

**CHAPTER 1305**  
**DEPARTMENT OF ADMINISTRATION**  
**MINNESOTA STATE BUILDING CODE**  
**AMENDMENTS TO THE UNIFORM BUILDING CODE**

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**1305.0010 ADOPTION OF UNIFORM BUILDING CODE BY REFERENCE.**

Chapters 1 to 35 and appendixes of the 1994 edition of the Uniform Building Code as promulgated by the International Conference of Building Officials, Whittier, California, are incorporated by reference and made part of the Minnesota State Building Code except as qualified by the applicable provisions in chapters 1300 and 1365, part 1305.0020, and as amended in this chapter. The Uniform Building Code is not subject to frequent change and a copy of the Uniform Building Code, with amendments for use in Minnesota, is available in the office of the commissioner of administration.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

**1305.0020 APPENDIX CHAPTERS.**

Subpart 1. **Required.** Uniform Building Code Appendix Chapters 3, Division I; 12, Division II; and 29 must be administered by any municipality which has adopted the code.

Subp. 2. **Optional.** UBC Appendix Chapters 3, Division III; 15; 19; 31, Division II; and 33 are not mandatory but may be adopted without change at the discretion of any municipality which has adopted the code, except UBC Appendix Chapter 33 may be adopted with a revised fee schedule and bonding requirements.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

**1305.0100 [Repealed, 19 SR 1340]**

**1305.0102 SECTION 102, UNSAFE BUILDINGS OR STRUCTURES.**

UBC Section 102 is amended by amending the last paragraph to read as follows:

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All unsafe buildings, structures, or appendages are public nuisances and must be abated by repair, rehabilitation, demolition, or removal in accordance with the procedures in Minnesota Statutes, sections 463.15 to 463.26.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

### 1305.0103 SECTION 103, VIOLATIONS.

UBC Section 103 is amended by adding a sentence to read as follows:

A violation of a provision of this code is a misdemeanor (Minnesota Statutes, section 16B.69).

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

### 1305.0105 SECTION 105, BOARD OF APPEALS.

UBC Section 105.1 is amended by amending the last sentence to read as follows:

The board shall adopt rules of procedures for conducting its business and shall render all decisions and findings in writing to the appellant with a duplicate copy to the building official and to the state building official within 15 days of the decision.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

### 1305.0106 SECTION 106, PERMITS.

Subpart 1. **Section 106.2 Work Exempt from Permit.** Section 106.2 of the UBC is amended by the addition of item 12 to read as follows:

12. Agricultural buildings as defined in Minnesota Statutes, section 16B.60, subdivision 5.

Subp. 2. **Section 106.3.2 Submittal documents.** Section 106.3.2 of the UBC, the first paragraph, is amended to read as follows:

106.3.2 Submittal documents. Plans, specifications, engineering calculations, diagrams, soil investigation reports, special inspection and structural observation programs, and other data shall constitute the submittal documents and shall be submitted in one or more sets with each application for a permit. The building official may require that the plans or other data be prepared in accordance with the rules of the Board of Architecture, Engineering, Land Surveying, Landscape Architecture, and Interior Design, Minnesota Rules, chapter 1800, and Minnesota Statutes, sections 326.02 to 326.15, and other state laws relating to plan and specification preparation by occupational licenses.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

### 1305.0107 SECTION 107, PLAN REVIEW FEES.

UBC Section 107.3 is amended by amending the first paragraph and adding an exception to the first paragraph to read as follows:

107.3 Plan review fees. When submittal documents are required by Section 106.3.2, a plan review fee must be paid at the time of submitting the submittal documents for plan review. The plan review fee must be 65 percent of the building permit fee.

Exception: The plan review fee for dwellings, apartment houses, and their accessory structures may be established by the local authority and must not exceed 65 percent of the building permit fee.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

### 1305.0108 SECTION 108, REQUIRED INSPECTIONS.

UBC Section 108.5 is amended by adding the following:

108.5.4.1 Insulation inspection: To be made after all required insulation is in place but before any covering material is in place.

108.5.5 Lath and/or gypsum board inspection: To be made after all lathing and gypsum board, interior and exterior, used as a structural element or a part of a fire-resistive assembly, is in place but before any plastering is applied or before gypsum board joints and fasteners are taped and finished.

108.5.6.1 Installation of manufactured homes (mobile homes): To be made after the installation of the support system and all utility service connections are in place, but before any covering material or skirting is in place. Evaluation of an approved anchoring system, when installed, is part of the installation inspection.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

### 1305.0109 SECTION 109, CERTIFICATE OF OCCUPANCY.

UBC Section 109.1 is amended by amending the exception to read as follows:

Exception: A municipality has the option of requiring certificates of occupancy for Group R, Division 3 occupancies; Group U occupancies; and manufactured homes.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

1305.0150 [Repealed, 19 SR 1340]

1305.0200 [Repealed, 19 SR 1340]

1305.0300 [Repealed, 15 SR 74]

### 1305.0301 TABLE 3-A, DESCRIPTION OF OCCUPANCIES BY GROUP AND DIVISION.

UBC Table 3-A, Groups I-1.1 and I-2 are amended to read as follows:

UBC Section 301 Table 3-A.

I-1.1 - Nurseries for full-time care of children under the age of six (each accommodating more than four persons). Hospitals, sanitariums, nursing homes, and similar buildings (each accommodating more than four persons).

I-2 - Detoxification centers and homes for children six years of age or over (each accommodating more than four persons).

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

### 1305.0305 SECTION 305.2.3, SPECIAL PROVISIONS - GROUP E OCCUPANCIES.

UBC Section 305.2.3 is amended in the exceptions as follows:

Exceptions: 1. (Unchanged).

2. Delete.

3. Revise the first sentence to read as follows:

For other than school buildings, Division 3 occupancies may be located above the first story in buildings of Type I construction and in Types II-F.R., II one-hour, and III one-hour construction, subject to the limitation of Section 506 when: (remaining unchanged).

Add an exception 4 to read as follows:

4. As permitted by part 1300.5100 of the Minnesota State Building Code.

**Statutory Authority:** *MS s 16B.61*

**History:** *20 SR 2290(NO. 43)*

### 1305.0308 SECTION 308, GROUP I OCCUPANCIES.

Subpart 1. **Section 308.1.** Section 308.1 of the UBC is amended to read as follows:

UBC Section 308.1. Group I occupancies shall be:

Division 1.1. Nurseries for the full-time care of children under the age of six (each accommodating more than four persons). Hospitals, sanitariums, nursing homes, and similar buildings (each accommodating more than four persons).

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Division 1.2. Health care centers for ambulatory patients receiving outpatient medical care which may render the patient incapable of unassisted self-preservation (each tenant space accommodating more than five patients).

Division 2. Detoxification centers and homes for children six years of age or over (each accommodating more than four persons).

Division 3. Mental hospitals, mental sanitariums, jails, prisons, reformatories, and buildings where personal liberties of inmates are similarly restrained.

For occupancy separations, see Table 3-B.

Exception: Group I occupancies shall not include buildings used only for private residential purposes for a family group.

Subp. 2. **Section 308.2.2.1.** Section 308.2.2.1 of the UBC is amended to read as follows:

UBC Section 308.2.2.1. Group I smoke barriers. Floor levels of Group I occupancies used by inpatients for sleeping or treatment, or having an occupant load of five or more, shall be divided into at least two compartments by smoke barriers of not less than one-hour fire resistance meeting the requirements of Section 905.2.3. The area within a smoke-control zone shall not exceed 22,500 square feet (2,090 m<sup>2</sup>) and its width or length shall not exceed 150 feet (45,720 mm). The area of a smoke zone shall not be less than that required to accommodate the occupants of the zone plus the occupants from any adjoining zone. Not less than 30 square feet (2.8 m<sup>2</sup>) net clear floor area for bed and litter patients and six square feet (0.6 m<sup>2</sup>) net clear floor area for other occupants shall be used to compute the required areas.

Doors in smoke barriers shall be tight-fitting smoke- and draft-control assemblies having a fire protection rating of not less than 20 minutes and shall comply with Section 1019.2. When doors are installed across corridors, a pair of opposite-swinging doors without a center mullion or horizontal sliding doors that comply with UBC Standard 7-8, which is part of this code (see UBC Chapter 35, part II), shall be installed. Smoke barrier doors shall:

A. when installed across corridors, have vision panels. The area of the vision panels shall not exceed that tested;

B. be close fitting with only the clearance necessary for proper operation and shall be without undercuts, louvers, or grilles;

C. have stops at the head and jambs. Opposite-swinging corridor doors shall have rabbets or astragals at the meeting edges;

D. have positive latching devices, except on doors installed across corridors; and

E. be self-closing or automatic closing. An approved sign shall be adjacent to self-closing doors specifying that they are to be maintained in a closed position. Doors installed across corridors shall comply with Section 713.6.1, item 3, and doors on the floor or in the affected zone shall automatically close if the fire alarm or sprinkler system is activated.

At least two exits shall be provided from each smoke zone. Exits may pass through adjacent zones, provided at least one exit does not return through the compartment zone from which exiting originated. Exit doors at zone boundaries shall be equipped with approved vision panels.

A smoke exhaust system as defined in Section 903 shall be provided in each smoke-control zone of every Group I occupancy. When approved by the building official and the fire chief, operable windows or fixed windows that can be readily broken by impact, may be used in lieu of a smoke exhaust system.

Subp. 3. **Section 308.2.2.2.** UBC Section 308.2.2.2, Group I, Division 3 occupancies, is amended by deleting the last sentence and replacing it with the following:

There are no restrictions on the total number of glazed openings in a smoke barrier provided vision panels are of glazing material as specified in Section 713.9.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340; 20 SR 2290(NO. 43)*

### 1305.0310 SECTION 310.9.1 SMOKE DETECTORS.

UBC Section 310.9.1.2 is amended in the exception to read as follows:

Work on the exterior of a Group R occupancy which does not require entry into the Group R occupancy for inspection is exempt from the requirements of this section.

**Statutory Authority:** *MS s 16B.61*

**History:** *20 SR 2290(NO. 43)*

1305.0400 [Repealed, 19 SR 1340]

**1305.0405 SECTION 405, STAGES AND PLATFORMS.**

UBC Section 405.1.2, definition of "stage, legitimate" is amended to read as follows:

"Stage, legitimate" is a stage wherein curtains, drops, leg drops, scenery, lighting devices, or other stage effects are retractable horizontally or suspended overhead or the stage height is greater than 50 feet (15,240 mm).

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

1305.0500 [Repealed, 19 SR 1340]

1305.0600 [Repealed, 19 SR 1340]

1305.0700 [Repealed, 19 SR 1340]

1305.0800 [Repealed, 19 SR 1340]

1305.0900 [Repealed, 19 SR 1340]

**1305.0904 SECTION 904.2.4 GROUP E OCCUPANCIES.**

Subpart 1. **Section 904.2.4.1.** UBC Section 904.2.4.1 is amended as follows:

UBC Section 904.2.4.1 General. An automatic sprinkler system shall be installed in Group E, Division I occupancies.

Exceptions: 1. (Unchanged).

2. When area separation walls, or occupancy separations having a minimum fire-resistive rating of not less than the greater of two hours or that required in Table 3-B, separate the E-1 occupancy from other occupancies and subdivide the E-1 occupancy into compartments such that each compartment contains an aggregate floor area not greater than 20,000 square feet (1,858 m<sup>2</sup>), an automatic sprinkler system need not be provided.

Subp. 2. **Table No. 9-A.** UBC Table No. 9-A is amended as follows:

Item No. 2 under the occupancy column of Table No. 9-A is amended to read as follows:

Occupancies three stories or more but less than 150 feet in height, except Group R Division 3<sup>7</sup>. Class II standpipes are not required in Group E or Group R-1 occupancies.

UBC Table No. 9-A is amended by adding footnotes 8 and 9 to item No. 2 to read as follows:

<sup>8</sup> In municipalities that have adopted the special fire protection system criteria specified in Minnesota Rules, chapter 1306, the number of stories must be four or more.

<sup>9</sup> If an approved automatic fire extinguishing system required by Section 904 is installed, the number of stories must be four or more.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340; 20 SR 2290(NO. 43)*

1305.1000 [Repealed, 19 SR 1340]

**1305.1004 SECTION 1004.5 SPECIAL EGRESS CONTROL DEVICES.**

UBC Section 1004.5 is amended in the first paragraph by changing the designation "Group I, Division 2" to "Group I Division 1.1."

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

**1305.1009 SECTION 1009 STAIRWAY, RAMP, AND ESCALATOR ENCLOSURES.**

UBC Section 1009.7, Pressurized Enclosure, is amended by deleting the last sentence and replacing it with the following:

The minimum design pressure difference within the enclosure shall be 0.15 inch water gage positive pressure relative to atmospheric pressure with all doors closed.

UBC Section 1009.8, Vestibules, is deleted in its entirety.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

### **1305.1019 SECTION 1019.6 HARDWARE, GROUP I OCCUPANCIES.**

UBC Section 1019.6 is amended to read as follows:

1019.6, Hardware.

1. Exit doors serving an area having an occupant load of 50 or more shall not be provided with a latch or lock unless it is panic hardware.

2. Patient use room doors shall be readily openable from either side without the use of keys.

Exception: A key or a device that functions like a key that restricts access to the room from the corridor and that is operable only by staff from the corridor side shall be permitted. Such devices shall not restrict egress from the room.

3. If approved by the building official and where the clinical needs of the patients require specialized security measures for their safety, door locking arrangements are permitted in Group I occupancies or portions of Group I occupancies provided:

3.1 keys or devices that function like keys are carried by staff at all times;

3.2 in at least one egress path, not more than one such arrangement is located;

3.3 the Group I occupancy or portion of the Group I occupancy is protected by an approved automatic sprinkler system, an approved automatic smoke-detection system, and an approved fire alarm system;

3.4 locking devices automatically unlock upon activation of any of the following:

(a) automatic sprinkler system;

(b) automatic smoke detection system;

(c) automatic fire alarm system; or

upon loss of electrical power;

3.5 locking devices can be remotely unlocked from an approved location within the secured area;

3.6 there is no public assembly space within the secured area;

3.7 24-hour patient supervision is provided within the secured area;

3.8 relocking of the locking devices is by manual means only at the door; and

3.9 locking devices are designed to fail in the open position.

4. In Group I, Division 3 occupancies, approved locks or safety devices may be used where it is necessary to forcibly restrain the personal liberties of inmates or patients.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

**1305.1100 [Repealed, 19 SR 1340]**

### **1305.1101 CHAPTER 11, ACCESSIBILITY.**

UBC Chapter 11 is deleted and replaced with the following:

Section 1101.1 General. Buildings or portions of buildings shall be accessible to persons with disabilities as required by Minnesota Rules, chapter 1340.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

**1305.1200 [Repealed, 19 SR 1340]**

### **1305.1202 SECTION 1202, VENTILATION.**

Subpart 1. **Section 1202.2.1.** UBC Section 1202.2.1, the first paragraph, is amended to read as follows:

1202.2.1 General. All enclosed portions of Groups A, B, E, F, H, I, M, and S occupancies customarily occupied by human beings must be provided with natural ventilation by means of openable exterior openings with an area not less than 1/20 of the total floor area or must be provided with a mechanically operated ventilation system. Except as provided in subpart 2, the mechanically operated ventilation system must be designed in accordance with either the Ventilation Rate Procedure or Indoor Air Quality Procedure of ASHRAE Standard 62-1989. When using the Ventilation Rate Procedure, the system must be designed to provide not less than 15 cubic feet per minute of outside air per occupant.

Subp. 2. Section 1202.2.4. UBC Section 1202.2.4, Group H, Division 4 occupancies, is amended by amending the ventilation rate of one cubic foot per minute per square foot of floor area to three-fourths cubic foot per minute per square foot of floor area.

UBC Section 1202.2.7, Group S parking garages, is amended by amending the ventilation rate of 1.5 cubic feet per minute per square foot of gross floor area to three-fourths cubic feet per minute per square foot of gross floor area.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340; 20 SR 2290(NO. 43)*

1305.1300 [Repealed, 19 SR 1340]

1305.1350 [Repealed, 19 SR 1340]

1305.1355 [Repealed, 11 SR 1405]

1305.1370 [Repealed, 19 SR 1340]

1305.1400 [Repealed, 19 SR 1340]

1305.1500 [Repealed, 19 SR 1340]

#### 1305.1506 SECTION 1506, ROOF DRAINAGE.

UBC Section 1506.3 is amended by amending a last sentence as follows:

Overflow drains shall be connected to drain lines independent from the roof drain lines and shall discharge above grade.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

1305.1590 [Repealed, 19 SR 1340]

1305.1600 [Repealed, 19 SR 1340]

#### 1305.1614 SECTION 1614, WIND DESIGN DEFINITIONS.

UBC Section 1614 is amended by deleting the definition of "Exposure D."

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

#### 1305.1616 SECTION 1616, BASIC WIND SPEED.

UBC Section 1616 is amended to read as follows:

1616 Basic wind speed. The minimum basic wind speed for determining design wind pressure is 80 miles per hour.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

#### 1305.1623 SECTION 1623, OCCUPANCY CATEGORIES.

UBC Section 1623 is deleted in its entirety.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

1305.1700 [Repealed, 19 SR 1340]

#### 1305.1704 SECTION 1704, PREFABRICATED CONSTRUCTION.

UBC Section 1704 is deleted and replaced with the following:

1704.1 General. Prefabricated construction shall comply with Minnesota Rules, chapter 1360 or 1361, as applicable.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340; 20 SR 2290(NO. 43)*

**1305.1750** [Repealed, 19 SR 1340]

**1305.1775** [Repealed, 19 SR 1340]

**1305.1790** [Repealed, 15 SR 74]

**1305.1795** [Repealed, 19 SR 1340]

**1305.1800** [Repealed, 19 SR 1340]

**1305.1900** [Repealed, 19 SR 1340]

**1305.1907 SECTION 1907, CORROSIVE ENVIRONMENTS.**

UBC Section 1907.7.5 is amended to read as follows:

In corrosive environments or other severe exposure conditions, amount of concrete protection must be suitably increased, and denseness and nonporosity of protecting concrete must be considered, or other protection must be provided. In corrosive environments of parking garages and parking ramps, industrial buildings, or similar environments, a minimum concrete cover of reinforcement steel must be one and one-half inches for top surfaces and one inch for bottom surfaces. All bonded reinforcement steel located in the slab must be epoxy coated in conformance with the applicable standards referenced in UBC Section 1903.5.3.1.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

**1305.1918 SECTION 1918, PRESTRESSED CONCRETE.**

UBC Sections 1918.14.1, 1918.14.2, and 1918.19.4 are amended to read as follows:

1918.14.1. Unbonded tendons must be completely coated with suitable material to ensure corrosion protection.

Corrosive-preventive coating material for use in corrosive and noncorrosive environments must have the following properties:

- A. provide corrosion protection to the prestressing steel;
  - B. provide lubrication between the strand and encapsulating sheathing;
  - C. resist flow of the sheathing within the anticipated temperature range of exposure;
  - D. provide a continuous nonbrittle film at the lowest anticipated temperature of exposure;
  - E. be chemically stable and nonreactive with the prestressing steel, the sheathing material, and the concrete;
  - F. the film must be an organic coating with appropriate polar, moisture displacing, and corrosion-preventative additives;
  - G. the weight of coating material on the prestressing strand must be not less than 2.5 pounds of coating material per 100 feet of 0.5 inch diameter strand, and three pounds of coating material per 100 feet of 0.6 inch diameter strand. The amount of coating material used must be sufficient to ensure essentially complete filling of the annular space between the strand and the sheathing. The coating must extend over the entire tendon length; and
  - H. test results of the corrosion preventive coating material tested in accordance with Table 19-A-8 must be provided to the engineer of record and to the special inspector.
- 1918.14.2. Tendon cover must be continuous over entire length to be unbonded, and must prevent intrusion of cement paste or loss of coating materials during concrete placement.

Sheathing thickness for tendons used in corrosive environments must be not less than 0.040 inch consisting of medium or high density polyethylene or polypropylene materials.



The sheathing must be continuous around the circumference of the strand with no open seams. The sheathing must be connected to all stressing, intermediate, and nonstressing anchorages with a watertight seal to provide complete encapsulation of the prestressing steel. The encapsulating device must overlap the sheathing a minimum of one inch. The interface of the encapsulating device and the sheathing must be protected with polyethylene or polypropylene tape with non-water-soluble adhesives. Tape alone must not be used as a substitute for the sheath, nor may taped joints occur within three inches of the bearing surface of the anchorages or within three inches of a construction joint.

Damage to the tendon sheathing exposing the strand must be repaired with tape. A minimum of double coverage of non-water-soluble adhesive tape is required for the repair. Tears in excess of three inches must be repaired with a piece of split sheathing over the tear and then taped to the strand sheathing. The repair must be approved by the engineer of record or by a special inspector.

1918.19.4. Anchorages, couplers, and end fittings shall be permanently protected against corrosion. Anchorages must include design features that will permit a watertight connection between the sheathing and the anchorage. The design must also include the application of a watertight closing of the wedge cavity for the stressing and nonstressing anchorages. Intermediate stressing anchorages must be designed to provide watertight encapsulation of the prestressing steel. "Watertight," as used in this item, means the ability of the anchorages and the encapsulation devices, up to the attachment of the sheathing, to hold 1.25 psi water pressure for a period of 24 hours. The concrete cover of anchorages from slab surfaces must be one and one-half inches for the top or edge and one inch for the bottom surface.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

#### 1305.1928 TABLE 19-A-8 CORROSION PREVENTIVE COATING.

UBC Chapter 19 is amended by adding a new Table 19-A-8 to read as follows:

TABLE 19-A-8

#### PERFORMANCE SPECIFICATION FOR CORROSION PREVENTIVE COATING

TEST	TEST METHOD	ACCEPTANCE CRITERIA
1. Dropping point °F(°C)	ASTM D-566 or ASTM D-2265	Minimum 300 (148.9)
2. Oil separation at 160°F(71.1°C)	FIMS 791B Method 321.2	Maximum 0.5
3. Water, percent maximum	ASTM D-95	0.1
4. Flash point, °F(°C) (Refers to oil component)	ASTM D-92	Minimum 300 (148.9)
5. Corrosion test 5 percent salt fog at 100°F(37.8°C) 5 mils, minimum hours (Q Panel Type S)	ASTM B-117	For normal environments: Rust Grade 7 or better after 720 hours of exposure according to ASTM D-610. For corrosive environments: Rust Grade 7 or better after 1,000 hours of exposure according to ASTM D-610*
6. Water soluble ions+		
a. Chlorides, ppm maximum	ASTM D-512	10
b. Nitrates, ppm maximum	ASTM D-922	10
c. Sulfides, ppm maximum	APHA 427D (15th Edition)	10

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|----|--|--------------------------|--|
| 7. | Soak test<br>5 percent salt fog at 100°F(37.8°C) 5 mils coating. Q panels, Type S. Immerse panels 50 percent in a 5 percent salt solution and expose to salt fog | ASTM B-117<br>(Modified) | No emulsification of the coating after 720 hours of exposure                         |
| 8. | Compatibility with sheathing   |                          |  |
| a. | Hardness and volume change of polymer after exposure to grease, 40 days at 150°F   | ASTM D-4289              | Permissible change in hardness 15 percent<br>Permissible change in volume 10 percent |
| b. | Tensile strength change of polymer after exposure to grease, 40 days at 150°F  |                          | Permissible change in tensile strength 30 percent                                    |

\*Extension of exposure time to 1,000 hours for greases used in corrosive environments requires use of more or better corrosion inhibiting additives.

**+Procedure:** The inside (bottom and sides) of a 1L Pyrex beaker (approximate outside diameter 105mm, height 145mm) is thoroughly coated with 100 ± 10 g of corrosion preventive coating material. The coated beaker is filled with approximately 900 cc of distilled water and heated in an oven at a controlled temperature of 100°F ± 2°F for four hours. The water extraction is tested by the noted test procedures for the appropriate water soluble ions. Results are reported as ppm in the extracted water.

The above extracts are reprinted from the report "Specification for Unbonded Single Strand Tendons," published in the PCI JOURNAL, Volume 30, Number 2, March-April 1985, pages 22 to 39.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

**1305.2000** [Repealed, 19 SR 1340]

**1305.2050** [Repealed, 19 SR 1340]

**1305.2100** [Repealed, 15 SR 74]

**1305.2109 SECTION 2109, EMPIRICAL DESIGN OF MASONRY.**

2109.1 is amended to read as follows:

2109.1 General. The design of masonry structures using empirical design shall comply with the provisions of this section and Section 2106, subject to approval of the building official.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

**1305.2200** [Repealed, 19 SR 1340]

**1305.2300** [Repealed, 19 SR 1340]

**1305.2326 SECTION 2326, BLOCKING.**

2326.12.8 is amended to read as follows:

2326.12.8. Blocking. Roof rafters and ceiling joists must be supported laterally to prevent rotation and lateral displacement when required by Section 2306.7.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

1305.2400 [Repealed, 15 SR 74]

1305.2500 [Repealed, 19 SR 1340]

1305.2600 [Repealed, 19 SR 1340]

1305.2700 [Repealed, 19 SR 1340]

1305.2800 [Repealed, 19 SR 1340]

1305.2900 [Repealed, 19 SR 1340]

1305.3000 [Repealed, 15 SR 74]

**1305.3001 CHAPTER 30, ELEVATORS, DUMBWAITERS, ESCALATORS, AND MOVING WALKS.**

UBC Chapter 30 is deleted and replaced with the following:

Section 3001 General. The design, construction, installation, operation, alteration, and repair of elevators, dumbwaiters, escalators, and moving walks shall be in accordance with Minnesota Rules, chapter 1307.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

1305.3100 [Repealed, 15 SR 74]

1305.3200 [Repealed, 15 SR 74]

1305.3300 [Repealed, 15 SR 74]

1305.3400 [Repealed, 19 SR 1340]

1305.3500 [Repealed, 11 SR 1405]

1305.3600 [Repealed, 15 SR 74]

1305.3700 [Repealed, 15 SR 74]

1305.3800 [Repealed, 19 SR 1340]

1305.3850 [Repealed, 11 SR 1405]

1305.3860 [Repealed, 19 SR 1340]

1305.3900 [Repealed, 19 SR 1340]

1305.3970 [Repealed, 11 SR 1405]

1305.4000 [Repealed by amendment, 9 SR 1557]

1305.4100 [Repealed, 19 SR 1340]

1305.4200 [Repealed, 15 SR 74]

1305.4300 [Repealed, 11 SR 1405]

**1305.4313 APPENDIX CHAPTER 3, DIVISION I – DETENTION AND CORRECTIONAL FACILITIES.**

UBC Section 313, Scope, is amended as follows:

The provisions of this chapter apply to the design and construction of Group I, Division 3 occupancies housing mental hospitals, mental sanitariums, jails, prisons, reformatories, and buildings where personal liberties of inmates are similarly restrained.

UBC Section 315, Definitions, is amended by adding the following definitions:

“Cell, multiple-occupancy” is a housing area in a detention or correctional facility designed to house no less than three or more than 48 inmates.

“Smoke management system” is an engineered combined system that utilizes a mechanical smoke-control system and mechanical smoke exhaust system. For definitions of

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mechanical smoke-control system and mechanical smoke exhaust system, see UBC Section 903.

UBC Section 317, Compartmentation, is amended by amending the first paragraph to read as follows:

Every story having an occupant load of more than five inmates in a detention or correctional facility shall be divided into not less than two approximately equal compartments by a smoke barrier, constructed pursuant to the provisions of part 1305.0308, subpart 2. In addition, multitiered cell complexes shall be separated from each other and the remaining portions of the facility by a smoke barrier. Vision panels shall not be required within exit doors at zone boundaries as stated in part 1305.0308, subpart 2, item E.

UBC Section 318, Occupancy Separations, is amended by adding exception 2 to read as follows:

2. Regardless of the provisions of Table 3-B, a three-hour fire-resistive occupancy separation as set forth in Section 302.3, may be used between a Group I, Division 3 occupancy and vocational shops and similar uses containing hazardous materials, normally otherwise classified as Group H, Divisions 2 through 7 occupancies.

UBC Section 319, Glazing, is amended to read as follows:

In restraint areas of fully sprinklered detention and correctional facilities, the area of glazing in one-hour corridor walls is not restricted, provided:

1. All glazing is approved one-fourth inch thick (6.4 mm) wired glass or other approved fire-tested glazing material set in steel frames.

Exception: Laminated security glazing may be used provided the glass shall be protected on both sides by a sprinkler system equipped with listed quick response sprinklers. The sprinkler system shall completely wet the entire surface of the glass wall when actuated.

2. In lieu of the sizes set forth in Section 1005.8, the size and area of wired glass assemblies shall conform to Sections 713.7 and 713.8. Other glazing material shall not exceed the sizes and areas specified in the fire test. When necessary to maintain direct visual supervision by facility staff, laminated security type glazing may be used in fire-resistive wall and door assemblies up to a two-hour fire protection rating provided:

2.1 The fire-resistive wall or door assembly is not part of a required area separation wall, stairway, ramp, or escalator enclosure.

2.2 The glass shall be protected on both sides by a sprinkler system equipped with listed quick response sprinklers. The sprinkler system shall completely wet the entire surface of the glass wall when actuated.

2.3 The area of the glazing shall not exceed 25 percent of the common wall of the area requiring supervision.

2.4 The area of glazing in fire-resistive door assemblies shall be limited to 1,296 square inches per light.

UBC Section 321, Automatic Sprinkler and Standpipe Systems, is amended by amending the first paragraph as follows:

321.1 General. Every building or portion of a building housing a detention or correctional facility or similar occupancy shall be protected by an automatic sprinkler system conforming to the provisions of UBC Standard 9-1. The main sprinkler control valve or valves or all other control valves in the system shall be electrically supervised so that at least a local alarm will sound at a constantly attended location when valves are closed.

UBC Section 323.1, Smoke Management System, is amended to read as follows:

323.1 Smoke management system. A mechanically operated smoke management system or systems shall be provided in every multitiered cell complex within a detention or correctional facility. For other than multitiered cell complexes, see Sections 323.9 and 323.10.

UBC Section 323.2, Design and Installation, is amended by adding the following exception:

**EXCEPTION:** A smoke management system or systems may be designed in accordance with the provisions of Section 905 for mechanical smoke control and mechanical smoke exhaust systems.

UBC Section 323.4, Manual Controls, is amended to read as follows:

323.4 Manual controls. A firefighter's control panel shall be provided in accordance with Sections 905.13 and 905.14.

UBC Section 323, Smoke Management, is amended by adding the following:

323.9 Smoke exhaust system. A mechanical smoke exhaust system as defined in Section 903 shall be provided in each smoke compartment of every detention or correctional facility.

Exception: Buildings or portions of buildings provided with an approved smoke management system.

323.10 Design and Installation of Smoke Exhaust System:

1. Mechanical air-handling equipment may be designed to accomplish smoke removal. Under fire conditions, the return and exhaust air, in zones where smoke is detected, shall be moved directly to the outside without recirculation to other sections of the building. The air handling system shall provide a minimum of six exhaust air changes per hour for the area involved.

2. Any other approved design which will produce equivalent results.

UBC Section 324.1, Number of Exits, is amended to read as follows:

324.1 Number of exits. Multiple-occupancy rooms and day rooms in buildings or portions of buildings in detention or correctional facilities constructed of not less than one-hour fire-resistive construction shall be provided with a minimum of two exits when the occupant load is more than ten.

The occupant load of any restraint area shall be determined by Table 10-A and classified as to the occupancy group it most nearly resembles, and exits shall be provided as required by Section 1003.1. A minimum of two exits shall be provided in all areas of restraint (cells, day rooms, cell tiers, and cell complexes) within a detention or correctional facility when the occupant load is more than ten.

UBC Section 324.5, Dead-end Balconies, is amended to read as follows:

324.5 Dead-end balconies. Exit balconies serving cell tiers shall not extend more than 20 feet beyond an exit stairway.

Note: For number of exits, see Section 1003.1.

UBC Section 326.6, Electrically Operable Exit Doors, is amended by deleting the last sentence.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

### 1305.4332 APPENDIX CHAPTER 3, DIVISION III, ONE- AND TWO-FAMILY DWELLING CODE ADOPTED.

UBC Appendix Chapter 3, Division III, Section 332, is amended by adding an exception to read as follows:

Exception:

1. For energy requirements, see Minnesota Rules, chapter 7670.
2. For plumbing code requirements, see Minnesota Rules, chapter 4715.
3. For electrical requirements, see Minnesota Rules, chapter 1315.
4. For mechanical code requirements, see Minnesota Rules, chapter 1346.
5. For snow load requirements, see Minnesota Rules, chapter 1365.
6. For frost depth requirements, see Minnesota Rules, chapter 1300.
7. For ice dam roof treatment, see Minnesota Rules, chapter 1300.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

### 1305.4429 APPENDIX CHAPTER 29, MINIMUM PLUMBING FIXTURES.

UBC Appendix Section 2905 is amended by adding the following exceptions:

**EXCEPTIONS:**

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1. Where circumstances dictate that a different ratio is needed, an adjustment may be approved by the building official.

2. The actual number of students can be used in lieu of the 50 square feet per occupant specified in Group E, Division 1 occupancy areas. For assembly occupancies in conjunction with a Group E, Division 1 occupancy, refer to Group A of Table A-29-A.

**Statutory Authority:** *MS s 16B.61*

**History:** *19 SR 1340*

- 1305.4500 [Repealed, 15 SR 74]
- 1305.4600 [Repealed, 19 SR 1340]
- 1305.4700 [Repealed, 19 SR 1340]
- 1305.4800 [Repealed, 19 SR 1340]
- 1305.4850 [Repealed, 19 SR 1340]
- 1305.4900 [Repealed, 15 SR 74]
- 1305.5000 [Repealed, 11 SR 1405]
- 1305.5100 [Repealed, 11 SR 1405; 19 SR 1340]
- 1305.5101 [Renumbered 1307.0010]
- 1305.5102 [Renumbered 1307.0015]
- 1305.5103 [Renumbered 1307.0020]
- 1305.5104 [Renumbered 1307.0025]
- 1305.5105 [Renumbered 1307.0030]
- 1305.5106 [Renumbered 1307.0035]
- 1305.5107 [Renumbered 1307.0040]
- 1305.5108 [Renumbered 1307.0045]
- 1305.5109 [Renumbered 1307.0050]
- 1305.5110 [Renumbered 1307.0055]
- 1305.5111 [Renumbered 1307.0060]
- 1305.5112 [Renumbered 1307.0065]
- 1305.5114 [Renumbered 1307.0070]
- 1305.5115 [Renumbered 1307.0075]
- 1305.5116 [Renumbered 1307.0080]
- 1305.5117 [Renumbered 1307.0085]
- 1305.5118 [Renumbered 1307.0090]
- 1305.5200 [Repealed, 19 SR 1340]
- 1305.5300 [Repealed, 15 SR 74]
- 1305.5310 [Repealed, 15 SR 74]
- 1305.5320 [Repealed, 19 SR 1340]
- 1305.5340 [Repealed, 19 SR 1340]
- 1305.5360 [Repealed, 19 SR 1340]
- 1305.5380 [Repealed, 19 SR 1340]

- 1305.5385 [Repealed, 19 SR 1340]  
1305.5400 [Repealed, 19 SR 1340]  
1305.5500 [Repealed, 15 SR 74]  
1305.5700 [Repealed, 19 SR 1340]  
1305.5710 [Repealed, 19 SR 1340]  
1305.5720 [Repealed, 19 SR 1340]  
1305.5730 [Repealed, 19 SR 1340]  
1305.5740 [Repealed, 19 SR 1340]  
1305.5750 [Repealed, 19 SR 1340]  
1305.5800 [Repealed, 15 SR 74]  
1305.5900 [Repealed, 19 SR 1340]  
1305.5910 [Repealed, 11 SR 1405]  
1305.6000 [Repealed, 19 SR 1340]  
1305.6200 [Repealed, 19 SR 1340]  
1305.6250 [Repealed, 19 SR 1340]  
1305.6260 [Repealed, 11 SR 1405]  
1305.6270 [Repealed, 11 SR 1405]  
1305.6280 [Repealed, 19 SR 1340]  
1305.6300 [Repealed, 19 SR 1340]  
1305.6400 [Repealed by amendment, 9 SR 1557]  
1305.6425 [Repealed, 19 SR 1340]  
1305.6430 [Repealed, 19 SR 1340]  
1305.6500 [Repealed by amendment, 9 SR 1557]  
1305.6525 [Repealed, 19 SR 1340]  
1305.6550 [Repealed, 15 SR 74]  
1305.6600 [Repealed, 15 SR 74]  
1305.6700 [Repealed, 19 SR 1340]  
1305.6800 [Repealed, 19 SR 1340]  
1305.6900 [Repealed, 15 SR 74]  
1305.6901 [Repealed, 19 SR 1340]  
1305.6902 [Repealed, 19 SR 1340]  
1305.6905 [Repealed, 19 SR 1340]  
1305.6910 [Repealed, 19 SR 1340]  
1305.6920 [Repealed, 19 SR 1340]  
1305.7000 **VALIDITY CLAUSE.**

If any section, subsection, sentence, clause, or phrase of this code is, for any reason, held to be unconstitutional, that decision does not affect the validity of the remaining portions of this code.

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The Department of Administration would have adopted this code and each section, subsection, clause, or phrase of this code, whether or not any one or more sections, subsections, sentences, clauses, and phrases is declared unconstitutional.

**Statutory Authority:** *MS s 16B.59 to 16B.73*

### **1305.7100 SPECIAL PROVISIONS FOR THE CITY OF ROCHESTER.**

The following sections of the Uniform Building Code, 1994 edition, are amended to read as follows.

UBC Section 904.2.5.2 An automatic fire extinguishing system must be installed in Group H, Division 4 occupancies more than one story in height, or exceeding 8,400 square feet in floor area located in Zone No. 1 or No. 2, or exceeding 20,200 square feet in floor area located in Zone No. 3.

UBC Section 904.2.7 An automatic fire extinguishing system must be installed in Group B, F, M, and S occupancies exceeding 13,500 square feet in floor area located in Zone No. 1 or No. 2, or when of Type V construction exceeding 10,500 square feet of floor area located in Zone No. 1 or No. 2, or exceeding 20,200 square feet in floor area located in Zone No. 3.

Exception: Open parking garages.

UBC Section 904.2.8 An automatic fire extinguishing system must be installed in Group R1 occupancies exceeding 20,200 square feet in floor area or four stories in height located in Zone No. 1 or No. 2, or exceeding 30,000 square feet in floor area located in Zone No. 3.

**Statutory Authority:** *MS s 16B.59 to 16B.73*

**History:** *11 SR 1405; 19 SR 1340*