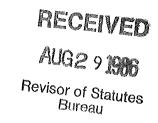
### **RULES CERTIFICATE**

STATE OF WISCONSIN )	·
) SS	RECEIVED
DEPT. OF INDUSTRY, ) LABOR & HUMAN RELATIONS)	SEP 21986 7:30 Revisor of Statutes Bureau
TO ALL TO WIIOM THESE PRESENTS SHALL COME	, GREETINGS:
I,Howard S. Bellman	, Secretary of the Department of
Industry, Labor and Human Relations, and	custodian of the official records
of said department, do hereby certify the	at the annexed rule(s) relating to
ch. ILHR 52, subch. II - Auto. Fire Sprin (Subject) approved and adopted by this department I further certify that said copy has	
on file in this department and that the	same is a true copy thereof, and of
the whole of such original.	
	IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the department at 8100 am in the city of Madison, this 39 had and of August A.D. 1986.  Secretary



## ORDER OF ADOPTION

Pursuant to authority vested i	n the Department of Industry, Labor and (1), 101.02 (15) (h) to (j),
Human Relations by section(s) 101.	(4) (a) and (c), Stats., the Depart-
ment of Industry, Labor and Human R	delations hereby $\overline{XX}$ creates; $\overline{XX}$ amends;
f(x) repeals and recreates; and $f(x)$	7 repeals and adopts rules of Wisconsin Admin-
istrative Code chapter(s):	
ILHR 52, subch. II Aut (Number)	tomatic Fire Sprinkler Systems for Low Rise Buildings $(\overline{Title})$
The attached rules shall take	effect on the first day of the month following
publication in the Wisconsin Admin	istrative Register , pursuant to section
227.026, Stats.	
	Adopted at Madison, Wisconsin, this $\frac{29^{th}}{64}$
	day of <u>August</u> , A.D., 1986.
	DEPARTMENT OF INDUSTRY, LABOR AND HUMAN RELATIONS
•	Cogratary



### State of Wisconsin \ Department of Industry, Labor and Human Relations

Office of the Secretary 201 E. Washington Avenue P.O. Box 7946 Madison, Wisconsin 53707 Telephone 608/266-7552

The Honorable John Plewa
State Senator
Joint Committee for Review of
Administrative Rules
337 South, State Capitol
Madison, Wisconsin 53707

The Honorable Steven Brist
State Representative
Joint Committee for Review of
Administrative Rules
10 West, State Capitol
Madison, Wisconsin 53707

Dear Senator Plewa and Representative Brist:

Pursuant to your committee's request, attached is an implementation report regarding the following rule:

Rule:	Ch	apter	ILHR	52,	Subchapter	II				
Rule	Clearin	ghouse	No.	Francisco American	86-61					
Relat:	ing to:	Auto	omatic	Fire	e Sprinkler	Systems	for Low R	ise Building	s	

1. Description of the rule.

See Attached

#### ANALYSIS OF RULES

1983 Wisconsin Act 295 created s. 101.14 (4) (c) 1., Stats., which mandates the department to promulgate automatic fire sprinkler system rules for low rise (less than 60 feet high) public buildings and places of employment. The rules shall be based upon but may vary from the automatic fire sprinkler rules of the Building Officials and Code Administrators International, Inc. Basic/National Building Code. The law permits the department to review and utilize the automatic fire sprinkler provisions of other national model building codes and standards.

The proposed rules are intended to codify a comprehensive set of administrative rules to address the issue of fire detection, suppression and prevention in low rise buildings.

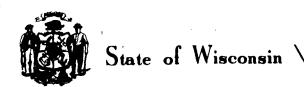
The proposal permits the construction of many buildings without automatic fire sprinkler protection to the area limitations established based upon the class of construction utilized. The proposal for these buildings would permit construction as allowed prior to the passage of Chapter 320, Laws of 1981. For some buildings, smaller areas would be permitted. However, the installation of complete automatic fire detection systems, lesser exit distance and fire department access will permit additional area. These exceptions are consistent with recently approved petitions for variance.

The proposal also permits significant building code tradeoffs where automatic fire sprinkler protection is provided. These tradeoffs include larger areas, an additional story height, longer distances to exit, reduced interior finish requirements, reduced attic compartmentilization requirements, 1-hour reductions in fire-resistive ratings to a minimum of 1-hour and lesser fire extinguisher/standpipe requirements. These tradeoffs should provide meaningful economic incentives for building owners to install automatic fire sprinkler protection where adequate water supplies are available. By returning to the area limitations previously permitted, economic growth and development in rural or other areas without adequate water supply should be encouraged.

The proposal mandates 3 different levels of fire protection for residential occupancies - full smoke detection, partial automatic/residential fire sprinkler protection or full automatic fire sprinkler protection. Building code tradeoffs are permitted in accordance with the degree of protection provided.

The proposal requires either partial or complete automatic fire sprinkler protection for all new housing for the elderly.

The proposal also includes various changes to the "systems" rules for automatic fire sprinklers, manual fire alarms, automatic smoke detection and standards.



State of Wisconsin \ Department of Industry, Labor and Human Relations

# RULES in FINAL DRAFT FORM

Clearing	hou	se	Rul	e N	lo.:	8	6-61			·······	,
Relating	to:	Aut	omatic	Fire	Sprinkle	er Svst	ems fo	r Low	Rise	Build	ings
Rule: _	CI	napter	ILHR	52 Su	ıbchapteı	· II			· . · . · · · · · · · · · · · · · · · ·		,

AN ORDER to repeal ss. ILHR 51.21 (4) (a) note, 51.21 (6), 52.015, Table 54.01, Table 57.02, Ch. ILHR 59 - Subch. I Title, Table 59.12, A52.015; to renumber ss. ILHR 51.21 (6) and (7), 56.02 (4), 57.03 (2) (a); to amend ss. ILHR 50.02, 51.23 (1) (a), 51.23 (4), 51.23 (6) (a), 51.27 (7) (b), (c) and (e), 52.01 (2) (h), 54.02 (4) (b), 55.02 (2) (c) (intro.), 55.02 (2) (c) 3. e., 55.02 (2) (c) 4. e., 56.02 (1) to (3), 56.03 (1) Note #2, 56.06 (3) (a), 57.02 (1), 57.08 (2) (b) 2., 57.18 (1), 59.12 (1) and (2), 59.14 (2) (a) 2. and (b), 62.95 (2) (b); to repeal and recreate ss. ILHR 51.24 (3), 51.27 (7) (f), 52.02 (2), 54.01 (1) to (4), 54.15 (2), 54.17, 55.02 (1), 55.33 (2), 56.02 (5) (a), 56.20 (2), 57.02 (2), 57.15 (2), 59.12 (3) (a); to create ss. ILHR 51.02 (21) and (22), 51.21 (2) (d), 51.23 (1) (b) Note, 51.23 (9), 51.27 (7) (cm), (r) and (s), 52.011 to 52.013, Table 54.01-1, Table 54.01-2, 54.01 (5) and (6), 55.02 (2) (c) 5., 56.02 (4), 57.016, Tables 57.02-1, 57.02-2 and 57.02-3, 57.03 (2) (a) 2., Table 59.12-1, Table 59.12-2, 59.23 (1) (e) 3., A52.011, relating to automatic fire sprinkler systems in low rise public buildings and places of employment; fire detection, prevention and suppression systems; street access; fire-resistive ratings; exit distance; and fire department access.

#### ANALYSIS OF RULES

1983 Wisconsin Act 295 created s. 101.14 (4) (c) 1., Stats., which mandates the department to promulgate automatic fire sprinkler system rules for low rise (less than 60 feet high) public buildings and places of employment. The rules shall be based upon but may vary from the automatic fire sprinkler rules of the Building Officials and Code Administrators International, Inc. Basic/National Building Code. The law permits the department to review and utilize the automatic fire sprinkler provisions of other national model building codes and standards.

The proposed rules are intended to codify a comprehensive set of administrative rules to address the issue of fire detection, suppression and prevention in low rise buildings.

The proposal permits the construction of many buildings without automatic fire sprinkler protection to the area limitations established based upon the class of construction utilized. The proposal for these buildings would permit construction as allowed prior to the passage of Chapter 320, Laws of 1981. For some buildings, smaller areas would be permitted. However, the installation of complete automatic fire detection systems, lesser exit distance and fire department access will permit additional area. These exceptions are consistent with recently approved petitions for variance.

The proposal also permits significant building code tradeoffs where automatic fire sprinkler protection is provided. These tradeoffs include larger areas, an additional story height, longer distances to exit, reduced interior finish requirements, reduced attic compartmentilization requirements, l-hour reductions in fire-resistive ratings to a minimum of l-hour and lesser fire extinguisher/standpipe requirements. These tradeoffs should provide meaningful economic incentives for building owners to install automatic fire sprinkler protection where adequate water supplies are available. By returning to the area limitations previously permitted, economic growth and development in rural or other areas without adequate water supply should be encouraged.

The proposal mandates 3 different levels of fire protection for residential occupancies - full smoke detection, partial automatic/residential fire sprinkler protection or full automatic fire sprinkler protection. Building code tradeoffs are permitted in accordance with the degree of protection provided.

The proposal requires either partial or complete automatic fire sprinkler protection for all new housing for the elderly.

The proposal also includes various changes to the "systems" rules for automatic fire sprinklers, manual fire alarms, automatic smoke detection and standards.

The rules were developed in conjunction with the Project Committee for Automatic Fire Sprinkler Systems. The project committee has endorsed the proposal for public hearing consideration. The membership of the project committee is as follows:

#### Project Committee for Automatic Fire Sprinkler Systems

Philip Albert Jeff Bateman

Chief Vince Baum

Ronald L. Buchholz, R.A. Thomas Coenen

Dennis Driebel Gene B. Endthoff John Fox Jack Giovanoni Albert Hanson Dennis Hareng James B. Kelly

Chief Earl King

Dale Langfoss, AIA Ray Malek Dale Marzynski

Bruce Reigle

Martin Richter Joan Schuette Dave Schultz Joyce Stanton Gerald Staples

Peter Van Horn, P.E.

Jerome Walkowski, AIA

Department of Development - Public Automatic Fire Sprinkler Journeyman/ Contractor

Wisconsin State Fire Chiefs Association Rural

Bureau of Code Development, DILHR Wisconsin Innkeepers Association/ Conference of Retail Associations Wisconsin State AFL/CIO

National Fire Sprinkler Association

Developer

Wisconsin Merchants Federation

Wisconsin State AFL/CIO

Wisconsin Fire Inspectors Association Society of Fire Protection Engineers -Wisconsin Chapter

Wisconsin State Fire Chiefs Association (Urban/Suburban)

Wisconsin Society of Architects

Grunau Company

Society of Fire Protection Engineers -Wisconsin Chapter

Systems Buildings Association - Wis. Chapter

Association for Fire Safety League of Women Voters

Wisconsin Builders Association Wisconsin Apartment Association

Wisconsin Association of Manufacturers and Commerce

Independent Business Association of Wisconsin

Wisconsin Housing and Economic Development Authority

Pursuant to the authority vested in the state of Wisconsin's department of industry, labor and human relations by ss. 101.02 (1), 101.02 (15) (h) to (j) and 101.14 (4) (a) and (c), Stats., the department hereby repeals, renumbers, amends, repeals and recreates and creates rules interpreting ss. 101.02 (15) (h) to (j) and 101.14 (4) (a) and (c), Stats., as follows:

#### SECTION 1. ILHR 50.02 is amended to read:

ILHR 50.02 SCOPE OF CHAPTERS. The provisions of chapters ILHR 50 to 64 apply to all public buildings and places of employment. The provisions of these chapters are not retroactive unless specifically stated in the administrative rule. Where different sections of these chapters specify different requirements, the most restrictive requirement shall govern, except as specified in ss. ILHR 51.02 (11) (b) 4., 52.012 to 52.013, 58.001 (2) (c), 62.93 and 64.57 (4).

Note: For a definition of "public building" and "place of employment," see ss. ILHR 51.01 (102b) and 51.01 (104a) or s. 101.01 (2), Stats.

#### SECTION 2. ILHR 51.02 (21) and (22) are created to read:

ILHR 51.02 (21) HEIGHT LIMITATIONS. (a) Except as provided in par. (b), the height of buildings shall be limited as specified in the appropriate occupancy chapter for the building and as specified in s. ILHR 51.03 and Table 51.03-A for the class of construction utilized.

(b) The height limitations specified in s. ILHR 51.03 may be increased by one story and 10 feet in height in buildings, other than buildings within the scope of chs. ILHR 58, 60 and 61, when the building is completely protected by an automatic fire sprinkler system and the system is supervised and monitored as specified in s. ILHR 51.23 (9).

Note: See chs. ILHR 54 to 61 for specific application of height increases. Tables 54.01-2, 57.02-3 and 59.12-2 already include the one story height increase.

ILHR 51.02 (22) FIRE RESISTIVE RATINGS. (a) Except as provided in par. (b), the fire resistive ratings specified in chs. ILHR 50 to 64 may be reduced in rating by one hour to a minimum of one hour in all buildings which are completely protected by an automatic fire sprinkler system and the system is supervised and monitored as specified in s. ILHR 51.23 (9).

- (b) The fire resistive rating may not be reduced for the following:
- 1. The fire-resistive ratings specified in ch. ILHR 58;
- 2. The fire-resistive ratings specified for stairway enclosures in buildings more than 3 stories in height;
- 3. The fire-resistive ratings for buildings more than 60 feet in height; and
- 4. The fire-resistive ratings for buildings where increases in building area or building height due to automatic fire sprinkler system protection have been utilized.

SECTION 3. ILHR 51.21 (2) (d) is created to read:

ILHR 51.21 (2) (d) Dry standpipes. For use by fire departments.

SECTION 4. ILHR 51.21 (4) (a) Note is repealed.

SECTION 5. ILHR 51.21 (6) and (7) are renumbered (7) and (8), respectively.

SECTION 6. ILHR 51.21 (6) is created to read:

ILHR 51.21 (6) DRY STANDPIPES. (a) Where required. Dry standpipes shall be provided as required by chs. ILHR 54 to 62.

Note: See ss. ILHR 54.15, 55.33, 56.20, 57.15 and 62.30.

- (b) Number and location. Required dry standpipes shall be provided in each stair enclosure.
- (c) <u>Hose valves and connections</u>. 1. Required dry standpipes shall be provided with approved 2-1/2 inch valve hose connections at each floor level with one connection in the stair tower and one immediately outside.
- 2. Required dry standpipes with a fire department siamese connection greater than 50 feet to a street shall be interconnected to a standpipe system with the connection 50 feet or less to a street.
- (d) <u>Miscellaneous requirements</u>. Dry standpipes shall conform to the requirements specified in sub. (3) (e) to (i).

SECTION 7. ILHR 51.23 (1) (a) is amended to read:

ILHR 51.23 (1) (a) ATY Except as permitted in chs. ILHR 54 to 62, all automatic fire sprinkler systems shall be designed and installed in accordance with NFPA No. 13/1980, Standard for the Installation of Sprinkler Systems.

SECTION 7A. ILHR 51.23 (1) (b) Note is created to read:

ILHR 51.23 (1) (b) Note: See ch. Ind 4 for requirements pertaining to automatic fire sprinkler system protection for elevators.

SECTION 8. ILHR 51.23 (4) is amended to read:

ILHR 51.23 (4) FIRE DEPARTMENT CONNECTION. \*\*\*Plant\*\* Except as provided in s. ILHR 57.016 (1) (a), every automatic fire sprinkler system installed in accordance with NFPA No. 13 shall have an approved fire department connection as specified in NFPA 13-1980. The connection shall be marked "Sprinkler". If standpipes are also supplied by the hose connection, the sign shall read "Standpipe and Automatic Sprinkler". The elevation of the connection shall be not less than 18 inches nor more than 42 inches above the sidewalk or ground. If municipal water is available at the building site, the fire department connection shall be located as/diose/as/possible/to/and within 150 feet of any a municipal fire hydrant.

SECTION 9. ILHR 51.23 (6) (a) is amended to read:

ILHR 51.23 (6) MAINTENANCE. (a) All installed automatic sprinkler systems, whether required by this code or not, shall be properly maintained for efficient service pursuant to NFPA No. 13A/1987 -- Standard for the Care Inspection Testing and Maintenance of Sprinkler Systems. Owners or operators shall be responsible for the condition of their sprinkler system and shall use due diligence in keeping the system in good operating condition. A copy of the inspection report as specified in NFPA No. 13A/1987 shall be kept and shall be made available, upon request, to the department or its authorized deputies. The local fire department shall be notified whenever the automatic fire sprinkler system is shut down or impaired and when it is placed back in service. The owner shall arrange for immediate and continual servicing or repair of the automatic fire sprinkler system until it is placed back in operation.

SECTION 10. ILHR 51.23 (9) is created to read:

ILHR 51.23 (9) SYSTEM SUPERVISION AND MONITORING. The height limitations and fire resistive ratings in ss. ILHR 51.02 (21) and (22) and the unlimited area buildings specified in chs. ILHR 54 to 62 shall be permitted only where the automatic fire sprinkler system is equipped with supervised sprinkler system valves or other approved component indicators, such as but not limited to fire pump power indicator or low water level indicator. The supervision function of the automatic fire sprinkler system shall be monitored by a central station, remote, auxiliary or proprietary fire alarm system company.

SECTION 11. ILHR 51.24 (3) is repealed and recreated to read:

ILHR 51.24 (3) (a) Except as provided in par. (b), coded fire alarm systems shall be provided in buildings more than 3 stories in height and the systems shall be so arranged that the code transmitted shall indicate the location and story of the structure in which the signal originated.

- (b) 1. The department shall approve non-coded continuous sounding fire alarm systems under constant automatic supervision in apartment buildings.
- 2. The department shall approve non-coded continuous or march time sounding fire alarm systems with electrically supervised annunciator panels that indicate the location and the story of the structure in which the signal originated.

3. The department shall approve fire alarm and communication systems for high rise construction as specified in s. ILHR 52.01 (2) (e).

SECTION 12. ILHR 51.27 (7) (b) and (c) are amended to read:

ILHR 51.27 (7) (b) STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS, NFPA No. 13/1983 1985;

ILHR 51.27 (7) (c) STANDARD FOR THE CARE INSPECTION, TESTING AND MAINTENANCE OF SPRINKLER SYSTEMS, NFPA No. 13A-1981;

SECTION 13. ILHR 51.27 (7) (cm) is created to read:

ILHR 51.27 (7) (cm) STANDARD FOR SPRINKLER SYSTEMS IN ONE- AND TWO-FAMILY DWELLINGS AND MOBILE HOMES, NFPA No. 13D-1984;

SECTION 14. ILHR 51.27 (7) (e) is amended to read:

ILHR 51.27 (7) (e) STANDARD FOR WATER TANKS FOR PRIVATE FIRE PROTECTION, NFPA No. 22/1981 1984;

SECTION 15. ILHR 51.27 (7) (f) is repealed and recreated to read:

ILHR 51.27 (7) (f) STANDARD FOR INSTALLATION OF PRIVATE FIRE SERVICE MAINS, NFPA No. 24-1984;

SECTION 16. ILHR 51.27 (7) (r) and (s) are created to read:

ILHR 51,27 (7) (r) STANDARD FOR GENERAL STORAGE, NFPA No. 231-1985; and

ILHR 51.27 (7) (s) STANDARD FOR RACK STORAGE OF MATERIALS, NFPA No. 231C-1980.

[Special Note to Revisor: The department intends to divide ch. ILHR 52 into subchapters as part of the rulemaking package. Please insert the following subchapter numbers and titles as indicated:

"Subchapter I - Fire Prevention Detection and Suppression for High Rise Buildings" before s. ILHR 52.01;

Subchapter II - Automatic Fire Sprinkler Systems for Low Rise Buildings" before new s. ILHR 52.011:

Subchapter III - Windows and Fire Department Access Openings" before s. ILHR 52.02;

Subchapter IV - Barrier-Free Design for the Physically Disabled" before s. ILHR 52.04;

Subchapter V - Courts" before s. ILHR 52.05;

Subchapter VI - Atriums" before s. ILHR 52.07;

Subchapter VII - Miscellaneous Provisions" before s. 52.19; and

Subchapter VIII - Sanitary Facilities" before s. ILHR 52.50.]

SECTION 17. ILHR 52.01 (2) (h) is amended to read:

ILHR 52.01 (2) (h) Maintenance. All communication, fire prevention, detection and suppression systems required under this section shall be tested and maintained in an operable condition. All installed automatic sprinkler systems shall be maintained pursuant to NFPA No. 13A/1987 - Standard for the Lare Inspection, Testing and Maintenance of Sprinkler Systems. A copy of the test report as specified in NFPA No. 13A/1987 shall be kept and shall be made available, upon request, to the department or its authorized deputies. The local fire department shall be notified whenever the life safety systems are shut down for/repair or impaired and when placed back in service. The owner shall arrange for immediate and continual servicing or repair of the communication, fire prevention, detection and suppression systems until they are placed back in operation.

SECTION 18. ILHR 52.015 is repealed.

SECTION 19. ILHR 52.011 to 52.013 are created to read:

Subchapter II
Automatic Fire Sprinkler Systems for Low Rise Buildings

ILHR 52.011 PURPOSE, SCOPE AND APPLICATION. (1) GENERAL. Pursuant to s. 101.14 (4) (a), (c) and (g), Stats., created by 1983 Wisconsin Act 295, this subchapter establishes automatic fire sprinkler system requirements for buildings under 60 feet in height which are used as public buildings or places of employment.

(2) GENERAL REQUIREMENT. Except as provided in sub. (3), automatic fire sprinkler systems shall be installed in the rooms, areas, locations, and building occupancies as specified in ss. ILHR 52.012 and 52.013.

Note: Section 4-4.4.1 of NFPA 13 states: "All concealed spaces enclosed wholly or partially by exposed combustible construction shall be protected by sprinklers." The section also listed exceptions to the rule. Buildings "completely protected" by automatic fire sprinkler systems must comply with this and related sections of NFPA 13.

(3) ALTERNATE METHODS. When approved by the department through the petition for variance process, alternate methods of fire protection, detection or suppression providing an equivalent degree of life safety protection may be provided.

Note: See s. ILHR 50.25 for the procedure used for submitting a petition for variance to an administrative rule.

- (4) SYSTEM DEFINITION AND STANDARD. The automatic fire sprinkler systems specified in this subchapter shall conform to the definition specified in s. ILHR 51.01 (7a) and shall comply with the requirements specified in standards listed in ss. ILHR 51.27 (7) (b), (c), (cm), (d), (e) (f) (r) and (s).
- Note #1: The definition of the term "automatic fire sprinkler system" in s. ILHR 51.01 (7a) is taken from s. 145.01 (2), Stats.
- Note #2: See s. A52.011 of Appendix A for additional information pertaining to fire hazard classifications, building usage, and occupancy.
- (5) AREA SEPARATION WALLS. (a) Buildings having an area exceeding the area limitations specified in s. ILHR 52.013, may be constructed without complete automatic fire sprinkler systems provided the building is divided into areas less than the specified area limitations by at least 2-hour rated vertical fire separation walls. The fire separation wall shall extend from the foundation to the underside of the roof deck.
- 1. Structural framing members may continue through or over the separation wall provided the framing and supporting elements are of noncombustible or one-hour fire-resistive combustible construction.
- 2. All openings in the separation wall shall be protected by fire-resistive door assemblies as specified in s. ILHR 51.047.
- (b) Where additions to buildings result in the area of the entire building exceeding the area limitations specified in s. ILHR 52.013, one of the following conditions shall apply:
- 1. The existing building and the building addition shall be completely protected by an automatic fire sprinkler system;
- 2. The building addition shall be separated from the existing building by a 2-hour rated vertical fire separation wall. If the area of the building addition exceeds the area limitations specified in s. ILHR 52.013, the building addition shall be completely protected by an automatic fire sprinkler system or the building addition shall be divided with 2-hour rated vertical fire separation walls as specified in par. (a); or
- 3. The existing building and the building addition shall be divided by 2-hour rated vertical fire separation walls as specified in par. (a).
- (6) MULTIPLE USE BUILDINGS. Where a building contains multiple occupancies or use areas and one occupancy or use area is required by s. ILHR 52.013 to be protected by an automatic fire sprinkler system, one of the following conditions shall apply:
- (a) The occupancy or use area protected by the automatic fire sprinkler system shall be separated from the unprotected areas by at least 1-hour fire-resistive rated construction; or

(b) The entire building shall be protected by an automatic fire sprinkler system.

Note: See ss. ILHR 55.05 and 59.22 for occupancy separation requirements mandating fire-resistive separations of more than 1-hour rating.

(7) SEPARATION OF AREAS PROTECTED BY A PARTIAL AUTOMATIC FIRE SPRINKLER SYSTEM. Where the provisions of ss. ILHR 52.012 require the protection of an automatic fire sprinkler system, the protected area of room shall be enclosed with construction assemblies as specified in chs. ILHR 54 to 62 and as designated in Table 51.03-A for the class of construction.

Note: This rule is intended to require an effective fire barrier between those portions of the building protected by the automatic fire sprinkler system and the adjoining unprotected portions. The fire barrier is not required to be of fire-resistive construction unless required for the occupancy, use or class of construction.

ILHR 52.012 INDIVIDUAL ROOM, LIMITED AREA AND PARTIAL AUTOMATIC FIRE SPRINKLER SYSTEMS. The rooms or areas within buildings as specified in subs. (1) to (5) shall be protected by an automatic fire sprinkler system.

- (1) WINDOWLESS FLOOR LEVELS. (a) Except as provided in pars. (b) and (c), automatic fire sprinkler system protection shall be provided in all basements and floor levels where openings as specified in s. ILHR 52.02 (2) (a) are not provided.
- (b) Automatic fire sprinkler system protection need not be provided in the following windowless floor level applications:
- 1. Windowless floor levels of 2500 square feet or less in total area and equipped with an approved smoke detection system which is:
  - a. Directly and permanently wired to a proper unswitched circuit; and
- b. Interconnected to the building manual fire alarm system. If the building does not have a manual fire alarm system, the smoke detection system shall be capable of sounding an audible alarm which can be heard in all occupied areas of the building.
- 2. Communication equipment rooms separated from the remainder of the building by at least one-hour fire resistive construction and the room is equipped with an approved automatic fire detection and alarm system;
- 3. Windowless floor levels in ch. ILHR 54 occupancies classified as low hazard and not exceeding 3000 square feet in area;
- 4. Windowless floor levels within individual living units of ch. ILHR 57 Occupancies;
  - 5. Interior balconies and open mezzanine floors; and

6. Windowless floor levels in hospitals and nursing homes.

Note: See chs. ILHR 58 and HSS 124 and 132 for additional requirements.

- (c) One-story buildings with no floor levels below the first floor need not be provided with exterior wall openings other than the required exits. Except as provided in par. (b), enclosed mezzanine floor levels shall be protected by an automatic fire sprinkler system or provided with exterior wall openings.
- (2) LAUNDRY AND TRASH COLLECTION ROOMS AND CHUTES. Automatic fire sprinkler system protection shall be provided in all laundry and trash chutes and terminal rooms. Automatic fire sprinklers shall be installed at the top of the chute and at alternate floor levels.
- (3) STORAGE AREAS. (a) Except as provided in par. (b), automatic fire sprinkler system protection shall be provided in storage areas exceeding 100 square feet in area and located in ch. ILHR 55, 56, and 57 occupancies. The areas of individual adjacent storage areas shall be considered cumulatively unless each storage area is separated from the adjacent area by at least 30 minute fire resistive rated construction with openings protected by 20 minute rated fire doors.
- (b) Automatic fire sprinkler system protection need not be provided in the following storage area applications:
- 1. Storage areas not exceeding 1500 square feet in area which are separated from the remainder of the building by at least one-hour fire resistive construction and the area is equipped with an approved smoke detection system, which is:
  - a. Directly and permanently wired to a proper unswitched circuit; and
- b. Interconnected with the building manual fire alarm system. If the building does not have a manual fire alarm system, the smoke detection system shall be capable of sounding an audible alarm which can be heard in all occupied areas of the building; and
- 2. Storage areas located within individual living units of ch. ILHR 57 Occupancies.
- (4) STAGE AREAS REQUIRING PROSCENIUM SEPARATIONS. Automatic fire sprinkler system protection shall be provided for all stage areas requiring proscenium separations within or behind the proscenium separation as follows:
  - (a) Over the stage;

- (b) Under the stage gridiron with side wall sprinkler heads rated at 135° F. having heat baffle plates. The heads shall be installed around the entire perimeter of the stage, except above the proscenium opening, at points not more than 30 inches below the gridiron, nor more than 6 inches below the baffle plate;
  - (c) Under all fly galleries;
  - (d) Under the stage;
- (e) In all basements, workrooms, dressing rooms, store rooms and property rooms; and
  - (f) In toilet, lounge and smoking rooms.
- ILHR 52.013 SPECIFIED APPLICATIONS BY OCCUPANCY OR USE. Except as provided in s. ILHR 52.011 (5), a complete automatic fire sprinkler system shall be installed as specified in the following occupancies:
- (1) MERCANTILE OCCUPANCIES. (a) Except as provided in par. (b), in mercantile occupancies where the area exceeds 15,000 sq. ft. per floor or 30,000 sq. ft. total areas of all floors; or the height exceeds 3 stories;
- (b) Mercantile occupancies without complete automatic fire sprinkler protection may be constructed up to the areas permitted in Table 54.01-1, but not exceeding 20,000 sq. ft. per floor provided the following conditions are satisfied:
- 1. The building is completely equipped with an automatic smoke detection system monitored by a fire alarm system company, proprietary or remote station service.
  - 2. The distance to an exit does not exceed 100 feet; and
- 3. Street access for fire fighting vehicles is provided on at least 50% of the building perimeter.
- (2) EXHIBITION ROOMS. In rooms having more than 12,000 sq. ft. of floor area which can be used for exhibition or display purposes.
- (3) LIBRARIES AND MUSEUMS. In libraries and museums either of which exceed 15,000 sq. ft. area per floor.
- (4) RESTAURANTS, NIGHT CLUBS AND DANCE HALLS. (a) In restaurants where the floor area exceeds 12,000 sq. ft. or where the capacity is more than 1,000 persons.

- (b) 1. In buildings with rooms primarily used for dance halls or entertaining occupants who are drinking or dining and unseparated accessory uses where the total area exceeds 5,000 sq. ft. or where the capacity is more than 300 persons.
- 2. The area of accessory rooms such as but not limited to kitchens, storage rooms and other uses areas shall be included unless the accessory rooms are separated from the remainder of the building by at least one-hour fire-resistive construction.
- (5) DETENTION AND CORRECTION FACILITIES. In all detention and correctional facilities with a resident population of 6 or more.
- (6) STORAGE OCCUPANCIES. (a) 1. Except as provided in par. (b), in buildings having an area exceeding 20,000 sq. ft. and used for high-piled storage of moderate hazard contents as specified in subd 2.
- 2. High-piled storage shall include moderate hazard combustible materials in closely packed piles more than 15 feet in height or moderate hazard combustible materials on pallets or in rack more than 12 feet in height.
- (b) 1. The automatic fire sprinkler system protection may be limited to the storage area of the building only provided the storage area is separated from the remainder of the building by at least 2-hour fire-resistive rated construction.
- 2. Automatic fire sprinkler system protection need not be provided in freezer warehouses.

Note: See s. ILHR 54.01 (2) (c) for additional requirements.

(c) The automatic fire sprinkler protection required by this subsection shall be in accordance with NFPA Standards No. 231 - Standard for General Storage and No. 231C - Standard for Rack Storage of Materials.

Note: See s. A52.011 for additional information on classification of hazards.

(7) HIGH HAZARD BUILDINGS. (a) Except as provided in par. (b), an automatic fire sprinkler system shall be installed in all high hazard occupancies exceeding 3000 sq. ft. in floor area.

Note: See s. A52.011 of Appendix A for additional information regarding classification of hazards.

(b) When approved by the department, alternate types of fire protection or suppression systems as may be appropriate for the particular hazard may be provided.

Note: The department will request a position statement regarding the proposed method to be submitted by the Fire Chief of the municipality having jurisdiction.

SECTION 20. ILHR 52.02 (2) is repealed and recreated to read:

ILHR 52.02 (2) (a) Application. Except as provided in ss. ILHR 52.012 (1) (b) and (c), every basement or floor level either of which is not protected by an automatic fire sprinkler system shall be provided with at least 20 square feet of aggregate opening in each 50 lineal feet of exterior wall in the story or basement, on at least one side of the building.

Note: Openings 20 sq. ft. in area spaced 100 feet apart and no more than 50 feet from the end of a wall satisfy the intent of this subsection.

- (b) <u>Dimensions</u>. Openings shall have minimum dimensions of not less than 22 inches by 42 inches. The bottom of the opening shall be not more than 48 inches above the floor.
- (c) Accessibility. The openings shall be accessible to the fire department from the exterior and shall be unobstructed to allow fire-fighting and rescue operations.
- 1. a. A clear space not less than 5 feet in width measured perpendicular to the building wall shall be provided outside of access openings.
- b. A stairway or ramp to grade not less than 3 feet in width shall be provided where the bottom of the opening is more than 4 feet below grade.
- 2. An interior stairway may serve as basement access if the stairway leads directly to an exterior door and is separated at the first story with one-hour fire resistive rated construction and protected openings. The stairway may not serve any floor level above the first story.
- 3. A skylight or hatch may serve as a basement access opening if a ladder or stairs from the floor below is provided.
- 4. Access openings shall be doors, windows, glazed panels or other panels readily identifiable and openable from the outside. Access panels requiring the use of a key, special tools or devices for opening will be permitted if approved by the fire department having jurisdiction.
- 5. The fire department access shall open into the general area of the floor being served, where an aisle or passageway leading to the opening can be maintained clear of obstructions.

Note: An opening located within a tenant storage cubicle is not acceptable.

(d) Number of openings required. Every story of a building more than 75 feet deep, measuring at right angles to the openings, shall have openings in that story on at least 2 sides of the building.

- (e) <u>Locations</u>. Openings in the basement shall be located so any location in the basement is within 75 feet of an opening.
- SECTION 21. ILHR 54.01 (1) is repealed and recreated to read:
- ILHR 54.01 (1) GENERAL. Buildings and structures within the scope of this chapter may not exceed the height and area limitations specified in this section.

Note: See s. ILHR 51.03 for standards of classes of construction.

SECTION 22. ILHR 54.01 (2) to (4) are repealed and recreated to read:

ILHR 54.01 (2) LIMITED AREA CH. ILHR 54 BUILDINGS. (a) Chapter ILHR 54 buildings not protected by complete automatic fire sprinkler protection may not exceed the height and area limitations specified in Table 54.01-1

- (b) Chapter ILHR 54 buildings protected by complete automatic fire sprinkler systems may not exceed the height and area limitations specified in Table 54.01-2.
- (c) Freezer warehouses complying with the requirements of s. ILHR 51.06 (6) (a) 3. b. may be designed and constructed with the allowable floor area as specified in par. (b) and with the allowable increase in exit distance as specified in s. ILHR 54.02 (4) (b) without being protected by a complete automatic fire sprinkler system.
- ILHR 54.01 (3) FIRE DIVISION WALL SEPARATION. (a) No building shall be limited in area when divided into sections which do not exceed the maximum areas tabulated in this section by fire division walls specified in s. ILHR 51.02 (13).
- (b) All openings in such walls shall be protected by fire-resistive door assemblies as specified in s. ILHR 51.047.
- 1. Except as provided in subd. 2, doors protecting such openings may be left open if equipped with an automatic closing device activated by products of combustion other than heat.
- 2. a. The automatic closing device may be installed to prevent accidental closing of the fire door in the event of a power outage to the building if it is installed with an approved or listed backup mechanism in addition to the smoke detection release device.

- b. The automatic closing device on doors located in smoke- or contaminant-filled environments, such as but not limited to foundries, chemical plants and similar environments, may be activated by rate-of-rise heat detectors.
- 3. Doors used as required exits shall be standard exit doors and shall comply with the requirements of s. ILHR 51.19 (2).

ILHR 54.01 (4) UNLIMITED AREAS. (a) The area of buildings completely protected by an automatic fire sprinkler system may be unlimited provided the following conditions are satisfied:

- 1. The maximum number of stories is limited as follows:
- (a) Type No. 2 construction 9 stories;
- b. Type No. 3 construction 5 stories;
- c. Type No. 4 and 5A construction 3 stories;
- d. Type No. 5B and 6 construction 1 story.
- 2. Street access is provided as specified in s. ILHR 54.01 (5) (b).
- (b) There shall be no area restriction in one-story buildings where the following conditions are satisfied:
- 1. Construction of all building elements listed in Table 51.03-A are of noncombustible materials. Built-up roof coverings may not be used:
  - a. The contents of the building are noncombustible.
- b. Stored materials are not packed or crated in combustible materials; and
  - 3. Street access is provided as specified in s. ILHR 54.01 (5) (b).
- SECTION 23. Table 54.01 is repealed.
- SECTION 24. Tables 54.01-1 and 54.01-2 are created to read:

## TABLE 54.01-1 ALLOWABLE HEIGHT (STORIES) AND AREA (SQUARE FEET) FOR BUILDINGS WITHOUT COMPLETE AUTOMATIC FIRE SPRINKLER SYSTEM PROTECTION (MAXIMUM GROSS FLOOR AREA PER FLOOR) NOTE: DO NOT USE FOR BUILDINGS EXCEEDING 60 FEET IN HEIGHT

CLASS OF CONSTRUCTION	BUILDING FRONTAGE STREET		h	IUMBER OF	STORIES					
	EXPOSURE	i	2	3	4	5	6	7	В	OVER 8
	1	25,000	22,000	19,000	16,000	13,000	11,000	9,000	8,000	6,000
1. FIRE-RESISTIVE TYPE A	2	30,500	27,000	24,000	20,500	17,500	15,000	13,000	12,000	10,000
	2	36,000	33,000	29,000	25,000	22,000	19,000	17,000	16,000	14,000
	4	41,500	39,000	34,000	29,500	26,500	23,000	21,000	20,000	18,000
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	1	23,000	20,000	17,000	14,000	11,000	9,000	7,000	6,000	
2. FIRE-RESISTIVE TYPE B	2	28,500	25,000	22,000	18,500	15,500	13,000	11,000	10,000	N.P.
	3	34,000	31,000	27,000	23,000	20,000	17,000	15,000	14,000	
	4	39,500	37,000	32,000	27,500	24,500	21,000	19,000	18,000	
	<u> </u>	21,000	18,000	15,000	12,000					
3. METAL FRAME PROTECTED	2	26,500	23,000	19,500	16,000	N.P.	N.P.	N.P.	N.P.	N.P.
•	3	32,000	28,000	24,000	20,000					
	4	37,500	33,000	28,500	24,000					
	1	17,000	14,000	11,000	9,000					
4. HEAVY TIMBER	2	22,000	19,000	16,000	13,500	N.P.	N.P.	N.P.	N.P.	N.P.
	3	27,000	24,000	21,000	18,000					
	4	32,000	29,000	26,000	22,500					
	1	15,500	13,500	9,500	8,000					
5A. EXTERIOR MASONRY PROTECTED	2	20,000	17,000	14,000	12,500					
	3	24,500	21,500	18,500	15,500	N.P.	N.P.	N.P.	N.P.	N.P.
	4	29,000	26,000	23,000	19,500					
	1	14,000	11,500	9,000						
5B. EXTERIOR MASONRY UNPROTECTED	2	18,000	15,000	12,500	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
	3	22,000	19,000	16,000						
	4	26,000	23,000	19,500						
	<u>1</u>	14,000	11,500	9,000						
6. METAL FRAME UNPROTECTED	2	18,000	15,000	12,500						
	3	22,000	19,000	16,000	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
	4	26,000	23,000	19,500						
	· 1	12,500	7,500	5,500						
7. WOOD FRAME PROTECTED	2	16,000	10,000	7,000	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
	3	19,000	12,000	8,500						
	4	22,000	14,000	10,000						
	<u>1</u>	10,000	5,000							~~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
B. WOOD FRAME UNPROTECTED	2	12,000	6,000	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
	3	14,000	7,000							
	4	16,000	8,000							

N.P. MEANS NOT PERMITTED

#### TABLE 54.01-2

ALLOWABLE HEIGHT (STORIES) AND AREA (SQUARE FEET)

FOR BUILDINGS COMPLETELY PROTECTED BY AUTOMATIC FIRE SPRINKLER SYSTEM

(MAXIMUM GROSS FLOOR AREA PER FLOOR)
NOTE: USE FOR ALL BUILDINGS

CLASS OF CONSTRUCTION	BUILDING FRONTAGE STREET			NUMBER OF	STORIES						
	EXPOSURE	1	2	3	4	5	6	7	8	9 (	VER 9
+ Fine projective Type A	1										
1. FIRE-RESISTIVE TYPE A STORIES AND AREA MAY BE UNLIMITED	2 3					NO LIMIT					
SUBJECT TO s. ILHR 54.01(5)(b)	4										
Subocut to a, tenn offorture,	,										
	1		69,000	40,000	51,000	42,000	33,000	27,000	21,000	1B,000	N.P.
2. FIRE-RESISTIVE TYPE B	2	МО	85,500	75,000	66,000		44,500	39,000	33,000	30,000	
1 TO 9 STORY AREA MAY BE UNLIMITED	3	LIMIT	102,000	93,000	81,000	•	60,000	51,000	45,000	42,000	
SUBJECT TO s. ILHR 54.01(5)(b)	4		118,500	111,000	94,000	•	73,500	63,000	•	54,000	
	1	84,000	63,000	54,000	45,000	36,000	N.P.	N.P.	N.P.	N.P.	N.P.
3. METAL FRAME PROTECTED	2	106,000	79,500	69,000	58,500	48,000					
1 TO 5 STORY AREA MAY BE UNLIMITED	3	128,000	96,000	84,000	72,000	60,000					
SUBJECT TO s. ILHR 54.01(5)(b)	4	150,000	112,500	99,000	85,500	72,000					
	1	68,000	51,000	42,000	33,000	27,000	N.P.	N.P.	N.P.	N.P.	N.P.
4. HEAVY TIMBER	2	88,000	66,000	57,000	48,000	40,500					
1 TO 3 STORY AREA MAY BE UNLIMITED	3	108,000	81,000	72,000	63,000	54,000					• •
SUBJECT TO s. ILHR 54.01(5)(b)	4	128,000	96,000	87,000	7B,000	67,500					
	i	62,000	46,500	40,500	28,500	24,000	N.P.	N.P.	N.P.	N.P.	N.P.
5A. EXTERIOR MASONRY PROTECTED	2	80,000	60,000	51,000	42,000	37,500					
1 TO 3 STORY AREA MAY BE UNLIMITED	3	98,000	73,500	64,500	55,500	46,500					
SUBJECT TO s. ILHR 54.01(5)(b)	4	116,000	87,000	78,000	69,000	58,500					
	<u>i</u>	56,000	42,000	34,500	27,000	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
5B. EXTERIOR MASONRY UNPROTECTED	2	72,000	54,000	45,000	37,500						
1 STORY AREA MAY BE UNLIMITED	3	88,000	66,000	57,000	48,000						
SUBJECT TO s. ILHR 54.01(5)(b)	4	104,000	78,000	69,000	58,500						
	1	56,000		34,500			N.P.	N.P.	N.P.	N.P.	N.P.
5. METAL FRAME UNPROTECTED	2	72,000	54,000	45,000	37,500						
I STORY AREA MAY BE UNLINITED	3	88,000	66,000	57,000	48,000						
SUBJECT TO s. [LHR 54.01(5)(6)	4	104,000	78,000	69,000	58,500						
	1	50,000	37,500	22,500	16,500	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
7. WOOD FRAME PROTECTED	2	64,000	48,000	30,000	21,000						
	3	76,000	57,000	36,000	25,500						
	4	88,000	66,000	42,000	30,000						
	1	40,000	30,000	15,000	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	Ñ.P.
B. WOOD FRAME UNPROTECTED	2	48,000	36,000	18,000							
	3	56,000	42,000	21,000							
	4	64,000	48,000	24,000							

SECTION 25. ILHR 54.01 (5) and (6) are created to read:

ILHR 54.01 (5) STREET ACCESS TO BUILDINGS. (a) Streets shall be within 50 feet of the adjacent building side with no obstructions between the street and the building which will impede fire-fighting efforts.

Note: See s. ILHR 51.01 (124) for definition of street.

- (b) 1. Except as provided in subd. 2., buildings with no area limitations shall have a continuous all-weather, hard-surfaced area 30 feet or more in width for a distance of not less than 50% of the perimeter of the building. These buildings shall have at least one wall facing a street for its entire length. At least 2 of the remaining building walls shall face streets for at least 50% of their respective lengths.
- 2. Unlimited area buildings of fire-resistive type 1 construction and one-story unlimited area buildings of fire-resistive type 2 construction shall be provided with street access as defined in s. ILHR 51.01 (124) to at least one side of the building.
- ILHR 54.01 (6) HEIGHT EXCEPTIONS. Rack storage facilities of noncombustible construction protected with automatic fire sprinkler systems installed in accordance with NFPA No. 231C Standard for Rack Storage of Materials, may be of unlimited height.

SECTION 26. ILHR 54.02 (4) (b) is amended to read:

SECTION 27. ILHR 54.15 (2) is repealed and recreated to read:

ILHR 54.15 (2) STANDPIPES. Dry standpipes shall be provided in all buildings 3 stories or more in height in which the floor area of each story is more than 3,000 square feet, unless an approved automatic sprinkler system is installed. First-aid standpipes may be provided in lieu of dry standpipes in factory occupancies.

SECTION 28. ILHR 54.17 is repealed and recreated to read:

ILHR 54.17 FIRE ALARMS. (1) FACTORY AND WORKSHOP. Except as provided in sub. (3), a manual fire alarm complying with the requirements of s. ILHR 51.24 shall be provided in every factory or workshop where more than 10 persons are employed above the second story.

- (2) OFFICE BUILDINGS. Except as provided in sub. (3), a manual fire alarm complying with the requirements of s. ILHR 51.24 shall be provided in office buildings complying with either of the following conditions:
  - (a) Four stories or more in height; or
- (b) 15,000 square feet or more on any floor level above or below a floor of exit discharge.
- (3) EXCEPTION. The installation of a manual fire alarm system may be omitted in buildings where complete automatic fire sprinkler system protection is provided.

SECTION 29. ILHR 55.02 (1) is repealed and recreated to read:

ILHR 55.02 CLASS OF CONSTRUCTION. (1) GENERAL. The capacities of buildings or parts of buildings in this classification for the various types of construction shall not exceed, and shall comply with, the following requirements:

#### MAXIMUM CAPACITIES

Class of Construction	Without Comp   Automatic F   System Prote	ire Sprinkler	With Complete   Automatic Fire Sprinkler   System Protection					
	   With Stage	   Without Stage	   With Stage	Without Stage				
Type 1 and 2 Type 3 and 4 Type 5 and 6 Type 7 and 8	   No Limit   750   500   300	   No Limit   1,500   1,000   750	No Limit   1,000   750   500	No Limit   2,000   1,500   1,000				

- (2) UNLIMITED CAPACITY BUILDINGS. (a) Except as provided in par. (b), one story buildings of Types no. 5 or 6 non-combustible construction may have unlimited capacity provided the building has no ground floors or basement floors. Heavy timber columns, roof framing and roof decking may be substituted for required non-combustible columns, roof framing and roof decking. Mezzanine floors and supports shall be not less than one-hour non-combustible construction.
- (b) A basement, or ground floor mechanical equipment room may be provided if separated from the upper level by not less than 4-hour non-combustible construction.

SECTION 30. ILHR 55.02 (2) (c) (intro.) is amended to read:

ILHR 55.02 (2) (c) Except as provided in subds. 1. to 4/5, not more than one story in height and limited to one floor level.

SECTION 31. ILHR 55.02 (2) (c) 3. e. is amended to read:

SECTION 32. ILHR 55.02 (2) (c) 4. e. is amended to read:

ILHR 55.02 (2) (c) 4. e. The total maximum capacity of the building is limited total total as specified in sub. (1);

SECTION 33. ILHR 55.02 (2) (c) 5. is created to read:

ILHR 55.02 (2) (c) 5. 'Exception'. Buildings completely protected by automatic fire sprinkler system protection may not exceed 2 stories in height and shall be limited to 2 floor levels.

SECTION 34. ILHR 55.33 (2) is repealed and recreated to read:

ILHR 55.33 (2) STANDPIPES. Dry standpipes shall be provided in all buildings, except churches and places of worship, having theaters and assembly halls with an occupancy load of more than 750 persons, unless an approved automatic sprinkler system is installed. First-aid standpipes shall be provided on the stage of every theater and assembly hall where a proscenium curtain is required.

SECTION 35. ILHR 56.02 (1) to (3) are amended to read:

ILHR 56.02 (1) **Eyery** Except as provided in sub. (4), every building not more than one story in height may be of type 7 or 8 construction as specified in s. ILHR 51.03.

ILHR 56.02 (2) \*\*\*/\*\* Except as provided in sub. (4), every 2-story building shall be not less than type 6 construction as specified in s. ILHR 51.03 with the exception that all floors and their supports shall be at least non-combustible one-hour fire resistive rating.

ILHR 56.02 (3) \*\*Except as provided in sub. (4), every building 3 or more stories in height shall be of type 1 or 2 construction as specified in s. ILHR 51.03.

SECTION 36. ILHR 56.02 (4) is renumbered to be (5).

SECTION 37. ILHR 56.02 (4) is created to read:

ILHR 56.02 (4). The story heights specified in subs. (1) to (3) may be increased by one story in buildings completely protected by automatic fire sprinkler system protection.

SECTION 38. ILHR 56.02 (5) (a) is repealed and recreated to read:

ILHR 56.02 (5) (a) Limitations when occupancy is restricted to first story or ground floor only.

#### MAXIMUM CAPACITIES

Class of Construction	Without Com Automatic F System Prot	ire Sprinkler	With Complete   Automatic Fire Sprinkler   System Protection						
	With Stage	Without Stage	   With Stage						
Type 1 and 2 Type 3 and 4 Type 5 and 6 Type 7 and 8	No Limit 750 500 300	No Limit   1,500   1,000   750	No Limit   1,000   750   500	   No Limit   2,000   1,500   1,000					

- (b) 1. Except as provided in subd. 2., one story building of Types no. 5 or 6 non-combustible construction may have unlimited capacity provided the building has no ground floors or basement floors. Heavy timber columns, roof framing and roof decking may be substituted for required non-combustible columns, roof framing and roof decking. Mezzanine floors and supports shall be not less than one-hour non-combustible construction.
- 2. A basement or ground floor mechanical equipment room may be provided if separated from the upper level by not less than 4-hour non-combustible construction.

SECTION 38A. ILHR 56.03 (1) Note #2 is amended to read:

ILHR 56.03 (1) Note: See ss. ILHR 32/073/(3)/(4)/6/ 52.012 (1) and 52.02 for additional requirements pertaining to basements.

SECTION 39. ILHR 56.06 (3) (a) is amended to read:

ILHR 56.06 (3) (a) <u>Exit Distance</u>. 1. Travel distance to an exterior exit door, a required fire-resistive rated exit corridor, interior enclosed stairs, smokeproof stair tower, horizontal exit, or fire escape, from any point in a building accessible to the public, shall not exceed 150 feet.

- 2. Where an approved automatic fire sprinkler system is provided throughout the building, an increase in exit distance to 200 feet will be permitted.
- 3. Building service areas, including pipe chases and tunnels, catwalks, ducts or similar spaces not accessible to the public, shall not exceed 300 feet from an exit.

SECTION 40. ILHR 56.20 (2) is repealed and recreated to read:

ILHR 56.20 (2) DRY STANDPIPES. Dry standpipes shall be provided in all buildings 3 stories or more in height, unless an approved automatic fire sprinkler system is installed.

SECTION 41. ILHR 57.016 is created to read:

ILHR 57.016 AUTOMATIC FIRE SPRINKLER SYSTEM PROTECTION. (1) GENERAL APPLICATION. All buildings within the scope of this chapter, except housing for the elderly, may be protected by one of the following 2 automatic fire sprinkler system options:

- (a) Option 1. Option 1 shall include the protection of the areas within the living unit by an automatic fire sprinkler system complying with NFPA standard 13D and the protection of windowless floor levels and storage areas as specified in s. ILHR 52.012 (1) and (3), respectively, by an automatic fire sprinkler system complying with NFPA standard 13. All sprinkler heads used in Option 1 shall be of the residential type.
- (b) Option 2. Option 2 shall include the protection of all areas within the building by an automatic fire sprinkler system complying with NFPA standard 13 and equipped with residential type sprinkler heads in the living units.
- (c) Other requirements. Compliance with the other fire protection, detection and suppression requirements of this chapter shall be required.

Note: See ss. ILHR 51.02 (22), 57.02 (2), 57.03 (2) and 57.15 (2) for specific exceptions permitted when option 2 protection is provided.

- (2) HOUSING FOR THE ELDERLY. All housing for the elderly shall be protected by either option 1 or option 2 as specified in sub. (1) (a) or (b).
- SECTION 42. ILHR 57.02 (1) is amended to read:

ILHR 57.02 (1) GENERAL. Buildings and structures within the scope of this chapter shall not exceed the height and area limitations specified in 748/46/87/02 this section.

SECTION 43. ILHR 57.02 (2) is repealed and recreated to read:

ILHR 57.02 (2) ALLOWABLE INCREASE IN FLOOR AREAS. (a) Limited area ch. ILHR 57 buildings. 1. Chapter ILHR 57 buildings not protected by automatic fire sprinkler systems as specified in s. ILHR 57.016 may not exceed the height and area limitations specified in Table 57.02-1.

- 2. Chapter ILHR 57 buildings protected by automatic fire sprinkler systems as specified in option 1 of s. ILHR 57.016 may not exceed the height and area limitations specified in Table 57.02-2.
- 3. Chapter ILHR 57 buildings protected by complete automatic fire sprinkler systems as specified in option 2 of s. ILHR 57.016 may not exceed the height and area limitations specified in Table 57.02-3.
- (b) Vertical division wall separations. 1. No building shall be limited in area when divided into sections which do not exceed the maximum areas tabulated in this section by vertical division walls. Such vertical division walls shall extend from the foundation or the first floor level if the floor construction and supporting elements are of 3-hour rated non-combustible construction, to the underside of the roof deck and shall have at least the following fire-resistive ratings:
  - a. 2-hour for type 4, 5A, 5B, 7 and 8 construction;
  - b. NC-2 hour for type 3 and 6 construction; and
  - c. NC-3 hour for type 2 construction.

- 2. All openings in such walls shall be protected by fire-rated door assemblies as specified in s. ILHR 51.047. The doors protecting openings in such walls located in public corridors shall be held open and equipped with an automatic closing device activated by products of combustion other than heat.
- (c) Street access for unlimited area buildings. 1. Streets shall be within 50 feet of the adjacent building side with no obstructions between the street and the building which will impede fire-fighting efforts.

Note: See s. ILHR 51.01 (124) for definition of street.

2. Except as provided in Table 57.02-3, buildings with no area limitations shall have a continuous all-weather, hard-surfaced area 30 feet or more in width for a distance of not less than 50% of the perimeter of the building. These buildings shall have at least one wall facing a street for its entire length. At least 2 of the remaining building walls shall face streets for at least 50% of their respective lengths.

SECTION 44. Table 57.02 is repealed.

SECTION 45. Tables 57.02-1, 57.02-2, and 57.02-3 are created to read:

## TABLE 57.02-1 ALLOWABLE HEIGHT (STORIES) AND AREA (SQUARE FEET) FOR BUILDINGS WITHOUT COMPLETE AUTOMATIC FIRE SPRINKLER SYSTEM PROTECTION (MAXIMUM GROSS FLOOR AREA PER FLOOR)

NOTE: DO NOT USE FOR BUILDINGS EXCEEDING 60 FEET IN HEIGHT

CLASS OF CONSTRUCTION	BUILDING FRONTAGE STREET			NUMBER DF	STORIES					
	OR OPEN									
	SPACE Exposure	1	2	3	4	5	6	7	В	OVER 8
	<u>1</u>	19,800	17,000	14,800	12,500	10,300	8,800	7,300	6,500	5,300
1. FIRE-RESISTIVE TYPE A	2	23,900	20,800	18,500	15,900	13,600	11,800	10,300	9,500	8,300
	3	2B,000	25,300	22,300	19,300	17,000	14,800	13,300	12,500	11,300
	4	32,100	29,800	26,000	22,600	20,400	17,800	16,300	15,500	14,300
	1	17,800	15,000	12,800	10,500	8,300	6,800	5,300	4,500	
2. FIRE-RESISTIVE TYPE B	2	21,900	18,800	16,500	13,900	11,600	9,800	8,300	7,500	N.P.
	3	26,000	23,300	20,300	17,300	15,000	12,800	11,300	10,500	
	4	30,100	27,800	24,000	20,400	18,400	15,800	14,300	13,500	
	1	15,800	13,500	11,300	9,000					
3. METAL FRAME PROTECTED	2	19,900	17,300	14,600	12,000	N.P.	N.P.	N.P.	N.P.	N.P.
	3	24,000	21,000	18,000	15,000					
	4	28,100	24,800	21,400	18,000					
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	1	12,800	10,500	7,400	6,800					
4. HEAVY TIMBER	2	16,500	14,300	12,000	10,100	N.P.	N.P.	N.P.	N.P.	N.P.
	3	20,300	18,000	15,800	13,500					
	4	24,000	21,800	19,500	16,900					
	1	11,600	9,600	7,200	6,000					
5A. EXTERIOR MASONRY PROTECTED	2	15,000	12,800	10,700	8,800	•				
	2	18,400	16,100	13,900	11,600	N.P.	N.P.	N.P.	N.P.	N.P.
	4	21,800	19,500	17,100	14,500					
	1	10,500	8,600	6,800						
58. EXTERIOR MASONRY UNPROTECTED	2	13,500	11,300	9,400	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
	3	16,500	14,300	12,000						
	4	19,500	17,300	14,600						
	1	10,500	8,600	6,800						
6. HETAL FRAME UNPROTECTED	2	13,500	11,300	9,400						
	3	16,500	14,300	12,000	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
	. 4	19,500	17,300	14,600						
***************************************	1	10,500	8,600	6,800						
7. WOOD FRAME PROTECTED	2	13,500	11,300	9,400	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
	3	16,500	14,300	12,000						
	4	19,500	17,300	14,600						
	1	7,500	3,800							
8. WOOD FRAME UNPROTECTED	2	9,000	4,500	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
	3	10,500	5,300							
	4	12,000	6,000							

N.P. MEANS NOT PERMITTED

#### TABLE 57.02-2

ALLOWABLE HEIGHT (STORIES) AND AREA (SQUARE FEET)
FOR BUILDINGS PROTECTED IN ACCORDANCE WITH OPTION 1 OF S. ILHR 57.016
(MAXIMUM GROSS FLOOR AREA PER FLOOR)
NOTE: DO NOT USE FOR BUILDINGS OVER 60 FEET IN HEIGHT

CLASS OF CONSTRUCTION	BUILDING FRONTAGE STREET			NUMBER OF	STORIES					
	OR OPEN									
	SPACE EXPOSURE	1	2	3	4	5	6	7	8	OVER 8
	1	39,600	34,000	29,600	25,000	20,600	17,600	14,600	13,000	10,600
1. FIRE-RESISTIVE TYPE A	2	47,B00	41,600	37,000	31,800	27,200	23,600	20,600	19,000	16,600
	3	56,000	50,600	44,600	38,600	34,000	29,600	26,600	25,000	22,600
	4	64,200	59,600	52,000	45,200	40,800	35,400	32,600	31,000	28,600
	1	35,600	30,000	25,600	21,000	16,600	13,600	10,600	9,000	
2. FIRE-RESISTIVE TYPE B	2	43,800	37,600	33,000	27,800	23,200	19,600	16,600	15,000	N.P.
	3	52,000	46,600	40,600	34,600	30,000	25,600	22,600	21,000	
	4	60,200	55,600	48,000	41,200	36,800	31,600	28,600	27,000	
« » « « « » « « » » » « » « » « » « » «	1	31,600	27,000	22,600	18,000					
3. METAL FRAME PROTECTED	2	39,800	34,600	29,200	24,000	N.P.	N.P.	N.P.	N.P.	N.P.
	3.	48,000	42,000	36,000	30,000					
	4	56,200	49,600	42,800	36,000					
	1	25,600	21,000	14,800	13,600					
4. HEAVY TIMBER	2	33,000	28,600	24,000	20,200	N.P.	N.P.	N.P.	N.P.	N.P.
	3	40,600	34,000	31,600	27,000					
	4	48,000	43,600	39,000	33,800					
	1	23,200	19,200	14,400	12,000					
5A. EXTERIOR MASONRY PROTECTED	2	30,000	25,600	21,400	17,600	N.P.	N.P.	N.P.	N.P.	N.P.
	3	36,800	32,200	27,800	23,200					
	.4	43,600	39,000	34,200	29,000					
	1	21,000	17,200	13,600						
5B. EXTERIOR MASONRY UNPROTECTED	2	27,000	22,600	18,800	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
	3	33,000	28,600	24,000						
	4	39,000	34,600	29,200						
***************************************	1	21,000	17,200	13,600						
6. METAL FRAME UNPROTECTED	2	27,000	22,600	18,800	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
	3	33,000	28,600	24,000						
	. 4	39,000	34,600	29,200						
****	1	21,000	17,200	13,600			_ = =			
7. WOOD FRAME PROTECTED	2	27,000	22,600	18,800	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
	3	33,000	28,600	24,000						
	4	39,000	34,400	29,200						
~-~*	1	15,000	7,600							
8. WOOD FRAME UNPROTECTED	2	18,000	9,000	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
	3	21,000	10,600							
	4	24,000	12,000							

N.P. MEANS NOT PERMITTED

#### TABLE 57.02-3

ALLOWABLE HEIGHT (STORIES) AND AREA (SQUARE FEET)
FOR BUILDINGS PROTECTED IN ACCORDANCE WITH OPTION 2 OF S. 1LHR 57.016
(MAXIMUM GROSS FLOOR AREA PER FLOOR)

NOTE: USE FOR ALL BUILDINGS

BUILDING FRONTAGE STREET		۸	NUMBER OF	STORIES						
OR OPEN SPACE EXPOSURE	1	2	3	4	5	6	7	8	9 (	IVER 9
1										
				1	O LIMIT					
4										
1		53,400	45,000	38,400	31,500	24,900	20,400	15,900	13,500	
2	NO	,		•	•	34,800	29,400	24,900	22,500	N.P.
	LIMIT			•	•	•	•	•	31,500	
4		90,300	83,400	72,000	61,800	55,200	47,400	42,900	40,500	
1	63,200	47,400	40,500	33,900	27,000					
2	79,600	59,700	51,900	43,B00	36,000	N.P.	N.P.	N.P.	N.P.	N.P.
3	96,000	72,000	63,000	54,000	45,000					
4	112,400	84,300	74,400	64,200	54,000					
1	51,200	38,400	31,500	22,200						
2	44,000	49,500	42,900	36,000	N.P.	N.P.	N.P.	N.P.	V.P.	N.P.
3	81,200	60,900	54,000	47,400						
4	96,000	72,000	65,400	58,500						
1	46,400	34,800	28,800	21,600						
2	60,000	45,000	38,400	32,100	N.P.	N.P.	N.P.	N.P.	N.P.	N.F.
3	73,600	55,200	48,300	41,700						
4	87,200	65,400	58,500	51,300						
1	42,000	31,500	25,800	20,400						
2	54,000	40,500	33,900	28,200	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
3	46,000	49,500	42,900	36,000						
4	78,000	58,500	51,900	43,800						
<u>1</u>	42,000	31,500	25,800							
2	54,000	40,500	33,900	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
3	66,000	49,500	42,900							
4	78,000	58,500	51,900							
i	42,000	31,500	25,800							
2	54,000	40,500	33,900	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
3	66,000	49,500	42,900							
<b>'4</b>	7B,000	58,500		ı						
<u>i</u>	30.000	22.500	11.400							
2	•	•	•	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
3	42,000	31,500	15,900	··				******		
	FRONTAGE STREET OR OPEN SPACE EXPOSURE  1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4	FRONTAGE STREET OR OPEN SPACE EXPOSURE 1  1 2 3 4  1 2 NO 3 LIMIT 4  1 51,200 2 79,600 3 96,000 4 112,400  1 51,200 2 66,000 3 81,200 4 96,000 3 81,200 4 96,000 1 46,400 2 60,000 3 73,600 4 87,200  1 42,000 2 54,000 3 66,000 4 78,000 1 42,000 2 54,000 3 66,000 4 78,000 1 30,000 2 54,000 3 66,000 4 78,000 1 30,000 2 54,000 3 66,000 4 78,000	FRONTAGE STREET OR OPEN SPACE EXPOSURE  1 2 3 4 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 7 1 7 8 1 90 0 7 9 1 3 9 6 1 90 7 7 1 90 0 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	FRONTABE STREET OR OPEN SPACE EXPOSURE 1 2 3  1 2 3 4  1 53,400 45,000 2 NO 65,700 56,400 3 LIMIT 78,000 69,900 4 90,300 83,400  1 63,200 47,400 40,500 2 79,600 59,700 51,900 3 96,000 72,000 63,000 4 112,400 84,300 74,400 1 51,200 38,400 31,500 2 66,000 49,500 42,900 3 81,200 60,900 54,000 4 96,000 72,000 65,400 1 46,400 34,800 28,800 2 60,000 45,000 38,400 3 73,600 55,200 48,300 4 87,200 65,400 58,500  1 42,000 31,500 25,800 2 54,000 40,500 33,900 3 66,000 47,500 42,900 4 78,000 58,500 51,900  1 42,000 31,500 25,800 2 54,000 40,500 33,900 3 66,000 47,500 42,900 4 78,000 58,500 51,900  1 42,000 31,500 25,800 2 54,000 40,500 33,900 3 66,000 49,500 42,900 4 78,000 58,500 51,900	FRONTAGE STREET UR OPEN SPACE EXPOSURE  1 2 3 4  1 2 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 3 4  1 4  1 4 4  1 4 4  1 4 4  1 4 4  1 4 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4  1 4	FRONTAGE STREET OR OPEN SPACE EXPOSURE  1 2 3 4  1 2 ND LIMIT 3 4  1 1 2 ND LIMIT 3 4  1 1 2 ND LIMIT 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 1 3 4  1 1 1 1	FRONTABE STREET OR OPEN SPACE EXPOSURE  1 2 3 4  1 2 3 4  1 1 2 3 4  1 1 2 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 1 3 4  1 1 1 2 1 3 4  1 1 1 3 4  1 1 1 2 1 3 4  1 1 1 3 4  1 1 1 1 2 1 3 4  1 1 1 1 2 1 3 4  1 1 1 3 4  1 1 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	FRONTAGE STREET OR OPEN SPACE EXPOSURE  1 2 3 4  1 2 3 4  1 3 4  1 1 2 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 3 4  1 1 1 3 4  1 1 1 3 4  1 1 1 3 4  1 1 1 1	FRONTABE STREET ORD OPEN SPACE EXPOSURE  1 2 3 4 5 6 7 8  1 2 3 4 5 6 7 8  1 2 3 4 5 6 7 8  1 2 3 4 5 6 7 8  1 3 4 5 6 7 8  1 3 53,400 45,700 56,400 49,500 41,700 34,800 29,400 24,900 3 LIMIT 78,000 69,900 60,900 51,900 45,000 38,400 33,900 4 70,300 83,400 72,000 61,800 55,200 47,400 42,900  1 63,200 47,400 40,500 33,900 27,000 2 79,600 59,700 51,900 43,800 36,000 N.P. N.P. N.P. N.P. 3 96,000 72,000 63,000 54,000 45,000 4 112,400 84,300 74,400 64,200 54,000  1 51,200 38,400 31,500 22,200 4 78,000 47,500 49,500 47,400 40,200 54,000  1 64,000 49,500 49,500 47,400 58,500  1 46,400 49,500 49,500 47,400 58,500  1 46,400 49,500 49,500 47,400 58,500  1 46,400 34,800 28,800 21,600 2 66,000 47,500 58,500 51,700 4 87,200 65,400 58,500 51,300  1 42,000 31,500 25,800 20,400 2 54,000 40,500 38,400 32,100 N.P. N.P. N.P. N.P. N.P. 3 66,000 47,500 42,900 36,000 4 78,000 58,500 51,900 4 78,000 58,500 51,900 4 78,000 58,500 51,900  1 42,000 31,500 25,800 2 54,000 40,500 33,900 N.P. N.P. N.P. N.P. N.P. N.P. N.P. 3 66,000 47,500 42,900 36,000 4 78,000 58,500 51,900 4 78,000 58,500 51,900  1 42,000 31,500 25,800 2 54,000 40,500 33,900 N.P. N.P. N.P. N.P. N.P. N.P. N.P. N.	FROMTAGE STREET ORG OPEN SPACE  EXPOSURE  1 2 3 4 5 6 7 8 9 9 6  1 2 3 14 5 6 7 8 9 6  1 2 3 14 5 6 7 8 9 6  1 2 3 14 5 6 7 8 9 6  1 2 3 14 5 6 7 8 9 6  1 2 3 14 5 6 7 8 9 6  1 2 8 8 9 6  1 33,400 45,000 38,400 31,500 24,900 20,400 15,900 15,500  2 10 65,700 56,400 49,500 41,700 34,800 29,400 24,900 22,500  3 1 1411 78,000 69,900 60,900 51,900 45,000 38,400 33,500 31,500  4 970,000 85,400 72,000 61,800 55,200 47,400 42,900 40,500  1 63,200 47,400 40,500 33,900 27,000  2 79,600 59,700 51,700 43,800 36,000 N.P. N.P. N.P. N.P. N.P. N.P. 3 96,000 72,000 63,000 54,000 54,000  4 112,400 64,300 74,400 64,200 54,000  1 51,200 38,400 31,500 22,200  2 66,000 49,500 42,900 36,000 N.P. N.P. N.P. N.P. N.P. N.P. N.P. 3 81,200 60,900 54,000 47,400  4 96,000 72,000 65,400 58,500  1 46,400 34,800 38,400 32,100 N.P. N.P. N.P. N.P. N.P. N.P. N.P. 3 73,600 55,200 48,300 38,400 32,100 N.P. N.P. N.P. N.P. N.P. N.P. N.P. 3 64,000 49,500 42,900 36,000  1 42,000 31,500 25,800 20,400  2 54,000 40,500 33,900 28,200 N.P. N.P. N.P. N.P. N.P. N.P. N.P. N.

N.F. MEANS NOT PERMITTED

SECTION 46. ILHR 57.03 (2) (a) is renumbered (2) (a) 1.

SECTION 47. ILHR 57.03 (2) (a) 2. is created to read:

ILHR 57.03 (2) (a) 2. Where automatic fire sprinkler system protection as specified in option 2 of s. ILHR 57.016 (1) (b) is provided an increase in exit distance to 150 feet will be permitted.

SECTION 47A. ILHR 57.08 (2) (b) 2. is amended to read:

ILHR 57.08 (2) (b) 2. The distance to an exit, including the horizontal traval distance on the exit stair, does not exceed 50 feet in buildings not completely protected with an automatic fire sprinkler system or 75 feet in buildings completely protected as specified in s. ILHR 57.016 (1) (b).

SECTION 48. ILHR 57.15 (2) is repealed and recreated to read:

ILHR 57.15 (2) DRY STANDPIPES. Dry standpipes shall be provided in all buildings 3 stories or more in height which accommodate more than 20 occupants, unless an approved automatic sprinkler system as specified in Option 2 of s. ILHR 57.016 is installed.

SECTION 49. ILHR 57.18 (1) is amended to read:

ILHR 57.18 (1) GENERAL. Portable fire extinguishers may/be substituted/for/the/first/aid/standpipes/specified/in/s//IVNR/B7/IB/RZ) provided in buildings more than one-story in height. The extinguishers are shall be located in the public areas of the building and comply with the requirements of Table 57.18.

	Table 57.18	
Basic Minimum Extinguisher Rating	Maximum Travel Distance to Extinguisher (feet)	Area to be Protected per Extinguisher (sq. ft.)
1A 2A	75 75	3,000 6,000

SECTION 50. Ch. ILHR 59 - Subchapter I Title is repealed.

SECTION 51. Table 59.12 is repealed.

SECTION 52. Tables 59.12-1 and 59.12-2 are created to read:

#### TABLE 59.12-1

ALLOWABLE HEIGHT (STORIES) AND AREA (SQUARE FEET)

FOR BUILDINGS WITHOUT COMPLETE AUTOMATIC FIRE SPRINKLER SYSTEM PROTECTION

(MAXIMUM GROSS FLOOR AREA PER FLOOR)

NOTE#1: DO NOT USE FOR BUILDINGS EXCEEDING 60 FEET IN HEIGHT

NOTE#2: FOR STORAGE GARAGES ONLY. USE 75% OF VALUES FOR REPAIR GARAGES

CLASS OF CONSTRUCTION	8UILDING FRONTAGE STREET*	NUMBER OF STORIES								~
	EXPOSURE	1	2	3	4	5	6	7	8	OVER 8
	i	25,000	22,000	19,000	16,000	13,000	11,000	9,000	8,000	6,000
1. FIRE-RESISTIVE TYPE A	2	30,500	27,000	24,000	20,500	17,500	15,000	13,000	12,000	10,000
	3	36,000	33,000	29,000	25,000	22,000	19,000	17,000	16,000	14,000
	4	41,500	39,000	34,000	29,500	26,500	23,000	21,000	20,000	18,000
	1	23,000	20,000	17,000	14,000	11,000	9,000	7,000	6,000	
2. FIRE-RESISTIVE TYPE B	2	28,500	25,000	22,000	18,500	15,500	13,000	11,000	10,000	N.P.
	3	34,000	31,000	27,000	23,000	20,000	17,000	15,000	14,000	
	4	39,500	37,000	32,000	27,500	24,500	21,000	19,000	18,000	
	i	21,000	18,000	15,000	12,000			*****		
3. METAL FRAME PROTECTED	2	26,500	23,000	19,500	16,000	N.P.	N.P.	N.P.	N.P.	N.P.
	3	32,000	28,000	24,000	20,000					
	4	37,500	33,000	28,500	24,000					
	1	17,000	14,000	11,000	9,000					
4. HEAVY TIMBER	2	22,000	19,000	16,000	13,500	N.P.	N.P.	N.P.	N.P.	N.P.
	3	27,000	24,000	21,000	18,000					
	4	32,000	29,000	26,000	22,500					
	<u>1</u>	15,500	13,500	9,500	B,000					
5A. EXTERIOR MASONRY PROTECTED	2	20,000	17,000	14,000	12,500					
	3	24,500	21,500	18,500	15,500	N.P.	N.P.	N.P.	N.P.	N.P.
	4	29,000	26,000	23,000	19,500					
	<u>1</u>	14,000	11,500	9,000	7,000					
58. EXTERIOR MASONRY UNPROTECTED	2	18,000	15,000	12,500	10,000	N.P.	N.P.	N.P.	N.P.	N.P.
	3	22,000	19,000	16,000	13,000					
	4	26,000	23,000	19,500	14,000					
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	i	14,000	11,500	9,000						
6. METAL FRAME UNPROTECTED	2	18,000	15,000	12,500						
	3	22,000	•	16,000	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
	4	26,000		19,500						
	<u>1</u>	12,500								
7. WOOD FRAME PROTECTED	2	16,000	N.P.							
	3	19,000								
	. 4	22,000								
	,. 									
D BOOK FORME IMPORTANTER	1	10,000	11 0	N B	V 5	N 5	N 5	u e	M P	И 5
B. WOOD FRAME UNPROTECTED	2	12,000	N.P.							
	3	14,000								
	4	16,000							•	

N.P. MEANS NOT PERMITTED

<sup>\* 4-</sup>HOUR FIRE DIVISION WALL SHALL BE CONSIDERED AS A STREET FOR THE PURPOSE OF COMPUTING THE AREA LIMITATIONS FOR THIS TABLE.

#### TABLE 59.12-2

ALLOWABLE HEIGHT (STORIES) AND AREA (SQUARE FEET)

FOR BUILDINGS COMPLETELY PROTECTED BY AUTOMATIC FIRE SPRINKLER SYSTEM

(MAXIMUM GROSS FLOOR AREA PER FLOOR)

NOTE#1: USE FOR ALL BUILDINGS

NDTE#2: FOR STORAGE GARAGES ONLY. USE 75% OF VALUES FOR REPAIR GARAGES

	BUILDING FRONTAGE STREET*	NUMBER OF STORIES									
	EXPOSURE	1	2	3	4	5	6	7	8	9	OVER 9
	i į										
1. FIRE-RESISTIVE TYPE A	2			٧٠.		NO LIMIT					
ONE STREET REQUIRED FOR UNLIMITED	3										
AREA. See s. ILHR 51.01(12	4) 4										
	í		69,000	60,000	51,000	42,000	33,000	27,000	21,000	18,000	N.P.
2. FIRE-RESISTIVE TYPE B	2	NO	85,500	75,000	66,000	55,500	46,500	39,000	33,000	30,000	
ONE STREET REQUIRED FOR UNLIMITED	3	LIMIT	102,000	93,000	81,000	69,000	40,000	51,000	45,000	42,000	
AREA. See s. ILHR 51.01(12	(4) 4		118,500	111,000	96,000	82,500	73,500	43,000	57,000	54,000	
	1	B4,000	63,000	54,000	45,000	36,000	N.P.	N.P.	N.P.	N.P.	N.P.
3. METAL FRAME PROTECTED	2	106,000	79,500	69,000	58,500	48,000					
	3	128,000	96,000	B4,000	72,000	40,000					
	4	150,000	112,500	99,000	85,500	72,000					
	<u>1</u>	48,000	51,000	42,000	33,000	27,000	N.P.	N.P.	N.P.	N.P.	N.P.
4. HEAVY TIMBER	2	88,000	66,000	57,000	48,000	40,500					••
	3	108,000	B1,000	72,000	63,000	54,000					
	4	128,000	96,000	87,000	78,000	67,500					•
	i	62,000	46,500	40,500	28,500	24,000	N.P.	N.P.	N.P.	N.P.	N.P.
5A. EXTERIOR MASONRY PROTECTED	2	80,000	60,000	51,000	42,000	37,500					
	3	98,000	73,500	64,500	55,500	46,500			4		
	4	116,000	87,000	78,000	69,000	58,500					
	1	56,000	42,000	34,500	27,000	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
5B. EXTERIOR MASONRY UNPROTECTED	2	72,000	54,000	45,000	37,500						
	3	88,000	66,000	57,000	48,000						
	4	104,000	78,000	69,000	58,500						
***************************************	i	56,000	42,000	34,500	27,000	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
. NETAL FRAME UNPROTECTED	2	72,000	•	45,000	•						
	3	88,000	66,000	57,000	4B,000						
	4	104,000		69,000	58,500						
	· <u>i</u>	50,000	37,500	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
7. WOOD FRAME PROTECTED	2	64,000	48,000								
	3	76,000	57,000								
	4	88,000	66,000								
	<u>-</u>	40,000	30,000	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.
3. WOOD FRAME UNPROTECTED	2	48,000	36,000								
8. WOOD FRAME UNPROTECTED	3	56,000	42,000								
	4	64,000	48,000								

N.P. MEANS NOT PERMITTED

<sup>\* 4-</sup>HOUR FIRE DIVISION WALL SHALL BE CONSIDERED AS A STREET FOR THE PURPOSE OF COMPUTING THE AREA LIMITATIONS FOR THIS TABLE.

SECTION 53. ILHR 59.12 (1) and (2) are amended to read:

ILHR 59.12 (1) STORAGE GARAGES. Storage garages shall not exceed the number of stories and corresponding area limitations of Table \$9/12 59.12-1 or 59.12-2.

ILHR 59.12 (2) REPAIR GARAGES. Repair garages shall not exceed the number of stories and 75% of the corresponding area limitations of Table \$9/12 59.12-1 or 59.12-2.

SECTION 54. ILHR 59.12 (3) (a) is repealed and recreated to read:

ILHR 59.12 (3) (a) <u>Automatic fire sprinkler system protection</u>. 1. Chapter ILHR 59 buildings not protected by automatic fire sprinkler systems may not exceed the height and area limitations specified in subs. (1) or (2) and Table 59.12-1.

- 2. a. Chapter ILHR 59 buildings protected by complete automatic fire sprinkler systems may not exceed the height and area limitations specified in subs. (1) or (2) and Table 59.12-2.
- b. The area of one story aircraft hangars of type No. 1 to 6 construction may be unlimited provided the building is completely protected by an automatic fire sprinkler system and the building is provided with street access around its entire perimeter.

SECTION 55. ILHR 59.14 (2) (a) 2. and (b) are amended to read:

ILHR 59.14 (2) (a) 2. No area of a storage garage entirely protected by an automatic <u>fire</u> sprinkler system shall be more than 750  $\underline{200}$  feet from an exit.

ILHR 59.14 (2) (b) <u>Repair garages.</u> 1. No area of a repair garage shall be more than 75 feet from an exit, unless the entire repair garage is protected by an automatic <u>fire</u> sprinkler system.

2. No area of a repair garage entirely protected by an automatic <u>fire</u> sprinkler system shall be more than 720 150 feet from an exit.

SECTION 56. ILHR 59.23 (1) (e) 3. and 4. are created to read:

ILHR 59.23 (1) (e) 3. Fire department standpipes as specified in this subsection need not be provided in buildings 60 feet or less in height completely protected by an automatic fire sprinkler system.

ILHR 59.23 (1) (e) 4. Fire department standpipes shall be provided in buildings more than 60 feet in height in accordance with s. ILHR 51.21 (3).

SECTION 57. ILHR 62.95 (2) (b) is amended to read:

ILHR 62.92 (2) (b) Where an approved automatic fire sprinkler system is provided throughout the greenhouse, the exit distance may be p/p increased to p/p 300 feet.

SECTION 58. A52.011 is created to read

A52.011 HAZARD CLASSIFICATIONS. The following information is provided to assist building owners and designers in determining the hazard classifications of typical building usage or occupancy:

Hazard Classification	Description of Fuel Load	Typical Examples
Low Hazard	Buildings or structures used for the manufacture or storage of noncombustable or low hazard materials, that do not ordinarily burn rapidly, such as but not limited to: asbestos; chalk; non-alcoholic beverages; brick and masonry; ceramic products; gypsum; glass and metals; foods in noncombustible containers; fresh fruits and vegetables in non-plastic containers; dairy products in non-wax coated paper containers; beer or wine in metal or glass containers;	Metal fabricating and assembly; foundries; water pumping and waste water treatment plants; fertilizer storage; telephone exchanges freezer warehouses; storage in closed front meta cabinets; storage of noncombustible or low hazar materials on wood pallets or in paper cartons without significant amounts of combustible wrappings; and similar occupancies with slight combustibles.
	electrical motors and coils; & fertilizer.	
Moderate Hazard	Buildings and structures used for the manufacture or storage of moderate hazard materials, which are likely to burn with moderate rapidity, but which do not produce either poisonous gases, fumes or explosives, such as but not limited to: cloth, burlap and paper bags; bamboo and rattan; canvas and leather belting; baskets; books and paper in rolls or packs; boots and shoes; cardboard and cardboard boxes; clothing, cordage; furniture; furs; glue, mucilage, paste and size; linoleum; silk; soap; sugar; tobacco products; wax candles; athletic equipment; musical instruments; beverages containing more than 12% alcohol; furniture other than metal; business machines; electronics; and plastic products not classified as high hazard.	Mercantile storage and display; offices, school- rooms; auto showrooms; aircraft storage; light manufacturing; school shop areas; leather enameling or japanning operations; grain elevators with less than one million bushel bulk storage capacity; livestock shelters; fertilizer bagging operations; feed, flour and grist mills; lumber yards; motor vehicle repair shops; petroleum warehouses for storage of lubricating oils with a flash point of 200°F. or higher; photo engraving operations; public garages; stables; upholstering and mattress manufac- during; aircraft servicing; woodworking and millworking; bakeries; boat building operations; food processing; condensed and powdered milk manufacturing; paper mills or products; printing or publishing; refuse incinerators; and textile mills.
High Hazard	Buildings and structures used for the storage, manufacture or processing of: highly combustible or explosive products or materials, which are likely to burn with extreme rapidity or which may produce poisonous fumes or explosions; highly corrosive, toxic or noxious alkalies, acids or other liquids or chemicals producing flame, fumes, poisonous,	Ammunition, explosive and firework manufacture; artificial flowers and synthetic leather manufacture; celluloid and celluloid products; cotton batting and waste processes; dry cleaning establishments using or storing more than 3 gallons of flammable liquids with a flash point below 100°F. or more than 60 gallons of flammable liquids with a flash point between 100°F. and 140°F.; feather renovating, fruit

irritant or corrosive gases; materials producing explosive mixtures or dusts or which result in the division of matter into fine particles subject to spontaneous ignition.

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ripening processes; grain elevators with one million bushel or more bulk storage capacity; hydrogenation processes; match manufacture and storage; metal enameling and japanning; nitrocellulose film exchanges and laboratories; paint and varnish manufacture; petroleum manufacture; processing of paper or cardboard in loose form; pyroxylin product storage and manufacture; smoke houses; factories or warehouses where loose combustible fibers or dust are manufactured, processed, generated or stored; handling or using flammable liquids under conditions involving possible release of flammable vapors; and fabrication facilities and research and development areas in which hazardous production materials are used.

SECTION 59. A52.015 is repealed.

(END)

#### EFFECTIVE DATE

Pursuant to s. 227.026 (1) (intro.), Stats., these rules shall take effect on the first day of the month following publication in the Wisconsin Administrative Register.



#### State of Wisconsin \ Department of Industry, Labor and Human Relations

Office of the Secretary 201 E. Washington Avenue P.O. Box 7946 Madison, Wisconsin 53707 Telephone 608/266-7552

Gary Poulson Assistant Revisor of Statutes Suite 904 30 West Mifflin Street Madison, Wisconsin 53703

Douglas LaFollette Secretary of State Room 271, GEF-1 201 East Washington Avenue Madison, Wisconsin 53702

Dear Messrs. Poulson and LaFollette:

TRANSMITTAL OF RULE ADOPTION

RULE NO. Chapter ILHR 52, Subchapter II	
RELATING TO <u>Automatic Fire Sprinkler Systems in Low Rise Buildings</u>	

Pursuant to section 227.023, Stats., agencies are required to file a certified copy of every rule adopted by the agency in the offices of the Secretary of State and the Revisor of Statutes.

At this time, the following material is being submitted to you.

- Order of Adoption. 1.
- Rules Certificate Form.
- Rules in Final Draft Form.

Pursuant to section 227.016 (6), Stats., a summary of the final regulatory flexibility analysis is also included.

Respectfully submitted,

Howard S. Bellman

Secretary

Agency Contact Person

Revisor of Statutes Bureau