high:
Connections shall be riveted, welded, or bolted with turned bolts in reamed holes.

Buildings over 100 ft. high:
Cast iron prohibited.
Cast steel prohibited.
Wrought iron prohibited.

Buildings: Height over 1½ times least width:
Connections shall be riveted, welded or bolted, using turned bolts in reamed holes.

Buildings: Height over twice least width:
Cast iron prohibited.
Cast steel prohibited.
Wrought iron prohibited.

Connections:
Buildings over 50 ft. high:
Rivets, welds, or turned bolts to be used.

Buildings, height over 1½ times least width:
Rivets, welds, or turned bolts to be used.

Buildings under 50 ft.: Unfinished bolts allowed.

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Impact and stress reversal:
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Enclosing uninhabited space
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Stresses in concrete, allowed
Stresses in masonry, allowed
Thickness: As per table
Except: Basement concrete walls extending to first story: Thickness
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Single dwellings, 8 in. allowed in 2 story buildings
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Multiple dwellings
Single dwellings
Wood frame buildings
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Fastened to stud
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Bearing:—(Cont.)
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Frame construction

Bending stresses, see Table

Bolted connections: See Table

Bridging: Required between joists when \( h \) is greater than 3 \( t \)

\[
\frac{h}{t} \text{ max. } 8\frac{1}{2} \]

Spacing: 8 ft. max.

\[
6 \text{ ft. max. when } \frac{h}{t} \text{ is over } 7\frac{3}{4} \]

\( h = \) height, actual

\( t = \) thickness, actual

Chimneys: Bearing on, prohibited

Columns: Bases 2 in. above finished concrete floor

\[
\frac{1}{d} \text{: } 10 \text{ to } 24, \text{ allowed unit stresses} \]

\[
\frac{1}{d} \text{: } 24 \text{ to } 50, \text{ allowed safe load} \]

\[
\frac{1}{d} \text{: max. } 50. \]

Formula, \( \frac{1}{d} \) over 24

Compression across grain

Compressive unit stresses, columns

Density: 6 annual rings per inch

\( \frac{1}{2} \) summer wood

End requirements: 6 in. masonry between opposite joists, etc.

Joists fire-out

Fire stops, frame buildings

Flag poles:
- Design

\[
\text{Diameter of base, min., } \frac{1}{50}\text{th of length} \]

\[
\text{Diameter of top, min., } \frac{5}{12}\text{th of base} \]

\( \frac{1}{2} \) summer wood

Quality, straight grained, free of knots

Wind load: \( 1\frac{1}{2} \) lbs. per sq. ft. of flag area

50 lbs. per sq. ft. of vertical projection

Flexural unit stresses

Formulas, columns, \( \frac{1}{d} \) from 24 to 50

Framing. Min. 2 in. from chimney

Min., 7 in. from inside of flue

Grade certificate required:
- Bending stress, 1,400 lb. per sq. in. or over
- Compressive stress, 1,000 lb. per sq. in. or over

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6 in. masonry between joists on dividing walls

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CHAPTER 47

SINGLE DWELLINGS

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<td>Frontage consents, 3/4 frontage in block</td>
<td>43-17</td>
</tr>
<tr>
<td>One location to another</td>
<td>43-17</td>
</tr>
<tr>
<td>Permit fees</td>
<td>43-17</td>
</tr>
<tr>
<td><strong>Multiple occupancy:</strong></td>
<td></td>
</tr>
<tr>
<td>Doors: Communicating</td>
<td>63-7</td>
</tr>
<tr>
<td>Fire Escape</td>
<td>69-16</td>
</tr>
<tr>
<td>Permitted</td>
<td>48-49</td>
</tr>
<tr>
<td>Separations: Fire:</td>
<td></td>
</tr>
<tr>
<td>Business unit, 2 hr. construction required</td>
<td>63-3b</td>
</tr>
<tr>
<td>Church, 2 hr. construction required</td>
<td>63-3b</td>
</tr>
<tr>
<td>Garage, Class I, 4 hr. construction required</td>
<td>63-3b</td>
</tr>
<tr>
<td>Class II, 3 hr. construction required</td>
<td>63-3g</td>
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<tr>
<td>Fireproof only, dwelling floor 24 ft. up</td>
<td>52-18</td>
</tr>
<tr>
<td>General</td>
<td>48-50</td>
</tr>
<tr>
<td>Institutional building, 2 hr. construction</td>
<td>63-3b</td>
</tr>
<tr>
<td>Open air assembly unit, 4 hr. construction</td>
<td>63-3b</td>
</tr>
<tr>
<td>Public assembly unit, 2 hr. construction</td>
<td>63-3b</td>
</tr>
<tr>
<td>School, 4 hr. construction required</td>
<td>63-3b</td>
</tr>
<tr>
<td>Single dwelling, 2 hr. construction required</td>
<td>63-3b</td>
</tr>
<tr>
<td>Theatre, 4 hr. construction required</td>
<td>63-3b</td>
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</tbody>
</table>
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THE UNION OF SOUTH AFRICA, 5th MAY, 1936.

VOLUME IV—LANGUAGES.

ERRATA.

Subsequent to the publication of Volume IV—Languages—of
the report on the Census of 1936, certain errors resulting from
confusion between “Official Language” and “Home Language”
in the figures relating to the Asiatic Population were discovered.
The particulars in the subjoined tables should therefore be substi-
tuted for the figures appearing in Tables 16, 17, and 19.

Table 16.—Official Languages Spoken—

<table>
<thead>
<tr>
<th>Children</th>
<th>Asiatics</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>86</td>
<td>.95</td>
</tr>
<tr>
<td>472</td>
<td>5.36</td>
</tr>
<tr>
<td>6,484</td>
<td>73.15</td>
</tr>
<tr>
<td>1,694</td>
<td>19.25</td>
</tr>
<tr>
<td>Total—Under 7 Years</td>
<td>8,801</td>
</tr>
</tbody>
</table>

VERSLAG OOR DIE SESDE SENSUS VAN DIE BEVOLKING
 VAN DIE UNIE VAN SUID-AFRIKA, 5 MEI 1936.

BOEKDEEL IV—TALE.

ERRATA.

Na die publikasie van Boekdeel IV—Tale—van die verslag oor
die Sensus van 1936 is seker foute as gevolg van verwarring tussen
“Offisiële Taal” en „Huistaal” in die syfers ten opsigte van die
Asiatiske Bevolkings ondek. Die besonderhede in newens-
gaande tabelle moet derhalwe die syfers vervang wat in Tabelle
16, 17, en 19 voorkom.

Tabel 16.—Offisiële Tyle Wat Gepraat Word—

<table>
<thead>
<tr>
<th>Children</th>
<th>Asiatis</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>86</td>
<td>.95</td>
</tr>
<tr>
<td>472</td>
<td>5.36</td>
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<tr>
<td>6,484</td>
<td>73.15</td>
</tr>
<tr>
<td>1,694</td>
<td>19.25</td>
</tr>
<tr>
<td>Total—Under 7 Years</td>
<td>8,801</td>
</tr>
</tbody>
</table>
**ERRATA.**

Subsequent to the publication of Volume IV—Languages—of the report on the Census of 1936, certain errors resulting from confusion between "Official Language" and "Home Language" in the figures relating to the Asiatic Population were discovered. The particulars in the subjoined tables should therefore be substituted for the figures appearing in Tables 16, 17, and 19.

### Table 16.—Official Languages Spoken—Asiatics.

<table>
<thead>
<tr>
<th>Province and District</th>
<th>Official Languages Spoken</th>
<th>Official Language Grouped.</th>
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<td>M.</td>
</tr>
<tr>
<td><strong>Natal.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Isandi</td>
<td>Both—Bëtë</td>
<td>152</td>
</tr>
<tr>
<td></td>
<td>English—Engles</td>
<td>2,575</td>
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<tr>
<td></td>
<td>Afrikaans</td>
<td>12,967</td>
</tr>
<tr>
<td></td>
<td>Neither—Geen van Bëtë</td>
<td>5,451</td>
</tr>
<tr>
<td></td>
<td>Unspecified—Ungespesifiek</td>
<td></td>
</tr>
</tbody>
</table>

**ERRATA.**

Na die publikasie van Boekdeel IV—Taal—van die verslag oor die Senso van 1936 is seker foutte as gevolg van verwarring tussen "Offisiële Taal" en "Huisstaal" in die syfers ten opsigte van die Asiatiske Bevolking ontkom. Die besonderhede in newengangende tabelle moet derhalwe die syfers vervang wat in Tabel 16, 17, en 19 voorkom.

### Table 17.—Official Languages Spoken—Asiatics.

<table>
<thead>
<tr>
<th>Rural—Plateland</th>
<th>Total—Total</th>
<th>Rural—Plateland</th>
<th>Total—Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males, Maandikse</td>
<td>Females, Vroulike</td>
<td>Persons, Persone</td>
</tr>
<tr>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
</tbody>
</table>

**Union—Unie.**

<table>
<thead>
<tr>
<th>Children Under School Age</th>
<th>Kinders Onder Skoolgaande Leefyd</th>
</tr>
</thead>
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<tr>
<td>Both</td>
<td>Beide</td>
</tr>
<tr>
<td>English</td>
<td>Engels</td>
</tr>
<tr>
<td>Afrikaans</td>
<td>Afrikaans</td>
</tr>
<tr>
<td>Neither</td>
<td>Geen van Beide</td>
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<tr>
<td>Unspecified</td>
<td>Ongespesifiek</td>
</tr>
</tbody>
</table>

**K Natal.**

<table>
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<tr>
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<th>Kinders Onder Skoolgaande Leefyd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both</td>
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</tr>
<tr>
<td>English</td>
<td>Engels</td>
</tr>
<tr>
<td>Afrikaans</td>
<td>Afrikaans</td>
</tr>
<tr>
<td>Neither</td>
<td>Geen van Beide</td>
</tr>
<tr>
<td>Unspecified</td>
<td>Ongespesifiek</td>
</tr>
</tbody>
</table>

**Union—Unie.**

<table>
<thead>
<tr>
<th>Children Under School Age</th>
<th>Kinders Onder Skoolgaande Leefyd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both</td>
<td>Beide</td>
</tr>
<tr>
<td>English</td>
<td>Engels</td>
</tr>
<tr>
<td>Afrikaans</td>
<td>Afrikaans</td>
</tr>
<tr>
<td>Neither</td>
<td>Geen van Beide</td>
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<tr>
<td>Unspecified</td>
<td>Ongespesifiek</td>
</tr>
</tbody>
</table>

**K Natal.**

<table>
<thead>
<tr>
<th>Children Under School Age</th>
<th>Kinders Onder Skoolgaande Leefyd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both</td>
<td>Beide</td>
</tr>
<tr>
<td>English</td>
<td>Engels</td>
</tr>
<tr>
<td>Afrikaans</td>
<td>Afrikaans</td>
</tr>
<tr>
<td>Neither</td>
<td>Geen van Beide</td>
</tr>
<tr>
<td>Unspecified</td>
<td>Ongespesifiek</td>
</tr>
</tbody>
</table>
### Table 19—Home Languages Spoken—Asiatics

<table>
<thead>
<tr>
<th>Sex</th>
<th>Tamil</th>
<th>Hindi</th>
<th>Telega</th>
<th>Gujarati</th>
<th>Urdu</th>
<th>Other Indian</th>
<th>Chinese</th>
<th>Japanese</th>
<th>European Languages</th>
<th>Other</th>
<th>Uns.</th>
<th>Under 21</th>
<th>21-</th>
<th>Total</th>
<th>Gees.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Urban</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>37,190</td>
<td>18,838</td>
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<td>12,882</td>
<td>6,879</td>
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<td>1,701</td>
<td>130</td>
<td>2,239</td>
<td>107</td>
<td>276</td>
<td>13,144</td>
<td>34,348</td>
<td>79,692</td>
<td>M. Stedelijk.</td>
</tr>
<tr>
<td>F</td>
<td>24,981</td>
<td>16,371</td>
<td>7,760</td>
<td>12,777</td>
<td>5,892</td>
<td>1,012</td>
<td>961</td>
<td>49</td>
<td>1,449</td>
<td>65</td>
<td>297</td>
<td>11,001</td>
<td>34,866</td>
<td>65,962</td>
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</tr>
<tr>
<td>P</td>
<td>51,065</td>
<td>35,209</td>
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<td>574</td>
<td>24,145</td>
<td>71,214</td>
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<tr>
<td><strong>Rural</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td><strong>Total</strong></td>
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<td>53,492</td>
<td>100,540</td>
<td>190,982</td>
<td>V.</td>
</tr>
</tbody>
</table>

### Table 19—Huistale Wat Gepraat Word—Asiate

<table>
<thead>
<tr>
<th>Sex</th>
<th>Tamil</th>
<th>Hindi</th>
<th>Telega</th>
<th>Gujarati</th>
<th>Urdu</th>
<th>Other Indian</th>
<th>Chinese</th>
<th>Japanese</th>
<th>European Languages</th>
<th>Other</th>
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<th>Total</th>
<th>Gees.</th>
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<tbody>
<tr>
<td><strong>Urban</strong></td>
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<tr>
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<td>2</td>
<td>—</td>
<td>55</td>
<td>3</td>
<td>2</td>
<td>79</td>
<td>124</td>
<td>203</td>
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|      | 4,183 | 66 | 66 | 66 | 66 | 11,666 | 5,561 | 5,105 | 5,561 | 5,561 | 5,561 | 5,561 | 5,561 | 5,561 | 5,561 | 5,561 |
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CHAPTER 49

INSTITUTIONAL BUILDINGS

Includes the following: Generally with medical care:—

- Childrens' home
- Day nursery
- Home for the blind
- Hospital
- Infirmary
- Insane asylum

Get Commissioner of Buildings ruling, when no medical or surgical care is involved.

Amphitheatre, teaching: See Teaching Amphitheatre

Anaesthetizing rooms and equipment:—

- Cylinders containing gases
- Doors
- Electric connections and grounding
- Warning signs

Anchors, joist, required every 7 ft. of wall

Annual inspection

Area limits:—

- 1 story, not sprinkler equipped
- Over 1 story, not sprinkler equipped
- Sprinklered, 100% area increase

Assembly rooms:—

- Defined
- Exits, 30 in. per 100 capacity
- General, conform to building
- Separations

Bond, Masonry:—

- 2 headers per sq. ft.
- Every sixth course a header course
- Faced walls, anchors required

Capacity:—

- Assembly room
- General
- Ceiling height:
  - Nurses' home in institutional building
  - Sleeping room, 9 ft. 6 in. min

Construction:—

- Fireproof required, more than 7 stories or 80 ft.
- Semi-fireproof required:
  - More than 1 story and basement, up to 7 stories or 80 ft. high
- Ordinary or Heavy Timber required, 1 story or less
  - 3 hr. construction over basement
- Porches, 1 story wood permitted

Separations from:

- Assembly room, 2 hr. construction
- Business unit, 4 hr. construction
- Church, 2 hr. construction
- Multiple dwelling, 2 hr. construction
- Open air assembly unit, 4 hr. construction
- Public assembly unit, 4 hr. construction
- Single dwelling, 2 hr. construction

See Multiple Occupancy

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CHAPTER 50

BUSINESS UNITS
## INDEX SUMMARY

### CHAPTER 50
**BUSINESS UNITS**

**Includes:**
- Financial units
- Manufacturing units
  - Sales units:
    - Specialty stores
    - General stores
    - Storage units

**Anchors, joist:** Every 7 ft. of wall

**Annual inspection:**

**Areas:**
- Basement
- Fire division, see Fire division areas
- Maximum
- Assembly room, comply with Chap. 55
- Auto sales room; No gas in cars, is business unit
- Frontage consents

**Bakeries:**
- Commercial prohibited over 5 ft. below grade
- Rat proof intersections
- Window sills, min. 3 ft. above grade

**Basement:**
- Ceilings
- Partitions
- Salesrooms
- Stairways
- Sub-basements
- Units

**Bearing prohibited on wood stud partition
Bond, masonry:**
- 2 headers per sq. ft.
- Every sixth course a header course

**Bridges:**

**Capacity factor:**
- Manufacturing unit, 100
- Storage unit, 100

**Ceiling height:**
- General, min. 8 ft. in clear
- Mezzanines: 1000 sq. ft. or less, no requirement
- Over 1000 sq. ft., 8 ft. in clear, over or under
- Projections: 12 in. max., permitted below
- Storage unit, no requirement

**Chute fire escapes:**

**Construction:**
- Area limits
- Basement
- Ceilings, 1 hr. construction
- Partitions, 1 hr. construction
- Sales: Sprinklers or plastered ceiling required

**Fireproof construction:**
- When over 80 ft. high
- Exception
- Omitting fireproofing

**Semi-Fireproof construction; Not over 80 ft. high
Heavy Timber: 50 ft. to 100 ft. high
Except: Sales units 80 ft. high
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2 min.: Except Class II, dwelling garage.

Lead direct to outside.

Construction: Non-combustible, except handrails.

Cut, min. 9 in.

Inclosure as for vertical shafts.

One to lead direct to outside exit door at grade.

Opening in fire-division wall counts as 1 exit.

Passage to street, 3 ft. min.

Rise, max. 8 1/2 in.

Vehicle ramp counts as 1 pedestrian exit.

Width, 3 ft. min.

Exits to other occupancies:

Pedestrian communication by vestibule only:

Counts as 1 exit.

First story only.

4 hr. construction, 5 ft. long, required.

Open doors without key from garage side.

Other horiz. connection prohibited.

Vehicle openings: Permitted in 1st story only to related fireproof occupancies.

Filling stations: No drive in, are business units.

See Frontage Consents.

Fire division areas:

Defined.

Maximum.

Method of measurement.

Sprinklers increase max. area 25%.

Staggered floor levels.

Fire extinguishers.

First story garage defined, 1 ft. or less below grade.

Floor load cards required, showing lb. per sq. ft. of floor.

Flooring: 400 sq. ft. may rest on reinforced slab.

Frontage, basement garage: On 2 open spaces.

Frontage consents.

Heating:

Electric heating.

Gas heating: Unit heaters:

Class I garage offices.

Class II garages.

Open flames prohibited.

Openings, communicating: Prohibited.

Permitted systems:

Hot water, vapor, or steam.

Prohibited systems: Open flame.

Separations: Standard fire walls.

Vestibule communication only.

Lighting:

Electric lamps only.

General.

See Lighting, Exit: General Index

See Signs: General Index

Live loads:

1st. and 2nd. floors, 100 lb. per sq. ft.

Above 2nd. floor, 50 lb. per sq. ft.

Concentrated load 3,000 lb., auto storage space.

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Doors:— (Cont.)

Level landings, 4 ft. wide
2 ft. longer than width

Locking devices prohibited:

Employees doors
Public doors
Except: Principal entrance door
Panic hardware
Open from inside without key
Panic hardware permitted

Exit other than entrance required

Group of rooms, over 300 sq. ft.

See Fire Exchanges, below

Includes outside doorway at grade
Landing, exit court: In egress direction
Lead in egress direction
Level landing: 4 ft. wide min.
2 ft. longer than width

Location, general:

$37\frac{1}{2}\%$ at least from each half of each seating level
Lead directly to grade

Location, main door: Capacity 600 or less in auditorium:

Distance from proscenium, $\frac{1}{2}$ seat distance

Location, main door: Capacity over 600 in auditorium:

50 to 66$\frac{1}{2}$% of width to be distant from proscenium not over $\frac{1}{2}$ seat distance

Locking devices prohibited
Exempt: Panic hardware
Principal entrance doors

Mezzanines: 1 vertical required from each side
Lead directly to grade
5 ascending steps allowed
Except: Not required, special case
Increased size, exit door

Proscenium boxes: 1 vertical required
Exempt: With 2 normal exits
Ramps: Conform as stairs
Slope, max. 1 in 6
Required from all auditoriums
Serve only 1 side of auditorium
Stairways: 2 hr. construction inclosure
45 min. door required
Door same width as stair
Outside stair below 8 ft. level is obstruction
Same width as door served
Steps ascending outside prohibited
Steps permitted inside on main floor
Except: 30% of doors not to have steps
Steps up to 5 allowed in egress direction, inside, above main floor

Vertical: Includes:

Fire escape stair
Interior stair leading to exit at grade
Outside stair from outside exit at grade

Ramp, inside, leading to exit at grade
Ramp, outside, leading to exit at grade

Width: 20 in. per 100 persons
3 ft. min. in clear
Cumulative increase to exist
$37\frac{1}{2}\%$ at least from each half of any seating level

See also Exit Courts
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Required
Show all seats
Show clear width of exits

Principal entrance:
Defined
Slope, max. 1 in 12
Steps prohibited

Projection block:
Alterations to comply in existing theatres
Doors in stage block: Non-combustible
Equipment: Projectors
Shelves, furniture, etc.
Film storage: In metal containers
One day's supply only
Finish and fixtures: Non-combustible, or covered with non-combustible material
Handrails on stairs may be wood
Remodeling to comply in existing theatres
Separations: 2 hr. construction required
Type A windows required
Shelving, etc. to be non-combustible
Storage of combustibles prohibited
Except: 1 day's run of films
Toilets required, when more than 1 projector is installed
See also Projection Room

Projection room:
Area, 50 sq. ft. for each device
Ceiling height, 8 ft. min.
Defined as room containing projector
Equipment permitted
Not required with acetate cellulose film
Not required with non-flammable film
Not required with slow-burning film
Not required with still pictures
One day's film storage allowed
Openings to have automatic shutters
Sliding shutter construction
Storage of films prohibited
Except: 1 day's supply
Toilets: see under Toilet Rooms
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Promenade, Roof: Prohibited for theatre patrons
Property room: Door in stage block
2 hr. construction separations
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Annual inspection fee
Air space, 5 in. min.
Approval of installations
Asbestos curtains prohibited when:
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Proscenium opening is over 28 ft. wide
Cables and rigging
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<td>54-32</td>
</tr>
<tr>
<td>54-31</td>
<td>70-1</td>
</tr>
<tr>
<td>Live load, 100 lb. per sq. ft.</td>
<td>70-1</td>
</tr>
<tr>
<td>Seating, see Seats</td>
<td>70-1</td>
</tr>
<tr>
<td>Guards, protective:</td>
<td>54-21</td>
</tr>
<tr>
<td>Amusement park devices</td>
<td>79-183 to 79-187</td>
</tr>
<tr>
<td>Elevators</td>
<td>54-21</td>
</tr>
<tr>
<td>Guards, ⅜ in. sq. mesh under openings</td>
<td>54-20</td>
</tr>
<tr>
<td>Railings, levels 2 ft. up, and over public</td>
<td>54-19</td>
</tr>
<tr>
<td>Heating plant separations: 2 hr. construction required</td>
<td>61-84</td>
</tr>
<tr>
<td>Illumination, see Lighting</td>
<td>66-3</td>
</tr>
<tr>
<td>Lighting, Exit:</td>
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<tr>
<td>Additional</td>
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<td>Normal</td>
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<tr>
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<tr>
<td>See Lighting, Exit: General Index, for details</td>
<td>66-9</td>
</tr>
<tr>
<td>Live Loads:</td>
<td>70-1</td>
</tr>
<tr>
<td>All purposes, general, 100 lb. per sq. ft.</td>
<td>70-1</td>
</tr>
<tr>
<td>Bleachers, 100 lb. per sq. ft.</td>
<td>70-1</td>
</tr>
<tr>
<td>Corridors, 100 lb. per sq. ft.</td>
<td>70-1</td>
</tr>
<tr>
<td>Grandstands, 100 lb. per sq. ft.</td>
<td>70-1</td>
</tr>
<tr>
<td>Roofs, 25 lb. per sq. ft.</td>
<td>70-5</td>
</tr>
<tr>
<td>Stairways, 100 lb. per sq. ft.</td>
<td>70-1</td>
</tr>
<tr>
<td>Location:</td>
<td>54-8</td>
</tr>
<tr>
<td>Bleachers: 60 ft. to clubhouse, garage, paddock, or stable</td>
<td>54-8</td>
</tr>
<tr>
<td>Clubhouse: 60 ft. from bleachers or grandstand</td>
<td>54-8</td>
</tr>
<tr>
<td>Garage: 60 ft. from bleachers or grandstand</td>
<td>54-8</td>
</tr>
<tr>
<td>Grandstand: 60 ft. to clubhouse, garage, paddock, or stable</td>
<td>54-8</td>
</tr>
<tr>
<td>Paddock: 60 ft. from bleachers or grandstand</td>
<td>54-8</td>
</tr>
<tr>
<td>Permanent wood unit: 60 ft. to any line or building</td>
<td>54-7</td>
</tr>
<tr>
<td>Stable: 60 ft. from bleachers or grandstand</td>
<td>54-7</td>
</tr>
<tr>
<td>Temporary wood unit: 30 ft. to any building</td>
<td>54-14</td>
</tr>
<tr>
<td>Tower to be apart from all other structures</td>
<td>54-14</td>
</tr>
</tbody>
</table>

### Moving picture booth, see Projection Booth

Multiple Occupancies:

| Business units, 4 hr. separation                 | 63-3i         |
| Church, 2 hr. separation                        | 63-3i         |
| Doors, communicating                            | 63-7          |
| Over 1,000 sq. ft. prohibited                   | 54-31         |
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| Institutional building, 4 hr. separation        | 63-3i         |
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| Parking space                                   | 54-8          |
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| Platforms, isolated: Combustible:               | 54-23         |
| 6 ft. above grade                               | 54-23         |
| 10,000 sq. ft. max.                            | 54-23         |
Platforms, isolated: Combustible:—(Cont.)
  Capacity factor is 6
  Curtain, combustible

Projection booths:
  1 hr. construction inclosure required
  Exit from booth in tower: Enclosed ladder permitted
  Fixed
  Portable permitted
  Theatre provisions govern generally
  Ventilation

Proscenium curtain, see Fire Curtain

Protective devices, see Amusement Park Devices

Protective floor guards:
  Openings over \( \frac{1}{2} \) sq. in. to have mesh guard underneath

Protective railings:
  Adjoining water or any 3 ft. vertical offset:
    Railing 3 ft. high: Max. opening in 1 direction, 10\( \frac{1}{2} \) in.
  Locations 2 ft. up and also over public space:
    Balcony: Solid 4 in. curb; solid 3 ft. 6 in. rail.
    Floor-level: Solid 4 in. curb; solid 3 ft. 6 in. rail.
    Ramp: Solid 4 in. curb; solid 3 ft. 6 in. rail.
    Stair: Solid 4 in. curb; solid 3 ft. 6 in. rail.
    Upper deck: Solid 4 in. curb; solid 3 ft. 6 in. rail.

Public assembly unit as multiple occupancy

Railings, protective:
  Levels 2 ft. up, and over public

Ramps:
  Considered same as stairs
  General
  Horizontal exits, slope 1\( \frac{1}{4} \) in. per ft.
  Rise: 8 in. max.
  Risers: 3 min., except in aisles
  Roller coaster, see Amusement Park Devices

Scenery on stage

Scenic railway: See Amusement Park Devices

Seats:
  Capacity: Fixed seats plus 5 sq. ft. per seat for other public space
  Fixed securely: Except in boxes and on field
  Grandstands: Ordinary or Wood construction:
    20 seats in row between aisles
    10 seats in row between aisles and rail or wall
  Grandstands: Heavy Timber or better construction:
    30 seats in row between aisles
    15 seats in row between aisles and rail or wall
  Grandstand: General: Rise, max. 2 ft.
  Portable:
    20 permitted in box: 5 sq. ft. per person

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  Capacity factor is 6
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   Ventilator: Ceiling is under 50% of floor area .......... 54-27

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   14 day occupancy limit ......................................... 54-6
   Wood frame construction 30 ft. min., to other buildings .. 54-7
Toilet rooms:—
   20 ft. distance between doors, “Male” and “Female” .... 54-30
   400 ft. max. spectator distance .............................. 54-30
   Drinking fountains prohibited ................................ 54-68
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   Exit through room required when area is over 1,000 sq. ft 54-33
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CHAPTER 55

PUBLIC ASSEMBLY UNIT
## INDEX SUMMARY
### CHAPTER 55
**PUBLIC ASSEMBLY UNIT**

Includes:
- Aquariums
- Armories
- Art Galleries
- Athletic Clubs
- Athletic Rooms
- Auditoriums
- Banquet Rooms
- Bath Houses
- Billiard Rooms
- Board of Trade
- Bowling Alleys
- Broadcasting Studios
- Cabarets
- Cafes
- Cafeterias
- Circuses
- Community Houses
- Concert Halls
- Convention Halls
- Council Chambers
- Court Rooms
- Dance Halls
- Dining Rooms
- Eating Places
- Exhibitions
- Expositions
- Field Houses
- Funerals Homes
- Galleries
- Game Room
- Grills
- Gymnasiums
- Lecture Rooms
- Legislative Halls
- Libraries
- Lodges
- Lunch Rooms
- Museums
- Music Halls
- Natatoriums
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- Planetariums
- Pool Rooms
- Reading Rooms
- Restaurants
- Riding Academies
- Rinks
- Roof Gardens
- Smoking Rooms
- Taverns
- Trading Rooms

### Aisles: General

<table>
<thead>
<tr>
<th>Description</th>
<th>Code 1</th>
<th>Code 2</th>
<th>Code 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity factor 6, assembly space</td>
<td>55-38</td>
<td>55-43</td>
<td>55-44</td>
</tr>
<tr>
<td>Capacity factor 10, drilling space</td>
<td>55-60</td>
<td>55-61</td>
<td>55-64</td>
</tr>
</tbody>
</table>

### Annexes, see Construction

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual inspection</td>
<td>46-2</td>
</tr>
</tbody>
</table>

### Armory:

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity factor 6, assembly space</td>
<td>62-3</td>
</tr>
<tr>
<td>Capacity factor 10, drilling space</td>
<td>62-3</td>
</tr>
<tr>
<td>Defined</td>
<td>55-3</td>
</tr>
</tbody>
</table>

### Assembly Rooms:

<table>
<thead>
<tr>
<th>Description</th>
<th>Code 1</th>
<th>Code 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annexes: 1 story, or 1 story and basement:—</td>
<td>55-13</td>
<td>61-51</td>
</tr>
<tr>
<td>Unprotected steel permitted</td>
<td>See also under Construction</td>
<td></td>
</tr>
<tr>
<td>Balconies:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exits: See Assembly Room, Exits</td>
<td>55-18</td>
<td></td>
</tr>
<tr>
<td>Prohibited: Except in Fireproof construction</td>
<td>55-18</td>
<td></td>
</tr>
<tr>
<td>Except in Semi-F.P. construction</td>
<td>55-15</td>
<td></td>
</tr>
<tr>
<td>8 ft. ceiling height, over or under</td>
<td>55-12</td>
<td></td>
</tr>
<tr>
<td>Basement and floor over: 3 hr. construction</td>
<td>55-4</td>
<td></td>
</tr>
<tr>
<td>Ceiling heights:</td>
<td>62-2</td>
<td></td>
</tr>
<tr>
<td>12 ft. min., general</td>
<td>62-3</td>
<td></td>
</tr>
<tr>
<td>8 ft. min., over or under balconies</td>
<td>55-15</td>
<td></td>
</tr>
<tr>
<td>Projections permitted to 12 in. below</td>
<td>55-15</td>
<td></td>
</tr>
<tr>
<td>Definition: Assembled not for business or dwelling</td>
<td>40-1</td>
<td></td>
</tr>
</tbody>
</table>

### Exits, emergency, special requirements:

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>251 to 600 capacity, 1 min. required</td>
<td>55-59</td>
</tr>
<tr>
<td>Over 600 capacity, 2 min. required</td>
<td>55-59</td>
</tr>
<tr>
<td>Line of travel, seat to exit, max. 150 ft.</td>
<td>55-60</td>
</tr>
<tr>
<td>May be corridors, doors, ramps, stairs, vomitories</td>
<td>55-46</td>
</tr>
<tr>
<td>Platform, distance from: ½ distance, 1st to last seat</td>
<td>55-60</td>
</tr>
<tr>
<td>Public rooms, exit through without returning</td>
<td>55-27</td>
</tr>
<tr>
<td>Exceptions: Boxes 20 seats or less</td>
<td>55-27</td>
</tr>
<tr>
<td>Rooms under 1,000 sq. ft.</td>
<td>55-27</td>
</tr>
<tr>
<td>Required in all floors or levels over 250 capacity</td>
<td>55-54</td>
</tr>
<tr>
<td>Stage, distance from: ½ distance, 1st to last seat</td>
<td>55-60</td>
</tr>
<tr>
<td>Transverse aisle to lead to exit doors of same width</td>
<td>55-60</td>
</tr>
<tr>
<td>Width:</td>
<td>55-55</td>
</tr>
<tr>
<td>9 in. per 100 capacity, 1st floor</td>
<td>55-55</td>
</tr>
<tr>
<td>Cumulative increase to exit</td>
<td>55-55</td>
</tr>
</tbody>
</table>
Assembly Rooms:— (Cont.)

Exits, normal: Special requirements:—

Aisles:—

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width: 22 in. per 100 persons</td>
<td>55-38</td>
</tr>
<tr>
<td>3 ft. in clear, min.</td>
<td>55-38</td>
</tr>
</tbody>
</table>

See also Seats

Balconies:—

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>May be corridors, doors, stairs, ramps, or vomitories</td>
<td>55-46</td>
</tr>
</tbody>
</table>

Number required:—

<table>
<thead>
<tr>
<th>Capacity (500 or less)</th>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 required</td>
<td>55-37</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capacity (501 to 1,000)</th>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 required</td>
<td>55-37</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Capacity (Over 1,000)</th>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 extra required</td>
<td>55-37</td>
<td></td>
</tr>
<tr>
<td>for each 1,000 or fraction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Line of travel: 150 ft. from seat to door</th>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>55-37</td>
<td></td>
</tr>
<tr>
<td>100 ft. 1 turn only allowed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Width: 18 in. per 100 persons</th>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative to exits</td>
<td>55-36</td>
<td></td>
</tr>
</tbody>
</table>

Floor levels, fireproof construction:—

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>No limit above grade</td>
<td>55-16</td>
</tr>
<tr>
<td>14 ft. max. below grade</td>
<td>55-16</td>
</tr>
</tbody>
</table>

Floor levels, non-fireproof construction:—

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 ft. max. above grade, except balconies</td>
<td>55-17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 ft. max. below grade</td>
<td>55-17</td>
</tr>
</tbody>
</table>

Live load, 100 lb. per sq. ft.                   | Requirement | Code |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>70-1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Projection booth, same as in theatres            | Requirement | Code |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>55-20</td>
<td></td>
</tr>
</tbody>
</table>

Seats, see Seats

Separations:—

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>From assembly rooms: 2 hr. const.</td>
<td>63-6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>55-25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>From other occupancies, 2 hr. const.</td>
<td>63-6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>From other parts: Ordinary construction, metal lath and plaster</td>
<td>55-14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>From other parts: Heavy timber construction, 1 hr. construction</td>
<td>55-14</td>
</tr>
</tbody>
</table>

See also Construction, Separations

Stage, Type II. is considered a theatre           | Requirement | Code |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>55-32</td>
<td></td>
</tr>
</tbody>
</table>

Athletic club                                     | Requirement | Code |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>55-3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletic rooms</td>
<td>55-3</td>
</tr>
</tbody>
</table>

Balconies: Spectators:—

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletic rooms under 50 persons may have balcony</td>
<td>55-18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceiling height: 8 ft. min. over or under</td>
<td>55-15</td>
</tr>
</tbody>
</table>

Exits: See Exits, below

Fireproof Construction buildings:—

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assembly rooms may have balconies</td>
<td>55-18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gymnasiums may have balconies</td>
<td>55-18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floor level not restricted</td>
<td>55-17</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Game room 50 or less persons may have balcony</td>
<td>55-18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gymnasium 50 or less persons may have balcony</td>
<td>55-18</td>
</tr>
</tbody>
</table>

Heavy timber constructed buildings:—

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balconies prohibited</td>
<td>55-18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Except: 50 or less capacity in</td>
<td>55-18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athletic rooms</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Game rooms</td>
<td>55-18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gymnasiums</td>
<td>55-18</td>
</tr>
</tbody>
</table>

Ordinary constructed buildings

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Same as in Heavy Timber construction</td>
<td>55-18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over another, prohibited in Semi-fireproof</td>
<td>55-18</td>
</tr>
</tbody>
</table>

construction:—

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assembly rooms may have balcony</td>
<td>55-18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balcony prohibited over another</td>
<td>55-18</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gymnasiums may have balcony</td>
<td>55-18</td>
</tr>
</tbody>
</table>

Ballrooms, defined as Dance Hall

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basements and floor over: 3 hr. const. for</td>
<td>55-3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Assembly halls in 1 story buildings</td>
<td>55-12</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Other buildings over 1 story</td>
<td>55-12</td>
</tr>
</tbody>
</table>

Bath houses                                      | Requirement | Code |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>55-3</td>
<td></td>
</tr>
</tbody>
</table>

Billiard Rooms:—

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity factor 25, total area</td>
<td>62-3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defined</td>
<td>55-3</td>
</tr>
</tbody>
</table>

55
Bowling Rooms:
- Capacity factor 25, including alleys and pits ........................................ 62-3
- Defined ............................................................................................................. 55-3

Boxes, or railed-in inclosures:
- Seats: 20 permitted on level floor ................................................................. 55-85

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- General ............................................................................................................ 55-4 62-2 62-3
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- Assembly rooms with seating:
  - 12 ft. min. ...................................................................................................... 55-15
  - 8 ft. need not be exceeded over or under balcony ...................................... 55-15
  - 8 ft. min. over or under balcony .................................................................. 55-15
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  - 8 ft. min. over or under .............................................................................. 55-15
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- General, 10 ft. min. ....................................................................................... 55-15
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  - Level floor to lowest point of ceiling ......................................................... 55-15
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- Annexes, 1 story or 1 story and basement:
  - Unprotected roof steel and columns, if:—
    - 1. 1,500 capacity or less ........................................................................... 55-13 61-51
    - 2. Principal steel, 20 ft. up ...................................................................... 55-13 61-51
    - 3. 21 in. wood roof sheathing .................................................................. 55-13 61-51
    - 4. 3 hr. separation, and 60 min. doors ...................................................... 55-13 61-51
    - 5. Assembly rooms, gymnasiums, natatoriums, etc............................... 55-13 61-51
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Except in:—
- 1. Church
- 2. Institutional building
Construction:—(Cont.)
Capacity: 11 to 100, meet school requirements:—(Cont.)
Except in:—(Cont.)
3. Open air assembly unit
4. School
5. Theatre
which shall conform to occupancy types

Fireproof construction required:
1. Over 4 stories high, or
2. Over 50 ft. high, or
3. Over 1,800 capacity
Except, omit fireproofing roof steel when:
1. Roof steel is 20 ft. up, and there is
2. 1 hr. const. for roof slabs, etc.

Semi-Fireproof Construction required:
1. Over 2 stories high, and
2. Not over 50 ft. high, or
3. 801 to 1,800 capacity

Heavy Timber or Ordinary Construction required:
1. Not over 2 stories high
2. Not over 800 capacity

Ordinary Construction required:
10 persons or less
Also see Heavy Timber and Ordinary Construction

Separations:
Annexes: 1 story and basement: 3 hr. const.
Assembly halls:
Ordinary constructed buildings:
Ceiling under: Wood studs, metal lath and plaster
Floors: Metal lath and plaster under
Wood studs with metal lath and plaster
See also Basements, above
Assembly rooms:
3 hr. const. over basement in 1 story building
2 hr. const. from other assembly rooms
2 hr. const. from other occupancies
Heavy Timber constructed buildings:
1 hr. construction for partitions
Boiler rooms
General
Heater rooms
Incinerators
Refuse burners
Cooling and refrigeration
Courts: Light and ventilation

Dance hall:
Capacity factor 10
Defined
Definition of Public Assembly Unit
Definitions of terms used
Doors, See Exits, Horizontal
Drinking Fountains:
Assembly rooms, 1 required
Line of travel, max. 150 ft.
Prohibited in toilet rooms

Eating place:
Capacity factor 10
Defined
Electric work: Separate from other occupancies
Emergency Exits, see Exits, and
Exhibition place defined
Exit lighting: See Lighting, Exit, General Index
Exits: Defined generally:
Emergency, includes doors, horizontal and vertical exits
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Emergency:—

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Doors:—

Conform to wall construction ............................................................ 55-77
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May project into 7 ft. clear passage, swing 180° ................................ 55-45
Open in direction of travel ............................................................... 55-45
Open out ......................................................................................... 55-45

Outside exit:—
  1 at least required leading to alley or street, or 10 ft. space leading to
  alley or street ............................................................................... 55-71
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  If over 2:9 Perimeter separation, 15% of perimeter ....................... 55-72
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  May be wood ............................................................................... 55-78
  Shall not encroach on streets, etc. ............................................... 55-78
  Width: 3 ft. min. ........................................................................ 55-35
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  11 in. per 100 persons, other levels ............................................... 55-55

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Level landing: 4 ft. from slope to 1 ft. outside jambs ............................ 55-73
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Normal: — (Cont.)

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Capacity factors: General. ....................................................................................................................... 62–2

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Emergency:—(Cont.)

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Rise, 7½ in. max. ................................................................. 55-50
Risers, at least 3 required, if any, except in aisles ....................... 55-51

55
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<table>
<thead>
<tr>
<th>Room Type</th>
<th>Requirement</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rooms with seating, same as Assembly Rooms</td>
<td></td>
<td>55-36</td>
</tr>
<tr>
<td>Normal:</td>
<td>(Cont.)</td>
<td></td>
</tr>
<tr>
<td>Rooms with seating, same as Assembly Rooms</td>
<td></td>
<td>55-42</td>
</tr>
<tr>
<td>Steps:</td>
<td>Extend full width of aisle, passage, etc.</td>
<td>55-42</td>
</tr>
<tr>
<td>If any, 3 are required, except in aisles</td>
<td></td>
<td>55-51</td>
</tr>
<tr>
<td>4 ft. landing separation from vomitory ramp</td>
<td></td>
<td>55-51</td>
</tr>
<tr>
<td>Stairs, non-required, same as stairs generally</td>
<td></td>
<td>55-52</td>
</tr>
<tr>
<td>Start at highest level requiring exits</td>
<td></td>
<td>55-52</td>
</tr>
</tbody>
</table>

Vomitories:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counts as vertical exit with ramp or stair</td>
<td>55-46</td>
</tr>
<tr>
<td>Meet stair codes</td>
<td>55-47</td>
</tr>
<tr>
<td>Steps: If any, 3 required</td>
<td>55-52</td>
</tr>
<tr>
<td>4 ft. landing from vomitory ramp</td>
<td>55-52</td>
</tr>
</tbody>
</table>

Width:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 in. per 100 on 1st floor</td>
<td>55-33</td>
</tr>
<tr>
<td>22 in. per 100 on other levels</td>
<td>55-33</td>
</tr>
<tr>
<td>Cumulative increase toward exits:</td>
<td></td>
</tr>
<tr>
<td>Greatest floor capacity plus all assembly rooms</td>
<td>55-36</td>
</tr>
<tr>
<td>3 ft. min.: Balconies 250 or less capacity</td>
<td>55-35</td>
</tr>
<tr>
<td>3 ft. min.: Doors to vertical exits</td>
<td>55-35</td>
</tr>
<tr>
<td>4 ft. min.: General: Corridors, ramps, stairs</td>
<td>55-35</td>
</tr>
</tbody>
</table>

Fire Curtain:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Draw curtain permitted, no combustible scenery</td>
<td>55-86</td>
</tr>
<tr>
<td>With combustible scenery, same as theatres</td>
<td>55-86</td>
</tr>
</tbody>
</table>

Fireproofing Omitted:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annexes, 1 story, or 1 story and basement if:</td>
<td>61-51</td>
</tr>
<tr>
<td>1. Capacity is 1,500 or less</td>
<td>61-51</td>
</tr>
<tr>
<td>2. Structural roof members are 20 ft. up</td>
<td>61-51</td>
</tr>
<tr>
<td>3. 3 hr. separation, 60 min. door</td>
<td>61-51</td>
</tr>
<tr>
<td>4. Used for gym, assembly, or natatorium</td>
<td>55-13</td>
</tr>
<tr>
<td>5. Wood roof sheathing, 2½ in. min. thickness</td>
<td>61-51</td>
</tr>
<tr>
<td>Fireproof construction: Structural roof members 20 ft. up</td>
<td>55-7</td>
</tr>
</tbody>
</table>

Fire Protection:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>55-90</td>
</tr>
<tr>
<td>Sprinklers</td>
<td>55-91</td>
</tr>
<tr>
<td>Standpipes</td>
<td>55-92</td>
</tr>
</tbody>
</table>

Fire separations, see Multiple Occupancy

Floor levels, fireproof construction:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assembly room: No limit above grade</td>
<td>55-16</td>
</tr>
<tr>
<td>Max. 14 ft. below grade</td>
<td>55-16</td>
</tr>
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<table>
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<table>
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<td></td>
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2 required on stairs 3 ft. 6 in. to 7 ft. 0 in.
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Ends returned and joined to wall.
Extend to front edge of 3rd tread.
Height, 2 ft. 6 in. to 3 ft., front edge of tread.
Intermediate required, stair over 7 ft. wide.
Wood permitted.

Hardware, locks, panic bars for doors.

Handrails:
—
1 required on stairs 3 ft. 6 in. or less.
2 required on stairs 3 ft. 6 in. to 7 ft. 0 in.
End newel posts 5 ft., intermediate rails.
Ends returned and joined to wall.
Extend to front edge of 3rd tread.
Height, 2 ft. 6 in. to 3 ft., front edge of tread.
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Defined
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General
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Assembly rooms:
20 fixed seats in row between aisles
10 fixed seats in row between aisle and wall
14 portable seats in row between aisles
7 portable seats in row between aisle and wall
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Assembly rooms:
14 seats, fixed or portable, in row between aisles
7 seats, fixed or portable, in row between aisle and wall
Portable chairs, 20 max., on level floor in boxes
Portable seats, fastened in groups of five or more:
Allowed on level balcony
Allowed on level bank of seats
Allowed on level floor
Rise of bank not to exceed 21 inches
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Spacing:—(Cont.)

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CHURCHES
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CHAPTER 56

CHURCHES

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Dead end corridor: 60 ft. max. from door to stair

All other cases: 90 ft. max. from door to stair

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- Sports rooms: 3 ft. candles
- Student rooms: not for study: 2 ft. candles
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- Toilet rooms: 1 ft. candles

Illumination on plane of work:—

- Art rooms, 8 ft. candles
- Draughting rooms, 8 ft. candles
- Fine detail rooms, 8 ft. candles
- Sewing rooms, 8 ft. candles

Instruction room, same as Class Room

Lecture room: Capacity factor:—

- 1,500 sq. ft. or less, factor 10

Live Loads:—

- Assembly rooms with fixed seats: 75 lbs. per sq. ft.
- Assembly rooms, no fixed seats: 100 lb. per sq. ft.
- Class rooms: 50 lb. per sq. ft.
- Corridors: 100 lb. per sq. ft.
- Gymnasiums: 100 lb. per sq. ft.
- Stairways: 100 lb. per sq. ft.

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- Business unit, 2 hr. separation
- Church, 2 hr. separation
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- With Class I school, prohibited
- Wiring, independent for each use

Partitions, office type 7 ft. 6 in. high:—

- Glazed from 3 ft. up to full height
- Inclosure area not over 250 sq. ft.
- Ventilation equal to class room requirements
- Plan approval required by Fire Prevention Department
- Playroom: Used only for play or recreation
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OTHER BUILDINGS AND STRUCTURES
INDEX SUMMARY

CHAPTER 58

OTHER BUILDINGS AND STRUCTURES

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<tr>
<td>Reinforced concrete slabs</td>
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<td></td>
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<tr>
<td>Reinforced concrete slabs</td>
<td></td>
</tr>
<tr>
<td>Metal plate floors</td>
<td></td>
</tr>
</tbody>
</table>

#### Fireproofing:—

- Structural metal | 1 hr or ceiling of metal lath and plaster |
- Trussed steel joists | |
- See Occupancy Chapters 47-58 |
- Metal plate floors |

#### Roof Construction
Sec. 67-29 to 67-31

<table>
<thead>
<tr>
<th>Roofs</th>
<th>Const. (hr)</th>
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<tbody>
<tr>
<td>Structural metal framing</td>
<td>1</td>
</tr>
<tr>
<td>Reinforced concrete framing</td>
<td></td>
</tr>
<tr>
<td>Trussed steel joists, rafters, or purlins</td>
<td></td>
</tr>
<tr>
<td>Masonry slabs</td>
<td></td>
</tr>
<tr>
<td>Reinforced concrete slabs</td>
<td></td>
</tr>
<tr>
<td>Metal plates</td>
<td></td>
</tr>
</tbody>
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#### Fireproofing:—

- Structural members | 1 hr |
  1. By 1 hr. resistive covering |
  2. By 1 hr. ceiling attached or suspended |
- Exceptions:—
  - Open air assembly unit | 54-9 |
  - Churches | 56-5 |

#### Exterior Enclosing Walls
Sec. 67-32 to 67-34

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<tr>
<td>Bay Windows and Similar Projections:—</td>
<td>Same as in F.P. Const.</td>
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<td>Cornices and Supports:—</td>
<td>Same as in F.P. Const.</td>
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<td>FIREPROOF CONSTRUCTION (Cont.)</td>
<td>SEMI-FIREPROOF CONSTRUCTION (Cont.)</td>
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<td>------------------------------------</td>
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<td><strong>Grounds and Furring</strong> Sec. 67-19</td>
<td><strong>Grounds and Furring</strong> Sec. 67-36</td>
</tr>
<tr>
<td>Grounds and furring, Wood:— Shall project not more than 3 in. Fire stops 1/2&quot; wood every 6 ft. each way.</td>
<td>Grounds and furring; Wood:— Same as in F.P. Const.</td>
</tr>
<tr>
<td>All other grounds and furring to be incombustible.</td>
<td></td>
</tr>
<tr>
<td><strong>Partitions</strong> Sec. 67-18</td>
<td><strong>Partitions</strong> Sec. 67-35</td>
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<tr>
<td>Incombustible:— Except in Business Units where subdividing partitions may be wood, or wood and glass, when they are included in areas of 600 sq. ft. or less already enclosed in incombustible partitions. Sec. 61-67 61-68</td>
<td>Same as in F.P. Const.</td>
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<tr>
<td>Studs, used only as door bucks Sec. 67-5</td>
<td>Studs used only as door bucks............ 67-22</td>
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<td><strong>Combustible Materials</strong> Sec. 67-20</td>
<td><strong>Combustible Materials</strong> Sec. 67-37</td>
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<tr>
<td>May be used for:— Ceiling paneling Doors, frames, and bucks Exterior show windows for backing, frames, aprons, and platforms Floor surfaces Grounds as permitted above Handrails Interior architectural trim Sleepers Wall paneling</td>
<td>Same as in F.P. Const.</td>
</tr>
</tbody>
</table>

### HEAVY TIMBER CONSTRUCTION

#### Structural Frame Sec. 67-39 67-40

| Exterior Walls:— Metal framing Reinforced concrete framing Or any combination Other Structural Members:— Metal Reinforced concrete Masonry Timber Or any combination | **Ordinary Construction**
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<td><strong>Columns, Exterior</strong>.............. 4 hour</td>
<td><strong>Structural Frame</strong> Sec. 67-50</td>
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<td><strong>Columns, Interior</strong>............. 2 hour</td>
<td>Exterior Walls:— Same as in Heavy Timber Const.</td>
</tr>
<tr>
<td><strong>Columns, Timber, Min. dimension 9(\frac{1}{2}) in.</strong></td>
<td>Other Structural Members:— Same as in Heavy Timber Const. except that no fireproofing is required, unless specified under general occupancy sections, and there is no limitation on the size of wood members, except as determined by strength. Columns, Exterior; No requirements Columns, Interior No requirements Columns, Timber: No requirements Members Supporting Walls Multiple Dwellings............. 48-32 48-35</td>
</tr>
</tbody>
</table>
| **Members Supporting Walls**........ 3 hour | **Timber**:
| Except columns | Beams | No size limitations for either Girders floor or roof Trusses | Strength requirements only |
| **Timber, not supporting roof:** | Beam | Min. dimension 5\(\frac{1}{2}\) in. Girders | Min. area 52 sq. in. |
| **Timber, supporting roof only:** | Beams Girders | Min. dimension 3\(\frac{1}{2}\) in. Trusses |
| **Interior Members**............. 2 hour | **Interior Members** Beams | Strength requirements only Trusses |
| **Beams:** Other than timber........ 2 hour | **Fireproofing not required:** | **Except:** Multiple dwellings............. 48-32 48-35 |
| **Girders:** Other than timber........ 2 hour | **Lintels:** Wood permitted behind arches only |
| **Trusses:** Other than timber........ 2 hour |
| **Fireproofing not required:** | 1. Where clear height above floor is 20 ft. or more 2. Lintels, loose, supporting 1 story only 3. Metal connections for timber members |
### HEAVY TIMBER CONSTRUCTION (Cont.)

#### FLOOR CONSTRUCTION
Sec. 67-41

Floor Members:
- Except flooring, are included under structural frame
- Flooring, min. 3 ½ in., fastened together
- May be 2 layers, lower one 2 ½ in.
- Ceiling, direct against underside of floor, max. air space ½ in.

#### ROOF CONSTRUCTION
Sec. 67-42

Roof Members:
- Except sheathing, are included under structural frame
- Sheathing, min. 1½ in. not sprinklered
- Sheathing, min. 1½ in., sprinklered

#### EXTERIOR INCLOSING WALLS
Sec. 67-43 to 67-45

Walls, Same as in F.P. Const.

Bay Windows and Similar Projections:
- Same as in F.P. Const.
- Cornices:
  - Same as in F.P. Const.

#### GROUNDS AND FURRING
Sec. 67-46

Same as in F.P. Const.

#### PARTITIONS
Sec. 67-47

Incombustible:
- Except in Business Units where subdividing partitions may be wood, or wood and glass, when they are included in areas of 400 sq. ft. or less already inclosed in incombustible partitions. Sec. 61-69

#### COMBUSTIBLE MATERIALS
Sec. 67-48

May be Used:
- Same as in F.P. Const.
- Except:
  - Sleepers, Wood, prohibited
  - Combustible lath, prohibited
  - Wood stud partitions, prohibited

### ORDINARY CONSTRUCTION (Cont.)

#### FLOOR CONSTRUCTION
Sec. 67-41

Floor Members:
- Wood
- Trussed steel joists
- Flooring, no restrictions

Ceilings, Basement:
- Metal lath and plaster required in buildings over 2 stories
- See Occupancy Chapters 47 to 58

#### ROOF CONSTRUCTION
Sec. 67-41

Roof Members:
- Wood
- Trussed steel joists
- Sheathing, no restrictions

#### EXTERIOR INCLOSING WALLS
Sec. 67-43 to 67-45

Walls
- Masonry
- Reinforced concrete
- Bay Windows and Similar Projections:
  - Same as in F.P. Const.
- Cornices:
  - Projecting over street or alley, shall be completely incombustible

#### GROUNDS AND FURRING
Sec. 67-46

No restrictions

#### PARTITIONS
Sec. 67-47

Wood Stud Permitted:
- Lathed with:
  - Wood
  - Metal lath
  - Gypsum Fiber
  - Lath, metal; and ½ in. plaster
  - Lath, all other; and ½ in. plaster
  - Except, wood stud bearing partitions may be used only in single dwellings

#### COMBUSTIBLE MATERIALS
Sec. 67-48

May be Used:
- Except: Wood stud bearing partitions may be used only in single dwellings
- Except: As specified in partitions above

### WOOD CONSTRUCTION

**Outside Fire Limits:**
- Business Units: 73-47
- Multiple Dwellings: 58-61
- Single Dwellings: 47-4
- Sheds: 58-61
- Sheds, Shelter: 58-59
- Sheds, adjacent to Railway, etc.: 58-60
- Garages: 52-10
- Porches: 61-57
- Open Air Assembly Unit: 54-13
- Inside Fire Limits:
  - Single dwelling: 47-4
  - Sheds: 58-59
  - Sheds, Shelter: 58-60
  - Sheds, adjacent to railways: 58-62
  - Porches: 49-9
  - Stresses, Working: 72-4
  - Timber quality: 72-1

**Veneer**
- 67-94
- Masonry foundation required
- Anchors, 2 required per sq. ft.
- 2 stories high, max.
- 30 ft. height, max.
- Definition: 73-1
- Fire Stops:
  - ½ in. wood, min.
- 1½ in. lath and ½ in. plaster...

**Ceilings**
- 67-66
- Metal lath and ½ in. plaster...
<table>
<thead>
<tr>
<th></th>
<th>1 Hour</th>
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<th>3 Hour</th>
<th>4 Hour</th>
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<td>2&quot;</td>
<td>Concrete Units—Solid</td>
<td>2&quot;</td>
<td>Concrete Units—Solid</td>
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<tr>
<td><strong>No Fill</strong></td>
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<tr>
<td><strong>Concrete Units—Hollow</strong></td>
<td>2&quot;</td>
<td>Concrete Units—Hollow</td>
<td>3&quot;</td>
<td>Concrete Units—Hollow</td>
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<tr>
<td><strong>Clay Tile Units—Hollow</strong></td>
<td>2&quot;</td>
<td>Clay Tile Units—Hollow</td>
<td>4&quot;</td>
<td>Clay Tile Units—Hollow</td>
</tr>
<tr>
<td><strong>No Fill</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Plaster on Metal Lath</strong></td>
<td>1&quot;</td>
<td>Brick</td>
<td>3&quot;</td>
<td>Brick</td>
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<tr>
<td><strong>Port. cement, Lime, or Gypsum</strong></td>
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<tr>
<td><strong>Gypsum Units—Solid No Fill</strong></td>
<td>2&quot;</td>
<td>Gypsum Units—Solid</td>
<td>3&quot;</td>
<td>Gypsum Cast-in-Place</td>
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**Metal Columns**

<table>
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<tr>
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<th>2 Hour</th>
<th>3 Hour</th>
<th>4 Hour</th>
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<tbody>
<tr>
<td></td>
<td>Sec. 68-29</td>
<td>Sec. 68-28</td>
<td>Sec. 68-27</td>
<td>Sec. 68-26</td>
</tr>
<tr>
<td><strong>Concrete Cast-in-Place</strong></td>
<td>13&quot;</td>
<td>Concrete Units—Solid</td>
<td>2&quot;</td>
<td>Concrete Units—Solid</td>
</tr>
<tr>
<td><strong>Plastered</strong></td>
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<tr>
<td><strong>Gypsum Cast-in-Place</strong></td>
<td>13&quot;</td>
<td>Concrete Units—Solid</td>
<td>3&quot;</td>
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<td><strong>Plastered</strong></td>
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</tr>
<tr>
<td><strong>Concrete Units—Hollow</strong></td>
<td>4&quot;</td>
<td>Concrete Units—Hollow</td>
<td>4&quot;</td>
<td>Concrete Units—Hollow</td>
</tr>
<tr>
<td><strong>2 Units Thick, Staggered Joints</strong></td>
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<td></td>
<td></td>
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<tr>
<td><strong>Not Plastered</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Clay Tile Units—Hollow</strong></td>
<td>2&quot;</td>
<td>Clay Tile Units—Hollow</td>
<td>3&quot;</td>
<td>Clay Tile Units—Hollow</td>
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<tr>
<td><strong>Plastered</strong></td>
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</tr>
<tr>
<td><strong>2 Units Thick, Staggered Joints</strong></td>
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<tr>
<td><strong>Not Plastered</strong></td>
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**Other Metal Members**

**Longitudinal Reinforcement of Concrete Columns, Beams, Girders, and Trusses**

<table>
<thead>
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**Reinforcement of Slabs, Joists, and Walls**

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<tr>
<td>With Filler Units of Hollow Tile, Concrete, Gypsum</td>
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<tr>
<td>Steel Joists and Reinf. Conc.</td>
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<tr>
<td>Metal Lath &amp; Plast. Ceiling</td>
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<tr>
<td>Roofs Only</td>
<td></td>
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<tr>
<td>Steel Joists</td>
<td>Fire-Stopped Double</td>
</tr>
</tbody>
</table>

Reduction of Slab Thickness: For the purpose of fire resistive value only, in any floor or roof construction not required to have a protective ceiling on the underside thereof, the required slab thickness may be reduced one-half inch if a protective ceiling of metal lath and plaster is applied thereto. The total thickness of a non-combustible floor finish applied directly to the floor construction, or two-thirds of the thickness of a non-combustible floor fill where such fill is not required may be considered as part of required fireproof floor thickness. Minimum thickness cast-in-place Slabs 24" Sec. 68-24.
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<tr>
<td>Brick</td>
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<tr>
<td>Brick</td>
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<tr>
<td>Plastered Both Sides</td>
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<tr>
<td>Concrete—Plain</td>
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