

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

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1305.0100 ADOPTION OF THE UNIFORM BUILDING CODE BY REFERENCE.

Chapters 1 to 60 and appendixes of the 1988 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 parts 1300.2900 and 1305.0150 and except as amended in parts 1305.0200 to 1305.7100. 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.59 to 16B.73*

History: *9 SR 1557; 11 SR 1405; 15 SR 74*

1305.0150 REQUIRED AND OPTIONAL PROVISIONS.

Subpart 1. **Required provisions.** UBC Appendix Chapter 35 must be administered by any municipality.

Subp. 2. **Optional provisions.** The following provisions of the Uniform Building Code are not mandatory but must be adopted without change at the discretion of any municipality, except UBC Appendix Chapter 70 may be adopted with a revised fee schedule and bonding requirements.

A. UBC Appendix Chapters 1, 12, Division 1, 26, 38, 55, and 70.

B. Special Fire Suppression Systems, Optional, UBC Section 3808.

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

History: *11 SR 1405; 15 SR 74*

1305.0200 SECTIONS 101, 102, AND 103.

UBC Sections 101, 102, and 103 are deleted in their entirety.

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

1305.0300 [Repealed, 15 SR 74]

1305.0400 SECTION 203.

UBC Section 203 is amended to read as follows:

UBC Section 203. All buildings or structures regulated by this code which are structurally unsafe or not provided with adequate egress, or which constitute a fire hazard, or are otherwise dangerous to human life are, for the purpose of this section, unsafe. Any use of buildings or structures constituting a hazard to safety, health, or public welfare by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster, damage, or abandonment are, for the purpose of this section, unsafe uses. Parapet walls, cornices, spires, towers, tanks, statuary, and other appendages or structural members which are supported by, attached to, or part of a building and which are in deteriorated condition or otherwise unable to sustain the design loads which are specified in the code are unsafe building appendages. All unsafe buildings, structures, or appendages are public nuisances and must be abated by repair, rehabilitation, demolition, or removal in accordance with the procedures set forth in Minnesota Statutes, sections 463.15 to 463.26.

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

1305.0500 SECTION 204.

UBC Section 204 is amended by amending the last sentence 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 inspector within 15 days of the decision.

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

History: *11 SR 1405*

1305.0600 SECTION 205.

UBC Section 205 is amended by adding a sentence as follows: Any violation of provisions of this code is a misdemeanor (Minnesota Statutes, section 16B.69).

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

1305.0700 SECTION 301.

UBC Section 301(b) is amended by the addition of item 12 as follows:

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

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

1305.0800 SECTION 304.

UBC Section 304(b), is amended to read as follows:

Section 304.

(b) All permit fees must be established by the local authority except in areas outside of the enforcement authority of a city, the fee charged for the issuance of permits and inspections for single family dwellings may not exceed the greater of \$100 or .005 times the value of the structure, addition, or alteration. (Minnesota Statutes, section 16B.62.)

The determination of value or valuation under any of the provisions of this code must be made by the building official. The value to be used in computing the building permit and building plan review fees is the total value of all construction work for which the permit is issued as well as all finish work, painting, roofing, electrical, plumbing, heating, air conditioning, elevators, fire extinguishing systems, and any other permanent equipment.

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

History: *11 SR 1405; 15 SR 74*

1305.0900 SECTION 305.

UBC Section 305(e) is amended to read as follows:

Section 305(e) Required Inspections. Reinforcing steel or structural framework of any part of any building or structure must not be covered or concealed without first obtaining the approval of the building official.

The building official, upon notification from the permit holder or the holder's agent, shall make the following inspections and shall either approve that portion of the construction as completed or shall notify the permit holder or agent of the ways the construction fails to comply with this code:

1. Foundation inspection: To be made after excavations for footings are complete and any required reinforcing steel is in place. For concrete foundations, any required forms must be in place prior to inspection. All materials for the foundation must be on the job, except where concrete is ready mixed in accordance with UBC Standard No. 26-13, the concrete need not be on the job. Where the foundation is to be constructed of approved treated wood, additional inspections may be required by the building official.

2. Concrete slab or under-floor inspection: To be made after all in-slab or under-floor building service equipment, conduit, piping accessories, and other ancillary equipment items are in place but before any concrete is placed or floor sheathing installed, including the subfloor.

3. Frame inspection: To be made after the roof, all framing, fire blocking, and bracing are in place and all pipes, chimneys, and vents are complete and the rough electrical, plumbing, and heating wires, pipes, and ducts are approved.

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

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.

6. Final inspection: To be made after finish grading and the building is completed and ready for occupancy.

7. 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.59 to 16B.73*

History: *9 SR 1557; 11 SR 1405; 17 SR 1279*

1305.1000 SECTION 307.

UBC Section 307(a) is amended to read as follows:

Certificate of Occupancy

Section 307(a) Use or Occupancy. No building or structure may be used or occupied, and no change in the existing occupancy classification of a building or structure or portion of a building or structure may be made until the building official has issued a certificate of occupancy for it as provided in this section.

Exception: A municipality may require certificates of occupancy for Group R, Division 3, and Group M occupancies.

Issuance of a certificate of occupancy must not be construed as approval of a violation of the provisions of this code or other ordinances of the jurisdiction. Certificates presuming

to give authority to violate or cancel provisions of this code or of other ordinances of the jurisdiction are not valid.

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

History: *15 SR 74*

1305.1100 SECTION 405.

UBC Section 405, Definition of Dwelling, is amended to read as follows:

"Dwelling" is any building or any portion of a building which contains not more than two "dwelling units," including Class A-1 supervised living facilities as defined in section 420.

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

History: *15 SR 74*

1305.1200 SECTION 406.

Section 406 of the UBC is amended by the addition of the following definition:

"Earth sheltered structure" is a building constructed so that more than 50 percent of the exterior surface area of the building, excluding garages or other accessory buildings, is covered with earth. Partially completed buildings shall not be considered to be earth sheltered. (See Minnesota Statutes, section 216C.06, subdivision 2.)

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

History: *L 1987 c 312 art 1 s 10 subd 1*

1305.1300 SECTION 407.

Section 407 of the UBC, Definition of Fire Code, is amended as follows:

UBC Section 407. "Fire code" is the Minnesota Uniform Fire Code, authorized by Minnesota Statutes, section 299F.011.

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

1305.1350 SECTION 414.

UBC Section 414, Definition of Mechanical Code, is amended as follows:

UBC Section 414. "Mechanical code" is the Minnesota Heating, Ventilating, Air Conditioning, and Refrigeration Code, chapter 1345.

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

1305.1355 [Repealed, 11 SR 1405]

1305.1370 SECTION 419.

UBC Section 419 is amended by adding the following definitions:

"Recyclable materials" means materials that are separated from mixed municipal solid waste, for the purpose of recycling, including paper, glass, metals, automobile oil, and batteries. Refuse-derived fuel or other material that is destroyed by incineration is not a recyclable material.

"Recycling" means the process of collecting and preparing recyclable materials and reusing the materials in their original form or using them in manufacturing processes that do not cause the destruction of recyclable materials in a manner that precludes further use.

Statutory Authority: *MS s 16B.61*

History: *15 SR 74*

1305.1400 SECTION 420.

Section 420 of the UBC is amended by adding the following definitions:

"Supervised living facility" means a facility in which there is provided supervision, lodging, meals, and, in accordance with the provisions of rules of the Minnesota Department of Human Services, and the Minnesota Department of Health, counseling and developmental habilitative or rehabilitative services to five or more persons who are mentally retarded, chemically dependent, adult mentally ill, or physically handicapped.

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“Class A supervised living facility” means a supervised living facility for ambulatory and mobile persons who are capable of taking appropriate action for self-preservation under emergency conditions as determined by program licensure provisions.

Class A-1 supervised living facilities include homes providing boarding and lodging for six or fewer ambulatory or mobile disabled persons.

Class A-2 supervised living facilities include homes providing boarding and lodging for more than six ambulatory or mobile disabled persons.

“Class B supervised living facility” means a supervised living facility for ambulatory, nonambulatory, mobile or nonmobile persons who are not mentally or physically capable of taking appropriate action for self-preservation under emergency conditions as determined by program licensure provisions.

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

History: *L 1984 c 654 art 5 s 58; 11 SR 1405*

1305.1500 TABLE 5-A.

UBC Table 5-A, Groups I-1, I-2, R1, and R3 are amended to read as follows:

UBC Section 501 Table 5-A.

I.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, homes for children six years of age or over, supervised living facilities Class B as defined in UBC Section 420, for the mentally retarded, mentally ill, or the physically handicapped (each accommodating more than four persons).

R.1 – Hotels and apartment houses, convents and monasteries (each accommodating more than ten persons). Supervised living facilities Class A2 as defined in UBC Section 420 (accommodating more than six persons).

R.3 – Dwellings and lodging houses. Supervised living facilities Class A-1 as defined in UBC Section 420 (each accommodating six or fewer persons).

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

1305.1590 SECTION 509.

UBC Section 509(e) is amended to read as follows:

(e) Maximum Length. The length of a pedestrian walkway must not exceed 300 feet.

Exceptions: 1. Pedestrian walkways that are fully sprinklered may be 400 feet in length.

2. Unenclosed walkways at grade.

The length of a pedestrian walkway is the distance between connected buildings measured within the pedestrian walkway.

UBC Section 509 is amended by adding (i) as follows:

(i) Smoke Venting. Enclosed pedestrian walkways must be provided with means for venting smoke and hot gases to the outer air.

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

History: *9 SR 1557; 11 SR 1405; 15 SR 74*

1305.1600 SECTION 510.

Section 510 of the UBC is amended by adding a new subsection (c) that reads as follows:

UBC Section 510(c) Sanitation Facilities. Sanitation facilities must be provided for each Occupancy in accordance with Table 5-E and UBC Sections 605, 705, 805, 905, 1005 or 1205 as amended herein. Fixtures must be provided for each sex in accordance with the percentage of occupants of each sex. When the percentage of each sex is not known, one-half for each sex shall be assumed. For sanitation facilities for the handicapped see parts 1340.0400 and 1340.0500.

Types of building occupancy not shown, or when the provisions of Table No. 5-E are excessive due to a specific use or occupant load, facilities may be considered individually by the administrative authority.

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

1305.1700 SECTION 511.

Section 511(a) of the UBC is amended to read as follows:

UBC Section 511(a) Toilet Facilities. Each water closet stool must be located in a clear space not less than 30 inches in width and have a clear space in front of the water closet of not less than 24 inches.

For provisions for the physically handicapped, see chapter 1340.

Section 511(b) of the UBC is deleted in its entirety.

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

1305.1750 NEW SECTION 514.

UBC chapter 5 is amended by adding a new section to read as follows:

Section 514 Roof Access. Unless specifically exempted by the building official due to space limitation, roof height above grade or other special considerations, buildings on which any heating, air conditioning, or refrigeration equipment is hereafter installed on the roof, which equipment will require periodic inspection, service, and maintenance in accordance with the mechanical code, Minnesota Rules, chapter 1345, must meet the following requirements:

A stairway complying with chapter 33 or a stair leading to a scuttle or bulkhead in the roof having such equipment must be provided to make the equipment safely accessible. The stair leading to the scuttle or bulkhead must be placed at an angle of not more than 60 degrees measured from the horizontal with flat treads not less than six inches in width and a minimum length of 24 inches at the tread. No riser may be more than nine inches and handrails must be provided on both sides of the access stairs. The opening of the scuttle or bulkhead must not be less than nine square feet in area with the minimum dimension being two feet. This required access may not be located in or pass through the elevator shaft or elevator machine room.

The roof access opening and equipment must be located with at least six feet of clearance from the edge of the roof or similar hazards, unless a suitable rail or guard at least 42 inches high is provided.

Each unit of equipment must have an accessible disconnect switch. A 20-ampere 110-120 volt AC ground-type convenience outlet must be installed on or adjacent to the unit or equipment. The outlet must have ground fault circuit-interrupter protection and may not be connected to the equipment circuit.

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

History: *9 SR 1557*

1305.1775 SECTION 515.

UBC Chapter 5 is amended by adding a new section to read as follows:

Section 515. Recycling Space. Space must be provided for the collection, separation, and temporary storage of recyclable materials within or adjacent to a new or significantly remodeled structure that contains 1,000 square feet or more.

Exception: Residential structures with less than 12 dwelling units are exempt from this requirement.

Statutory Authority: *MS s 16B.61*

History: *15 SR 74*

1305.1790 [Repealed, 15 SR 74]

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1305.1795 Table 5-E. REQUIRED SANITATION FIXTURES BASED ON OCCUPANT LOAD (1) (2) (6); TABLE 5-E.

REQUIRED SANITATION FIXTURES BASED ON OCCUPANT LOAD (1) (2) (6)

OCCUPANCY	USE	S.F. per Occ.	WATER CLOSETS	URINALS	LAVATORIES	DRENCHING FOUNTAINS	BATHUBS OR SHOWERS	KITCHEN SINKS	SERVICE SINKS	
Group A Occupancies	Auditoriums	30								
	Bowling Alleys	30								
	Churches	60								
	Conference Rooms	80	1 for each 300 men	(3)						
	Dance Floors	30	1 for each 300 women		1 for each 300					
	Dining, Drinking	30								
	Exchange Rooms	80								
	Gymnasiums	30								
	Libraries	100					1 for each 300			
	Lodge Rooms	80								
Group E Occupancies (6)	Elementary	85	Boys 1/ea 100 Girls 1/ea 30	1/ea 30	1 for each 100	1 for each 75			1 per floor	
	Secondary	130	1/ea 100 1/ea 25	1/ea 30	1 for each 100					
	Group J Occupancies	Prison, Jail	100	1/ea cell 1/ea exercise room		1 in each cell 1 ea exercise room	1 for each 100	1 in each cell 1 ea exercise room		1 per floor
		Hospital, Nursing Home	100	1/ea 8 patient room 1/ea waiting room		1 for ea 10 patients		1 for each 20 Other		1 per floor
				Other 1/ea 25 men 1/ea 20 women	1/ea 30	1 for each 10	1 for each 100	1 for each 10		
	Group M Occupancies Group B Occupancies Group B-4 Occupancies	Assembly Halls	300	Fact 1-10 Write 1	Fact 1-10 Write (3)	Fact 1-10 Write 1	Fact 1-10 Write 1	Fact 1-10 Write 1	Fact 1-10 Write 1	
		Factories	300	1-10 1	(3)	1-10 1	1-10 1	1-10 1	1-10 1	
		Municipal Buildings	80	11-25 2		1-100 1-10(4)	1-100 1-10(4)	1-100 1-10(4)	1-100 1-10(4)	1 for each 75
		Office Buildings	300	36-50 3		Over 100 1-15(30)	Over 100 1-15(30)	Over 100 1-15(30)	Over 100 1-15(30)	1 for each 75
		Sales	300	51-75 4						
Service Stations		300	76-100 5							
Storage Garages		300	Over 100 1 add'l for 30							
Warehouses		300								
Group B-4 Occupancies		Factories Sales Warehouses	300	Sales, Office, etc 1-15 1	Sales Office (3)	1-15 1	1-15 1	1-15 1	1-15 1	1 for each 150
			300	16-35 2		16-35 2	16-35 2	16-35 2		
	300		36-55 3		36-60 3	36-60 3	36-60 3			
	300		56-80 4		81-90 4	81-90 4	81-90 4			
	300		81-110 5		Over 125 1 to 45	Over 125 1 to 45	Over 125 1 to 45	Over 125 1 to 45		
	300		111-150 6							
Group B-1 Occupancies	Dwelling Units, Apt Hotel, Motel Units Rooming Houses Dormitories	—	1	—	1	—	—	—	1 laundry tray for each 10 dwelling units or guest rooms	
		—	1 for each 10	—	1 for each 10	—	—	—		
		200	1 for each 30	—	1 for each 10	—	—	—		
Group B-1 and B-4 Occupancies	1 and 2 Family	—	1	—	1	—	—	—	—	
		—	—	—	—	—	—	—	—	
Group M Occupancies	—	—	—	—	—	—	—	—	—	
TEMPORARY FACILITIES	—	—	1 for ea. 30	1 for each 30	—	1 for each 100	—	—	—	

Footnote:
 (1) Occupant load is computed using the equation $\frac{A}{S.F. per Occ.} = \text{Occupant Load}$
 (2) Square feet per occupant is only for computing the occupant load to determine the plumbing fixtures required
 (3) Urinals may be furnished in place of water closets at the rate of one urinal for one water closet but are to exceed one third of the required water closets
 (4) 1 fixture for each 10 occupants
 (5) 1 fixture for each 15 occupants
 (6) For water closets, and lavatories, these numbers are minimum & equal number for each sex is required

*A—Area of building occupancy classification served
 S.F.—per Occ.—from Column 1 of the table

Statutory Authority: MS s 16B.59 to 16B.73
History: 11 SR 1405; 15 SR 74

1305.1800 SECTION 605.

UBC Section 605 is amended to read as follows:

Section 605. All enclosed portions of Group A occupancies customarily used by human beings and all dressing rooms must be provided with natural light by means of exterior glazed openings with an area not less than one-tenth of the total floor area, and natural ventilation by means of openable exterior openings with an area of not less than one-twentieth of the total floor area or must be provided with artificial light and a mechanically operated ventilating system. The mechanically operated ventilating systems must be capable of supplying a minimum of five cubic feet per minute of outside air with a total circulated of not less than 15 cubic feet per minute per occupant in all portions of the building during the time the building is occupied. If the velocity of the air at the register exceeds ten feet per second, the register must be placed more than eight feet above the floor directly beneath.

Toilet rooms must be provided with a fully openable exterior window at least three square feet in area; or a vertical duct not less than 100 square inches in area for the toilet facility, with 50 additional inches for each additional facility; or a mechanically operated exhaust system capable of providing a complete change of air every 15 minutes. The systems must be connected directly to the outside, and the point of discharge must be at least five feet from any openable window.

For other requirements on water closets, see Section 511(a) as amended in part 1305.1700.

For additional sanitation facilities requirements, see section 510(c) as specified in part 1305.1600.

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

History: *9 SR 1557; 11 SR 1405*

1305.1900 SECTION 705.

Section 705 of the UBC is amended to read as follows:

UBC Section 705. All portions of Group B occupancies must be provided with natural light by means of exterior glazed openings with an area equal to one-tenth of the total floor area, and natural ventilation by means of exterior openings with an area not less than 1/20 of total floor area, or must be provided with artificial light and mechanically operated ventilating system as specified in Section 605 and the applicable sections of the mechanical code.

In all buildings or portions of buildings where flammable liquids are used, exhaust ventilation must be provided sufficient to produce four air changes per hour. The exhaust ventilation must be taken from a point at or near the floor level.

In all enclosed parking garages used for storing or handling of automobiles operating under their own power and on all loading platforms in bus terminals, ventilation must be provided capable of exhausting a minimum of 3/4 cfm per square foot of gross floor area. The building official may approve an alternate ventilation system designed to exhaust a minimum of 14,000 cfm for each operating vehicle. The alternate system must be based upon the anticipated instantaneous movement rate of vehicles but not less than 2.5 percent (or one vehicle) of the garage capacity. Automatic CO sensing devices may be employed to modulate the ventilation system to maintain a maximum average concentration of CO of 50 ppm during any eight-hour period, with a maximum concentration not greater than 200 ppm for a period not exceeding one hour. Connecting offices, waiting rooms, ticket booths, etc., must be supplied with conditioned air under positive pressure.

Exception: In gasoline service stations without lubrication pits, storage garages and aircraft hangars not exceeding an area of 5,000 square feet, the building official may authorize the omission of ventilating equipment required in this section where, in the building official's opinion, the building is supplied with unobstructed openings to the outer air which are sufficient to provide the necessary ventilation.

Every building or portion of a building where persons are employed must be provided with at least one water closet. Separate facilities must be provided for each sex when the number of employees exceeds four and both sexes are employed. The toilet facilities must be located either in the building or conveniently in a building adjacent to it on the same property.

Water closet rooms in connection with food establishments where food is prepared, stored or served must have a nonabsorbent interior finish as specified in section 510(b), must

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have hand-washing facilities in or adjacent to them, and must be separated from food preparation or storage rooms as specified in Section 510(a).

A toilet room must be provided with a fully openable exterior window at least three square feet in area, or a vertical duct not less than 100 square inches in area for the toilet facility, with 50 additional inches for each additional facility, or a mechanically operated exhaust system, capable of providing a complete change of air every 15 minutes. Exhaust systems must be connected directly to the outside and the point of discharge must be at least five feet from any openable window.

For other requirements on water closets, see UBC Section 511(a) as amended in this chapter.

For additional sanitation facilities requirements, see UBC Section 510(c) as specified in this rule.

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

History: *17 SR 1279*

1305.2000 SECTION 709.

UBC Section 709 is amended by adding a new paragraph (m) to read as follows:

Section 709(m) Every parking ramp or other parking facility must include spaces for the parking of motor vehicles having a capacity of seven to 16 persons. The number of required spaces must be determined by two percent of the gross designed parking area with a minimum of two spaces.

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

History: *9 SR 1557*

1305.2050 SECTION 801.

UBC Section 801 is amended to read as follows:

UBC Section 801. Group E Occupancies are:

Division 1. Any building used for educational purposes through the 12th grade by 50 or more persons for more than 12 hours per week or four hours in any one day.

Division 2. Any building used for educational purposes through the 12th grade by less than 50 persons for more than 12 hours per week or four hours in any one day.

Division 3. Any building used for day care purposes for more than ten children.

For occupancy separations, see Table No. 5-B.

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

History: *12 SR 1365; 15 SR 74*

1305.2100 [Repealed, 15 SR 74]

1305.2200 SECTION 805.

Section 805 of the UBC is amended to read as follows:

UBC Section 805. All portions of Group E occupancies must be provided with light and ventilation, either natural or artificial, as specified in Section 605.

For other requirements on water closets, see part 1305.4100, section 511(a) as amended in this rule.

For additional sanitation facilities requirements, see UBC section 510(c) as specified in this rule.

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

1305.2300 SECTION 809.

UBC Section 809 is amended to read as follows:

Section 809. Approved fire alarms must be provided for all Group E occupancies with an occupant load of more than 50 persons, and in Group E Division 3 occupancies with an occupant load of more than 29 persons. In every Group E occupancy with an automatic sprinkler or detection system, the operation of the system must automatically activate the school fire alarm system.

The fire alarm system must be installed in compliance with NFPA Standard 72-A-79, "Local Protective Signaling Systems."

An approved fire alarm is a fire alarm and detection system consisting of the following:

1. A complete, noncoded, continuously sounding until manually reset, electronically supervised type.
2. Sounding stations on 100-foot to 150-foot spacing (a) in corridors, (b) in areas of high noise levels, such as band rooms, shops, and boiler rooms, and (c) on a weatherproof station on the exterior of the building facing residential areas.
3. Automatic sending stations (detectors) in boiler rooms, kitchens, shops, painting areas, lounges, laundries, janitor's closets, storerooms, unsupervised and unoccupied spaces, and critical or hazardous areas.
4. Unobstructed, readily accessible manual sending stations at visible locations in the natural path of escape from fire, near each exit from an area on each floor.

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

History: 9 SR 1557

1305.2400 [Repealed, 15 SR 74]

1305.2500 SECTION 1001.

Section 1001 of the UBC is amended to read as follows:

UBC Section 1001. Group I occupancies shall be:

Division 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).

Division 2. Detoxification centers, homes for children six years of age or over, supervised living facilities Class B as defined for the mentally retarded, mentally ill, or the physically handicapped (each accommodating more than four persons).

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

For occupancy separations, see Table No. 5-B.

For occupant load, see Section 3301.

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

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

1305.2600 SECTION 1002.

UBC Section 1002(b) is amended to read as follows:

Section 1002(b) Special Provisions. Division 3 occupancies must be housed in buildings of Type I or Type II-F.R. construction.

Exception: One-story buildings of Type II one-hour construction may be permitted if the floor area does not exceed 3,900 square feet between separation walls of two-hour fire-resistive construction with openings protected by fire assemblies having one and one-half hour fire-protection rating.

Every story of a Group I occupancy accommodating more than five persons, unless provided with a horizontal exit, must be divided into not less than two compartments accommodating approximately the same number of persons in each compartment by a smoke-stop partition meeting the requirements of one-hour occupancy separation so as to provide an area of refuge within the building. Corridor openings in the smoke-stop partition must be protected with doors as required in section 3305(h). Other openings are limited to ducts which have fire dampers in the plane of the wall activated by detectors of products of combustion other than heat conforming to section 4306(b) 2. A ventilation system capable of smoke evacuation must be provided for each area of refuge. When approved by the building official, openings to the exterior of the building may be used in lieu of a mechanical system.

Rooms occupied by inmates or patients whose personal liberties are restrained must have noncombustible floor surfaces.

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

History: 9 SR 1557; 15 SR 74

1305.2700 SECTION 1005.

Section 1005 of the UBC is amended to read as follows:

UBC Section 1005. All portions of Group I occupancies must be provided with natural light by means of exterior glazed openings with an area equal to one-tenth of the total floor area, and natural ventilation by means of exterior openings with an area not less than 1/20 the total floor area, or must be provided with artificial light and a mechanically operated ventilating system as specified in section 605 and the mechanical code.

For other requirements on water closets, see UBC Section 511(a) as amended in this chapter.

For additional sanitation facilities requirements, see UBC Section 510(c) as specified in this chapter.

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

1305.2800 SECTION 1009.

UBC Section 1009 is amended to read as follows:

Section 1009. An approved fire alarm system must be provided for all Group I occupancies. Audible alarm devices must be used in all nonpatient areas. Visible alarm devices may be used in lieu of audible devices in patient-occupied areas. An approved alarm system must comply with section 809 as amended in part 1305.2300. Operation of any fire alarm activating device must automatically, without delay, accomplish general alarm indication and control functions. Zoned, coded systems are permitted.

Exception: Alarm systems may be installed in accordance with NFPA 101, 1981 edition, as for new construction.

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

History: 9 SR 1557

1305.2900 SECTION 1101.

UBC Section 1101 Group M, sixth line is amended to read as follows:

For occupancy separations, see Table No. 5-B. For purposes of occupancy separation, manufactured homes, as defined in Minnesota Statutes, section 327.31, subdivision 3, are Group R, Division 3 occupancies.

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

1305.3000 [Repealed, 15 SR 74]

1305.3100 [Repealed, 15 SR 74]

1305.3200 [Repealed, 15 SR 74]

1305.3300 [Repealed, 15 SR 74]

1305.3400 SECTION 1201.

UBC Section 1201 Group R Division 1 occupancy definition is amended to read as follows:

Division 1. Hotels and apartment houses. Convents and monasteries (each accommodating more than ten persons), supervised living facilities Class A-2 as defined in Section 420 for the mentally retarded, mentally ill, chemically dependent, and the physically handicapped (each accommodating more than six persons). Physically handicapped persons shall be housed at street level in supervised living facilities.

UBC Section 1201 Group R, Division 3 is amended to read as follows:

UBC Section 1201, Division 3. Dwellings and lodging houses, supervised living facilities Class A-1 as defined in Section 420. For occupancy separations, see Table No. 5-B.

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

1305.3500 [Repealed, 11 SR 1405]

1305.3600 [Repealed, 15 SR 74]

1305.3700 [Repealed, 15 SR 74]

1305.3800 SECTION 1213.

Section 1213 of the UBC is deleted in its entirety.

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

1305.3850 [Repealed, 11 SR 1405]**1305.3860 SECTION 1215.**

UBC chapter 12 is amended by adding a new section to read as follows:

Section 1215. For Group R occupancies, sound transmission control must be provided to meet the standards defined in UBC Appendix Chapter 35.

Statutory Authority: *MS s 16B.61*

History: *15 SR 74*

1305.3900 NEW SECTION 1216.

UBC chapter 12 is amended by adding a new section to read as follows:

Section 1216. Deadbolt Locks Required. All doors leading to public or shared areas from all apartment dwelling units and hotel units must be provided with deadbolt locks, at least one of which must be capable of being locked with a key from the exterior of each unit. For the purpose of this section, a "deadbolt lock" is a locking bolt, which, when in the locked position, can only be moved positively by turning a knob, key, or sliding bolt, and which must be independent of other latching devices.

A deadbolt lock having a bolt moved by turning a key must be of the five-pin tumbler type or an approved equivalent. The lock throw may not be less than three-quarters of an inch. Locks must meet the requirements of section 3304(c).

Exception: Hotel unit doors may be provided with locks having separate deadbolts and deadlocking latchbolts which are interconnected for antipanic operation, and must be provided with emergency and display keying to outlaw all keys except emergency and display keys when the deadbolt is projected by the turn piece from the room side.

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

History: *9 SR 1557; 11 SR 1405; 15 SR 74*

1305.3970 [Repealed, 11 SR 1405]**1305.4000 [Repealed by amendment, 9 SR 1557]****1305.4100 SECTION 1711.**

UBC Section 1711 is amended to read as follows:

Section 1711. All unenclosed floor and roof openings, open and glazed sides of landings and ramps, balconies, decks, or porches which are more than 30 inches above grade or floor below, and roofs used for other than service of the building must be protected by a guardrail.

Exception: Guardrails need not be provided at the following locations:

1. on the loading side of loading docks;
2. on the auditorium side of a stage or enclosed platform.

The top of guardrails must not be less than 42 inches in height.

Exceptions: 1. The top of guardrails for Group R, Division 3, and Group M, Division 1 Occupancies and interior guardrails within individual dwelling units and guest rooms of Group R, Division 1 Occupancies may be 36 inches in height.

2. The top of guardrails on a balcony immediately in front of the first row of fixed seats and which are not at the end of an aisle may be 26 inches in height.

3. The top of guardrails for stairways, exclusive of their landings, may have a height as specified in Section 3306(j) for handrails.

Open guardrails must have intermediate rails or an ornamental pattern so that a sphere six inches in diameter cannot pass through.

Exception: The open space between the intermediate rails or ornamental pattern of guardrails in areas of commercial and industrial-type occupancies which are not accessible to the public may be such that a sphere 12 inches in diameter cannot pass through.

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On all earth-sheltered structures, a means must be provided to restrict access to the roof area unless guardrails are provided and the roof is designed for vehicular loads.

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

History: *15 SR 74*

1305.4200 [Repealed, 15 SR 74]

1305.4300 [Repealed, 11 SR 1405]

1305.4500 [Repealed, 15 SR 74]

1305.4600 SECTION 2303.

Section 2303(a) of the UBC is amended to read as follows:

UBC Section 2303. (a) General. All buildings and portions thereof shall be designed and constructed to sustain, within the stress limitations specified in this code, all dead loads and all other loads specified in this chapter or elsewhere in this code. Impact loads shall be considered in the design of any structure where impact loads occur.

Exception: Unless otherwise required by the building official, buildings or portions thereof, other than earth-sheltered structures, which are constructed in accordance with the conventional framing requirements specified in Chapter 25 of this code shall be deemed to meet the requirements of this section.

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

1305.4700 SECTION 2305.

Section 2305(d) of the UBC is amended to read as follows:

UBC Section 2305(d) Snow Loads. Snow loads full or unbalanced shall be considered in place of loads set forth in Table No. 23-C, where such loading will result in larger members or connections.

A basic snow load of 40 pounds per square foot of horizontal projection is required in the following counties: Anoka, Carlton, Carver, Chisago, Cook, Dakota, Hennepin, Isanti, Lake, Pine, Ramsey, Saint Louis, Scott, and Washington. A basic snow load of 30 pounds per square foot of horizontal projection is required for all other counties.

Potential accumulation of snow at valleys, parapets, roof structures, and offsets in roofs of uneven configuration shall be considered. Where snow loads occur, the snow loads shall be determined by the building official in accordance with chapter 1365.

Exceptions:

1. The requirements of chapter 1365 shall not apply to Group R Division 3, Group R Division 4, and Group M occupancies.

2. A basic snow load of 30 pounds per square foot of horizontal projection shall be acceptable for detached Group M, Division 1 occupancies in all counties.

Snow loads in excess of 20 pounds per square foot may be reduced for each degree of pitch over 20 degrees. See chapter 1365.

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

1305.4800 SECTION 2311.

Section 2311(a) of the UBC is amended to read:

UBC Section 2311(a) General. Every building or structure and every portion of a building or structure must be designed and built to resist the wind effects determined in accordance with the requirements of this section. Wind is presumed to come from any horizontal direction. No reduction in wind pressure may be taken for the shielding effect of adjacent structures.

Structures sensitive to dynamic effects, such as buildings with a height-width ratio greater than five, structures sensitive to wind-excited oscillations, such as vortex shedding or icing, and buildings over 400 feet in height, must be, and any structure may be, designed in accordance with approved national standards.

The effect of one-half inch of radial ice must be included in the design of open frame towers including all supporting guys. This effect must include the weight of the ice and the increased profile of each such tower component so coated.

UBC Section 2311(b) is amended to read as follows:

Section 2311(b) Basic Wind Speed. The minimum basic wind speed for determining design wind pressure is 80 miles per hour (mph). See Table 23-F for conversion from mph to pressures in pounds per square foot (psf).

UBC Section 2311(h) is deleted in its entirety.

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

History: *9 SR 1557*

1305.4850 SECTION 2311.

UBC Section 2311(i) is deleted in its entirety.

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

History: *11 SR 1405; 15 SR 74*

1305.4900 [Repealed, 15 SR 74]

1305.5000 [Repealed, 11 SR 1405]

ELEVATORS AND RELATED DEVICES

1305.5100 [Repealed, 11 SR 1405]

1305.5100 AMENDMENT OF UBC CHAPTER 51.

UBC chapter 51 is replaced in its entirety by parts 1305.5101 to 1305.5118.

Statutory Authority: *MS s 16B.61*

History: *15 SR 70*

1305.5101 PURPOSE.

Sec. 5101. The provisions of parts 1305.5101 to 1305.5118 are to safeguard life, limb, property, and public welfare by establishing minimum requirements relating to the design, construction, installation, alteration and repair, and operation and maintenance of passenger elevators, freight elevators, handpowered elevators, dumbwaiters, escalators, moving walks, temporary hoists, stage and orchestra lifts, endless belt lifts, wheelchair platform lifts, and other related devices.

Statutory Authority: *MS s 16B.61*

History: *15 SR 70*

1305.5102 SCOPE.

Sec. 5102. Parts 1305.5101 to 1305.5118 apply to new and existing installations of elevators and related devices, requiring permits therefore and providing for the inspection and maintenance of the conveyances. The requirements for the enforcement of these provisions are established by this chapter.

ANSI/ASME A17.1, Part XXI, is the administrative responsibility of the municipal building official and a legislative statute exempts the Department of Labor and Industry from the enforcement of these regulations in owner-occupied buildings of no more than four dwelling units.

Statutory Authority: *MS s 16B.61*

History: *15 SR 70*

1305.5103 ANSI CODE ADOPTED BY REFERENCE.

Sec. 5103. Subpart 1. **Incorporation by reference.** The American National Standard Safety Code for Elevators and Escalators adopted by the American National Standards Institute and the American Society of Mechanical Engineers (ANSI/ASME) A17.1-1987, together with supplement A 17.1a-1988 and ANSI A17.3-1986, as published by the American Society of Mechanical Engineers, United Engineering Center, 345 East 47th Street, New York, New York 10017, is incorporated by reference and made a part of this code except as qualified or amended in this chapter. These standards are not subject to frequent change and are available in the office of the commissioner of administration.

Subp. 2. Exceptions to ANSI.

A. Winding drum machines are not permitted on new elevator installations or replacements on existing installations.

B. Horizontal swing doors of single-section or center-opening two-section design are not permitted on new elevator installations or as replacements on existing installations, except the administrative authority may approve their installation if the conditions make it impossible to install other kinds of doors.

C. Side emergency exits on elevator cars are not permitted.

D. Operating devices must be of the enclosed electric type. Rope- or rod-operated devices activated by hand, or rope-operating devices activated by wheels, levers, or cranks, must be removed. This is not considered a material change.

Statutory Authority: *MS s 16B.61*

History: *15 SR 70*

1305.5104 DEFINITIONS.

Sec. 5104. (a) "ANSI Code" means the ANSI/ASME A17.1 Code-1987, with supplement A17.1a-1988 and ANSI A17.3-1986, Safety Code for Elevators and Escalators, an American National Standard published by the American Society of Mechanical Engineers.

(b) "Authority Having Jurisdiction" means the building code enforcement agency of local government for areas where the code is enforced by a local government or the Department of Labor and Industry in areas outside the enforcement sphere of local government.

(c) "Existing installation" means one for which, before the effective date of this code:

(1) all work of installation was completed; or

(2) the plans and specifications were filed with the enforcing authority and work was begun not later than 12 months after approval of the plans and specifications.

Statutory Authority: *MS s 16B.61*

History: *15 SR 70*

1305.5105 PERMITS.

Sec. 5105. (a) Permits Required. It is unlawful for any person, firm, or corporation to hereafter install any new passenger elevators, freight elevators, handpowered elevators, moving walks, escalators, dumbwaiters, wheelchair platform lifts, endless belt lifts, or any other related device, or make alterations to any existing passenger elevators, moving walks, escalators, dumbwaiters, wheelchair platform lifts, endless belt lifts, or any other related device without having first obtained a permit for the work from the authority having jurisdiction. Alterations, modifications, and practical difficulties will be done in keeping with the rules of the Department of Labor and Industry.

Exception: A Certificate of Operation will not be required for a conveyance installed within a dwelling unit for the singular use of the occupant of the dwelling unit.

(b) Application for Permit. Application for a permit to install or repair must be made on forms provided by the authority having jurisdiction.

(c) Plans and Specifications. Plans and specifications describing the extent of the work involved must be submitted with the application for a permit. The authority having jurisdiction may require that such plans and specifications be prepared by an architect or engineer licensed to practice in Minnesota. A permit will be issued to the applicant when the plans and specifications have been approved and the appropriate permit fee specified in this code has been paid by the applicant.

(d) Certificate of Operation Required. It is unlawful to operate an elevator, dumbwaiter, escalator, moving walk, or related device without a current Certificate of Operation issued by the authority having jurisdiction. The certificate will be issued upon payment of prescribed fees and the presentation of a valid inspection report indicating that the conveyance is safe and that the inspections and tests have been performed in accordance with Part X of the ANSI code. A certificate will not be issued when the conveyance is posted as unsafe.

(e) Application for Certificate of Operation. Application for a certificate of operation must be made by the owner, or an authorized representative, for an elevator, dumbwaiter,

escalator, moving walk, or other related device. The application must be accompanied by an inspection report. Fees for the Certificate of Operation must be as specified by the administrative authority.

(f) Fees. Fees for the installation, alteration, or repair of devices covered in this section are as set forth in the fee schedule adopted by the jurisdiction or in the cases under permit issuance by the Department of Labor and Industry will be as established by the Department of Labor and Industry. A recommended fee schedule structure is located in UBC Appendix Chapter 51.

Statutory Authority: *MS s 16B.61*

History: *15 SR 70*

1305.5106 INSPECTION, TESTS, AND APPROVALS.

Sec. 5106. (a) Approval of plans. Any person, firm, or corporation desiring to install, relocate, alter materially, or extend any installation covered by this chapter must be required to obtain approval for doing so from the authority having jurisdiction. Two sets of drawings and specifications showing the installation, relocation, alteration, or extension must be submitted for approval.

(b) Inspections and tests. It is unlawful for any person, firm, or corporation to put into service any installation covered by parts 1305.5101 to 1305.5118 whether the installation is newly installed, relocated, or altered materially without the installation being inspected and approved by the authority having jurisdiction. The installer of any equipment included in this chapter must notify in writing the authority having jurisdiction seven days before completion of the installation for inspection. The authority having jurisdiction may require tests as described in ANSI A17.1-1987 Edition and supplement ANSI A17.1a-1988 and ANSI A17.3-1986 to prove the safe operation of the installation.

(c) Approval. A certificate or letter of approval must be issued by the authority having jurisdiction for the installation when the entire installation is completed in conformity with this code. The installation must include all enclosures or shafts, gates, doors, machinery safety and control devices, and all other appurtenances necessary.

(d) Limited use of an elevator. When a building or structure is to be equipped with one or more elevators, at least one of the elevators may be approved for limited use before completion of the building or structure. The use of the elevator may be permitted by the authority having jurisdiction under the authority of a limited permit issued for each class of service. The limited permit must specify the class of service permitted and it must not be issued until the elevator has been tested with a rated load and the car safety and terminal stopping equipment have been tested to determine the safety of the equipment. Permanent enclosures must be in place on the car and around the hoistway and at the landing entrance on each floor.

Statutory Authority: *MS s 16B.61*

History: *15 SR 70*

1305.5107 ACCIDENTS.

Sec. 5107. (a) To be reported. The owner or person in control of an elevator or other installation covered by this code must promptly notify the authority having jurisdiction of any accident to a person or apparatus on, about, or in connection with an elevator or other installation, and must afford the authority having jurisdiction every facility for investigating the accident and the resultant damage. Notification may be given to the authority having jurisdiction by telephone or verbally. The notification must also be confirmed in writing.

(b) Investigation. The authority having jurisdiction must make or cause to be made an investigation of the accident, and the report of the investigation must be placed on file in its office. The report must give in detail the cause or causes, so far as can be determined, and the report must be available for public inspection.

(c) Operation discontinued. When an accident involves the failure or destruction of a part of the installation or the operating mechanism, the elevator or other installation must be taken out of service and must not be used again until it has been made safe and the reuse approved by the authority having jurisdiction. The authority having jurisdiction may, when necessary, order the discontinuance of operation of any such elevator or installation until a new certificate of operation has been issued.

(d) Removal of parts restricted. No part of the damaged installation, construction, or operating mechanism must be removed from the premises until permission is granted by the authority having jurisdiction.

Statutory Authority: *MS s 16B.61*

History: *15 SR 70*

1305.5108 DESIGN; SPECIAL PROVISIONS.

Sec. 5108. For detailed design, construction, and installation requirements, see UBC Chapter 23 and the appropriate requirements of the ANSI Code as well as the special provisions cited in this code.

(a) Number of Cars in Hoistway. When there are three or fewer elevator cars in a building, they may be located within the same hoistway enclosure. When there are four elevator cars, they must be divided in such a manner that at least two separate hoistway enclosures are provided. When there are more than four elevators, not more than four elevator cars may be located within a single hoistway enclosure.

(b) Elevator Lobby Enclosures. Elevator lobby enclosures, when required, must comply with UBC Section 1807(h). When an elevator lobby enclosure is not required, an area of the ceiling area of the corridor outside the elevator shaft opening(s) must be provided with a draft curtain of glass set in metal frames or construction complying with the construction type of the building to provide an area for the control of the products of combustion.

(c) Door Operation. Each elevator lobby or entrance must be provided with an approved smoke detector. The operation of such detectors may be set at the maximum sensitivity.

(d) Standby Power. Standby power when required by UBC Section 1807 must be capable of providing power to all elevators necessary to serve all floors of the building. Standby power must be manually transferable to all elevators in each bank.

Standby power must be provided by an approved self-contained generator set to operate automatically whenever there is a loss of electrical power to the building. The generator set must be located in a separate room enclosed by at least a one-hour fire-resistive occupancy separation. The generator must have a fuel supply adequate to operate the equipment connected to it for a minimum of two hours.

Note: A bank of elevators is a group of elevators or a single elevator controlled by a common operating system; that is, all those elevators which respond to a single call button constitute a bank of elevators. There is no limit to the number of cars which may be in a bank or group, but there may be not more than four cars within a common hoistway.

(e) Size of Cab and Control Location. When required by chapter 1340, all floors of buildings served by an elevator or elevators must be of a size that will accommodate a wheelchair, as follows:

1. Operation and leveling. Elevator operation must be automatic. Each car must be equipped with a self-leveling feature that will automatically bring to the floor landings within a tolerance of one-half inch under normal loading and unloading conditions. The self-leveling feature must be entirely automatic and independent of the operating device and must correct the overtravel or undertravel. The car must also be maintained approximately level with the landing, irrespective of load.

2. Door operation. Power-operated horizontally sliding car and hoistway doors opened and closed by automatic means must be provided.

3. Door size. Minimum clear width for elevator doors must be 36 inches.

Exception: When approved by the authority having jurisdiction, the minimum door width may be reduced to 32 inches for cars with dimensions as permitted by the exception to Section 5108(e) 6.

4. Door protective and reopening device. The reopening device must be capable of sensing an object or person in the path of a closing door without requiring contact for activation at a nominal five inches and 29 inches above the floor. Door reopening devices must remain effective for a period of not less than 20 seconds.

5. Door delay (passenger service time).

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A. Hall call. The minimum acceptable time from notification that a car is answering a call (lantern and audible signal) until the doors of that car start to close must be as indicated in the following table:

DISTANCE (in feet)	TIME
0 to 5	4 seconds
10	7 seconds
15	10 seconds
20	13 seconds

The distance must be established from a point in the center of the corridor or lobby (maximum five feet) directly opposite the farthest hall button to the center line of the hoistway entrance.

B. Car call. The minimum acceptable time for doors to remain fully open must be not less than three seconds.

6. Car inside. The car inside must allow the turning of a wheelchair. The minimum clear distance between walls or between wall and door, excluding return panels, must be not less than 68 inches by 54 inches. Minimum distance from wall to return panel must be not less than 51 inches.

Exception: When approved by the authority having jurisdiction, existing elevators provided in schools, institutions, or other buildings may have a minimum clear distance between walls or between wall and door, excluding return panels, of not less than 54 inches by 54 inches. Minimum distance from wall to return panel must be not less than 51 inches.

7. Car controls. Controls must be readily accessible from a wheelchair upon entering an elevator. The center line of the alarm button must be at a nominal 35 inches, and the highest floor button no higher than 54 inches from the floor. Floor registration buttons, exclusive of border, must be a minimum three-fourths inch in size, raised, flush, or recessed. Visual indication must be provided to show each call registered and extinguished when call is answered. Depth of flush or recessed buttons when operated must not exceed three-eighths inch. Markings must be adjacent to the controls on a contrasting color background to the left of the controls. Letters or numbers must be a minimum of five-eighths inch high and raised or recessed 0.030 inch. Applied plates permanently attached are acceptable. Emergency controls must be grouped together at the bottom of the control panel. Controls not essential to the automatic operation of the elevator may be located as convenient.

8. Car position indicator and signal. A car position indicator must be provided above the car operating panel or over the opening of each car to show the position of the car in the hoistway by illumination of the indication corresponding to the landing at which the car is stopped or passing. Indications must be on a contrasting color background and a minimum of one-half inch in height. In addition, an audible signal must sound to tell a passenger that the car is stopping or passing a floor served by the elevator. A special button located with emergency controls may be provided. Operation of the button will activate an audible signal only for the desired trip.

9. Telephone or intercommunicating system. A means of two-way communication must be provided between the elevator and a point outside the hoistway connected to an approved emergency service which operates on a 24-hour daily basis. If a telephone or other communicating device is provided, it must be located a maximum of 54 inches from the floor to the dial or key pad on the phone or other operating device, with a minimum receiver cord length of 29 inches. Markings or the international symbol for telephones must be adjacent to the control on a contrasting color background. Letters or numbers must be a minimum of five-eighths inch high and raised or recessed 0.030 inch. Applied plates permanently attached are acceptable.

10. Floor covering. Floor covering must have a nonslip hard surface which permits easy movement of wheelchairs. If carpeting is used, it must be securely attached, heavy duty, with a tight weave and low pile, installed without padding.

11. Handrails. A handrail must be provided on at least one wall of the car, preferably the rear. The handrails must be smooth, a maximum diameter of 1-1/2 inches and the inside edge

of the handrail surface located at least 1-1/2 inches clear of the walls mounted at a height of 32 inches from the floor.

Note: 32 inches is required to reduce interference with car controls where lowest button is centered at 35 inches above the floor.

12. Minimum illumination. The minimum illumination at the car controls and the landing when the car and landing doors are open must be not less than five footcandles.

13. Hall buttons. The center line of the hall call buttons must be a nominal 42 inches above the floor. Direction buttons, exclusive of border, shall be a minimum of three-fourths inch in size, raised, flush, or recessed. Visual indication must be provided to show each call registered and extinguished when the call is answered. Depth of flush or recessed button when operated must not exceed three-eighths inch.

14. Hall lantern. A visual and audible signal must be provided at each hoistway entrance indicating to the prospective passenger the car answering the call and its direction of travel. The visual signal for each direction must be a minimum of 2-1/2 inches in size and visible from the proximity of the hall call button. The audible signal must sound once for the up direction and twice for the down direction. The center line of the fixture must be located a minimum of six feet from the floor. The use of in-car lanterns conforming to above and located in the jamb are acceptable.

15. Door jamb marking. The floor designation must be provided at each hoistway entrance on both sides of the jamb visible from within the car and the elevator lobby centered at a height of 60 inches above the floor. Designations must be on a contrasting background two inches high and raised 0.030 inch. Applied plates permanently attached are acceptable.

(f) Stretcher requirements. In buildings with elevators requiring Phase I and II operation, at least one elevator must be provided with a minimum clear distance between walls or between walls and door excluding return panels, not less than 80 inches by 54 inches, and a minimum distance from wall to return panel not less than 51 inches with a 42-inch side slide door, unless otherwise designed to accommodate an ambulance-type stretcher 76 inches by 24 inches in the horizontal position. In buildings where one elevator does not serve all floors, two or more elevators may be used.

(g) Emergency signs. Except at the main entrance level, an approved pictorial sign of a standard design must be posted adjacent to each elevator call station which will indicate that, in case of fire, the elevator will not operate and that exits should be used.

(h) Restricted or limited-use elevators. The authority having jurisdiction may waive the requirements of this section for any elevator designed for limited or restricted use serving only specific floors or a specific function.

Statutory Authority: *MS s 16B.61*

History: *15 SR 70*

1305.5109 ELEVATOR AND DUMBWAITER HOISTWAY ENCLOSURES.

Sec. 5109. (a) Walls and partitions enclosing elevator and dumbwaiter shafts and escalator shafts must be constructed with materials not less than the fire-resistive construction required under Type of Construction in Part IV of the Uniform Building Code.

(b) Partitions between fire-resistive hoistways and machine rooms having fire-resistive enclosures and which are located at a side of or beneath the hoistway may be of unperforated noncombustible material at least equal to 0.0598 inch thick sheet steel in strength and stiffness with openings essential for ropes, drums, sheaves, and other elevator equipment.

(c) All hoistway openings must be provided with fire-resistive protective assemblies. The fire resistance rating must not be less than 1-1/2 hours when installed in two hour fire-resistance-rated construction. Protective assemblies installed in fire-resistance-rated construction of less than two hours must have ratings required by the Uniform Building Code. The fire-resistance rating must be determined by the test specified in Part XI, Rule 1102 of ANSI/ASME A17.1-1987.

Statutory Authority: *MS s 16B.61*

History: *15 SR 70*

1305.5110 HOISTWAY VENTING.

Sec. 5110. (a) Shafts (hoistways) housing elevators extending through more than two floor levels shall be vented to the outside. The area of the vent shall be not less than 3-1/2 percent of the area of the elevator shaft, provided a minimum of three square feet per elevator is provided.

The venting of each individual hoistway must be independent from any other hoistway venting, and the interconnection of separate hoistways for the purpose of venting is prohibited. Vents must be manually openable or remote control automatic vents. Location of operating devices is subject to approval of the authority having jurisdiction. Vents must be located in the side of the hoistway enclosure directly below the floor or floors at the top of the hoistway, and must open either directly to the outer air or through noncombustible ducts to the outer air; or in the wall or roof of the penthouse or overhead machinery space above the roof when the openings have a total area not less than the minimum specified in this section. Vents passing through machine rooms must be in noncombustible ducts. When a vent is installed in the roof of the hoistway, a protective grille must be provided to prevent persons from falling into the hoistway.

(b) If air pressurization of a hoistway is used as a means of smoke and hot gas control, the air must not be introduced into the hoistway in such a manner as to cause erratic operation by impingement of traveling cables, selector tapes, governor ropes, compensating ropes, and other components sensitive to excessive movement or deflection.

Statutory Authority: *MS s 16B.61*

History: *15 SR 70*

1305.5111 ELEVATOR MACHINE ROOM FLOORS.

Sec. 5111. Elevator hoistways must not be vented through an elevator machine room unless such venting is accomplished by an approved duct system installed through the elevator machine room.

Statutory Authority: *MS s 16B.61*

History: *15 SR 70*

1305.5112 AMENDMENTS TO ANSI A17.1-1987.

ANSI A17.1 Rule 102.2 is amended to read as follows:

(c) (6) When approved by the fire chief, automatic disconnect of the main power supply is not required if sprinklers are located in the machine or equipment room only; the elevator is equipped with Phase I emergency recall (see Section 211); and the sprinkler heads are of the cycling sprinkler (on-off) type.

NOTE 1: This does not limit the use of shields and baffles.

NOTE 2: This alternative does not apply if the hoistway is provided with sprinkler protection.

ANSI A17.1 Rule 112.5 is amended to read as follows:

Where required by Rule 112.3d or Rule 112.4, a power-operated car door or gate must be provided with a reopening device which will function to stop and reopen a car door or gate and the adjacent hoistway door in the event that the car door or gate is obstructed while closing. If the closing kinetic energy is reduced to 2-1/2 foot-pounds or less, the reopening device may be rendered inoperative (see Rule 112.4-a).

For center-opening doors, the reopening device must be so designed and installed that the obstruction of either door panel when closing will cause the reopening device to function.

Doors on all passenger elevators must not be solely dependent upon the door edge reopening device for protection from the doors closing on an obstruction, but must also be provided with an approved light beam or electronic door protection device. Doors closed by automatic means must be provided with a door reopening device which will function to stop and reopen the car door and adjacent hoistway door in case the car is obstructed while closing. For vertically sliding doors or gates, reopening devices must respond to any obstruction within the width of the opening to a point five inches maximum from each side of the opening.

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ANSI A17.1 Rule 211.3d is amended to read as follows:

On emergency elevators all keyed switches installed to operate the elevator or emergency service must be keyed alike to a pattern approved by the authority having jurisdiction. In lieu of the above, keys for emergency elevator service may be in a metal box placed in a location approved by the fire chief. The box must be locked with a key approved by the fire chief.

ANSI A17.1 Rule 602.1 is amended by adding a fourth paragraph to read as follows:

All handpowered elevators must be equipped with a broken rope safety device.

ANSI A17.1 Rule 703.1 is amended by adding a second paragraph to read as follows:

All dumbwaiters must be equipped with a broken rope safety device.

ANSI A17.1a-1988 Rule 902.4a Handrails, is amended as follows:

902.4a Type Required. Each balustrade must be provided with a handrail moving in the same direction and at substantially the same speed as the treadway. A stopped handrail device must be provided that will cause the immediate activation of the alarm required by Rule 805.1b and, after not more than 15 seconds interruption of power to the driving machine motor and brake.

ANSI A17.1a-1988 Rule 905.1d Broken Treadway Device is amended as follows:

ANSI A17.1a-1988 Rule 905.1d Broken Treadway Device. A device must be provided which will cause interruption of power to the driving machine and brake if the connecting means between pallets or the belt breaks. Pallet type moving walks must be provided with a device which will cause interruption of power to the driving machine when a displaced or lost pallet is detected. Interruption of power must occur prior to the displaced or lost pallet entering the passenger walkway area.

ANSI A17.1 Rule 2000 is amended by adding the following language:

Inclined and Vertical Wheelchair Lifts. This part applies to vertical wheelchair lifts (ANSI Section 2000), and inclined wheelchair lifts (ANSI Section 2001), installed in buildings other than in or at a private residence for use by the physically handicapped. Wheelchair lifts do not meet the accessibility requirements contained in chapter 1340. See ANSI A17.1, Part XXI for the requirements for this equipment installed in or at a private residence.

The wheelchair lifts must not be exposed to the outside elements. Testing, tests, and inspections must be made in accordance with the applicable provisions of part 1305.5117.

ANSI A17.1 Rule 2000.6D is amended to read as follows:

Car and platform illumination lighting must comply with rule 204.7.

ANSI A17.1 Rule 2001.1a is amended to read as follows:

Rule 2001.1a Means of egress. Lifts must be installed so that the means of egress is maintained as required by the authority having jurisdiction.

When installed at ramps or stairs, the lift must be separated from the ramp or stair by a solid guard rail not less than 42 inches in height. Handrails complying with the requirements of the UBC Section 3306(j) must be provided on the ramp or stairway side of the guardrail, except as provided by Minnesota Statutes, section 16B.61, subdivision 5, paragraph (g).

ANSI A17.1 Rule 2001.6f is amended to read as follows:

Platform illumination lighting must comply with rule 204.7.

ANSI A17.1 Rule 2002 is deleted in its entirety.

Statutory Authority: *MS s 16B.61*

History: *15 SR 70*

1305.5114 STAGE AND ORCHESTRA LIFTS.

Stage and orchestra lifts must be designed, installed, constructed, and maintained so as to be reasonably safe to life, limb, and adjoining property and must be reviewed by the authority having jurisdiction prior to installation or construction.

Statutory Authority: *MS s 16B.61*

History: *15 SR 70*

1305.5115 ENDLESS BELT LIFTS.

Endless belt lifts must be designed, installed, constructed, and maintained so as to be reasonably safe to life, limb, and adjoining property and must conform to the rules of the Department of Labor and Industry, parts 5205.0550 to 5205.0590.

Statutory Authority: *MS s 16B.61*

History: *15 SR 70*

1305.5116 TEMPORARY INTERIOR AND EXTERIOR HOISTS.

Temporary interior and exterior hoists must be designed, constructed, installed, and maintained so as to be reasonably safe to life, limb, and adjoining property and must conform to Safety Requirements for Workman's Hoists, ANSI 10.4-1963, Safety Requirements for Material Hoists, ANSI 10.5-1969, and rules of the Department of Labor and Industry.

Statutory Authority: *MS s 16B.61*

History: *15 SR 70*

1305.5117 MECHANICAL PARKING GARAGE EQUIPMENT.

Mechanized parking garage equipment must be designed, constructed, installed, and maintained so as to be reasonably safe to life, limb, and adjoining property and must conform to the standards specified in the American Standard Safety Code for Mechanized Parking Garage Equipment, ANSI A113.1 (R-1971).

Statutory Authority: *MS s 16B.61*

History: *15 SR 70*

1305.5118 EXISTING INSTALLATIONS.

(a) Conditions for continued operation. All existing installations may be continued in service as long as they are properly maintained and are, in the opinion of the authority having jurisdiction, installed and maintained in a safe condition. The authority having jurisdiction may order the installation of car gates, car tops, and car walls extended to the car top on all existing installations. The authority having jurisdiction must have the authority to shut down any piece of equipment covered by this chapter, which in the opinion of the authority having jurisdiction, is dangerous to life, limb, and adjoining property, and the equipment must not be put back into operation until the unsafe condition has been corrected and approved by the authority having jurisdiction.

(b) Damaged installations. Any installation, whether new or existing, which becomes damaged, defective, or worn, by fire or other causes including ordinary wear to such extent that in the opinion of the authority having jurisdiction it is dangerous to life, limb, and adjoining property, such installations must be repaired or rebuilt in conformity with this code. The equipment must, if in the opinion of the authority having jurisdiction, it is found necessary to protect life, limb, and property, be taken out of service until the unsafe condition has been removed. An installation that is materially changed after the enactment of this code must comply with all of the requirements covering a new installation. "Material change" means a change that moves the location, increases or decreases the length of travel, changes the type of operation, increases the speed or carrying capacity, or changes the types of power supply of an existing installation.

(c) Unsafe conditions. When an inspection reveals an unsafe condition, the inspector must immediately file with the owner and the authority having jurisdiction a full and true report of the inspection and the unsafe condition. If the administrative authority's agent finds that the unsafe condition endangers human life, limb, and property, the inspector shall place a notice, in a conspicuous location, on the elevator, escalator, or moving walk that the conveyance is unsafe. The owner shall see to it that the notice of unsafe condition is legibly maintained where placed by the authority having jurisdiction. The authority having jurisdiction must issue an order in writing to the owner requiring the repairs or alterations to be made to the conveyance which are necessary to render it safe, and may order the operation discontinued until the repairs or alterations are made or the unsafe conditions are removed. A posted notice of unsafe conditions must be removed only by the authority having jurisdiction when satisfied that the unsafe conditions have been corrected.

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Compliance must be in accordance with the requirements of ANSI A17.3-1986.

Statutory Authority: *MS s 16B.61*

History: *15 SR 70*

1305.5200 SECTION 2501.

Section 2501(a) of the UBC is amended to read as follows:

UBC Section 2501(a) Quality and Design. The quality and design of wood members and their fastenings shall conform to the provisions of this chapter, and to the applicable standards listed in chapter 60 as amended herein.

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

1305.5300 [Repealed, 15 SR 74]

1305.5310 [Repealed, 15 SR 74]

1305.5320 SECTION 2517.

UBC Section 2517(h) 6 is amended to read as follows:

Section 2517(h) 6. Blocking. Roof rafters and ceiling joists must be supported laterally to prevent rotation and lateral displacement when required by section 2506(h).

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

History: *9 SR 1557; 11 SR 1405*

1305.5340 SECTION 2607.

UBC Section 2607(h), item 5 is amended to read as follows:

5. 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 UBC Standard No. 26-4 Part III.

Statutory Authority: *MS s 16B.61*

History: *15 SR 74*

1305.5360 SECTION 2618.

UBC Section 2618(o) is amended to read as follows:

(o) Corrosion Protection for Unbonded Prestressing Tendons. [18.14]

1. Unbonded tendons must be completely coated with suitable material to ensure corrosion protection.
2. Tendon wrapping must be continuous over the entire length to be unbonded, and must prevent intrusion of cement paste or loss of coating materials during concrete placement.
3. 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 nonwater-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.
4. 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.

5. 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; and
- E. be chemically stable and nonreactive with the prestressing steel, the sheathing material, and the concrete.

6. The film must be an organic coating with appropriate polar, moisture displacing, and corrosion-preventive additives.

7. 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.

8. Test results of the corrosion preventive coating material tested in accordance with Table 26-A-8 must be provided to the engineer of record and to the special inspector.

Statutory Authority: *MS s 16B.61*

History: *15 SR 74*

1305.5380 SECTION 2618.

UBC Section 2618(t) is amended by adding item 5 to read as follows:

5. 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: *15 SR 74*

1305.5385 TABLE 26-A-8.

UBC Chapter 26 is amended by adding a new Table 26-A-8 to read as follows:

TABLE 26-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*

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| 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 |
| 7. Soak test | | |
| 5 percent salt fog at
100°F (37.8°C) 5 mils
coating, Q panels,
Type S. Immerse panels
50 percent in a 5 per-
cent salt solution and
expose to salt fog | ASTM B-117
(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
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 $100^\circ\text{F} \pm 2^\circ\text{F}$ for 4 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: *15 SR 74*

1305.5400 SECTION 2907.

UBC Section 2907(a) is amended to read as follows:

Section 2907(a) General. Footings and foundation, unless otherwise specifically provided, must be constructed of masonry, concrete, or treated wood in conformance with UBC Standard No. 29-3 and in all cases must extend below the frost line. Footings of concrete and masonry must be of solid material. Foundations supporting wood must extend at least six inches above the adjacent finish grade. Footings must have a minimum depth below finished grade for the zone as established below unless another depth is recommended by a foundation investigation.

A. In the absence of a determination by an engineer competent in soil mechanics, the minimum allowable footing depth in feet due to freezing is five feet in Zone I and 3-1/2 feet in Zone II.

Zone I includes the counties of: Aitkin, Becker, Beltrami, Carlton, Cass, Clay, Clearwater, Cook, Crow Wing, Douglas, Grant, Hubbard, Itasca, Kanabec, Kittson, Koochiching, Lake, Lake of the Woods, Mahnomen, Marshall, Mille Lacs, Morrison, Norman, Otter Tail,

Pennington, Pine, Polk, Red Lake, Roseau, Saint Louis, Todd, Traverse, Wadena, and Wilkin.

Zone II shall include the counties of: Anoka, Benton, Big Stone, Blue Earth, Brown, Carver, Chippewa, Chisago, Cottonwood, Dakota, Dodge, Faribault, Fillmore, Freeborn, Goodhue, Hennepin, Houston, Isanti, Jackson, Kandiyohi, Lac Qui Parle, Le Sueur, Lincoln, Lyon, McLeod, Martin, Meeker, Mower, Murray, Nicollet, Nobles, Olmsted, Pipestone, Pope, Ramsey, Redwood, Renville, Rice, Rock, Scott, Sibley, Sherburne, Stearns, Steele, Stevens, Swift, Wabasha, Waseca, Washington, Watonwan, Winona, Wright, and Yellow Medicine. Less depths may be permitted when supporting evidence is presented by an engineer competent in soil mechanics.

B. Soil Under Slab on Grade Construction for Buildings. When soil, natural or fill, is sand or pit run sand and gravel, and of depth in accordance with minimum footings depth requirements for each zone, slab on grade construction which is structurally designed to support all applied loads is permitted. Footings for interior bearing walls or columns may be constructed to be integral with the slab on grade for any height building. Footings for exterior bearing walls or columns may be similarly constructed for any height building when supporting soil is as described in this item. Footing design must reflect eccentric loading conditions at slab edges, soil bearing capacity, and the requirements of UBC Chapter 26. Slab on grade construction for detached buildings Group M, Division 1 occupancies may be placed on any soil except peat or muck.

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

History: *15 SR 74*

1305.5500 [Repealed, 15 SR 74]

1305.5700 SECTION 3207.

Section 3207(c) of the UBC is amended to read as follows:

UBC Section 3207(c). Where roof drains are required, overflow drains having the same size as roof drains shall be installed with the inlet flow line located two inches above the low point of the roof, or overflow scuppers having three times the size of the roof drains may be installed in adjacent parapet walls with the inlet flow line located two inches above the low point of the adjacent roof and having a minimum opening height of four inches. Overflow drains shall be connected to drain lines independent from the roof drains, and shall discharge above grade.

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

History: *11 SR 1405*

1305.5710 TABLE NO. 32-B-1.

UBC Table No. 32-B-1 is amended by adding a footnote following the "Severe Climate" portion of the first column to read as follows:

2. The entire state of Minnesota is subject to wind-driven snow or roof ice buildup.

Statutory Authority: *MS s 16B.61*

History: *15 SR 74*

1305.5720 TABLE NO. 32-B-2.

UBC Table No. 32-B-2 is amended by adding a footnote following the "Severe Climate" portion of the first column to read as follows:

2. The entire state of Minnesota is subject to wind-driven snow or roof ice buildup.

Statutory Authority: *MS s 16B.61*

History: *15 SR 74*

1305.5730 TABLE NO. 32-D-1.

UBC Table No. 32-D-1 is amended by adding a footnote following "UNDERLAYMENT" in the first column to read as follows:

5. The entire state of Minnesota is subject to wind-driven snow or roof ice buildup.

Statutory Authority: *MS s 16B.61*

History: *15 SR 74*

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1305.5740 TABLE NO. 32-D-2.

UBC Table No. 32-D-2 is amended by adding a footnote following "UNDERLAYMENT" in the first column to read as follows:

6. The entire state of Minnesota is subject to wind-driven snow or roof ice buildup.

Statutory Authority: *MS s 16B.61*

History: *15 SR 74*

1305.5750 SECTION 3301.

UBC Section 3301(e) is deleted in its entirety.

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

History: *11 SR 1405*

1305.5800 [Repealed, 15 SR 74]

1305.5900 SECTION 3305.

UBC Section 3305(h) 1 is amended by adding an exception 3 to read as follows:

3. In existing Type I and II-F.R. buildings housing Group B-2 occupancies, corridor walls may be of approved wired glass set in metal frames. The glass height must not exceed two-thirds of the width of the corridor. A draft curtain of at least one-hour fire-resistive construction and not less than 24 inches in height must be provided to protect the corridor from the Group B-2 occupancy area (tenant space). The draft curtain must be located above the glass and extend a minimum of 24 inches below any finished ceilings in the tenant space. If the finished ceiling is not a fire-rated assembly, the draft curtain must extend from the wire glass to a rated ceiling or floor assembly. When the B-2 occupancy area (tenant space) is protected by an approved automatic fire extinguishing system for a distance of 12 feet in depth adjoining the corridor, and the corridor is not less than 12 feet in width, glass other than wired glass may be approved. Open grille-type gates and similar enclosing or security devices may be used in corridor walls of corridors not less than 12 feet in width, when the entire story is protected by an approved fire extinguishing system.

In existing buildings of other than Type I or of Type II-F.R. construction, this exception is not permitted, unless the entire building is provided with an approved automatic fire extinguishing system.

UBC Section 3305(h) 1 is amended by adding an exception 4 to read as follows:

4. In hospital and nursing home occupancies (I-1) doors entering sleeping rooms from a corridor need not be constructed or maintained as self-closing or automatic-closing when the building is equipped with an approved complete automatic fire extinguishing system in compliance with chapter 38.

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

History: *9 SR 1557; 15 SR 74*

1305.5910 [Repealed, 11 SR 1405]

1305.6000 SECTION 3321.

UBC Section 3321(b) is amended to read as follows:

UBC Section 3321(b). Minimum size of exits. Every exit opening through which patients are transported on stretchers or beds must be of sufficient width to permit the ready passage of stretchers or beds but must have a clear width of not less than 44 inches, except as hereinafter provided. Exit openings in Division 2 Occupancies must have a clear width of not less than 34 inches. There must be no projections within the required clear widths.

UBC Section 3321(c) is amended to read as follows:

UBC Section 3321(c). Corridors. The minimum clear width of a corridor must be 44 inches except as follows:

Corridors serving any Group I, Division 1 Occupancies must be at least eight feet in width; corridors serving any Group I, Division 2 Occupancies must be at least six feet in width.

There may be no change of elevation in a corridor serving nonambulatory persons unless ramps are used.

In Group 1, Division 3 Occupancies such as jails, prisons, reformatories, and similar buildings with open barred cells forming corridor walls, the corridor and cell doors need not be fire resistive.

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

1305.6200 TABLE NO. 33—A.

UBC Table No. 33—A is amended as follows:

Amend use item 18 to read as follows:

18. Nurseries for Children (Day care)	10	35
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Statutory Authority: *MS s 16B.59 to 16B.73*

History: *9 SR 1557; 11 SR 1405; 12 SR 1365*

1305.6250 SECTION 3703.

UBC Section 3703(d) is amended to read as follows:

(d) Lining. When required by Table No. 37—B, chimneys must be lined with fireclay flue tile, firebrick, molded refractory units, or other approved lining not less than five-eighths inch thick as set forth in Table No. 37—B. Chimney liners must be carefully bedded in mortar with close-fitting joints left smooth on the inside. Mortar must be refractory mortar complying with ASTM C 105 or an approved equivalent.

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

History: *9 SR 1557*

1305.6260 [Repealed, 11 SR 1405]

1305.6270 [Repealed, 11 SR 1405]

1305.6280 SECTION 3801.

UBC Section 3801(c) is amended to read as follows:

(c) Definitions. For the purpose of this chapter, certain terms are defined as follows:

“Automatic fire extinguishing system” is an approved system of devices and equipment which automatically detects a fire and discharges an approved fire extinguishing agent onto or in the area of a fire.

“Combined system” is a system of water piping which serves 2–1/2 inch hose outlets for use by the fire department and also supplies water to automatic fire sprinklers.

“Fire department inlet connection” is a connection through which the fire department can pump water.

“Standpipe system” is a wet system of piping, valves, outlets, and related equipment designed to provide water at specified pressures and installed exclusively for the fighting of fires and classified as follows:

Class I is a standpipe system directly connected to a water supply and equipped with 2–1/2 inch valves and outlets for use by the fire department or trained personnel.

Class II is a standpipe system directly connected to a water supply and equipped with 1–1/2 inch valves and outlets intended for use by building occupants.

Class III is a standpipe system directly connected to a water supply and equipped with both 1–1/2 inch valves and outlets for use by trained building occupants and 2–1/2 inch valves and outlets for use by the fire department or trained personnel.

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

History: *9 SR 1557*

1305.6300 SECTION 3802.

UBC Section 3802 is amended by adding a section (h) as follows:

(h) Special Automatic Fire Extinguishing Systems. In all occupancies having commercial-type cooking equipment, automatic fire extinguishing systems complying with the Fire

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Code must be installed for protection of duct systems, grease removal devices, and hoods and over equipment which may be a source of ignition, such as fat fryers, ranges, griddles, and broilers.

Exception: These requirements do not apply to Group R-3, Group R-4, and Group M occupancies.

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

History: *9 SR 1557*

1305.6400 [Repealed by amendment, 9 SR 1557]

1305.6425 SECTION 3805.

UBC Section 3805(a) is amended to read as follows:

UBC Section 3805(a). General. Standpipes must comply with the requirements of this section and UBC Standard No. 38.2, Section 38.207(a) as amended.

UBC Section 3805(b) is amended to read as follows:

Section 3805(b) Where required. Standpipe systems must be provided as set forth in Table No. 38-A as amended.

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

History: *11 SR 1405*

1305.6430 TABLE NO. 38-A.

UBC Table No. 38-A is amended as follows:

Item No. 2 under the occupancy column of Table 38-A is amended to read as follows:

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

Table No. 38-A is amended by adding footnotes No. 7 and 8 to item No. 2 to read as follows:

7. In municipalities which have adopted the Special Fire Suppression System criteria specified in part 1305.6525 (UBC Section 3808), the number of stories must be four or more.

8. When an automatic fire-extinguishing system required by Section 3802(h) is installed, the number of stories must be four or more.

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

History: *11 SR 1405; 15 SR 74*

1305.6500 [Repealed by amendment, 9 SR 1557]

1305.6525 SECTION 3808.

UBC Chapter 38 is amended by adding a new section 3808 as follows:

SPECIAL FIRE SUPPRESSION SYSTEMS (OPTIONAL)

UBC Section 3808. For special fire suppression systems requirements, see part 1305.6905 (UBC Appendix Section 3808).

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

History: *11 SR 1405*

1305.6550 [Repealed, 15 SR 74]

1305.6600 [Repealed, 15 SR 74]

1305.6700 SECTIONS 5001 TO 5006.

UBC Sections 5001 to 5006 are deleted and replaced by Minnesota Rules, chapter 1360.

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

History: *9 SR 1557*

1305.6800 SECTIONS 5101 TO 5105.

UBC Sections 5101 to 5104 are deleted. Refer to Minnesota Rules, parts 1320.0100 to 1320.2000.

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

History: *9 SR 1557*

1305.6900 [Repealed, 15 SR 74]

1305.6901 APPENDIX CHAPTER 12, SECTION 1222.

UBC Appendix Chapter 12, Section 1222, is amended by adding an exception to read as follows:

Exception:

1. For energy requirements, see Minnesota Rules, chapter 4215.
2. For plumbing code requirements, see Minnesota Rules, chapter 1355.
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, part 1305.4700.
6. For frost depth requirements, see Minnesota Rules, part 1305.5400.
7. For ice dam roof treatment, see Minnesota Rules, part 1305.5720.

Statutory Authority: *MS s 16B.61*

History: *15 SR 74*

1305.6902 APPENDIX CHAPTER 12, DIVISION II.

UBC Appendix Chapter 12, Division II, is deleted in its entirety.

Statutory Authority: *MS s 16B.61*

History: *15 SR 74*

1305.6905 APPENDIX CHAPTER 38.

UBC Appendix Chapter 38 is amended by adding a new section as follows:

SPECIAL FIRE SUPPRESSION SYSTEMS. (OPTIONAL)

Section 3808. (a) General. This section authorizes optional provisions for the installation of on-premises fire suppression systems in new buildings, buildings increased in floor area, and buildings which have the occupancy classification changed.

(b) Municipal option. The sprinkler system requirements in (c) may be adopted with the selection of either item "8" or item "8a" based on local fire suppression capabilities, but without further change by a municipality. When adopted, the requirements are applicable throughout the municipality for new buildings, buildings increased in floor area, and buildings which will have the occupancy classification changed.

(c) Requirements. Automatic sprinkler systems must be installed and maintained in operable condition in buildings in the occupancy classifications listed in items 1 through 13. The square footage requirements stated in the following items establish the threshold where the provisions apply; in the case of mixed occupancies the threshold number of the most restrictive occupancy applies to the entire building, except for minor additions that do not increase the occupant load or significantly increase the fire load.

1. Group A-1 occupancies.
2. Group A-2 occupancies with an occupant load of 300 or more.
3. Group A-2.1 occupancies.
4. Group A-3 occupancies with an accumulative occupant load of 300 or more.
5. Group B-1 service stations with 3,000 or more gross square feet of floor area, not including canopies.
6. Group B-1 parking garages with 5,000 or more gross square feet of floor area.
7. Group B-2 offices and postsecondary classrooms with 8,500 or more gross feet of floor area or three or more stories in height.
8. Group B-2 retail, warehouse, or manufacturing areas with 2,000 or more gross square feet of floor area or three or more stories in height.
- 8a. Group B-2 retail, warehouse, or manufacturing areas with 5,000 or more gross square feet of floor area or three or more stories in height.
9. Group E-1 and E-2 occupancies with 8,500 or more gross square feet of floor area or two or more stories in height.
10. Group E-3 occupancies with an occupant load of 30 or more.
11. Group H-4 occupancies with 3,000 or more gross square feet of floor area.

12. Group R-1 apartment houses with 8,500 or more gross square feet of floor area or with dwelling units on three or more floors. The building official, in consultation with the fire chief, may approve alternate designs which have fire protection capabilities equivalent to systems complying with UBC Standard 38-1.

That portion of the automatic sprinkler system within dwelling units in apartment occupancies may be considered complete when protection is provided in all habitable rooms.

13. Group R-1 hotels and motels with 8,500 or more gross square feet of floor area or with guest rooms on three or more floors.

(d) Where automatic sprinkler systems are required by the Minnesota State Building Code regardless of Section 3808, then a complete automatic sprinkler system must be installed in compliance with UBC Standard 38-1.

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

History: *11 SR 1405*

CHAPTER 60, STANDARDS

1305.6910 STANDARD 38-1.

UBC Standard 38-1 is amended to read:

Standard No. 38-1.

Installation of Sprinkler Systems

Amendments

Section 38.102. The National Fire Protection Association Standard 13 adopted by section 38.101 applies to the selection, installation, inspection, maintenance, and testing of sprinkler systems, except as follows:

NFPA Standard 13, Sec. 1-3 Definitions. The following definitions are amended to read as follows:

Authority having jurisdiction. The "authority having jurisdiction" is the building official.

Approved. "Approved" means in accordance with the Uniform Building Code.

Listed. "Listed" means in accordance with the Uniform Building Code.

NFPA Standard 13, Sec. 1-3 is further amended by adding the following definition.

Building official. "Building official" means the officer or other designated authority charged with the administration and enforcement of this standard or the officer's duly authorized representative.

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

History: *9 SR 1557*

1305.6920 STANDARD 38-2.

Subpart 1. Section 38.202. UBC Standard 38-2, section 38.202 is amended to read as follows:

Section 38.202 Definitions. Certain terms in this standard are defined as follows:

"Combined system" is a system of water piping which serves 2-1/2 inch hose outlets for use by the fire department and also supplies water to automatic fire sprinklers.

"Fire department inlet connection" is a connection through which the fire department can pump water into a standpipe system, combined system, or sprinkler system.

"Standpipe system" is a wet system of piping, valves, outlets, and related equipment designed to provide water at specified pressures and installed exclusively for the fighting of fires and classified as follows:

"Class I" is a standpipe system directly connected to a water supply and equipped with 2-1/2 inch valves and outlets for use by the fire department or trained personnel;

"Class II" is a standpipe system directly connected to a water supply and equipped with 1-1/2 inch valves and outlets intended for use by building occupants;

"Class III" is a standpipe system directly connected to a water supply and equipped with both 1-1/2 inch valves and outlets for use by trained building occupants and 2-1/2 inch valves and outlets for use by the fire department or trained personnel.

Subp. 2. **Section 38.203.** UBC Standard 38-2, section 38.203, 1.-4., are amended to read as follows:

Section 38.203.1. Class I and Class III standpipe systems.— unsprinklered buildings. A Class I and Class III standpipe system in unsprinklered buildings must be sized to provide the following:

A. Standpipes must be sized to deliver 500 gallons per minute (gpm) at a residual pressure of 65 pounds per square inch (psi) at the topmost hose outlet.

B. Supply piping to the standpipes must be sized to deliver 500 gpm for the first standpipe plus 250 gpm for each additional standpipe with a maximum required design for 2,500 gpm.

2. Class I and Class III standpipe systems — fully sprinklered buildings. Class I and Class III standpipe systems in fully sprinklered buildings must be sized to provide the following:

A. Standpipes must be sized to deliver 500 gpm at a residual pressure of 65 psi at the topmost two outlets (250 gpm per outlet).

B. Supply piping to the standpipes must be sized to deliver 250 gpm for the first standpipe plus 250 gpm for each additional standpipe with a maximum required design for 1,000 gpm.

3. Combined systems. In combined systems where sprinkler risers with 2-1/2 inch hose outlets are provided, the risers and supply piping to the risers must be sized to accommodate a supply of 500 gpm at a residual pressure of 65 psi at the topmost two outlets (250 gpm per outlet) or the sprinkler demand including hose demands specified in UBC Standard No. 38-1 as amended in this chapter of Minnesota Rules, whichever is the greater.

Exception: Unless a larger water supply is required by the building official, supply piping may be sized to provide a maximum water supply of 1,500 gpm for a light hazard occupancy, or 2,000 gpm for an ordinary hazard occupancy.

4. Class II standpipe systems. Class II standpipe piping must be sized to deliver 100 gpm at a residual pressure of 65 psi at the topmost hose outlet except that supply piping serving multiple risers may be sized for a maximum of 100 gpm.

For standpipe or combined systems which exceed 275 feet in height see Section 38.205 for additional requirements.

Subp. 3. **Section 38.207.** UBC Standard 38-2, section 38.207, is amended to read as follows:

Required Water Supplies

Section 38.207. (a) General. Class I, Class II, and Class III and combined systems must be provided with an approved water supply. With prior approval of the fire chief, Class I standpipe systems may be supplied only through a fire department inlet connection.

A minimum of one water supply must be provided which can automatically supply the fire streams and pressures required for the time period specified in this section.

(b) Minimum Water Supply for Class I or Class III Standpipe Systems. The water supply for a Class I or Class III standpipe system must be capable of providing not less than 500 gpm for the first standpipe and 250 gpm for each additional standpipe. The total supply need not exceed 2,500 gpm. The duration of the supply must be for not less than 30 minutes.

The supply must also be capable of maintaining a residual pressure of 65 psi at the topmost outlet of each standpipe with flow rates from the topmost outlets as required by the preceding paragraph.

(c) Minimum Water Supply for Class II Standpipe Systems. The water supply for Class II standpipe systems must be capable of providing not less than 100 gpm for a duration of not less than 30 minutes. The supply must also be capable of maintaining a residual pressure of 65 psi at the topmost outlet for the flow rate specified.

(d) Minimum Water Supply for Combined Systems. For a combined system the water supply must be as required by section 38.207(b) and the sprinkler demand need not be added.

Where the sprinkler system demand, including hose stream allowance as determined by UBC Standard No. 38-1 as amended in Minnesota Rules, part 1305.6910 exceeds the supply required by section 38.207(b), the larger supply must be provided.

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Exceptions: (1) Unless a larger water supply is required by the building official, supply piping may be sized to provide a maximum water supply of 1,500 gpm for a light hazard occupancy, or 2,000 gpm for an ordinary hazard occupancy.

Subp. 4. **Section 38.208.** UBC Standard 38-2, section 38.208, paragraph 1, is amended to read as follows:

Section 38.208. Fire Department Inlet Connections. Each Class I or Class III standpipe system or combined system must be equipped with one or more fire department inlet connections. Fire department inlet connection locations must be subject to the approval of the fire department, and the connections must be equipped with approved caps which the fire department can easily remove to make connection. Fire department inlet connections must be protected against mechanical damage and must be visible and accessible. Installation of a shut-off valve in the fire department inlet connection is prohibited.

Subp. 5. **Section 38.210 renumbered 38.211.** UBC Standard 38.2, section 38.210, is renumbered as 38.211 and is amended to read as follows:

Standpipe outlets

Section 38.211. (a) General. Standpipe outlets for Class I, Class II, and Class III standpipe systems and combined systems must be provided as specified in UBC Section 3805 as amended in Minnesota Rules, part 1305.6400.

Exceptions: 1. In buildings equipped with an approved automatic sprinkler system throughout the Class I outlet locations, including those connections located as specified in UBC Section 3805(c), must be equipped with a 2-1/2 inch by 1-1/2 inch reducer.

Outlet pressures in excess of 100 pounds per square inch must be reduced to not more than 100 pounds per square inch at the required flow by the installation of an approved pressure-reducing device. Unless otherwise permitted by the fire department, the pressure-reducing device must not be of the type which can be adjusted for pressures above 100 pounds per square inch. When adjustable devices are permitted and the outlet pressure may exceed 150 pounds per square inch, signs denoting that fact must be posted at the outlet.

(b) Fire Department Outlets. Fire department outlets must be installed in such a manner as to be easily accessible for use by the fire department. A wrench clearance on all sides of the outlet must be provided to ensure that a 12-inch long wrench can be used to connect hose to the outlet.

Outlets must be provided with an approved hose valve.

Outlets required in smokeproof enclosures must be located within the vestibule or balcony of the smokeproof enclosures.

Fire department outlets for dry standpipes must be identified by an approved sign which specifies "Dry Standpipe for Fire Department Use Only."

(c) Outlet for Occupants' Use. Outlets must be provided with an approved hose valve..

Subp. 6. **Section 38.211(b) renumbered 38.212(b).** UBC Standard 38-2, section 38.211(b), is renumbered as 38.212(b) and is amended to read as follows:

Hose reels, racks, and cabinets

Section 38.212. (b) Hose for Occupants' Use. Hose outlets of Class II standpipe systems and the 1-1/2 inch Class II outlets of Class III standpipe systems must be provided with an approved lined hose not less than 1-1/2 inches in diameter, capable of withstanding 500 psi test pressure. The hoses must be equipped with an approved variable fog nozzle. Hose provided for rack and cabinet use must be designed to be folded in a pin rack unit.

Subp. 7. **Section 38.212 renumbered 38.213.** UBC Standard 38-2, section 38.212, is renumbered as 38.213.

Subp. 8. **Section 38.213 renumbered 38.214.** UBC Standard 38-2, section 38.213, is renumbered as 38.214 and amended to read as follows:

Systems maintenance

Section 38.214. Standpipe systems and combined system must be maintained and tested in accordance with the Minnesota State Building Code and Minnesota Uniform Fire Code.

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

History: *9 SR 1557; 11 SR 1405*

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.

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, 1985 edition, are amended to read as follows.

UBC Section 3802(f)4 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 3802(d)2 An automatic fire extinguishing system must be installed in Group B 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 3802(h) 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*