

CR 90-117

RULES CERTIFICATE

STATE OF WISCONSIN)
) SS
DEPT. OF INDUSTRY,)
LABOR & HUMAN RELATIONS)

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Gerald Whitburn, Secretary of the Department of Industry, Labor and Human Relations, and custodian of the official records of said department, do hereby certify that the annexed rule(s) relating to Chapters ILHR 50-64, Building & Heating, Ventilating & Air Conditioning Code were duly approved and adopted by this department on January 4, 1991.
(Subject)
(Date)

I further certify that said copy has been compared by me with the original 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 2:00 p.m. in the city of Madison, this 4th day of January A.D. 19 91.



Secretary

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JAN 7 1991
4:10 p.m.
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Bureau

ORDER OF ADOPTION

Pursuant to authority vested in the Department of Industry, Labor and Human Relations by section(s) 101.02 (1), 101.02 (15)(j) and 101.12, Stats., Stats., the Department of Industry, Labor and Human Relations creates; amends; repeals and recreates; repeals and adopts rules of Wisconsin Administrative Code chapter (s):

ILHR 50-64 (Number) Building & Heating, Ventilating & Air Conditioning Code (Title)

The attached rules shall take effect on the first day of the month following publication pursuant to section 227.22, Stats.

Adopted at Madison, Wisconsin, this

date: January 4, 1991

DEPARTMENT OF INDUSTRY, LABOR AND HUMAN RELATIONS



Secretary

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RULES in FINAL DRAFT FORM

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CR 90-117

Rule: Chapters ILHR 50-64
Relating to: Building and Heating, Ventilating and Air
Conditioning Code

The Wisconsin Department of Industry, Labor and Human Relations proposes an order to repeal ILHR 50.09, 51.01 (114b), 51.01 (138), 51.02 (4) (b) 1. b., 51.02 (13) (a) Note, 51.02 (14) (d), 51.03 (1) (d) 1. and Note, 51.03 (2) (e) 1. and Note, 51.03 (7) (f), Table 51.044, 51.048 (2) (a) Note and (b) Note, 51.16 (3) (b) 2., 51.24 (3) (b), 51.26, 51.27, 52.02 (1) (a) 1. and 2., 52.02 (1) (b) 2., 53.311 (8), 53.42, 53.57, 54.12 (2) (a) 2., 55.03 (2) and (3), 56.001 Note, 56.18, 58.635, 61.01 (4) and (5), 61.24 (1) (e) 2. and 3., 64.44 (2), A-53.64, and ILHR 84.20 (5) (m) 2. to 5.;

to renumber ILHR 50.19, 50.21 (5) (c) to (f), 51.01 (36c), 51.01 (71a) to (71c), 51.03 (7) (f), 51.15 (3) (f), 51.16 (3) (b) 1., 52.02 (1) (b) 1., 55.03 (1), 57.03 (2) to (5), 58.61 (1), 61.24 (1) (e) 4. to 6., 64.44 (1), 64.50 (1) (d) (intro.) and 1. to 4., and ILHR 84.20 (5) (m) 7. and 8.;

to renumber and amend ILHR 50.08 (1) and (2), 51.01 (71a), (71b) and (71c), 51.02 (14) (e), 53.63 (2) to (13), 57.02 (2) (c) 2., 59.23 (1) and (2), and 60.37;

to amend ILHR 50.02, 50.12 (3) (intro.), 50.12 (3) (b) 1. 50.12 (4) (b), 50.21 (5) (b) 3., 51.01 (5), 51.01 (5b), 51.01 (22a) Note, 51.01 (33), 51.01 (99), 51.02 (3) (a), 51.02 (12) (a) 4., 51.02 (13) (a) 3., 51.042 (5) (intro.), 51.045 (1) (intro.), 51.045 Table 2 line 18, 51.049 (1), (3) (c) and (d), 51.06 (4) (b) 1., 51.06 (6) (a) 3. b., 51.065 (5) (a) 3. Note, (c) 2. Note, (6) (a) Note and (7) (a) 1. c. Note, 51.14 (1), 51.15 (2), 51.15 (3) (a), 51.16 (4) (a) (intro.), 51.16 (4) (b), 51.16 (7), 51.161 (1) (a), 51.20 (9), 51.22, 51.23 (1) (a), 51.23 (2) (b), (4), (6) and (7) (c) and (d), 51.24 (2), 52.012 (1) (intro.), 52.013 (4) (a) and (b) 1., 52.57, 53.11 (4) (a) 2. a., 53.11 (4) (b) 3. b., 53.24 (3) (b) and (5) (a), 53.311 (2) and (3), Table 53-IV, 53.311 (7), 53.312 (2) (b) 2. (intro.) and (c), 53.313 Note, 53.314, 53.316 (1), (2) (a) and (b) and (3) (b), 53.322 (b) and (bm) (title), 53.50 (intro.) and (3), 53.51 (intro.), 53.52, 53.53 (1) to (6), 53.54 to 53.56, 53.61 (1) (a) (intro.) and 1. b., 53.61 (2) (a) and (b), (3) and (5) (a), 53.61 (8) (intro.), (9) (a) 1. and (b) 1., 53.62 (1) (a) 1. a. and (c), 53.63 (1) (d), 53.64, 54.01 (4) (a) 1. d., 54.03 (1) (d) (intro.), 6. and 7., 54.12 (2) (a) 1. c. and d., 55.02 (2m) (a), 55.02 (2m) (b), 56.001, 56.03 (2) (b), 56.06 (2) (b) and (c), 56.63 (2) (b) 3., 57.01 (2) (a) 2. and (3) (a), Table 57.02-1 column 2, 57.02 (3) (a) 1. a. and 2., 57.03 (4), 57.05 (2) (b) (intro.) and 7., 57.06 (2), 59.10 (1), 59.10 (2) (d), 61.25 (3) (a), 62.30 (1) (intro.), 62.30 (1) (c), 62.40, 64.03 (1), 64.05 Table 1, 64.09 (7) (title), 64.20 (3) Note, Table 64.21 Footnote 15, 64.22 (3), 64.22 (4) (e), 64.23 (5) (a) 1. and 2., 64.38 (3), 64.41 (5), 64.41 (8) (a), 64.45 (1), 64.47 (2), 64.53, 64.54 (1), 64.55 (1) and (3), 64.56 (1), 64.57 (2) and (3), 64.58 (1), 64.59 (1), 64.59 (2) (a), 64.60 (1), 64.61 (1), 64.63 (1), 64.64 (1), 64.65 (1) and (3) (a), 64.67 (1), and 64.67 (4) (b) 1. to 4.;

to repeal and recreate ILHR 50.12 (1) (f), 50.12 (1) (i), 50.12 (2) (c), 50.12 (2) (f), 50.13, 50.14, 50.20 (title), 50.21 (title), 51.01 (11a), 51.01 (19b), 51.01 (82), 51.02 (11) (b) 3., 51.02 (14) (a) 2. a., 51.02 (14) (b), 51.02 (20) (b), Table 51.03-A, 51.03 (1) (b), 51.03 (2) (b), 51.03 (3) (b), 51.03 (4) (b), 51.03 (5) (b), 51.03 (6) (c), 51.03 (7) (b), 51.03 (8) (b), 51.042 (1), 51.044, 51.047 (1), 51.048 (2) (a), 51.06 (6) (a) 3. b., 51.08, 51.15 (5), 51.161 (6) (a), 51.162 (2), 51.162 (5) (a), 51.23 (1) (b), 51.25, 52.01 (2) (c), 52.02 (1) (a) (intro.), 52.02 (2) (a), 52.07 (1), 52.50, 52.59 (1) (intro.), 52.60 (1), 52.60 (3) (intro.), 53.11 (4) (a), 2. b., 53.28 (5),

53.40, 53.41 (1), 53.61 (1) (a) 1. c., 53.61 (6), 53.62 (1) (a) (intro.), 54.06, 54.07, 54.08 (1) (b) 1., 54.15, 55.02 (2), 55.02 (2m) (c) 2., 55.05, 55.10, 55.33, 56.02, 56.20, 57.01 (4), 57.016, 57.02 (2) (a) 2. and 3., Table 57.02-2 and 57.02-3, 57.03 (1) (a) and (b), 57.03 (5), 57.06 (1), 57.07 (3) (a), 57.08 (2) (a) 2., 57.13, 57.15, Table 57.18, 58.02, 58.63, 59.17 (1), 59.22, 60.01 (1), 60.10, 60.11 Note, 60.35, 60.38 (2), 61.10 (2) (a), 62.23, 62.98 (5), 64.09 (2) (b), 64.22 (4) (c), 64.23 (5) (b), 64.63 (2), 64.67 (2) (b), 64.67 (6) (c), A-50.21, and A-54.02 (4);

to create ILHR 50.01 Note 3, 50.04 (9) and (10), 50.08 (1), 50.12 (2) (f) Note, 50.12 (4) (a) 3. and 4., 50.12 (6), 50.18 (1) Note, 50.19 (2), 50.21 (5) (c), 50.21 (6) Note, 51.01 (6m), 51.01 (17g), 51.01 (17m), 51.01 (36c), 51.01 (71k) and (71n), 51.01 (117m), 51.02 (3) (c) and (d), Table 51.03-C, 51.048 (3) (d), Table 51.08, 51.14 (5) (c), 51.15 (3) (f), 51.16 (8), 51.161 (7), 51.23 (7) (e), Table 53-I line (g) 3., 53.63 (2), 54.001 Note 1 and Note 2, 54.03 (1) (d) 8., 56.10, 56.145, 57.02 (2) (c) 2. b., 57.04 (2) (c), 57.06 (3), 57.145, 58.61 (2), 59.23 (1), 60.37 (2) and (3), 61.001 (4), 61.215, 62.32 (4), 62.46 (5), 62.81 (2), 62.965, 64.21 (1) and (2), 64.48 (2) (a) Note, 64.50 (1) (d) 2., 64.55 (4) Note, 64.67 (6) (e) Note, A-51.044, A-54.02 (4) (c), and ILHR 84.20 (5) (m) 2. and 3., relating to building and heating, ventilating and air conditioning standards for public buildings and places of employment.

Analysis of Proposed Rules

Statutory authority: ss. 101.02(1), 101.02(15)(j) and 101.12, Stats.
Statutes interpreted: s. 101.11(1), Stats.

The Wisconsin Department of Industry, Labor and Human Relations is responsible for establishing, administering and enforcing building design and construction regulations, chapters ILHR 50-64, to protect the life, health, safety and welfare of the occupants of public buildings and places of employment.

The proposed revisions to building and heating, ventilating and air conditioning code are intended to:

- address several issues which have been the subject of petitions for variance;
- codify various code interpretations;
- incorporate the latest editions of national standards which are referenced throughout the code;
- correct typographical errors; and
- clarify and reformat rules to improve the code's usability.

The following is a summary of major revisions included in this proposal:

- Occupancies exempt from the code are expanded to include adult family homes and one- and 2- family dwellings with home occupations.
- Changes in chapter ILHR 50 clarifying various requirements pertaining to plan submittal.
- Testing laboratories are specifically recognized under building material approvals.
- Requirements for raised platforms have been incorporated.
- Size limitations for mezzanines are modified.
- The elevation of the floor level for the first story with respect to grade is modified.
- The 30-foot setback requirement for buildings of type 7 construction and 3 stories in height is repealed.
- A height limitation table for the various classes of construction is created.
- Construction modifications for fire-resistive wall assemblies are recognized.
- The use of a deluge sprinkler system in lieu of fire door assemblies to protect wall openings accommodating conveyors is recognized.
- The use of all types of fire detectors, not just smoke detectors, is recognized to monitor freezer warehouses.
- An occupancy separation table is created.
- Lettering for exit lights is permitted to be green.
- Maximum riser height for spiral stairs is increased to 9-1/2 inches.
- Spaces beneath stairways may be used for other purposes provided the two are separated.
- Handgrip dimensions for handrails are specified.
- The maximum diameter for openings of guardrails and stair rails is reduced to 6 inches.

- The omission of sprinkler heads in electrical rooms is recognized.
- Standards adopted by reference are updated to the most current editions.
- Mazed passageways in lieu of doors are recognized for toilet rooms.
- Performance orientated criteria established for floor coverings in toilet rooms in lieu of specific department approval.
- The sampling and testing of concrete masonry units for specific department approval will not be required.
- Draftstopping requirements are established for spaces within wood floor/ceiling systems.
- The snow load duration factor for wood is increased to 1.15.
- Wood foundations will no longer be counted as an additional story.
- Unlimited area allowances for chapter ILHR 54 occupancies of type 5B and 6 construction is expanded.
- Rolling, sliding and overhead doors or gates are permitted for tenant spaces in malls.
- Exterior security gates are to be permitted for chapter ILHR 54 occupancies.
- Cross references to sprinkler requirements have been added within the occupancy chapters.
- Assembly halls of type 8 construction may be built in connection with other occupancies or uses provided the two are separated by fire division walls.
- The requirement for smokeproof stair towers to upper-story assembly halls is deleted.
- NFPA 13R is recognized as an option for sprinkler protection for residential occupancies.
- Revised allowable height and area table for chapter ILHR 57 occupancies protected by sprinkler systems.
- Exiting requirements for chapter ILHR 57 occupancies are clarified.
- Minimum width of apartment doors is clarified.

- Unenclosed multilevel residential housing areas for detention occupancies are recognized.
- Emergency power for daycare centers is clarified.
- Parameters for direct vent sealed combustion chamber appliances are clarified.
- The prohibition of hazardous piping in plenum spaces is modified for exceptions.
- A common flue for gas and liquid burning appliances will be permitted.
- Intermittent mechanical exhaust systems is to be permitted for storage garages.
- Minimum exhaust rates for toilet room fans are reduced.
- Kitchen exhaust hoods may be eliminated for small grease producing equipment.

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SECTION 1. ILHR 50.01 Note 3 is created to read:

ILHR 50.01 Note 3: The code cannot address every conceivable design option; points of code application and clarification will be addressed and issued from time to time and will be published in the Wisconsin Building Codes Report available from the Safety and Buildings Division, P. O. Box 7969, Madison, Wisconsin 53707.

SECTION 2. ILHR 50.02 is amended to read:

ILHR 50.02 SCOPE OF CHAPTERS. The provisions of chs. ILHR 50-64 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 (1) (b) 4., 52.012, 52.013, 58.001 (2) (c), 62.93 and 64.57 (4). No part of this code is intended to prohibit or discourage the design and construction of innovative buildings or the use of new materials or systems provided written approval from the department is obtained. Under this section, written approval from the department shall include, but is not limited to, an acceptance through preliminary design consultation, plan review, petition for variance, official code interpretation, material approval or other written forms of communication.

Note 1: 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.

Note 2: Other state agencies and local municipalities may have adopted building or construction requirements that are either more restrictive or address other issues than those specified in this code.

SECTION 3. ILHR 50.04 (9) and (10) are created to read:

ILHR 50.04 (9) An adult family home certified under s. 50.032 (1) (b), Stats.

(10) A one- or 2- family dwelling in which a home occupation is located.

SECTION 4. ILHR 50.08 (1) and (2) are renumbered 50.08 (2) and (3), and 50.08 (2), as renumbered, is amended to read:

ILHR 50.08 (2) SEAL. The plans, specifications and calculations shall bear the signature and seal or stamp of ~~the~~ a registered architect or registered engineer registered in a state other than Wisconsin.

SECTION 5. ILHR 50.08 (1) is created to read:

ILHR 50.08 (1) REGISTRATION. The state agency or entity which registers the architect or engineer shall be an agency or entity recognized by the department of regulation and licensing as having equivalent standards for registration.

SECTION 6. ILHR 50.09 is repealed.

SECTION 7. ILHR 50.12 (1) (f) is repealed and recreated to read:

ILHR 50.12 (1) (f) Hazardous Occupancies, ch. ILHR 59.

1. Department examination and approval of plans shall be waived for a hanger accommodating one airplane; however, the building shall conform with the applicable requirements of this code.

2. Department examination and approval shall be waived for a storage garage which is less than 25,000 cubic feet in total volume; however, the building shall comply with the applicable requirements of this code.

SECTION 8. ILHR 50.12 (1) (i) is repealed and recreated to read:

ILHR 50.12 (1) (i) 1. Except as provided in subd. 2, department examination and approval is waived for television and radio transmitting and receiving antennas, outdoor theater screens, water tanks, display signs, observation towers, docks, piers, wharves, tents or inflatable structures used temporarily, and other similar structures; however, these structures and temporary tents shall comply with the applicable structural and other requirements of chs. ILHR 50-64.

2. a. Plan examination and approval is required for the installation of roof mounted antenna structures exceeding 20 feet in height above the roof, unless the building is otherwise exempt or plan submittal is waived.

b. Plan examination and approval is required for the installation of ground mounted antenna structures exceeding 200 feet in height.

c. Plan examination and approval is required for the installation of ground mounted antenna structures exceeding 50 feet in height if the structure is located nearer to any street, public thoroughfare or property line than the height of the structure measured from its base of the structure nearest to the street, thoroughfare or property line to the topmost point.

SECTION 9. ILHR 50.12 (2) (c) is repealed and recreated to read:

ILHR 50.12 (2) (c) 1. Heating and ventilating plans; and

2. Data and information relative to requirements of chs. ILHR 63 and 64 for the replacement of a major piece of heating or air conditioning equipment.

SECTION 10. ILHR 50.12 (2) (f) is repealed and recreated to read:

ILHR 50.12 (2) (f) Industrial exhaust system plans within government-owned buildings.

SECTION 11. ILHR 50.12 (2) (f) Note is created to read:

ILHR 50.12 (2) (f) Note: See s. ILHR 64.54 (3) relating to the types of exhaust ventilation systems requiring plan submittal.

SECTION 12. ILHR 50.12 (3) (intro) is amended to read:

ILHR 50.12 (3) PLANS AND SPECIFICATIONS. At least 4 complete, bound sets of plans, which are clear, legible and permanent copies, and one copy of specifications shall be submitted for examination and approval before commencing construction. The plans and specifications shall contain the following information:

Note: Also see sub. (5) (b) note.

SECTION 13. ILHR 50.12 (3) (b) 1 is amended to read:

ILHR 50.12 (3) (b) 1. 'Plot plan'. The location of the building with respect to property lines and/~~or~~ any lot lines and/~~or~~ any adjoining streets, alleys and any other buildings on the same lot or property shall be indicated on the plot plan. A small scale plot plan shall be submitted on a 8 1/2" x 11" sheet for projects containing multiple buildings. For purposes of this requirement, a plot plan does not have to be a certified survey.

SECTION 14. ILHR 50.12 (4) (a) 3 and 4 are created to read:

ILHR 50.12 (4) (a) 3. For the purposes of this paragraph, the department does not consider truss layout plans or truss erection plans as architectural practice or engineering practice, and therefore, such plans are not required to be signed and sealed or stamped in accordance with ss. ILHR 50.07 or 50.08.

4. Information regarding reinforcement, concrete strength, fire resistive ratings for precast concrete components may be provided in either the specifications or calculations furnished with the precast concrete plans.

SECTION 15. ILHR 50.12 (4) (b) is amended to read:

ILHR 50.12 (4) (b) Energy conservation data. Calculations and specifications shall be submitted in accordance with s. ILHR 63.01 for the types of projects outlined in s. ILHR 63.001.

SECTION 16. ILHR 50.12 (6) is created to read:

ILHR 50.12 (6) REVISIONS TO APPROVED PLANS. (a) 1. All revisions and modifications, which involve provisions of this code, made to plans or specifications, which have previously been granted approval by the department, shall be submitted to the department for review.

2. All revisions and modifications to the plans shall be approved in writing by the department prior to the work involved in the revision or modification being carried out.

(b) A revision or modification to a plan, drawing or specification shall be signed and sealed in accordance with s. ILHR 50.07 (2), if applicable.

SECTION 17. ILHR 50.13 and 50.14 are repealed and recreated to read:

ILHR 50.13 FOOTING AND FOUNDATION APPROVAL. (1) The department or its authorized representative, as provided in s. ILHR 50.21, may conditionally approve footing and foundation plans to permit construction of footings and foundations prior to the examination and approval of the complete plans upon submission of:

- (a) A plan approval application form, SBD 118;
- (b) At least 4 bound sets of footing and foundation plans which;
 - 1. Include a plot plan; and
 - 2. Are signed and sealed in accordance with s. ILHR 50.07 or 50.08, if applicable.

(c) At least one set of:

- 1. Schematic floor plans indicating the exits;
- 2. Building elevations;
- 3. Itemized structural loads; and
- 4. Structural footing and foundation calculations; and

(d) The fee as specified in s. Ind 69.09.

(2) The department shall review and make a determination on an application for footing and foundation approval within 15 business days of receipt of the application and all forms, fees, plans and documents required to complete the review.

ILHR 50.14 PERMISSION TO START CONSTRUCTION. (1) The department or its authorized representative, as provided in s. ILHR 50.21, may issue a permission to start construction form for the footings and foundations upon submission of:

(a) A completed plan approval application form, SBD 118;

(b) 1. At least 4 bound sets of building plans and one copy of specifications; or

2. At least 4 bound sets of footing and foundation plans and the information specified in s. ILHR 50.13 (1).

(c) A written request by the owner to start construction, form SBD 198; and

(d) Fees as specified in s. Ind 69.09.

(2) The holders of the permission form shall proceed at their own risk without assurance that a conditional approval for the building will be granted.

(3) The department shall review and make a determination on an application for permission to start construction within 3 business days of receipt of the application and all forms, fees, plans and documents required to complete the review.

SECTION 17A. ILHR 50.18 (1) Note is created to read:

ILHR 50.18 (1) Note: Municipalities certified under s. ILHR 50.21 are authorized representatives of this department to make the inspections specified in this section.

SECTION 18. ILHR 50.19 is renumbered 50.19 (1).

ILHR 50.19 (Title) BUILDING MATERIAL APPROVALS. (1) (Title) MATERIALS, EQUIPMENT AND DEVICES.

SECTION 19. ILHR 50.19 (2) is created to read:

ILHR 50.19 (2) TESTING LABORATORIES. (a) A testing laboratory may submit to the department a request to be recognized as an approved testing laboratory which evaluates and certifies materials, products or assemblies for conformance with the specifications or standards of this code.

(b) The request for recognition as an approved testing laboratory under par. (a) shall include:

1. A completed building material approval application;
2. Information, data and other evidence describing the operations, policies and procedures of the testing laboratory; and
3. A fee as specified in s. Ind 69.09 (2).

(c) The department shall review and make a determination on a request for recognition as an approved testing laboratory under par. (a) within 30 business days of receipt of all forms, fees and documents required to complete the review.

Note: A building material approval application, form SBD-8028, may be obtained from the Safety and Buildings Division, P.O. Box 7969, Madison, Wisconsin 53707.

SECTION 20. ILHR 50.20 (title) is repealed and recreated to read:

ILHR 50.20 FEES.

SECTION 21. ILHR 50.21 (title) is repealed and recreated to read:

ILHR 50.21 CERTIFIED MUNICIPALITIES AND COUNTIES.

SECTION 22. ILHR 50.21 (5) (b) 3 is amended to read:

ILHR 50.21 (5)(b) 3. Alterations ~~to existing buildings or structures containing~~ of spaces involving less than 100,000 cubic feet in total volume.

SECTION 23. ILHR 50.21 (5) (c) to (f) is renumbered 50.21 (5) (d) to (g).

SECTION 24. ILHR 50.21 (5) (c) is created to read:

ILHR 50.21 (5) (c) Project waiver. An agent municipality or county may waive its jurisdiction for the plan review of a specific project, in which case, plans shall be submitted to the department for review and approval.

SECTION 24A. ILHR 50.21 (6) Note is created to read:

ILHR 50.21 (6) Note: Certified municipalities are authorized to perform the inspections specified in s. ILHR 50.18.

SECTION 25. ILHR 51.01 (5) is amended to read:

ILHR 51.05 (5) AREA (NET). The occupied or usable floor area in a building but not including space occupied by columns, walls, partitions, stairways, mechanical shafts or ducts.

SECTION 26. ILHR 51.01 (5b) is amended to read:

ILHR 51.01 (5b) "Atrium" means a floor opening or series of floor openings connecting 2 3 or more ~~stories~~ floor levels, but not including a mezzanine or a balcony, that is covered at the top of the series of openings and is used for purposes other than an enclosed stairway; elevator hoistway; or utility shaft used for plumbing, electrical, air conditioning or communication facilities.

SECTION 27. ILHR 51.01 (6m) is created to read:

ILHR 51.01 (6m) "Adult family home" has the meaning given in s. 50.01 (1), Stats.

Note: Under s. 50.01 (1), Stats., an "adult family home" means a private residence to which all of the following apply:

Care and maintenance above the level of room and board but not including nursing care are provided in the private residence by the care provider whose primary domicile is this residence for 3 or 4 adults, or more adults if all of the adults are siblings, each of whom has a developmental disability, as defined in s. 51.01 (5), or, if the residence is licensed as a foster home, care and maintenance are provided to children, the combined total of adults and children so served being no more than 4, or more adults or children if all of the adults or all of the children are siblings; and

The private residence was licensed under s. 48.62 as a foster home for the care of the adults specified in par. (a) at least 12 months before any of the adults attained 18 years of age.

SECTION 28. ILHR 51.01 (11a) is repealed and recreated to read:

ILHR 51.01 (11a) "Bed and breakfast establishment" has the meaning given in s. 50.50 (1), Stats.

Note: Section 50.50 (1), Stats., reads: "Bed and breakfast establishment" means any place of lodging that:

(a) Provides 8 or fewer rooms for rent to no more than a total of 20 tourists or transients;

(b) Provides no meals other than breakfast and provides the breakfast only to renters of the place;

(c) Is the owner's personal residence;

(d) Is occupied by the owner at the time of rental;

(e) Was originally built and occupied as a single-family residence, or, prior to use as a place of lodging, was converted to use and occupied as a single-family residence; and

(f) Has had completed, before the effective date of this paragraph May 11, 1990, any structural additions to the dimensions of the original structure, including by renovation, except that a structural addition, including a renovation, to the structure may, after the effective date of this paragraph, May 11, 1990, be made within the dimensions of the original structure."

SECTION 29. ILHR 51.01 (17g) is created to read:

ILHR 51.01 (17g) "Cfm" means cubic feet per minute.

SECTION 30. ILHR 51.01 (17m) is created to read:

ILHR 51.01 (17m) "Code" means chs. ILHR 50 to 64.

SECTION 31. ILHR 51.01 (19b) is repealed and recreated to read:

ILHR 51.01 (19b) "Community-based residential facility" or "CBRF" has the meaning given in s. 50.01 (1), Stats.

Note: Section 50.01 (1), Stats., reads: "Community-based residential facility" means a place where 3 or more unrelated adults reside in which care, treatment or services above the level of room and board but not including nursing care are provided to persons residing in the facility as a primary function of the facility. "Community-based residential facility" does not include any of the following:

(a) A convent or facility owned or operated by members of a religious order exclusively for the reception and care or treatment of members of that order.

(b) A facility or private home that provides care, treatment and services only for victims of domestic abuse, as defined in s. 46.95 (1) (a), and their children.

(c) A shelter facility as defined under s. 46.97 (1) (d).

(d) A place that provides lodging for individuals and in which all of the following conditions are met:

1. Each lodged individual is able to exit the place under emergency conditions without the assistance of another individual.

2. No lodged individual receives from the owner, manager or operator of the place or the owner's, manager's or operator's agent or employe any of the following:

a. Personal care, supervision or treatment, or management, control or supervision of prescription medications.

b. Care or services other than board, information, referral, advocacy or job guidance; location and coordination of social services by an agency that is not affiliated with the owner, manager or operator, for which arrangements were made for an individual before he or she lodged in the place; or, in the case of an emergency, arrangement for the provision of health care or social services by an agency that is not affiliated with the owner, manager or operator.

(e) An adult family home.

SECTION 32. ILHR 51.01 (22a) Note is amended to read:

ILHR 51.01 (22a) Note: See line ~~20~~ 19 of Table 51.03 - A.

SECTION 33. ILHR 51.01 (33) is amended to read:

ILHR 51.01 (33) "Elevator." See ~~ch. ILHR 18~~ ch. ILHR 18.

SECTION 34. ILHR 51.01 (36c) is renumbered to be (36d).

SECTION 35. ILHR 51.01 (36c) is created to read:

ILHR 51.01 (36c) "Exit access corridor" means an aisle or passageway in a building that forms that portion of the means of egress which leads to an exit.

SECTION 36. ILHR 51.01 (71a), (71b) and (71c) are renumbered (71m), (71o) and (71p), respectively, and 51.01 (71o), as renumbered, is amended to read:

ILHR 51.01 (71o) "Housing for the elderly" means a residential occupancy building the construction of which is financed by ~~state/federal~~ governmental agencies with occupancy limited to ~~elderly~~ people meeting specific age or disability criteria as specified by the financing agency.

SECTION 37. ILHR 51.01 (71k) and (71n) are created to read:

ILHR 51.01 (71k) "Home occupation" means any business, profession, trade or employment conducted in a person's dwelling which may involve that person's immediate family or household and a maximum of one other unrelated person, but does not include a business involving:

1. Explosives, fireworks or repair of motor vehicles; or
2. More than 25% of the habitable floor area of the dwelling.

(71n) "Household" means those persons who live together in the same dwelling and treat the dwelling as their permanent home or residence.

SECTION 38. ILHR 51.01 (82) is repealed and recreated to read:

ILHR 51.01 (82) 'Mezzanine' means an intermediate floor, either open or enclosed.

Note: See also sub. (122), "stories, number of" and s. ILHR 51.02 (14) pertaining to the determination of the number of stories.

SECTION 39. ILHR 51.01 (99) is amended to read:

ILHR 51.01 (99) "Penthouse" means an enclosed or partially enclosed structure extending above ~~the/within~~ a roof of a building or structure and enclosing a stairway, tank, elevator, machinery, mechanical equipment or other apparatus and not used for human occupancy.

SECTION 40. ILHR 51.01 (114b) is repealed.

SECTION 41. ILHR 51.01 (117m) is created to read:

ILHR 51.01 (117m) "Shelter facility" has the meaning given in s. 46.97 (1) (d), Stats.

Note: Section 46.97 (1) (d), Stats., reads: "Shelter facility means a temporary place of lodging for homeless individuals or families."

SECTION 42. ILHR 51.01 (138) is repealed.

SECTION 43. ILHR 51.02 (3) (a) is amended to read:

ILHR 51.02 (3) (a) ~~All Except as provided in pars. (c) and (d), all~~ floor framing shall satisfy the requirements of Table 51.03-A, ~~whether~~ ~~floor/system/is/considered/part/of/a/story/or/not,~~ unless more restrictive requirements are noted under the occupancy chapters of this code.

SECTION 44. ILHR 51.02 (3) (c) and (d) are created to read:

ILHR 51.02 (3) (c) Permanent raised platforms. 1. Permanent raised platforms shall be constructed of the types of materials and fire resistive properties as specified in:

a. Table 51.03-A line 3 or 4 for the appropriate class of construction and number of stories involved; or

b. Table 51.03-A line 18 for the appropriate class of construction, if the platform is directly supported by a structural floor system which satisfies the appropriate material and fire resistive properties as outlined in Table 51.03-A line 3 or 4.

2. Permanent raised platforms shall be designed and constructed to support the dead loads and live loads as specified in ss. ILHR 53.10 and 53.11.

3. The highest floor level of a permanent raised platform which is constructed in accordance with subd. 1 b may not exceed 3 feet above the structural floor.

4. The floor coverings of permanent raised platforms shall conform with s. ILHR 51.07.

5. Spaces created between a permanent raised platform which is constructed in accordance with subd. 1 b and the structural floor system supporting the platform may not be used for storage and other purposes, unless the platform floor system has at least a one-hour fire resistive rating.

6. Open sides of raised platforms shall be guarded in accordance with s. ILHR 51.162.

(d) Temporary platforms. Temporary raised platforms shall be designed and constructed to support the dead loads and live loads as specified in ss. ILHR 53.10 and 53.11. A temporary raised platform to be used for more than 30 consecutive days shall conform with par. (c).

SECTION 45. ILHR 51.02 (4) (b) 1 b is repealed.

SECTION 46. ILHR 51.02 (11) (b) 3 is repealed and recreated to read:

ILHR 51.02 (11) (b) 3. Serving 2 floor levels in buildings containing ch. ILHR 54 to 58 or 60 to 62 occupancies provided:

a. The opening is not a required means of egress; and

b. The opening is separated from any exit access corridor or exit stairway by fire-resistive rated construction with at least the hourly rating specified for fire-rated enclosures in line 20 of Table 51.03-A; or

SECTION 47. ILHR 51.02 (12) (a) 4 is amended to read:

ILHR 51.02 (12) (a) 4. Parapets are not required on exterior walls which front streets and alleys or where exterior walls connect with roofs of noncombustible construction. For the purposes of this requirement, built-up roof coverings of a class A rating, shall be considered as being noncombustible.

SECTION 48. ILHR 51.02 (13) (a) 3 is amended to read:

ILHR 51.02 (13) (a) 3. The wall shall connect and make tight contact with roofs of noncombustible construction on both sides of the walls, and the roofs shall be noncontinuous at the wall. For the purposes of this requirement, built-up roof coverings, including those of a class A rating, shall be considered as being combustible and do not conform with the conditions of this requirement.

SECTION 49. ILHR 51.02 (13) (a) 3 Note is repealed.

SECTION 50. ILHR 51.02 (14) (a) 2 a is repealed and recreated to read:

ILHR 51.02 (14) (a) 2. a. The elevation of the first floor and the sills of all required exit discharges from the first floor shall be not more than 6 feet above an exit discharge grade.

SECTION 51. ILHR 51.02 (14) (b) is repealed and recreated to read:

ILHR 51.02 (14) (b) An interior balcony or mezzanine shall be considered as a story if:

1. The net floor area of the balcony or mezzanine exceeds one-third of the net main area enclosed within exterior walls or fire division walls, or both; or

2. The net floor area of the balcony or mezzanine exceeds one-third of the net floor area enclosed with the walls of a single living unit or single tenant space.

SECTION 52. ILHR 51.02 (14) (d) is repealed.

SECTION 53. ILHR 51.02 (14) (e) is renumbered 51.02 (14) (d) and amended to read:

ILHR 51.02 (14) (d) Total number of stories shall include the first floor plus all stories above and those stories determined by pars. (b) ~~(d)~~ and ~~(d)~~ (d) and (c).

1. Floor levels satisfying the definition of basement, ground floor, attic, interior balcony and mezzanine floor, unless otherwise stated, shall not be counted as a story.

SECTION 54. ILHR 51.02 (20) (b) is repealed and recreated to read:

ILHR 51.02 (20) (b) A health care facility, parts of which are different types of construction as described in s. ILHR 51.03, shall be classified as the lowest type of construction utilized, unless the different parts of the building are separated from one another by a separation wall in which case each part of the building shall be individually classified as to the appropriate type of construction. A separation wall:

1. Shall have a minimum fire-resistive rating of 2 hours;
2. Shall extend at least to the underside of the roof deck of the lowest part of the building to be separated; and
3. May not have structural members extend through or over it.

SECTION 55. Table 51.03-A is repealed and recreated to read:

CLASSES OF CONSTRUCTION FIRE RESISTIVE RATINGS IN HOURS

BUILDING ELEMENT	MODIFYING CONDITIONS NUMBER OF STORIES	FIRE RESISTIVE		METAL FRAME	HEAVY TIMBER	EXTERIOR	EXTERIOR	METAL FRAME	WOOD FRAME	WOOD FRAME	APPLICABLE NOTES SEE S. ILHR 51.03 FOR CONSTRUCTION STANDARDS	
		SEE NOTES f, g TO P/L OR TO OTHER BLDG. ON SAME PROP.	TYPE A	TYPE B	PROTECTED		MASONRY, PROT.	MASONRY, UNPROT.	UNPROTECTED	PROTECTED		UNPROTECTED
		No. 1	No. 2	No. 3	No. 4	No. 5A	No. 5B	No. 6	No. 7	No. 8		
1. INTERIOR SUPPORTS (columns, piers, frame legs, posts)	Over 8 stories or more than 85 ft. in height		NC-1	NC-3	NP	NP	NP	NP	NP	NP	a d	
2.	8 stories or 85 ft. in height or less		NC-3	NC-2	See s. ILHR 51.03 (3) NC-1	See s. ILHR 51.03 (4) H.T. or NC-1	See s. ILHR 51.03 (5) 1	See s. ILHR 51.03 (5) 0	See s. ILHR 51.03 (6) NC-0	See s. ILHR 51.03 (7) 1	See s. ILHR 51.03 (8) 0	a d
3. FLOOR FRAMING (beams, girders, joists, slabs, deck)	More than 2 stories		NC-3	NC-2	See s. ILHR 51.03 (3) NC-1	See s. ILHR 51.03 (4) H.T. or NC-1	See s. ILHR 51.03 (5) 1	See s. ILHR 51.03 (5) 0	See s. ILHR 51.03 (6) NC-0	1	0	a
4.	2 stories or less		NC-2	NC-1	NC-1	See s. ILHR 51.03 (4) H.T. or NC-1 1 Story-HT or 0	1	0	See s. ILHR 51.03 (6) NC-0	1	0	a
5. ROOF FRAMING (trusses, beams, girders, joists, frame rafters, purlins, deck)	Over 8 stories or more than 85 ft. in height		NC-2	NC-1-1/2	NP	NP	NP	NP	NP	NP	a	
6.	3 to 8 stories or 85 ft. in height or less		NC-2	NC-1-1/2	NC-1	See s. ILHR 51.03 (4) H.T. or NC-1	1	0	NC-0	1	0	a
7.	2 stories, or under 25 ft. in height		NC-1	NC-1	NC-1	See s. ILHR 51.03 (4) H.T. or NC-1	See s. ILHR 51.03 (5) 1	See s. ILHR 51.03 (5) 0	NC-0	See s. ILHR 51.03 (7) 1	0	a
8.	1 story - roof framing more than 20 ft. above fl.		NC-0	See s. ILHR 51.03 (2) NC-0	NC-0	See s. ILHR 51.03 (4) H.T. or NC-1	0	0	0	0	0	a
9.	1 story - roof framing 20 ft. or less above fl.		NC-1	NC-1	NC-1	See s. ILHR 51.03 (4) H.T. or NC-1	1	0	0	See s. ILHR 51.03 (7) 1	0	a
10. ROOF COVERING			CLASS A	CLASS A	CLASS A	CLASS B	CLASS B	CLASS B	CLASS C	CLASS C	CLASS C	a
11. EXTERIOR WALLS & COURT WALLS (not including interior furring attached to inside surface of wall)	Bearing - Less than 10 ft.		NC-4	NC-3	NC-2	NC-2	2	2	NC-2	See s. ILHR 51.03(7)(e) 4	See s. ILHR 51.03(8)(d) 4	a d e f k
12.	Bearing - 10 ft. to 30 ft. inclusive		NC-3	NC-2	NC-3/4	1	2	1	NC-0	1	0	a c d e f k
13.	Bearing - Over 30 ft.		NC-2	NC-1	NC-0	1	2	1	NC-0	1	0	a c d e f k
14. 51.03-B concerning openings)	Nonbearing - Less than 10 ft.		NC-2	NC-2	NC-1	NC-1	2	1	NC-1	See s. ILHR 51.03(7)(e) 4	See s. ILHR 51.03(8)(d) 4	a d e f k
15.	Nonbearing - 10 ft. to 30 ft. inclusive		NC-1	NC-1	NC-0	1	2	1	NC-0	1	0	a c d e f k
16.	Nonbearing - Over 30 ft.		NC-0	NC-0	NC-0	3/4	1	0	NC-0	1	0	a c d e f h k
17. INTERIOR WALLS DEPARTING			NC-3	NC-2	NC-1	1	1	1	NC-0	1	0	a f
18. PARTITIONS			NC-0	NC-0	NC-0	0	0	0	0	0	0	a f
19. REQUIRED EXIT CORRIDOR ENCLOS.			NC-2	NC-2	NC-1	1	1	1	1	1	1	a
20. FIRE ENCLOSURE (stairways, elevators, vertical shafts)	Over 3 stories, 3 stories or less		NC-2	NC-2	NC-2	2	2	1	1	1	1	a f
21. PENTHOUSE WALLS			NC-0	NC-0	NC-0	0	NC-0 or 3/4	NC-0 or 3/4	0	0	0	a h
22. PENTHOUSE ROOF			NC-0	NC-0	NC-0	0	0	0	0	0	0	a b

KEY TO ABBREVIATIONS

NC - Noncombustible
 NP - Not Permitted
 H.T. - Heavy Timber
 P/L - Property Line

KEY EXAMPLE TO READING CHART

0 = 0 (No Hour Rating)
 1 = Combustible or Noncombustible 1 Hour Rating
 NC-0 = Noncombustible 0 Hour Rating

a - See occupancy sections of the code for other basic requirements and more restrictive limitations.
 b - Roof covering same as for main building.
 c - Walls of solid wood 4 inches in thickness are acceptable as equal to 1-hour fire-resistive rating.
 d - Fire-resistive requirements also apply for those bracing members required for gravity loading.
 e - Refer to table 51.03-B for allowable areas for windows and other openings in exterior walls.
 f - For exceptions refer to s. ILHR 51.02.
 g - Setbacks and distances to P/L or other buildings on same property do not apply to P/L along streets.
 h - Approved fire-retardant treated wood will be accepted in lieu of 3/4-hour fire-resistive ratings.
 j - For openings in partitions and interior bearing walls, see s. ILHR 51.02.
 k - Hourly ratings specified as for fire exposure from the inside of the building only.
 m - See table 51.03-C concerning height limitations.

SECTION 56. Table 51.03-C is created to read:

TABLE 51.03-C
HEIGHT LIMITATIONS
BASED ON CLASS OF CONSTRUCTION

Class of Construction	Sprinklered ^{a&b}		Nonsprinklered	
	Height (in feet)	Number of Stories ^c	Height (in feet)	Number of Stories ^c
Type 1	No limit	No limit	^d 60	No limit
Type 2	95	9	^d 60	8
Type 3	85	5	^d 60	4
Type 4	85	5	^d 60	4
Type 5A	60	5	50	4
Type 5B	50	4	40	3
Type 6	60	4	50	3
Type 7	50	4	40	3
Type 8	45	3	35	2

- a - An automatic fire sprinkler system designed and installed in accordance with s. ILHR 51.23 is provided throughout the entire building.
- b - Section ILHR 51.02 (21) and (22) may limit or restrict the credit for sprinklers as it applies to the maximum height or number of stories permitted depending upon the type of occupancy involved or whether a reduction in fire-resistive ratings has been utilized.
- c - The occupancy chapters, chs. ILHR 54 to 62, may further limit or restrict the maximum number of stories based upon the type of occupancy involved or the number or type of occupants.
- d - Section ILHR 52.01 requires the installation of sprinklers for buildings more than 60 feet in height.

SECTION 57. ILHR 51.03 (1) (b) is repealed and recreated to read:

ILHR 51.03 (1) (b). A building of this classification shall be limited in height in accordance with Table 51.03-C.

SECTION 58. ILHR 51.03 (1) (d) 1 and Note are repealed.

SECTION 59. ILHR 51.03 (2) (b) is repealed and recreated to read:

ILHR 51.03 (2) (b) A building of this classification shall be limited in height in accordance with Table 51.03-C.

SECTION 60. ILHR 51.03 (2) (e) 1 and Note are repealed.

SECTION 61. ILHR 51.03 (3) (b) is repealed and recreated to read:

ILHR 51.03 (3) (b) A building of this classification shall be limited in height in accordance with Table 51.03-C.

SECTION 62. ILHR 51.03 (4) (b) is repealed and recreated to read:

ILHR 51.03 (4) (b) A building of this classification shall be limited in height in accordance with Table 51.03-C.

SECTION 63. ILHR 51.03 (5) (b) is repealed and recreated to read:

ILHR 51.03 (5) (b) A building of this classification shall be limited in height in accordance with Table 51.03-C.

SECTION 64. ILHR 51.03 (6) (c) is repealed and recreated to read:

ILHR 51.03 (6) (c) A building of this classification shall be limited in height in accordance with Table 51.03-C.

SECTION 65. ILHR 51.03 (7) (b) is repealed and recreated to read:

ILHR 51.03 (7) (b) A building of this classification shall be limited in height in accordance with Table 51.03-C.

SECTION 66. ILHR 51.03 (7) (f) is repealed.

SECTION 67. ILHR 51.03 (7) (g) is renumbered 51.03 (7) (f).

SECTION 68. ILHR 51.03 (8) (b) is repealed and recreated to read:

ILHR 51.03 (8) (b) A building in this classification shall be limited in height in accordance with Table 51.03-C.

SECTION 69. ILHR 51.042 (1) is repealed and recreated to read:

ILHR 51.042 (1) Construction details and the quality of materials used for fire resistive assemblies shall be those used by the testing laboratory for the listed test assembly or those recognized by good engineering practice, including:

(a) The addition of mineral fiber or glass fiber insulation within a stud cavity without reducing the fire resistive rating of wall or partition assembly when not specified as the listed assembly;

(b) The substitution of studs with greater depths than those specified in a listed wall or partition assembly without reducing the fire resistive rating of the assembly;

(c) An increase in the distance between parallel rows of studs, such as in chase wall assemblies, greater than those specified in listed wall or partition assemblies without reducing the fire resistive rating of the assembly; and

(d) Assemblies detailed in GA-600.

SECTION 70. ILHR 51.042 (5) (intro.) is amended to read:

ILHR 51.042 (5) The heat transmission requirements of ASTM E-119 (~~250~~), with the exception of high hazard areas, penal and health care facilities and warehouses for combustible materials, may be reduced to one-half (1/2) of the hourly rating required by this code, but not less than one hour.

Note: For ASTM E-119 Standard adopted see s. ILHR 51.25 (A9).

Note: See s. ~~A52.018~~ A52.011 of Appendix A for additional information pertaining to high hazard occupancies.

SECTION 71. ILHR 51.044 is repealed and recreated to read:

ILHR 51.044 TESTING LABORATORIES. Fire rating tests conducted by testing laboratories recognized under s. ILHR 50.19 shall be acceptable.

Note: See appendix for a list of recognized testing laboratories.

SECTION 72. ILHR 51.044 Table 51.044 is repealed.

SECTION 73. ILHR 51.045 (1) (intro.) is amended to read:

ILHR 51.045 (1) Basic design and construction for specified fire-resistive protection of structural components listed in table 2, including references (a) through ~~(d)~~ (r), shall be acceptable.

SECTION 74. ILHR 51.045 Table 2, line 18, column "INSULATING MATERIAL", is amended to read:

Table 2
(partial)
TYPICAL EXAMPLES OF FIRE RESISTIVE
STRUCTURAL COMPONENTS, TABLE 2

INSULATING MATERIAL	
18.	Type I & II Masonry f
	1 - 1/2" air space j

SECTION 75. ILHR 51.047 (1) is repealed and recreated to read:

ILHR 51.047 (1) FIRE-RESISTIVE RATED DOOR ASSEMBLIES. (a) 1. An opening where permitted in a fire-resistive rated wall or wall assembly shall be protected by means of a fire-resistive rated door assembly which conforms to ASTM E-152, except as provided in sub. (2).

2. An opening accommodating a conveyor system in a fire-resistive rated wall or wall assembly may be protected by means of a deluge sprinkler system which is designed and installed in accordance with NFPA 13 and is provided on both sides of the opening, in lieu of a fire-resistive rated door assembly.

(b) The type of fire-resistive rated door assembly shall be provided in accordance with Table 51.047.

TABLE 51.047
MINIMUM FIRE-RESISTIVE
RATINGS OF DOOR ASSEMBLIES

Fire-Resistive Rating of a Wall or Wall Assembly	Fire-Resistive Rating of Door Assembly
4 - hour	3 - hour
3 - hour	3 - hour
2 - hour	1 1/2 - hour
1 - hour	3/4 - hour

SECTION 76. ILHR 51.048 (2) (a) is repealed and recreated to read:

ILHR 51.048 (2) (a) Fire window assemblies. The sizes and dimensions of the glazing materials and the frames may not exceed their respective listings. Windows combined in multiple assemblies shall be separated by nonbearing metal mullions.

SECTION 77. ILHR 51.048 (2) (a) Note and (b) Note are repealed.

SECTION 78. ILHR 51.048 (3) (d) is created to read:

ILHR 51.048 (3) (d) Approved glass. Glass for a fire window application shall conform to the conditions and limitations of its listing.

SECTION 79. ILHR 51.049 (1) and (3) (c) and (d) are amended to read:

ILHR 51.049 (1) SERVICE OPENINGS. Openings around ducts, pipes, conduit or other service installations penetrating required fire-resistive rated floor, wall and roof assemblies shall be filled solidly with noncombustible material or material of fire-resistive rating equal to the required rating of the assembly penetrated.

(3) (c) Provide a 10-gauge steel sleeve one inch larger in diameter than the plastic plumbing pipe or electrical wiring and extending 10 inches beyond both faces of the assembly. The annular space between the plastic component and protective sleeve shall be packed with ~~an~~ insulated a noncombustible filler; or

(3) (d) Wrap the plastic component for a distance of at least 3 feet from both faces of the fire-rated assembly with at least one inch of ~~insulated~~ noncombustible insulation material. The ~~insulated~~ noncombustible insulation material shall be mechanically attached to the plastic component.

SECTION 80. ILHR 51.06 (4) (b) 1 is amended to read:

ILHR 51.06 (4) (b) 1. The system or assembly meets the requirements of ~~a~~ s. ILHR 51.04 for time-rated construction;

SECTION 81. ILHR 51.06 (6) (a) 3 b is amended to read:

ILHR 51.06 (6) (a) 3. b. Freezer warehouses may be constructed without automatic fire sprinkler system protection provided the entire freezer warehouse is equipped with a ~~complete/approved/smoke~~ fire detection system conforming to NFPA 72E throughout and the system is connected to a constantly attended station; the freezer warehouse is separated from all other use areas of the building (i.e., offices, loading docks, nonrefrigerated storage, mechanical rooms) by at least 2-hour fire-resistive rated construction; the freezer warehouse or separated freezer warehouse part within a building is located to provide at least 30 foot separation to any property

line or other building on the same property; and the foam plastic material complies with the provisions of sub. (7).

SECTION 82. ILHR 51.06 (6) (a) 3 b Note is repealed and recreated to read:

ILHR 51.06 (6) (a) 3. b. Note: See ss. ILHR 52.01 to 52.013 for additional rules pertaining to automatic fire sprinkler systems.

SECTION 83. ILHR 51.065 (5) (a) 3 Note and (c) 2 Note and (6) (a) Note and (7) (a) 1 c Note are amended to read:

ILHR 51.065 (5) (a) 3. Note: See s. ~~AB2101B~~ A52.011 for additional information regarding high hazard occupancies.

(c) 2. Note: See s. ~~AB2101B~~ A52.011 for additional information regarding high hazard occupancies.

(6) (a) Note: See s. ~~AB2101B~~ A52.011 for additional information regarding high hazard occupancies.

(7) (a) 1. c. Note: See s. ~~AB2101B~~ A52.011 for additional information regarding high hazard occupancies.

SECTION 84. ILHR 51.08 (1) is repealed and recreated to read:

ILHR 51.08 OCCUPANCY SEPARATIONS. (1) When a building is used for more than one occupancy purpose, each part of the building comprising a distinct occupancy division shall be separated from any other occupancy division ~~as provided for under the occupancy requirements of this code~~ in accordance with Table 51.08.

(2) Openings in occupancy separations shall be protected by fire-door assemblies as specified in s. ILHR 51.047 or by fire-window assemblies as specified in s. ILHR 51.048.

SECTION 76. Table 51.08 is created to read:

Table 51.08

OCCUPANCY SEPARATIONS

Minimum Fire Resistive Ratings in Hours

Occupancies	Ch 54	Ch 55		Ch 56	Ch 57	Ch 58		Ch 59				Ch 60	Ch 61	Ch 62 Open Park'g Struc.
		Occupants ≤ 750	Occupants > 750			Health Care	Detention	≤ 500 sq ft		> 500 sq ft				
								Storage	Repair	Storage	Repair			
Ch 54	0	3	4	0	i	2 ^a	2 ^b	1 ^{c,d}	2	2 ^{c,d}	3	0	0	NC-2
Ch 55														
≤ 750 occupants	3	3 ^e	4 ^e	3 ^{f,g}	3	3 ^a	3 ^b	3	4	3	4	3 ^h	3	3
> 750 occupants	4	4 ^e	4 ^e	4 ^{f,g}	4	4 ^a	4 ^b	3	4	3	4	4 ^h	4	4
Ch 56	0	3 ^{f,g}	4 ^{f,g}	0	i	2 ^a	2 ^b	2	3	2	3	0	0	NC-2
Ch 57	i	3	4	i	i	2 ^a	2 ^b	1 ^c	2	2 ^{c,j}	3	i	i	NC-2
Ch 58														
Health Care	2 ^a	3 ^a	4 ^a	2 ^a	2 ^a	0 ^b	2 ^b	3	4	3	4	2	2	NC-2
Detention	2 ^b	3 ^b	4 ^b	2 ^b	2 ^b	2 ^b	0	3	4	3	4	2	2	NC-2
Ch 59														
Storage ≤ 500 sq ft	1 ^{c,d}	3	3	2	1 ^c	3	3	0 ^k	1 ^k	1 ^k	1 ^k	1	m	1 ^k
Repair ≤ 500 sq ft	2	4	4	3	2	4	4	1 ^k	0 ^k	1 ^k	1 ^k	2	2	1 ^k
Storage > 500 sq ft	2 ^{c,d}	3	3	2	2 ^{c,j}	3	3	1 ^k	1 ^k	0 ^k	1 ^k	2	m	1 ^k
Repair > 500 sq ft	3	4	4	3	3	4	4	1 ^k	1 ^k	1 ^k	0	3	3	1 ^k
Ch 60	0	3 ^h	4 ^h	0	i	2	2	1	1	2	3	0	0	NC-2
Ch 61	0	3	4	0	i	2	2	m	2	m	3	0	0	NC-2
Ch 62														
Open Parking Structures	NC-2	3	4	NC-2	NC-2	NC-2	NC-2	1 ^k	1 ^k	1 ^k	1 ^k	NC-2	NC-2	0

Keys and Examples: NC = Noncombustible construction; 0 = 0 (No hourly rating); NC-2 = Noncombustible construction 2-hour rating

FOOTNOTES TO TABLE 51.08:

a. Auditoriums, chapels, residential facilities and other similar areas provided for the patients or employes of health care facilities need not be separated from the health care facility. Also, administrative offices, doctors' offices, medical clinics and laboratories which are intended primarily to provide in-house services or support to the health care facility need not be separated from the health care facility. Doctor's offices, medical clinics and other similar areas which are intended to provide out-patient services independent of the health care facility shall be separated in accordance with the table.

b. Auditoriums, chapels, residential facilities, administrative offices, medical clinics, educational facilities, workshops and other similar areas which are provided for the residents or employes of the detention facility need not be separated from the facility.

Separation table:

cont'd.

c. An occupancy separation need not be provided within a fire station or other similar facility to separate vehicles from other areas of the building, if the vehicles are directly and permanently related to the functions of the building.

d. An occupancy separation need not be provided within an office, factory or warehouse occupancy to separate a storage garage accommodating one or 2 vehicles which are directly related to the functions of that occupancy. If a storage garage accommodating one or 2 vehicles within an office, factory or warehouse occupancy is part of a multi-occupancy/multi-tenant building (i.e., strip shopping center), the occupancy separation shall be provided at least at the adjoining tenants' walls.

e. An occupancy separation need not be provided to separate two adjoining assembly hall areas or functions located within the same building, if the operation or control of the two assembly areas are under the same owner or tenant.

f. An occupancy separation need not be provided between a church and a day school operated by the church provided both occupancies conform with the most restrictive requirements of chs. ILHR 55 and 56.

g. An occupancy separation need not be provided between an assembly hall or theater and an instructional facility regulated under ch. ILHR 56 if the operation and control of the two occupancies is under the same owner.

h. An occupancy separation need not be provided to separate a day care center from an assembly hall occupancy, if the day care center conforms with the more stringent requirements of ch. ILHR 55.

i. See s. ILHR 57.01 concerning living unit separations.

j. Storage garages, attached to residential occupancies under the scope of ch. ILHR 57, may be separated from a residential occupancy by at least one-hour fire-resistive construction, if the storage garage is divided by walls with at least one-hour fire-resistive ratings into spaces with floor areas not exceeding 500 square feet.

k. An occupancy separation need not be provided to separate adjoining storage garages, repair garages or open parking structures which are located within the same building, if the entire building conforms to the most stringent occupancy requirements of chs. ILHR 59 and 62, subch. I.

m. Storage garages, attached to CBRF occupancies under the scope of ch. ILHR 61, may be separated from a CBRF by :

- Common walls between the garage and the CBRF protected with not less than one layer of 5/8-inch Type X gypsum board with taped joints, or equivalent, on the garage side and with not less than one layer of 1/2-inch gypsum board with taped joints, or equivalent, on the CBRF side;

- Floor-ceiling assemblies between garage and the CBRF protected with not less than one layer of 5/8-inch Type X gypsum board on the garage side of the ceiling or roof framing; and

- Openings between the garages and the CBRF protected by self-closing, 1 3/4-inch solid wood core doors or with self-closing doors of equivalent fire resistive rating.

See s. ILHR 61.10 (2) concerning detached garages serving CBRF's.

SECTION 86. ILHR 51.14 (1) is amended to read:

ILHR 51.14 SAFETY GLAZING. (1) SCOPE. This section applies to fixed or operating glazed flat panels adjacent to doors; fire window assemblies; display cases within 7 feet of the floor in schools; ~~mirrors, framed, glazed pictures or similar decorative objects,~~ skylights; sloped glazing and any other glazing materials used in hazardous impact areas which are not included within the scope of the federal consumer product safety commission (CPSC) standard for architectural glazing materials, 16 CFR, para. 1201.

Note: The CPSC standard for architectural glazing materials pre-empts state and local regulations for framed or unframed interior or exterior glazed doors, exterior doors with glazed lights, sliding doors and the adjacent glazed fixed or operating panel, storm doors, shower doors, walk-in mirror closet doors and tub enclosures.

SECTION 87. ILHR 51.14 (5) (c) is created to read:

ILHR 51.14 (5) (c) 1. Except as provided in subd. 2, heat-strengthened glass or fully tempered glass if used in an overhead application shall have a screen or equivalent protection installed below the glass.

- a. The screen shall be installed not more than 4 inches from the glass.
- b. The screen shall be capable of supporting the weight of the glass.
- c. The screen shall be constructed of noncombustible material not thinner than 0.08 inches.
- d. The mesh in a screen may not be larger than one inch by one inch.

2. a. Fully-tempered glass may be used without a screen or equivalent protection, if the glass is at a slope of 30 degrees or less from vertical and the highest point of the glass is 10 feet or less above any floor level under the sloped glass.

b. Glazing materials may be used without a screen or equivalent protection, if the walking surface or any other accessible area below the glazing is permanently protected from the risk of falling glass for a minimum horizontal distance equal to twice the height.

SECTION 88. ILHR 51.15 (2) is amended to read:

ILHR 51.15 (2) Every standard exit door shall swing outward or toward the natural means of egress. It shall be level with the floor, and shall be so hung that, when open, it will not block any part of the required width of any other doorway, passageway, stairway or fire escape. No revolving door, overhead door or sliding door shall be considered as a standard exit, except as permitted in ss. ILHR 54.06, 55.10 and 59.13.

SECTION 89. ILHR 51.15 (3) (a) is amended to read:

ILHR 51.15 (3) (a) A standard exit door shall have such fastenings or hardware that it can be opened from the inside by pushing against a single bar or plate or turning a single knob or handle. The latch or other approved fastening device on the door shall be of an obvious method in its release. Except as provided in pars. (b) to (d), the installation of hardware requiring use of a key for opening an exit door from the inside is prohibited. The requirements of this subsection, except par. ~~(f)~~ (g) shall apply to all buildings in existence and to any building after the effective date of this subsection.

SECTION 90. ILHR 51.15 (3) (f) is renumbered 51.15 (3) (g).

SECTION 91. ILHR 51.15 (3) (f) is created to read:

ILHR 51.15 (3) (f) 1. Except as provided in subd. 2, in a building protected throughout by either a supervised automatic fire sprinkler system or a supervised automatic fire detection system, the exit doors may be equipped with listed, locking devices which shall:

a. Release or unlock upon activation of the sprinkler system or fire detection system;

b. Release or unlock upon the loss of power to the locking device;

c. Release or unlock within 15 seconds whenever a force of not more than 15 pounds of force is continuously applied to the release device for a period of not more than 3 seconds;

d. Upon the release or unlocking of the door activate an audible alarm in the vicinity of the door;

e. Require the manual relocking of such doors; and

f. Have a sign adjacent to the locking device indicating how the door may be opened.

2. The use of locking devices as described in subd. 1 shall be limited to the following restrictions.

a. The locking device may not be employed on any door of an occupancy designated or licensed as a community based residential facility.

b. The locking devices may not be employed on doors serving as the main entrance/exit of an assembly hall occupancy regulated under ch. ILHR 55.

c. Not more than one locking device may be employed in any egress path within a health care facility regulated under ch. ILHR 58, subch. I.

SECTION 92. ILHR 51.15 (5) is repealed and recreated to read:

ILHR 51.15 (5) (a) All exit doors, unless otherwise exempted by the occupancy requirements of this code, shall be identified by illuminated translucent exit signs.

1. An exit sign shall bear the words "EXIT" or "OUT".
2. The wording for the exit sign shall be of letters not less than 6 inches high with principal strokes of letters not less than 3/4 inches wide.
3. The wording for the exit sign shall be of red or green lettering on a contrasting background.
4. A self-luminous type of exit sign which provides evenly illuminated letters shall have a minimum luminance of 0.06 foot lamberts; other types of exit signs shall be illuminated by a source providing not less than 5 foot candles at the illuminated surface.

(b) When exit doors are not readily visible to occupants, directional exit signs shall be provided in exit access corridors and other appropriate locations so to indicate the direction and way of egress.

SECTION 93. ILHR 51.16 (3)(b) 1 is renumbered 51.16 (3)(b).

SECTION 94. ILHR 51.16 (3) (b) 2 is repealed.

SECTION 95. ILHR 51.16 (4) (a) (intro.) is amended to read:

ILHR 51.16 (4) (a) All stairways and steps shall have a rise of not more than 7-3/4 inches and a tread not less than 9-1/2 inches, measured from tread to tread and from riser to riser. The slope of a tread may not exceed 1/4 inch per foot for the depth of the tread. Treads and risers shall be uniform in any one flight. Winders shall not be used;

SECTION 96. ILHR 51.16 (4) (d) is amended to read:

ILHR 51.16 (4) (d) Every stairway flight shall have at least 3 risers (unless additional safety is provided which meets the approval of the department), except as provided in par. (c) and ss. ILHR 54.03 (1) (b), 55.09 (3) (b) and 57.07 (1); and

SECTION 97. ILHR 51.16 (7) is amended to read:

ILHR 51.16 (7) SPIRAL STAIRS. Spiral stairways may be permitted as specifically allowed by the occupancy chapters of this code. Such spiral stairs shall provide a clear walking area measuring at least 22 inches from the outer edge of the supporting column to the inner edge of the handrail and shall have treads at least 7 inches in width at a point one foot from the narrow end of the tread, and a uniform riser height of not more than 8 9-1/2 inches.

SECTION 98. ILHR 51.16 (8) is created to read:

ILHR 51.16 (8) SPACES BENEATH STAIRS AND RAMPS. Spaces beneath the steps, stairs, ramps, landings and platforms which are within a vertical enclosure under s. ILHR 51.02 (11) may not be used for any other purpose, unless that space is separated from the enclosure by the same degree of fire resistive construction required for the enclosure.

(b) Spaces beneath steps, stairs, ramps, landings and platforms which provide a means of egress, but not enclosed under s. ILHR 51.02 (11), may not be used for any other purpose, unless:

1. The space is separated from steps, ramps, landings and platforms by at least one hour fire resistive construction; or

2. The space and the steps, ramps, landings and platforms are all contained within an individual living unit under the scope of ch. ILHR 57.

SECTION 99. ILHR 51.161 (1) (a) is amended to read:

ILHR 51.161 (1) (a) On ~~the left~~ either side ~~as one mounts the stairs or ramp~~ for all interior stairways of more than 3 risers and ~~on~~ for all ramps overcoming a change in elevation of more than 24 inches.

SECTION 100. ILHR 51.161 (6) (a) is repealed and recreated to read:

ILHR 51.161 (6) (a) Handrails protecting the open sides of stairways and ramps shall have intermediate rails or an ornamental pattern designed to prevent the passage of an object with a diameter larger than 6 inches, except in adult detention or correctional facilities, factory or warehouse occupancies the clear distance between intermediate rails measured at right angles to the rails may not exceed 21 inches.

SECTION 101. ILHR 51.161 (7) is created to read:

ILHR 51.161 (7) HANDGRIP DIMENSIONS. The handgrip portion of a handrail serving a stairway or ramp may not be less than 1-1/4 inches nor more than 2 inches in any horizontal cross sectional dimension or any other shape with a perimeter dimension of at least 4 inches but not greater than 6-1/4 inches and with the largest cross-sectional dimension not exceeding 2-1/4 inches.

SECTION 102. ILHR 51.162 (2) is repealed and recreated to read:

ILHR 51.162 (2) EXEMPT LOCATIONS. Guardrails need not be provided:

(a) On the loading side of loading docks;

(b) On the auditorium side of a stage or enclosed platform; and

(c) Around floor pits, openings or depressions for manufacturing areas and processing areas where guardrails would interfere with the operations or functions of the areas.

Note: Federal OSHA also prescribes requirements concerning the guarding of floor openings under 29 CFR 1910.

SECTION 103. ILHR 51.162 (5) (a) is repealed and recreated to read:

ILHR 51.162 (5) (a) Guardrails protecting the open sides of elevated platforms, walks, balconies, and mezzanines shall have intermediate rails or an ornamental pattern designed to prevent the passage of an object with a diameter larger than 6 inches, except in adult detention or correctional facilities, factory or warehouse occupancies the clear distance between intermediate rails measured at right angles to the rails may not exceed 21 inches.

SECTION 104. ILHR 51.20 (9) is amended to read:

ILHR 51.20 (9) LADDER TO ROOF. Every fire escape which extends higher than the second floor shall be provided with a ladder leading from the upper platform to the roof, unless the fire escape stairway leads to the roof. The ladder shall have stringers not less than 1-1/4 inch pipe, or not less than 2 x 3/8 inch flat bars, at least ~~17~~ 16 inches apart in the clear. The rungs shall be not less than 1/2 inch square or ~~5/8~~ 3/4 inch round bars, ~~14~~ 12 inches center to center. The stringers shall be securely tied together at intervals no greater than every fifth rung. The stringers of each ladder shall extend not less than ~~4~~ 3-1/2 feet above the roof coping and return to within 2 feet of the roof, with the top rung of the ladder level with the coping.

SECTION 105. ILHR 51.22 is amended to read:

ILHR 51.22* FIRE EXTINGUISHERS. (1) GENERAL. All required fire extinguishers ~~shall be approved by the department, and~~ shall comply with the provisions of NFPA No. ~~10-1981-1 Standard for Portable Fire Extinguishers.~~

(2) INSTALLATION. Fire extinguishers as specified in chs. ILHR 54-62 shall be installed as specified in NFPA No. ~~10-1981-1 Standard for Portable Fire Extinguishers.~~

(3) MAINTENANCE. All portable fire extinguishers, whether required by chs. ILHR 54-62 or not, shall be maintained in operable condition as specified in NFPA No. ~~10-1981-1 Standard for Portable Fire Extinguishers.~~

SECTION 106. ILHR 51.23 (1) (a) is amended to read:

ILHR 51.23 (1) (a) ~~Except as permitted in chs. ILHR 54 to 62, all~~ All automatic fire sprinkler systems shall be designed and installed in accordance

with NFPA No. 13 Standard for the Installation of Sprinkler Systems, except as permitted in chs. ILHR 54 to 62.

SECTION 107. ILHR 51.23 (1)(b) is repealed and recreated to read:

ILHR 51.23 (1)(b) 1. A sprinkler system shall be so designed, installed and maintained as to provide complete coverage for all portions of a building, except:

2. Sprinkler heads may be omitted within a room dedicated exclusively to electrical equipment provided:

a. The room is separated from other portions of the building by at least one-hour fire-resistive construction;

b. The room is equipped with a smoke detector the activation of which is either audible throughout all the occupied areas of the building or interconnected to a manual fire alarm system; and

c. The storage of combustible materials within the room is prohibited.

SECTION 108. ILHR 51.23 (2) (b), (4), (6) and (7) (c) and (d) are amended to read:

ILHR 51.23 (2) (b) If the water supply has inadequate pressure, an approved fire pump or tank shall be provided. The design and installation of water supply facilities for gravity tanks, fire pumps, reservoirs or pressure tanks, and underground piping shall conform to NFPA No. 22, Standard for Water Tanks for Private Fire Protection; NFPA No. 20, Installation of Centrifugal Fire Pumps; and NFPA No. 24 Outside Protection [ILHR 51.27 (7a)].

(4) FIRE DEPARTMENT CONNECTION. Except as provided in s. ILHR 57.016 (1) (a), every automatic 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 within 150 feet of a municipal fire hydrant.

(6) (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-11 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 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.

(7) (c) The water pressure and volume is adequate to supply the required flow of the largest number of sprinkler heads in any one of the enclosed areas; ~~and~~

(d) An audible alarm is provided to sound when the system is in operation; and

Note: See ch. ILHR 82 for requirements pertaining to cross connections.

SECTION 109. ILHR 51.23 (7) (e) is created to read:

ILHR 51.23 (7) (e) A pressure gauge and test valve are provided to facilitate the testing and maintenance of the system in accordance with sub. (6).

SECTION 110. ILHR 51.24 (2) is amended to read:

ILHR 51.24 (2) Every fire alarm system shall be electrically operated or activated by noncombustible, nontoxic gas. Electrically operated systems shall be operated on closed circuit current under constant electrical supervision, so arranged that upon a circuit opening and remaining open or in case of a ground or short circuit in the ~~undergrounded~~ ungrounded conductor, audible trouble signals will be given instantly. Gas-activated systems shall be mechanically supervised and under constant gas pressure, so arranged that in case of a pressure drop an audible trouble signal will be given instantly. Means shall be provided for testing purposes;

SECTION 111. (Rule action deleted from draft.)

SECTION 112. ILHR 51.25 is repealed and recreated to read:

ILHR 51.25 INCORPORATION OF STANDARDS BY REFERENCE. (1) CONSENT. Pursuant to s. 227.21, Stats., the attorney general and the revisor of statutes have consented to the incorporation by reference of the standards listed in sub. (4).

(2) COPIES. Copies of the adopted standards are on file in the offices of the department, the secretary of state and the revisor of statutes. Copies of the standards may be purchased through the respective organizations listed in Tables 51.25-1 to 51.25-21.

(3) INTERIM AMENDMENTS. Interim amendments of the adopted standards shall have no effect in the state until such time as this section is correspondingly revised to reflect the changes.

(4) ADOPTION OF STANDARDS. The standards referenced in Tables 51.25-1 to 51.25-21 are hereby incorporated by reference into this chapter.

Table 51.25-1

AA	Aluminum Association 900 19th Street NW Washington, D.C. 20006
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Standard Reference Number	Title
SAS-30	Specifications for Aluminum Structures, Aluminum Construction Manual, Section 1, 1986

Table 51.25-2

ACI	American Concrete Institute P.O. Box 19150 Detroit, Michigan 48219
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Standard Reference Number	Title
318-89	Building Code Requirements for Reinforced Concrete.

Table 51.25-3

AIA	The American Institute of Architects Order Department 9 Jay Gould Court P.O. Box 753 Waldorf, MD 20601
	Title
R673	Guidelines for Construction and Equipment of Hospital and Medical Facilities, 1987 edition.

Table 51.25-4

AISC	American Institute of Steel Construction 400 North Michigan Avenue Chicago, IL 60611
Standard Reference Number	Title
S326	Specification for the Design, Fabrication, and Erection of Structural Steel for Buildings, with Commentary, November 1, 1978, with supplement #1.

Table 51.25-5

AITC	American Institute of Timber Construction 11818 S.E. Mill Plain Blvd., Suite 415 Vancouver, Washington 98684
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Standard Reference Number	Title
1. 117-87	Design Standard Specifications for Structural Glued Laminated Timber of Softwood Species
2. 119-85	Standard Specifications for Hardwood Glued Laminated Timber

Table 51.25-6

AISI	American Iron and Steel Institute 1133 15th Street, N.W., Suite 300 Washington, D.C. 20005
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Standard Reference Number	Title
1. SG-671	Specification for the Design of Cold-Formed Steel Structural Members, August, 1986.
2.	Manual For Structural Applications of Steel Cables For Buildings, 1973.

Table 51.25-7

ANSI	American National Standards Institute, Incorporated 1430 Broadway New York, New York 10018
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Standard Reference Number	Title
1. Z83.4-1989	Direct Gas-Fired Make-up Air Heaters.
2. Z83.18-1987, with Z83.18a-1987 Addenda	Direct Gas-Fired Industrial Air Heaters.
3. Z97.1-1984	Safety Glazing Materials Used in Buildings.

Table 51.25-8

APA	American Plywood Association P.O. Box 11700 7011 South 19th Street Tacoma, Washington 98460
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Standard Reference Number	Title
1. PS 1-83	U.S. Product Standard for Construction and Industrial Plywood, Revised October, 1988.

Table 51.25-9

ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc. 1791 Tullie Circle, NE Atlanta, Georgia 30329
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Standard Reference Number	Title
1. 81850	Handbook of Fundamentals, 1985.
2. 52-76	Methods of Testing Air-Cleaning Devices Used in General Ventilation for Removing Particulate Matter.

Table 51.25-10

ASTM	American Society for Testing and Materials 1916 Race Street Philadelphia, Pennsylvania 19103
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Standard Reference Number	Title
1. A6-87d	General requirements for rolled steel plates, shapes, sheet piling and bars for structural use.
2. A36-87	Structural steel.
3. A82-85	Plain steel wire for concrete reinforcement.
4. A116-87	Zinc-coated (galvanized) steel woven wire fence fabric.
5. A153-82 (1987)	Zinc coating (hot-dip) on iron and steel hardware.
6. A615-87	Deformed and plain billet-steel bars for concrete reinforcement.
7. A616-87	Rail-steel deformed and plain bars for concrete reinforcement.

Table 51.25-10 (continued)

Standard Reference Number	Title
8. A617-87	Axle-steel deformed and plain bars for concrete reinforcement.
9. C22-83	Gypsum.
10. C25-88	Chemical analysis of limestone, quicklime, and hydrated lime.
11. C34-84	Structural clay load-bearing wall tile.
12. C39-86	Compressive strength of cylindrical concrete specimens.
13. C42-87	Obtaining and testing drilled cores and sawed beams of concrete.
14. C50-86	Sampling, inspection, packing, and marking of lime and limestone products.
15. C55-85	Concrete building brick.
16. C56-71 (1986)	Structural clay non-load-bearing tile.
17. C57-57 (1983)	Structural clay floor tile.
18. C62-87	Building brick (solid masonry units made from clay or shale).
19. C67-87	Sampling and testing brick and structural clay tile.
20. C90-85	Hollow load-bearing concrete masonry units.
21. C91-87a	Masonry Cement.
22. C97-83	Absorption and bulk specific gravity of natural building stone.
23. C99-87	Modulus of rupture of natural building stone.
24. C110-87	Physical testing of quicklime, hydrated lime, and limestone.

Table 51.25-10 (continued)

Standard Reference Number	Title
25. C140-75 (1980)	Sampling and testing concrete masonry units.
26. C144-87	Aggregate for masonry mortar.
27. C145-75 (1981)	Solid load-bearing concrete masonry units.
28. C150-86	Portland cement.
29. C170-87	Compressive strength of natural building stone.
30. C207-79(1984)	Hydrated lime for masonry purposes.
31. C270-88	Mortar for unit masonry.
32. C317-87	Gypsum concrete.
33. C457-82a	Microscopical determination of air-void content and parameters of the air-void system in hardened concrete.
34. C471-87	Chemical analysis of gypsum and gypsum products.
35. C472-84	Physical testing of gypsum plasters and gypsum concrete.
36. C473-87a	Physical testing of gypsum board products and gypsum lath.
37. C476-83	Grout for reinforced and nonreinforced masonry.
38. C652-87a	Hollow brick (hollow masonry units made from clay or shale).
39. C666-84	Resistance of concrete to rapid freezing and thawing.
40. C952-86	Bond strength of mortar to masonry units.
41. C956-81(1986)	Installation of Cast-In-Place Reinforced Gypsum Concrete.
42. D245-81	Establishing structural grades and related allowable properties for visually graded lumber.

Table 51.25-10 (continued)

Standard Reference Number	Title
43. D635-81	Rate of burning and/or extent and time of burning of self-supporting plastics in a horizontal position.
44. D1037-87	Evaluating the properties of wood-base fiber and particle panel materials.
45. D1143-81 (1987)	Testing piles under static axial compressive load.
46. D1929-77 (1985)	Ignition properties of plastics.
47. D2843-77	Density of smoke from the burning or decomposition of plastics.
48. E72-80	Conducting strength tests of panels for building construction.
49. E84-87	Surface burning characteristics of building materials.
50. E108-87	Fire tests of roof coverings.
51. E119-88	Fire tests of building construction and materials.
52. E136-82	Behavior of materials in a vertical tube furnace at 750°C.
53. E152-81a	Fire tests of door assemblies .
54. E163-84	Fire tests of window assemblies.
55. E283-84	Rate of air leakage through exterior windows, curtain walls and doors.
56. E447-84	Compressive strength of masonry prisms.
57. E648-88	Critical radiant flux of floor covering systems using a radiant heat energy source.

Table 51.25-11

AWS	American Welding Society P.O. Box 351040 550 NW LeJeune Road Miami, Florida 33135
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Standard Reference Number	Title
1. D1.1-88	Structural Welding Code-Steel
2. D1.3-89	Structural Welding Code-Sheet Steel

Table 51.25-12

AWPA	American Wood Preservers Association P.O. Box 849 Stevensville, Maryland 21666
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Standard Reference Number	Title
1. C2-1988	Lumber, Timbers, Bridge Ties and Mine Ties - Preservative Treatment by Pressure Processes
2. C4-1989	Poles - Preservative Treatment by Pressure Processes

Table 51.25-13

AWPB	American Wood Preservers Bureau P.O. Box 5283 Springfield, Virginia 22150
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Standard Reference Number	Title
1. LP-2 1988	Standard for Softwood Lumber, Timber and Plywood Pressure Treated with Water-Borne Preservatives for Above Ground Use.
2. LP-22 1988	Standard for Softwood Lumber, Timber and Plywood Pressure Treated with Water-Borne Preservatives for Ground Contact Use.
3. FDN 1988	Quality Control Program For Softwood Lumber, Timber and Plywood Pressure Treated with Water-Borne Preservatives, for Ground Contact Use in Residential and Light Commercial Foundations.

Table 51.25-14

FM	Factory Mutual Research Corporation 1151 Boston-Providence Turnpike Norwood, Mass. 02062
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Standard Reference Number	Title
4450, Revised Aug 5, 1977	Approval Standard for Class I Insulated Steel Deck Roofs.

Table 51.25-15

GA	Gypsum Association 1603 Orrington Avenue Evanston, Illinois 60201
Standard Reference Number	Title
GA-600-88	Fire Resistance Design Manual

Table 51.25-16

NIDI	Nickel Development Institute 15 Toronto Street, Suite 402 Toronto, Ontario, Canada M5C 2E3
Standard Reference Number	Title
9023	Stainless Steel Cold-Formed Structural Design Manual, 1974 edition

Table 51.25-17

NFPA	National Fire Protection Association Batterymarch Park Quincy, Massachusetts 02169
Standard Reference Number	Title
1. 10-1988	Standard for portable fire extinguishers.
2. 13-1989	Standard for the installation of sprinkler systems.
3. 13A-1987	Standard for the inspection, testing and maintenance of sprinkler systems.
4. 13R-1989	Standard for the installation of sprinkler systems in residential occupancies up to four stories in height.
5. 20-1987	Standard for the installation of centrifugal fire pumps.
6. 22-1987	Standard for water tanks for private fire protection.
7. 24-1987	Standard for the installation of private fire service mains and their appurtenances.
8. 31-1987	Standard for the installation of oil-burning equipment.
9. 54-1988	National fuel gas code.
10. 71-1987	Standard for the installation, maintenance and use of signaling systems for central station service.
11. 72A-1987	Standard for the installation, maintenance and use of local protective signaling systems for guard's tour, fire alarm and supervisory service.
12. 72B-1986	Standard for the installation, maintenance and use of auxiliary protective signaling systems for fire alarm service.
13. 72C-1986	Standard for the installation, maintenance and use of remote station protective signaling systems.

Table 51.25-17 (continued)

Standard Reference Number	Title
13. 72D-1986	Standard for the installation, maintenance and use of proprietary protective signaling systems.
14. 72E-1987	Standard on automatic fire detectors.
15. 74-1989	Standard for the installation, maintenance and use of household fire warning equipment.
16. 90A-1985	Standard for the installation of air conditioning and ventilating systems.
17. 211-1988	Standard for chimneys, fireplaces, vents and solid fuel burning appliances.

Table 51.25-18

NF _O PA	National Forest Products Association 1250 Connecticut Avenue, N.W., #200 Washington, DC 20036
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Standard Reference Number	Title
1. NDS	National Design Specification for Wood Construction, 1986 Edition, with 1987 revisions, including Design Values for Wood Construction, a June, 1988 supplement to the 1986 Edition of National Design Specification for Wood Construction.
2. Technical Report No. 7	The Permanent Wood Foundation System, Basic Requirements, Revised January, 1987.

Table 51.25-19

SJI	Steel Joist Institute Suite A 1205 48th Ave., North Myrtle Beach, South Carolina 29577
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Standard Reference Number	Title
	Standard Specifications, Load Tables and Weight Tables for Steel Joists and Joist Girders, 1988.

Table 51.25-20

TPI	Truss Plate Institute, Inc. 583 D'Onofrio Dr., Suite 200 Madison, Wisconsin 53719
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Standard Reference Number	Title
TPI-85	Design Specification for Metal Plate Connected Wood Trusses, including 1987 Supplement and Errata Addendum Sheet.

Table 51.25-21

UL	Underwriters Laboratories, Inc. Publication Stock 333 Pfingsten Road Northbrook, Illinois 60062
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Standard Reference Number	Title
1. 181-1981	Factory-Made Air Ducts and Connectors, including revisions dated March 19, 1984.
2. 1256-1985	Fire Test of Roof Deck Constructions.

SECTION 113. ILHR 51.26 and 51.27 are repealed.

SECTION 114. ILHR 52.01 (2) (c) is repealed and recreated to read:

ILHR 52.01 (2) (c) Elevators. Every floor level of the building shall be accessible to a fire department by means of one or more elevators. If the building is not provided with an automatic sprinkler system in accordance with s. ILHR 51.23, the elevator lobby at each floor level shall be separated from the remainder of the building by an effective smoke barrier.

Note: See ch. ILHR 18 for additional requirements pertaining to elevators.

SECTION 115. ILHR 52.012 (1) (intro.) is amended to read:

ILHR 52.012 (1) (a) Except as ~~provided~~ permitted 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) ~~(d)~~ are not provided.

SECTION 116. ILHR 52.013 (4) (a) and (b) 1 are amended to read:

ILHR 52.013 (4) (a) In restaurants where the floor area exceeds 12,000 sq. ft. per floor 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. per floor or where the capacity is more than 300 persons.

SECTION 117. ILHR 52.02 (1) (a) (intro.) is repealed and recreated to read:

ILHR 52.02 (1) (a) Every room in which one or more persons live or sleep, shall be lighted by a skylight or skylights, or a window or windows opening directly upon a street or alley or upon a court on the same lot with the building, except as permitted s. ILHR 57.13 (2).

SECTION 118. ILHR 52.02 (1) (a) 1 and 2 are repealed.

SECTION 119. ILHR 52.02 (1) (b) 2 is repealed.

SECTION 120. ILHR 52.02 (1) (b) 1 is renumbered 52.02 (1) (b).

SECTION 121. ILHR 52.02 (2) (a) is repealed and recreated to read:

ILHR 52.02 (2) (a) Application. Any basement or any floor level 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 of that basement or floor level on at least one side of the building, except as permitted under s. ILHR 52.012 (1). For the purpose of this requirement, openings 20 square feet in area spaced 100 feet apart and no more than 50 feet from the end of a wall shall satisfy the intent of this requirement.

SECTION 122. ILHR 52.07 (1) is repealed and recreated to read:

ILHR 52.07 (1) SCOPE. (a) All buildings, except those classified as high hazard, fully protected by an automatic fire sprinkler system may have atriums complying with the provisions of this section.

Note: See s. A52.011 for further information regarding the classification and listing of high hazard buildings.

(b) All atriums, except as provided in ss. ILHR 55.09, 58.06 (2), 60.34, 61.12 (4) and 62.27 shall comply with the provisions of this section.

SECTION 123. ILHR 52.50 is repealed and recreated to read:

ILHR 52.50 TOILET ROOMS. (1) Every place of employment and public building shall be provided with toilet rooms as specified in chs. ILHR 54 to 62.

(2) Entrances for toilet rooms shall be provided with doors or mazed passageways to ensure privacy to the users of the toilet rooms, except as permitted in ss. ILHR 56.16 (1) and 60.15 (2) (a). If mazed passageways are employed in lieu of doors,:

(a) The passageways of the maze shall be at least 48 inches in width;

Note: See appendix for further explanatory material.

(b) The walls creating the maze shall be at least 6 feet 8 inches high;

(c) The maze shall prevent a direct view of the water closet compartments, urinals or lavatories from the outside entrance of the maze;

(d) The maze shall prevent an indirect view of the water closet compartments, urinals or lavatories from the outside entrance of the maze by means of mirrors located within the toilet room; and

(e) The toilet room shall be provided with an exhaust fan which is to be on continuously while the building is occupied, and which is to create a negative pressure within the toilet room with respect to the area outside the toilet room.

SECTION 124. ILHR 52.57 is amended to read:

ILHR 52.57 FLOOR AND BASE. Every toilet room, except those within living units of apartment buildings, shall have the entire floor and the side walls to a height of not less than 4 inches ~~made/waterproof/with/ceramic/tile/terrazzo/painted/concrete/marble/slate/monolithic/asphalt/other~~ approved of a material impervious to water.

Note: This section is also intended to prohibit the use of registers within 4 inches of the floor, baseboard registers and floor registers.

SECTION 125. ILHR 52.59 (1) (intro.) is repealed and recreated to read:

ILHR 52.59 (1) Water closets and urinals within a toilet room shall be arranged to ensure privacy. Water closets shall be enclosed within partitions, except as provided in ss. ILHR 58.68 (1) and 60.15 (2) (a). Urinals shall be placed against walls at least 6 feet 8 inches high and arranged individually.

SECTION 126. ILHR 52.60 (1) is repealed and recreated to read:

ILHR 52.60 (1) WATER CLOSETS. (a) Except as permitted in par. (b), all water closets required to be provided in public buildings and places of employment shall:

1. Be of an elongated bowl type; and
2. Provided with either:
 - a. Hinged, open-front seats without covers; or
 - b. Hinged, closed-front seats, without covers, which are encased with a continuous plastic sleeve capable of providing a clean surface for every user and for which a specific material approval under s. ILHR 50.19 has been issued.

(b) Water closets which are required to be provided in day care centers or individual living units or sleeping units of residential occupancies within the scope of either ch. ILHR 57 or 61 may be of a round-bowl type with a hinged, closed front seat with or without a cover.

Note 1: Under s. 145.25, Stats., and s. ILHR 84.20 (3) all water closets may not use more than 4 gallons of water per flush.

Note 2: The plumbing code, s. ILHR 84.20 (5) (m) 7, prescribes requirements for water closets relative to their location to partitions, side walls and other obstructions. See appendix for further explanatory material.

SECTION 127. ILHR 52.60 (3) (intro.) is repealed and recreated to read:

ILHR 52.60 (3) HAND-WASHING AND DRYING FACILITIES. Hand-washing facilities shall be provided in all places of employment and public buildings as specified in the occupancy chapters of ILHR 54 to 62.

SECTION 128. ILHR 53.11 Table 53-I line (g) 3 is created to read:

ILHR 53.11 Table 53-I line (g) 3. Attic storage within living units...20.

SECTION 129. ILHR 53.11 (4) (a) 2 a is amended to read:

ILHR 53.11 (4) (a) 2. a. Roofs, except of greenhouses, with an unobstructed slippery surface such as glass, plastic, metal, slate or similar material that will allow snow to slide off the eaves and having a slope (α) exceeding 30° , may be designed for a load determined by multiplying the roof load specified in ~~part (d) (intro)~~ subd. 1., by a slope factor (C_R) using the following formula:

$$C_R = 1.0 - \left(\frac{\alpha - 30^\circ}{40^\circ} \right)$$

SECTION 130. ILHR 53.11 (4) (a) 2 b is repealed and recreated to read:

ILHR 53.11 (4) (a) 2. b. Roofs of greenhouses and other similar glazed structures shall be designed in accordance with this section or s. ILHR 62.96.

SECTION 131. ILHR 53.11 (4) (b) 3 b is amended to read:

ILHR 53.11 (4) (b) 3. b. Cantilever roof framing design shall include anchorage and supports capable of providing stability for full load applied on the cantilever without relying upon possible live load on the anchor span. ~~Where a canopy roof is cantilevered on both sides of a single line of columns, the columns and foundation shall be designed for full load on the portion of the roof on one side of the column line and no load on the other side.~~

SECTION 132. ILHR 53.24 (3) (b) and (5) (a) are amended to read:

ILHR 53.24 (3) (b) Substitution of higher allowable loads. Allowable loads greater than 40 tons will be permitted when substantiating data justifying such higher loads is submitted to the department by a foundation designer knowledgeable in the field of soil mechanics and pile foundations and familiar with the locale of the proposed project. Substantiating data such as test borings, laboratory test results, soil profiles, and pile load tests may be required by the department. The load test shall be in accordance with the procedure outlined in ASTM D-1143 [ILHR/51/25/145].

(5) (a) Timber piles. Timber piles shall conform to National Design Specifications, Part X [ILHR/51/27/8]. In addition, the tops of treated piles, at cutoff, shall be given 3 coats of hot creosote, followed by a coat of coal-tar pitch; and the cutoff shall be encased not less than 4 inches in the concrete footing of the foundation.

SECTION 133. ILHR 53.28 (5) is repealed and recreated to read:

ILHR 53.28 (5) PRESERVATION. All poles subject to moisture shall be treated with a preservative. Preservative treatment shall be in accordance with AWPAC2 or AWPAC4. All poles treated for preservation shall bear the mark of a quality control certification agency.

SECTION 134. ILHR 53.311 (2) and (3) are amended to read:

ILHR 53.311 (2) CLAY AND SHALE UNITS. Clay and shale units shall be made of burned clay or shale or mixtures thereof with or without admixtures.

(a) Solid units (brick). Units shall conform to grade SW requirements of ASTM C-62 [ILHR/51/25/19].

(b) Hollow units (tile and hollow brick). 1. 'Load-bearing units'. Units for use in load-bearing and exterior walls shall conform to grade LBX requirements of ASTM C-34 [ILHR/51/25/11], or grade SW requirements of ASTM C-652 [ILHR/51/25/41].

2. 'Nonload-bearing units'. Units for use in nonload-bearing partitions shall be specially marked and shall conform to the requirements of ASTM C-56 [ILHR/51/25/17]. Such units may also be used for nonstructural purposes in concrete floor construction.

3. 'Units for floor construction'. Units for structural use in floor construction shall conform to grade FT 1 requirements of ASTM C-57 [ILHR/51/25/18].

(3) CONCRETE UNITS. Concrete units shall be made with portland cement, water and suitable mineral aggregates, with or without admixtures.

(a) Solid units. 1. 'Small units (brick)'. Units shall conform to grade N requirements of ASTM C-55 [ILHR/51/25/16].

2. 'Large units (solid block)'. Units shall conform to grade N requirements of ASTM C-145 [§§/ILHR/§1/2§/(30)].

(b) Hollow units (blocks). Units shall conform to grade N requirements of ASTM C-90 [§§/ILHR/§1/2§/(21)].

SECTION 135. ILHR 53.311 (6) - Table 53-IV is amended to read:

TABLE 53-IV

ARCHITECTURAL PRECAST CONCRETE PHYSICAL REQUIREMENTS

Use	Compressive Strength ¹ Minimum (psi)		Water Absorption Maximum (%)	Purposefully Entrained Air Minimum (%)
	Avg. of 3	Individual		
Exposed to freeze-thaw cycles (exterior)	4,500	3,800	8	3
All others (interior)	3,500	3,000	10	--

¹Compressive strength shall be determined by procedures outlined in ASTM C-39 [§§/ILHR/§1/2§/(12)] or C-42 [§§/ILHR/§1/2§/(13)].

SECTION 136. ILHR 53.311 (7) is amended to read:

ILHR 53.311 (7) GYPSUM UNITS. ~~Units shall conform to the requirements of ASTM C-42 [§§/ILHR/§1/2§/(13)].~~ Gypsum units shall may not be used in exterior or load-bearing walls or locations exposed to frequent or continuous wetting.

SECTION 137. ILHR 53.311 (8) is repealed.

SECTION 138. ILHR 53.312 (2) (b) 2 (intro.) and (c) and are amended to read:

ILHR 53.312 (1) (b) 2. 'Aggregates'. Aggregates shall conform to the following requirements and to the requirements of ASTM C-144 [§§/ILHR/§1/2§/(29)].

(c) Requirements. Mortar for masonry shall conform to the property requirements of Table 53-VI and to the requirements of ASTM C-270 [§§/ILHR/§1/2§/(34)] unless otherwise noted in this section. If approved laboratory testing is not conducted to indicate compliance with Table 53-VI, the mortar mix shall be restricted to the provisions of Table 53-VII.

SECTION 139. ILHR 53.313 Note is amended to read:

ILHR 53.313 Note: Masonry grout for reinforced masonry shall conform to the requirements of ASTM C-476 [§§//ILHR/51/25/(40)].

SECTION 140. ILHR 53.314 is amended to read:

ILHR 53.314 CEMENTITIOUS MATERIALS. (1) PORTLAND CEMENT. Portland cement shall conform to the requirements of ASTM C-150 [§§//ILHR/51/25/(31)].

(2) MASONRY CEMENT. Masonry cement shall conform to the requirements of ASTM C-91 [§§//ILHR/51/25/(22)].

(3) HYDRATED LIME. Hydrated lime shall conform to Type S requirements of ASTM C-207 [§§//ILHR/51/25/(33)].

(4) GYPSUM. Gypsum shall conform to the requirements of ASTM C-22 [§§//ILHR/51/25/(9)].

SECTION 141. ILHR 53.316 (1), (2) (a) and (b), and (3) (b) are amended to read:

ILHR 53.316 (1) REINFORCING BARS. Reinforcing bars shall conform to the requirements of ASTM A-165 [§§//ILHR/51/25/(6)], A-616 [§§//ILHR/51/25/(7)], and A-617 [§§//ILHR/51/25/(8)].

(2) (a) Material. Ties shall be fabricated from the equivalent of cold drawn wire conforming to the requirements of ASTM A-82 [§§//ILHR/51/25/(3)].

(b) Coating. Ties in exterior walls and potentially wet areas shall have noncorrodible cross wires for the intended use. Conformance with Class 3 requirements of ASTM A-116 [§§//ILHR/51/25/(4)] is acceptable.

(3) (b) Coating. Ties and anchors for use in exterior walls and potentially wet areas shall be noncorrodible for the intended use. Zinc coating (hot dip) conforming to the requirements of ASTM A-153 [§§//ILHR/51/25/(5)] is acceptable.

SECTION 142. ILHR 53.322 (2) (b) and (bm) (title) are amended to read:

ILHR 53.322 (2) (b) Thickness of load-bearing walls. ~~The~~ Except as provided in par. (bm), the minimum thickness of load-bearing masonry walls shall be at least 12 inches for the upper 36 feet of their height, and shall be increased 4 inches for the lower 36 feet or fraction thereof. Where a masonry load-bearing wall is made up of 2 or more wythes, the thickness of the wall shall not include any wythe less than 4 inches thick.

(bm) Exceptions to thickness of load-bearing walls
[§§//ILHR/53/322/(2)(b)].

SECTION 143. ILHR 53.35 (4) Table 53-XIV is repealed and recreated to read:

TABLE 53-XIV
STANDARD METHODS OF SAMPLING AND TESTING

Classification	Item	ASTM Test Method Standard
Base Materials	Portland Cement	C-150
	Masonry Cement	C-91
	Hydrated Lime	C-25, C-50, C-110
	Gypsum	C-471, C-472
	Aggregate	C-144
Mortar	Mortar	C-270 ^a
Masonry Units	Clay and Shale	C-67, C-112
	Concrete	C-140
	Natural Stone	C-97, C-99, C-170, C-666
	Cast Stone	C-42, C-97
	Arch. Precast Concrete	C-39, C-42, C-97, C-457
	Gypsum	C-473
Assemblies		E-72, E-149, E-447

^aMortar in the field, tested in a laboratory, shall test at least 85% of the minimum compressive strength required, and the field mortar will serve as the final basis for mortar approval. When mortar is not proportioned according to limitations of Table 53-VII, mortar shall be periodically tested by an impartial testing laboratory. Results of such required testing shall be submitted as evidence of conformity, when requested by the department.

SECTION 144. ILHR 53.40 is repealed and recreated to read:

ILHR 53.40 Concrete requirements. The design and construction of structures in concrete of cast-in-place or precast construction, plain, reinforced or prestressed shall conform to the rules and principles of ACI Std. 318.

SECTION 145. ILHR 53.41 (1) is repealed and recreated to read:

ILHR 53.41 (1) GENERAL. The design and construction of gypsum concrete shall be in accordance with ASTM C-317 or ASTM C-956.

SECTION 146. ILHR 53.42 is repealed.

SECTION 147. ILHR 53.50 (intro.) and (3) are amended to read:

ILHR 53.50 STRUCTURAL STEEL REQUIREMENTS. The design, fabrication and erection of structural steel for buildings and structures shall conform to: AISC ~~11/ILHR/51/27/12~~ "Specification for Design, Fabrication and Erection of Structural Steel for Buildings," and the provisions of the accompanying commentary for this specification, with the following modifications:

(3) CERTIFICATION AND IDENTIFICATION. (a) Certification. All structural steel shall have a mill report or a test report made in accordance with ASTM A-6 ~~11/ILHR/51/28/11~~ from the steel supplier; the reports shall include the information on the minimum yield strength and chemistry of the steel furnished. Upon request by the department, the supplier or fabricator shall furnish certified mill reports, test reports, affidavits and/or other information about the steel for the specific project.

(b) Marking of steel. Steel used for main components in completed members or assemblies shall be marked. This marking shall be accomplished by color coding or other means of identification as to its type or grade prior to shipment from the mill. The marking shall be continued through the fabricator's plant to the construction site. Steel which conforms to ASTM A-36 ~~11/ILHR/51/28/12~~ designation may be fabricated without marking.

Note: The type and grading may be indicated by the ASTM specification designation or a designation correlated to the information included on the certified mill or test report.

(c) Acceptable steel types. Steel of structural quality shall conform to the standards specified in section 1.4.1.1 of the AISC ~~11/ILHR/51/27/12~~ "Specification for the Design, Fabrication and Erection of Structural Steel for Buildings." Steel types not listed in the above mentioned section of the AISC may be used if approved by the designer. An approval letter indicating conformance with pars. (a) and (b) shall be sent to the department.

SECTION 148. ILHR 53.51 (intro.) and 53.52 are amended to read:

ILHR 53.51 COLD FORMED STEEL REQUIREMENTS. The design of cold-formed steel for buildings and structures shall conform to the AISI ~~11/ILHR/51/27/14~~ "Specification for the Design of Cold-Formed Steel Structural Members," and the provisions of the accompanying commentary for this specification, with the following modifications:

ILHR 53.52 STEEL JOIST REQUIREMENTS. The design, fabrication and erection of steel joists shall conform to the "Standard Specifications, Load Tables, and Weight Tables for Steel Joists and Joist Girders" adopted by the SJI ~~11/ILHR/51/27/19~~.

SECTION 149. ILHR 53.53 (1) to (6) is amended to read:

ILHR 53.53 (1) BASE METALS. Steels to be welded under this code are listed in AWS D 1.1, sections 8.2 and 10.2 ~~11/ILHR/51/27/16~~ or AWS D 1.3, section 1.2.1.

(2) FILLER METALS. Filler metal requirements that are acceptable under this code are listed in AWS D 1.1 section 4.1 [§§//ILHR/§1/27/(6)] or AWS D 1.3, section 5.

(3) WELDING PROCESSES. (a) Manual shielded metal arc, submerged arc, gas metal arc and flux cored arc welding processes conforming with the procedures established in AWS D 1.1, sections 2, 3 or 4 [§§//ILHR/§1/27/(6)] shall be considered as prequalified and are approved for use without performing procedure qualification tests.

(b) Electroslag and electrogas welding processes will not be considered as prequalified. They may be used provided a procedure is developed and provided it conforms to the applicable provisions of AWS D 1.1, sections 2, 3 or 4 [§§//ILHR/§1/27/(6)].

(4) WELDING PROCEDURES. (a) Procedure specification. All welding procedures shall be prepared as a written procedure specification. This written procedure specification shall be prepared by the manufacturer, fabricator or contractor and shall be made available or submitted to the department/when requested the department or its designated testing agent prior to commencing a weld test.

(b) Procedure qualification. All joint welding procedures shall be previously qualified by tests as prescribed in AWS D 1.1 section 5.6 [§§//ILHR/§1/27/(6)], except for the prequalified procedures exempted in §//ILHR/§3/33/(3)/(d) sub. (3) (a). The test shall be conducted under the supervision of an approved testing laboratory by the department or its designated testing agent. and the The test results of a test conducted by a designated testing agent shall be submitted by the agent to the department for approval.

(5) DESIGN OF WELDED CONNECTIONS AND JOINTS. The details of all joints shall comply with the requirements of AWS D 1.1, section 2 and section 10, parts C and D [§§//ILHR/§1/27/(6)] or AWS D 1.3, section 3. All joint forms, except those specified in AWS D 1.1, section 2 and section 10, parts C and D, shall may not be used unless qualified to the satisfaction of the department.

(a) Stud welding. Stud welding shall be done by a procedure qualified in accordance with the requirements of AWS D 1.1, section 4, part F [§§//ILHR/§1/27/(6)].

(6) OPERATOR QUALIFICATIONS. All structural welding work shall be done by certified [as defined in s. ILHR 53.53 (7)] welders. The required qualification test shall be conducted under the supervision of an approved testing laboratory by the department or its designated testing agent. The weld test report of a test conducted by a designated testing agent shall be submitted by the agent to the department for evaluation. Test specimens shall be submitted when requested by the department.

(a) The manual welders shall be tested and qualified in accordance with AWS D 1.1, section 5, part C [§§//ILHR/§1/27/(6)] or AWS D 1.3, section 6.

(b) The manual tackers shall be tested and qualified in accordance with AWS D 1.1, section 5, part E ~~§§//ILHR/§1/27/(6)§~~.

(c) The welding machine operator shall be tested and qualified in accordance with AWS D 1.1, section 5, part D ~~§§//ILHR/§1/27/(6)§~~.

SECTION 150. ILHR 53.54 to 53.56 is amended to read:

ILHR 53.54 ALUMINUM FRAMING REQUIREMENTS. The design, fabrication and erection of aluminum structural framing members shall conform to "Specifications for Aluminum Structures" ~~§§//ILHR/§1/27/(1)§~~, published by the The Aluminum Association.

ILHR 53.55 STAINLESS STEEL REQUIREMENTS. The design, fabrication and erection of light gage stainless steel framing members shall conform to AISI ~~§§//ILHR/§1/27/(4)§~~, "Stainless Steel Cold-Formed Structural Design Manual."

ILHR 53.56 STEEL CABLE REQUIREMENTS. The design, fabrication and erection of steel cables for buildings shall conform to AISI ~~§§//ILHR/§1/27/(4)§~~, "Manual for Structural Applications of Steel Cables for Buildings."

SECTION 151. ILHR 53.57 is repealed.

SECTION 152. ILHR 53.61 (1) (a) (intro.) and 1 b are amended to read:

ILHR 53.61 (1) (a) "National Design Specification for Wood Construction" ~~§§//ILHR/§1/27/(8)§~~ and its supplement.

1. b. Section 4.2.2. In addition to requiring grading in conformance with ASTM D 245 ~~§§//ILHR/§1/28/(43)§~~, lumber (including reused lumber) of species and grades not listed in the supplement to the NDS ~~§§//ILHR/§1/27/(8)§~~ shall be identified by the grade mark of, or certificate of inspection issued by, a lumber grading or inspection bureau or agency recognized as being competent.

SECTION 153. ILHR 53.61 (1) (a) 1 c is repealed and recreated to read:

ILHR 53.61 (1) (a) 1. c. Section 2.2.5.3. The cumulative effects of short-time loads, such as wind, shall be considered in determining duration of load. For wind load, no greater duration of load factor than 1.33 may be used.

SECTION 154. ILHR 53.61 (2) (a) and (b), (3), and (5) (a) are amended to read:

ILHR 53.61 (2) (a) AITC 117 ~~§§//ILHR/§1/27/(3)§~~, "Standard Specification for Structural Glued-Laminated Timber of Softwood Species."

(b) AITC 119 ~~§§//ILHR/§1/27/(3)§~~, "Standard Specifications for Hardwood Glued-Laminated Timber."

(3) ROUND POLES. Allowable unit stresses for nongraded round poles used as structural members other than piling shall be 80% of the allowable unit stresses for select structural grade beams and stringers (19% moisture content) of the appropriate species as listed in the supplement to the National Design Specification for Wood Construction [§§/ILHR/51/27/187]. No obviously unsound load-bearing poles are to be used. Higher allowable stresses will be permitted for round poles graded in accordance with a recognized standard.

Note: ASTM designation D 3200-73 "Standard Specification and Methods for Establishing Recommended Design Stresses for Round Timber Construction Poles" is acceptable for graded round poles. ANSI Standard 05.141972 may be used for poles subject to transverse loads only.

(5) PLYWOOD. (a) The quality and design of all plywood used in construction of all buildings and structures shall conform to the minimum standards under this section. All plywood when used structurally, including among others, use for siding, roof and wall sheathing, subflooring, diaphragms, and built-up members, shall conform to the performance standards for its type in U.S. Product Standard PS 1 [§§/ILHR/51/27/111]/for/softwood plywood/construction/and/industry. Each panel or member shall be identified for grade and glue type by the trademarks of an approved testing and grading agency. In addition, all plywood when permanently exposed in outdoor applications shall be of exterior type.

SECTION 155. ILHR 53.61 (6) is repealed.

SECTION 156. ILHR 53.61 (8) (intro.) and (9) (a) 1 and (b) 1 are amended to read:

ILHR 53.61 (8) TIMBER FASTENERS. The design and use of timber fasteners shall be in accordance with the requirements of National Design Specification for Wood Construction [§§/ILHR/51/27/187].

(9) (a) 1. The design of wood foundations and walls below grade shall be in accordance with the following adopted standard and subd. 2: "All-Weather Wood Foundation System, Basic Requirements," Technical Report No. 7 under §/ILHR/51/27/187.

(9) (b) 1. */Quality/Control/Program/for/Soft-Wood/Lumber,/Timber/and Plywood/Pressure/Treated/with/Water-Borne/Preservatives/for/Ground/Contact Use/In/Residential/and/Light/Commercial/Foundations/§/ILHR/51/27/187/AWPB FND.*

Note: See also s. ILHR 53.64 concerning wood foundations.

SECTION 157. ILHR 53.62 (1) (a) (intro.) is repealed and recreated to read:

ILHR 53.62 (1) (a) TPI-85.

SECTION 158. ILHR 53.62 (1) (a) 1 a and (c) are amended to read:

ILHR 53.62 (1) (a) 1. a. Section 3.2 Moment coefficients used in the design of top chord members shall be based on the assumption of no fixity at member ends or joints due to plate connectors. Moment and buckling factors as ~~shown~~ indicated in Table 11 of TPI-78 section 3.2 of TPI-85 are acceptable.

(c) Mechanically fastened trusses shall conform to section 8.4, "Timber Connector Joints," of National Design Specification [§//ILHR/51/27/87].

SECTION 159. ILHR 53.63 (1) (d) is amended to read:

ILHR 53.63 (1) (d) All wood fire stops as required in this section shall be lumber not less than 2 inches in nominal thickness, or 3/4 inch thick plywood with joints backed, and not less in width than the enclosed space within the partition except as provided for chimneys. Fire stops may also be of 1/2" gypsum board, fiberglass or other ~~approved~~ noncombustible materials, securely fastened in place.

SECTION 160. ILHR 53.63 (2) to (13) is renumbered 53.63 (3) to (14) and as renumbered is amended to read:

ILHR 53.63 (7) (b) Note: In areas subject to termite attack, refer to "Design of Wood Structures for Permanence" (published by the National Forest Products Association, 1619 Massachusetts Ave. NW, Washington, D.C. 20036) as suggested by National Design Specifications [§//ILHR/51/27/87], Appendix F, section B.2.

(8) TRUSS BRACING AND ANCHORAGE. All wood trusses shall be securely fastened to the supports and each truss shall be secured in position in accordance with National Design Specification [§//ILHR/51/27/87], Appendix A, section A.10.

(10) CROSS BRIDGING. Cross bridging shall be furnished in accordance with section 4.4.1 of NDS [§//ILHR/51/27/87]. When joists support floor or roof decks other than wood or wood decks which are not adequately attached, cross bridging shall be provided at 8-foot intervals.

SECTION 161. ILHR 53.63 (2) is created to read:

ILHR 53.63 (2) DRAFTSTOPPING. (a) Where a ceiling is suspended below solid wood floor joists, or either suspended or attached directly to the bottom of open web floor trusses, the space between the ceiling and the floor above shall be divided by draftstopping into areas, whichever is the least, as follows:

1. At rental tenant separation walls, if the walls do not extend above to the floor sheathing;
2. At living unit separation walls; if the walls do not extend above to the floor sheathing; or
3. Into areas not exceeding 1,000 square feet.

(b) Draftstopping as required in this subsection shall be at least 1/2 inch gypsum board, 3/8 inch plywood or other equivalent materials which are adequately supported.

SECTION 162. ILHR 53.64 is amended to read:

ILHR 53.64* WOOD FOUNDATIONS. Foundations for 2-story buildings of type 7 and 8 construction or 3-story buildings of type 7 construction may be constructed of treated wood when the design is based upon the soil bearing values contained in s. ILHR 53.21 and the structural design is in accordance with the standards listed in s. ILHR 53.61. All pressure-treated wood and plywood shall be treated and identified in accordance with adopted standards of the American Wood Preservers Bureau as specified in s. ILHR 51.27(6a).

Note: Section ILHR 51.02(A)(B) requires that exterior walls below the first floor structural system be counted as a story when constructed of materials other than masonry or concrete. Therefore, buildings utilizing wood foundations will be limited to 3 levels (2-story and basement, 2-story and ground floor, or 3-story with treated wood frost wall and no crawl space or basement).

SECTION 163. ILHR 54.001 Note 1 and Note 2 are created to read:

ILHR 54.001 Note 1: See Chapter ILHR 7 for other provisions relating to setbacks and construction for a magazine within which explosives are stored.

Note 2: The department of health and social services may require additional provisions for the federal certification of ambulatory surgical offices and clinics which receive federal funding.

SECTION 164. ILHR 54.01 (4) (a) 1 d is amended to read:

ILHR 54.01 (4) (a) 1. d. Type No. 5B and 6 construction -- 1-story 2 stories involving not more than 4 floor levels.

SECTION 165. ILHR 54.03 (1) (d) (intro.), 6 and 7 are amended to read:

ILHR 54.03 (1) (d) Exception. A rescue platform (exterior balcony) of combustible construction may be used as a required second exit for buildings of type 5, 6, 7 and 8 construction, provided the following conditions are satisfied:

6. Platforms having solid floors are provided with a roof equal in area to that of the platform; and

7. All wood used in the construction of the rescue platform shall be pressure treated wood satisfying the requirements of the applicable standards specified in s. ILHR ~~51.27(6a)~~ 53.63 (6) unless the wood is inherently resistant to decay; and

SECTION 166. ILHR 54.03 (1) (d) 8 is created to read:

ILHR 54.03 (1) (d) 8. The exit door to the platform is not less than 2 feet 6 inches in width.

SECTION 167. ILHR 54.06 is repealed and recreated to read:

ILHR 54.06 EXIT DOORS. (1) GENERAL. Every door which serves as an exit from a building, public passageway or stairway shall be a standard exit door as specified in s. ILHR 51.15, except:

(a) Exit doors serving 25 or fewer persons need not swing in the direction of egress;

(b) Exit access doors serving 25 or fewer persons may be reduced in width to 2 feet 8 inches and may be a sliding or accordion type of door;

(c) Rolling, sliding and overhead types of doors or gates may be used as standard exit doors for tenant spaces in malls provided:

1. The door or gate is equipped with exit hardware in accordance with s. ILHR 51.15 (3);

2. The door or gate is counterbalanced such that it can be opened by a force not exceeding 12 pounds, or, if the door or gate is electrically operated, the door is supplied by an emergency power source capable of opening the door or gate;

3. The door or gate is maintained in a fully opened position during the business hours of the tenant space;

4. A security device permitted by s. ILHR 51.15 (3) (e) 2 is not engaged when the tenant space is occupied; and

5. Manual, chain hoist operators for the doors or gates are not employed.

(2) ILLUMINATED EXIT SIGNS. Every exit door from each floor level, other than the principal entrance for the building, shall be marked with an exit sign as specified in s. ILHR 51.15 (5).

(3) SECURITY GATES. Exterior security gates shall be permitted to protect exterior exit doors in accordance with this subsection.

(a) A security gate may not be closed or locked when the building or portion of the building protected by the security gate is occupied.

(b) When the gate is locked in place the gate shall be visible from the exterior of the building.

(c) A security gate may not be locked over exit doors which serve more than one building occupancy or tenant space.

(d) The locking device for a security gate which requires the use of a key or a combination to open it shall be accessible from the exterior of the building.

(e) The building owner shall send to the local fire department and building inspection department a letter indicating that a security gate is to be installed and maintained in accordance with this section.

(f) The department or its authorized deputies shall have the authority to revoke the use of any security gate for any exterior exit door upon the violation of any one provision specified in pars. (a) to (e).

SECTION 168. ILHR 54.07 is repealed and recreated to read:

ILHR 54.07 EXIT ACCESS. (1) Where there is not direct access to an exit or exits from an area within a building, exit access corridors, passageways, or aisles shall be provided to lead to the exit or exits.

(2) (a) The width of a corridor, passageway or aisle which provides access to an exit shall be at least:

1. Three feet, if the corridor, passageway or aisle serves a space with an occupant load not greater than 25 persons; and

2. Three feet 8 inches, if the corridor, passageway or aisle serves a space with an occupant load greater than 25 persons.

(b) The width of a corridor, passageway or aisle which provides egress from an exit shall be at least as wide as the required width for the exit served, as determined under ss. ILHR 51.15 (6) and 51.16 (3).

(3) (a) The width of a corridor, passageway, or aisle which provides access to or egress from an exit shall be determined at the narrowest point produced by any projection or other similar object or obstruction.

(b) The required width of a corridor, passageway, or aisle which provides access to or egress from an exit as determined under this section shall be maintained clear and unobstructed at all times.

Note: See s. ILHR 52.04 (9) for corridor widths to accommodate the physically disabled.

SECTION 169. ILHR 54.08 (1) (b) 1 is repealed and recreated to read:

ILHR 54.08 (b) 1. The stairways or shafts connecting one floor level with another floor level immediately adjacent to it may be left unenclosed where the distance to an exit from the area served by the open stairway including the horizontal travel distance on the exit access stair, does not exceed 100 feet in buildings not completely protected by an approved automatic sprinkler system or 150 feet in buildings completely protected by an approved automatic sprinkler system; or

SECTION 170. ILHR 54.12 (2) (a) 1 c and d are amended to read:

ILHR 54.12 (2) (a) 1. c. ~~Restaurants~~ Taverns and restaurants accommodating 16 to 50 total occupants shall provide at least one water closet (WC) and one lavatory (L) for each sex.

d. Taverns and restaurants accommodating ~~50~~ 51 to 100 occupants in total shall provide at least 2 water closets (WC) and one lavatory (L) for the females and at least one water closet (WC), one urinal (U) and one lavatory (L) for the males.

SECTION 171. ILHR 54.12 (2) (a) 2 is repealed.

SECTION 172. ILHR 54.145 is repealed and recreated to read:

ILHR 54.145 OCCUPANCY SEPARATIONS. Occupancies within the scope of this chapter shall be separated from other occupancies or uses in accordance with s. ILHR 51.08.

SECTION 173. ILHR 54.15 is repealed and recreated to read:

ILHR 54.15 FIRE PROTECTION SYSTEMS. (1) SPRINKLER SYSTEMS. Automatic fire sprinkler systems shall be provided as outlined in ss. ILHR 52.01, 52.011, 52.012 and 52.013.

(2) STANDPIPE SYSTEMS. (a) Fire department standpipes. Fire department standpipes shall be provided in all buildings exceeding 60 feet in height.

(b) Dry 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.

(3) FIRE EXTINGUISHERS. Portable fire extinguishers shall be provided and maintained as specified in s. ILHR 51.22.

SECTION 174. ILHR 55.02 (2) is repealed and recreated to read:

ILHR 55.02 (2) UNLIMITED CAPACITY BUILDINGS. Buildings of type 3, 4, 5 or 6 construction may have unlimited capacities provided:

(a) The building does not exceed one story in height;

(b) The floor framing and its supports for any mezzanine is constructed of noncombustible materials with at least a one-hour fire resistive rating; and

(c) Any basement or ground floor is:

1. Separated from any upper floor level by noncombustible construction with at least a 4-hour fire resistive rating; and
2. Used only to accommodate mechanical equipment.

SECTION 175. ILHR 55.02 (2m) (a) is amended to read:

ILHR 55.02 (2m) (a) Located at least 20 feet from any other building or adjoining property line, except for those buildings as permitted under par. (c) 4.

SECTION 176. ILHR 55.02 (2m) (b) is amended to read:

ILHR 55.02 (2m) (b) Is not built in connection with a building used for any other purpose, unless the assembly hall is separated from the other building by a fire division wall as specified in s. ILHR 51.02 (13); and

SECTION 177. ILHR 55.02 (2m) (c) 2 is repealed and recreated to read:

ILHR 55.02 (2m) (c) 2. 'Exception'. A place of worship may have:

- a. A full basement or ground floor; and
- b. A balcony or mezzanine which has at least one side open to the floor below and which has a maximum occupancy of 30 persons.

SECTION 178. ILHR 55.03 (2) and (3) are repealed.

SECTION 179. ILHR 55.03 (1) is renumbered 55.03.

SECTION 180. ILHR 55.05 is repealed and recreated to read:

ILHR 55.05 SEPARATIONS FROM OTHER OCCUPANCIES. A theater or an assembly hall shall be separated from any other occupancy in accordance with s. ILHR 51.08.

SECTION 181. ILHR 55.10 is repealed and recreated to read:

ILHR 55.10 EXIT DOORS AND DOORWAYS. (1) Every required single exit doorway shall contain a standard exit door as specified in s. ILHR 51.15, except:

- (a) No single door or leaf of a double door may be more than 3 feet 6 inches wide,
- (b) No 2 doors may be hinged together; and

(c) Rolling, sliding and overhead types of doors or gates may be used as standard exit doors for tenant spaces in malls provided:

1. The door or gate is equipped with exit hardware in accordance with s. ILHR 51.15 (3);
2. The door or gate is counterbalanced such that it can be opened by a force not exceeding 12 pounds, or, if the door or gate is electrically operated, the door is supplied by an emergency power source capable of opening the door or gate;
3. The door or gate is maintained in a fully opened position during the business hours of the tenant space;
4. A security device permitted by s. ILHR 51.15 (3) (e) 2 is not engaged when the tenant space is occupied; and
5. Manual, chain hoist operators for the doors or gates are not employed.

(2) Sills at all exit doorways shall be level and flush with adjacent inside and outside floors and ramps. Where an aisle or passageway leads to an exit from either side of the exit doorway there shall be a level floor space at the doorway extending the width of the aisle and the doorway.

SECTION 182. ILHR 55.33 is repealed and recreated to read:

ILHR 55.33 FIRE PROTECTION SYSTEMS. (1) SPRINKLER SYSTEMS. Automatic fire sprinkler systems shall be provided as outlined in ss. ILHR 52.01, 52.011, 52.012 and 52.013.

(2) STANDPIPE SYSTEMS. (a) Fire department standpipes. Fire department standpipes shall be provided in all buildings exceeding 60 feet in height.

(b) Dry 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.

(3) FIRE EXTINGUISHERS. Portable fire extinguishers shall be provided and maintained as specified in s. ILHR 51.22.

SECTION 183. ILHR 56.001 is amended to read:

ILHR 56.001 Scope. The requirements of this chapter shall apply to all public and private schools, universities, colleges, academies, seminaries, libraries, museums and art galleries; including all buildings or parts of buildings used primarily for instructional purposes. This chapter does not apply to those types of art galleries where art work is intended for sale, dance studios or schools, nonacademic-music studios or schools,

nonacademic-art studios or schools, self-defense schools, or other similar nonacademic training occupancies; such occupancies shall be regulated by the provisions of ch. ILHR 54.

SECTION 184. ILHR 56.001 Note is repealed.

SECTION 185. ILHR 56.02 is repealed and recreated to read:

ILHR 56.02 CLASS OF CONSTRUCTION LIMITATIONS. (1) Buildings within the scope of this chapter may not exceed the number of stories and height limits as specified in Table 56.02-1 based upon the type of construction utilized.

Table 56.02-1

MAXIMUM NUMBER OF STORIES

Class of Construction	Sprinklered ^a		Nonsprinklered	
	Height (in feet)	Number of Stories	Height (in feet)	Number of Stories
Type 1	No limit	No limit	b 60	No limit
Type 2	95	9	b 60	8
Type 3	85	3	b 60	2
Type 4	85	3	b 60	2
Type 5A	60	3	50	2
Type 5B	50	3	40	2
Type 6	60	3	50	2
Type 7	50	2	40	1
Type 8	45	2	35	1

a - An automatic fire sprinkler system designed and installed in accordance with s. ILHR 51.23 is provided throughout the entire building.

b - Section ILHR 52.01 requires the installation of sprinklers for buildings more than 60 feet in height.

(2) Those portions of buildings used as auditoriums, gymnasiums, field houses or assembly halls shall conform with the construction limitations specified in s. ILHR 55.02.

SECTION 186. ILHR 56.03 (2) (b) is amended to read:

ILHR 56.03 (2) (b) ~~Such~~ Smoke detection systems shall be installed in accordance with NFPA No. 72~~41978~~/~~Standard on Automatic Fire Detectors~~ or NFPA No. 74~~1980~~/~~Household Fire Warning Equipment~~; but in no case shall smoke detectors be spaced more than 30 feet apart on center or more than 15 feet from any wall.

Note: See s. ILHR 51.01 for definitions of "automatic" and "basement."

SECTION 187. ILHR 56.06 (2) (b) and (c) are amended to read:

ILHR 56.06 (2) (b) Stairs. Stairs shall conform to the requirements of ~~ss. ILHR 51.16 to 51.166~~, except that the stairs shall have a uniform rise of not more than 7-1/2 inches, measured from tread to tread, and a uniform tread of not less than 10 inches, measured from nosing to nosing of tread. Handrails shall be provided on both sides. ~~All stairs serving basements shall be in accordance with the requirements of s. ILHR 51.02(11)~~. No closets or rooms may be placed under a stairway or landing.

(c) Interior enclosed stairs and smokeproof stair towers. Interior enclosed stairs and smokeproof stair towers shall ~~be constructed in accordance conform with the requirements of~~ ss. ILHR ~~51.17 and 51.18~~ 51.18 and 51.17, respectively.

SECTION 188. ILHR 56.10 is created to read:

ILHR 56.10 ENCLOSURE OF STAIRWAYS AND SHAFTS. All stairways and shafts shall be enclosed in accordance with s. ILHR 51.02 (11).

SECTION 189. ILHR 56.145 is created to read:

ILHR 56.145 OCCUPANCY SEPARATIONS. Occupancies within the scope of this chapter shall be separated from other occupancies or uses in accordance with s. ILHR 51.08.

SECTION 190. ILHR 56.18 is repealed.

SECTION 191. ILHR 56.20 is repealed and recreated to read:

ILHR 56.20 FIRE PROTECTION SYSTEMS. (1) SPRINKLER SYSTEMS. Automatic fire sprinkler systems shall be provided as outlined in ss. ILHR 52.01, 52.011, 52.012 and 52.013.

(2) STANDPIPE SYSTEMS. (a) Fire Department standpipes. Fire department standpipes shall be provided in all buildings exceeding 60 feet in height.

(b) Dry standpipes. Dry standpipes shall be provided in all buildings 3 stories or more in height, unless an approved automatic sprinkler system is installed.

(3) FIRE EXTINGUISHERS. Portable fire extinguishers shall be provided and maintained as specified in s. ILHR 51.22.

SECTION 192. ILHR 56.63 (2) (b) 3 is amended to read:

ILHR 56.63 (2) (b) 3. 'Enclosure of interior stairways.' All exit stairways shall be enclosed in accordance with s. ILHR 56.06 (2) (c) or separated from the classroom and corridor area with a stairway smoke-enclosure having a one-hour rating as specified in s. ILHR ~~56.63~~ 56.64.

SECTION 193. ILHR 57.01 (2) (a) 2 and (3) (a) are amended to read:

ILHR 57.01 (2) (a) 2. The membrane protection may be omitted on the ceiling of the top-most story if firestopping as specified in s. ILHR 53.63 (1) (d) is provided ~~at~~ at the intersection of the living unit separation walls and the roof.

Note 1: See s. ILHR 51.03 for building elements required to have fire-resistive ratings to satisfy class of construction standards.

Note 2: This section is intended to apply to living unit separations only. The design and construction of required fire-resistive rated construction for stairway enclosures, hazardous occupancy separations, exit corridors, isolation of hazards enclosures, vertical division walls, fire division walls and other rated construction is governed by ss. ILHR 51.043 to 51.046.

(3) (a) Except as provided in par. (b), the ceiling of all spaces, except those within individual living units and crawl spaces located below the first story of all residential buildings, shall be protected with at least the equivalent of one layer of 5/8-inch type X gypsum ~~wallboard~~ wallboard with taped joints.

SECTION 194. ILHR 57.01 (4) is repealed and recreated to read:

ILHR 57.01 (4) GARAGE SEPARATIONS. A residential occupancy shall be separated from a storage garage or repair garage in accordance with s. ILHR 51.08.

SECTION 195. ILHR 57.016 is repealed and recreated to read:

ILHR 57.016 AUTOMATIC FIRE SPRINKLER PROTECTION. (1) A building more than 60 feet in height shall be protected throughout the entire building in accordance with ss. ILHR 52.01 and 51.23, except that the sprinklers within the living units shall be either a residential type or quick response type.

(2) A building less than 60 feet in height which provides housing for the elderly shall be protected by either:

(a) An automatic fire sprinkler system conforming with NFPA 13R, provided the building does not exceed 4 stories in height; or

(b) An automatic fire sprinkler system conforming with NFPA 13, except that the sprinklers within the living units shall be either a residential type or quick response type.

Note: See s. ILHR 51.01 (71b) for the definition of "housing for the elderly".

SECTION 196. ILHR 57.02 (2) (a) 2 and 3 are repealed and recreated to read:

ILHR 57.02 (2) (a) 2. A building may not exceed the height and area limitations specified in Table 57.02-2 if the building is protected by an automatic fire sprinkler system conforming with NFPA 13R.

Note: NFPA standard 13R applies only to buildings 4 stories or less in height.

3. A building may not exceed the height and area limitations specified in Table 57.02-3 if the building is protected by an automatic fire sprinkler system conforming with NFPA 13, except that the sprinklers within the living units shall be either a residential type or quick response type.

SECTION 197. Table 57.02-1, column 2, heading is amended to read:

Table 57.02-1, column 2 heading
STREET
OR OPEN
SPACE AT
LEAST 30 FEET
IN WIDTH OR
STREET
WITHIN 50 FEET
OF THE
BUILDING

SECTION 198. Tables 57.02-2 and 57.02-3 are repealed and recreated to read:

TABLE 57.02-2 - ALLOWABLE HEIGHT (STORIES) AND AREA (SQURE FEET) FOR BUILDINGS PROTECTED IN ACCORDANCE WITH NFPA 13R (MAXIMUM GROSS FLOOR AREA PER FLOOR) NOTE: USE FOR ALL BUILDINGS

CLASS OF CONSTRUCTION	OPEN SPACE AT LEAST 30 FEET IN WIDTH OR STREET WITHIN 50 FEET OF THE	NUMBER OF STORIES									
		BUILDING	1	2	3	4	5	6	7	8	Over 8
1. Fire-resistive Type A	1	39,600	34,000	29,600	25,000	N.A.	N.A.	N.A.	N.A.	N.A.	
	2	47,800	41,600	37,000	31,800						
	3	56,000	50,600	44,600	38,600						
	4	64,200	59,600	52,000	45,200						
2. Fire-resistive type B	1	35,600	30,000	25,600	21,000	N.A.	N.A.	N.A.	N.A.	N.A.	
	2	43,800	37,600	33,000	27,800						
	3	52,000	46,600	40,600	34,600						
	4	60,200	55,600	48,000	41,200						
3. Metal frame protected	1	31,600	27,000	22,600	18,000	N.P.	N.P.	N.P.	N.P.	N.P.	
	2	39,800	34,600	29,200	24,000						
	3	48,000	42,000	36,000	30,000						
	4	56,200	49,600	42,800	36,000						
4. Heavy Timber	1	25,600	21,000	14,800	13,600	N.P.	N.P.	N.P.	N.P.	N.P.	
	2	33,000	28,600	24,000	20,200						
	3	40,600	36,000	21,400	17,600						
	4	48,000	43,600	39,000	33,800						
5A. Exterior Masonry Protected	1	23,200	19,200	14,400	12,000	N.P.	N.P.	N.P.	N.P.	N.P.	
	2	30,000	25,600	21,400	17,600						
	3	36,800	32,200	27,800	23,200						
	4	43,600	39,000	34,200	29,000						
5B. Exterior Masonry Unprotected	1	21,000	17,200	13,600	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	
	2	27,000	22,600	18,800							
	3	33,000	28,600	24,000							
	4	39,000	34,600	29,200							
6. Metal Frame Unprotected	1	21,000	17,200	13,600	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	
	2	27,000	22,600	18,800							
	3	33,000	28,600	24,000							
	4	39,000	34,600	29,200							
7. Wood Frame Protected	1	21,000	17,200	13,600	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	
	2	27,000	22,600	18,800							
	3	33,000	28,600	24,000							
	4	39,000	34,600	29,200							
8. Wood Frame Unprotected	1	15,000	7,600	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	N.P.	
	2	18,000	9,000								
	3	21,000	10,600								
	4	24,000	12,000								

N.P. means Not Permitted; N.A. means Not Applicable

SECTION 199. ILHR 57.02 (2) (c) 2 is renumbered 57.02 (2) (c) 2 a and is amended to read:

ILHR 57.02 (2) (c) 2. a. ~~Except as provided in Table 57.02-3,~~ Buildings with no area limitations as permitted under Table 57.02-3, shall have a continuous all-weather, hard surface 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 200. ILHR 57.02 (2) (c) 2 b is created to read:

ILHR 57.02 (2) (c) 2 b. 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.

SECTION 201. ILHR 57.02 (3) (a) 1 a and 2 is amended to read:

ILHR 57.02 (3) (a) 1. a. Be located within 150 feet of all portions of the exterior walls of the first story as measured along the perimeter of the building; or

(a) 2. For buildings more than 3 stories in height, the street or access roadway shall extend along at least one entire side of the building which constitutes at least 25 per cent of the total building perimeter with the road edge closest to the building at least 10 feet but not more than 50 feet from the building.

SECTION 202. ILHR 57.03 (1) (a) and (b) are repealed and recreated to read:

ILHR 57.03 (1) (a) Except as provided in par. (b), all living units shall have exits or exit accesses in accordance with one of the following:

1. The unit shall have at least one exit access door into a common area of the building arranged such that there are two directions of travel from the unit's exit access door leading to separate exits;

2. The unit shall be provided with two separate exits contained within the unit;

3. The unit shall be provided with two exit access doors into separate common areas, with each common area provided with at least one exit; or

4. The unit shall be provided with an exit access door into a common area with at least one exit, in addition to an exit contained within the unit.

(b) Units with habitable rooms on a floor of exit discharge may be provided with at least one exit, directly from the unit to the exterior, with the unit exit door sill at or within 3 feet of grade at the exit door.

SECTION 203. ILHR 57.03 (2) to (5) are renumbered (3), (2), (5) and (4), respectively.

SECTION 204. ILHR 57.03 (4), as renumbered, is amended to read:

ILHR 57.03 (4) EXITS FOR NONRESIDENTIAL PORTIONS OF BUILDINGS. Exits serving portions of buildings without sleeping rooms or living units (i.e., basements of apartment buildings, hotel lobbies, and similar areas) shall be ~~as specified in s. ILHR 54.02 to 54.07~~ provided in accordance with the appropriate occupancy chapter, chs. ILHR 54 to 62, which may govern.

SECTION 205. ILHR 57.03 (5), as renumbered, is repealed and recreated to read:

ILHR 57.03 (5) DIRECTIONS FOR ESCAPE. An exiting diagram shall be conspicuously posted in every habitable room to be used by transients, including but not limited to those habitable rooms of hotels, motels, rooming houses and dormitories. The exit diagram shall depict the location of the room with respect to other rooms and at least 2 exits.

SECTION 206. ILHR 57.04 (2) (c) is created to read:

ILHR 57.04 (2) (c) Nonsleeping rooms. In addition to the floor areas required under pars. (a) and (b), a community-based residential facility shall provide habitable floor space, other than sleeping rooms of not less than:

1. Sixty square feet in area for each ambulatory resident;
2. Ninety square feet in area for each semiambulatory resident; and
3. Ninety square feet in area for each nonambulatory resident.

SECTION 207. ILHR 57.05 (2) (b) (intro.) and 7 are amended to read:

ILHR 57.05 (2) (b) A rescue platform (~~exterior balcony~~) of combustible construction may be used as a required second exit for ~~3-story~~ buildings of type 5 through ~~type 7 construction of 2-story buildings of~~ type 8 construction, provided the following conditions are satisfied:

(b) 7. All wood used in the construction of the rescue platform shall be pressure treated wood satisfying the requirements of the applicable standards specified in s. ILHR ~~57.27(6a)~~ 53.63 (6) unless the wood is inherently resistant to decay; and

SECTION 208. ILHR 57.06 (1) is repealed and recreated to read:

ILHR 57.06 (1) EXIT DOORS. Exit doors shall be as specified in s. ILHR 51.15, except:

(a) Sliding glazed patio-type doors may serve as the second exit from individual living units, provided there is a means to prevent accumulation of snow and ice in the door track or freezing of the door; and

(b) A door which is used by not more than 25 persons is not required to swing in the direction of egress.

SECTION 209. ILHR 57.06 (2) is amended to read:

ILHR 57.06 (2) OPENINGS INTO CORRIDORS. All doors from living units opening into public exit access corridors shall be protected by at least 20-minute labeled fire-door assemblies. Such doors shall be self-closing.

SECTION 210. ILHR 57.06 (3) is created to read:

ILHR 57.06 (3) ACCESS DOORS. Exit access doors from individual living units shall be at least 3 feet 0 inches in width.

SECTION 211. ILHR 57.07 (3) (a) is repealed and recreated to read:

ILHR 57.07 (3) (a) Changes of elevation within the living unit shall be overcome by means of steps, stairs or ramps and shall be as specified in s. ILHR 21.04, except a spiral stairway as specified in s. ILHR 51.16 (7) may serve as the only exit from floor levels within an individual living unit, if the floor level served is no larger than 400 square feet in net area.

Note: See appendix for a reprint of s. ILHR 21.04.

SECTION 212. ILHR 57.08 (2) (a) 2 is repealed and recreated to read:

ILHR 57.08 (2) (a) 2. A building which is used as a rooming house, dormitory or congregate living facility and which has a maximum occupancy limit of 16 persons per floor.

SECTION 213. ILHR 57.13 is repealed and recreated to read:

ILHR 57.13 WINDOWS. (1) LIGHT. (a) Every habitable room shall be provided with natural light by means of glazed openings.

1. Glazed openings shall consist of windows or skylights or a combination of the two.

2. The amount of glazed openings shall equal at least 8% of the floor area of the room served.

3. Glazed openings serving habitable rooms shall view onto the outside, except the glazed openings may obtain borrowed light from naturally lighted pool or recreational areas to serve:

- a. Habitable rooms in motels and hotels, or
- b. Other similar sleeping rooms accommodating transients.

(2) VENTILATION. (a) Except as provided in par. (b), every habitable room shall be provided with natural ventilation by means of openable doors or windows. The openable amount of such doors and windows shall be at least 4% of the floor area of the room.

(b) Habitable rooms in motels and hotels and similar sleeping rooms in buildings accommodating transients shall not be required to be provided with openable doors and windows for ventilation purposes if the rooms are provided with mechanical ventilation supplying tempered outside air as specified in s. ILHR 64.06.

SECTION 214. ILHR 57.145 is created to read:

ILHR 57.145 OCCUPANCY SEPARATIONS. Occupancies within the scope of this chapter shall be separated from other occupancies or uses in accordance with s. ILHR 51.08.

SECTION 215. ILHR 57.15 is repealed and recreated to read:

ILHR 57.15 FIRE PROTECTION SYSTEMS. (1) SPRINKLER SYSTEMS. Automatic fire sprinkler systems shall be provided as outlined in ss. ILHR 52.01, 52.011, 52.012 and 52.013.

(2) STANDPIPE SYSTEMS. (a) Fire department standpipes. Fire department standpipes shall be provided in all buildings exceeding 60 feet in height.

(b) 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 216. Table 57.18 is repealed and recreated to read:

Basic Minimum Extinguisher Rating for Area Specified	Maximum Travel Distance to Extinguishers (feet)	Area to be Protected per Extinguisher (square feet)
2A	75	6,000
3A	75	9,000
4A	75	11,250
6A	75	11,250

SECTION 217. ILHR 58.02 is repealed and recreated to read:

ILHR 58.02 SEPARATION FROM OTHER OCCUPANCIES. A health care facility shall be separated from any other occupancy in accordance with s. ILHR 51.08.

SECTION 218. ILHR 58.61 is renumbered 58.61 (1).

SECTION 219. ILHR 58.61 (2) is created to read:

ILHR 58.61 (2) (a) Vertical open shafts serving tiered multilevel residential housing areas shall be enclosed in accordance with s. ILHR 51.02 (11), unless:

1. The entire normally occupied area, including all communicating floor levels, is sufficiently open and unobstructed so that it may be assumed that a fire or other dangerous condition in any part will be readily obvious to the occupants or supervisory personnel in the area;

2. Exit capacity is sufficient to provide simultaneously for all the occupants of all communicating levels and areas, with all communicating levels in the same fire area being considered as a single floor area for purposes of determination of required exit capacity; and

3. The height between the highest and lowest finished floor levels does not exceed 13 feet and the number of levels is not restricted.

SECTION 220. ILHR 58.63 is repealed and recreated to read:

ILHR 58.63 FIRE PROTECTION SYSTEMS. (1) SPRINKLER SYSTEMS. Automatic fire sprinkler systems shall be provided as outlined in ss. ILHR 52.01, 52.011, 52.012 and 52.013.

(2) STANDPIPE SYSTEMS. (a) First-aid standpipes. First-aid standpipes shall be provided as specified in s. ILHR 51.21 for all detention and correctional facilities 60 feet or less in height, unless an approved automatic sprinkler system is installed.

(b) Fire department standpipes. Fire department standpipes shall be provided in all detention and correctional facilities exceeding 60 feet in height and shall comply with s. ILHR 51.21.

SECTION 221. ILHR 58.635 is repealed.

SECTION 222. ILHR 59.10 (1) is amended to read:

ILHR 59.10 (1) ~~Except as provided in sub(12), the~~ The requirements of this subchapter apply to storage garages and repair garages.

SECTION 223. ILHR 59.10 (2) (d) is amended to read:

ILHR 59.10 (2) (d) ~~Storage~~ Attached storage garages 500 sq. ft. or less in area serving a residential occupancy as specified in ch. ILHR 57.

SECTION 224. ILHR 59.17 (1) is repealed and recreated to read:

ILHR 59.17 (1) TWO FLOOR LEVELS. (a) All stairways and vertical openings serving 2 floor levels shall be enclosed with smoke partitions, unless:

1. The stairway or opening serves an open storage mezzanine less than 3,000 square feet in area;

2. The opening is not a required means of egress and the opening is separated from any exit access corridor or exit stairway by at least smoke partitions as specified in par. (a); or

3. The two-connected floor levels:

a. Are provided with six air changes of ventilation;

b. Are provided with interconnected fire detectors in accordance with NFPA 72;

c. Do not have open flame equipment located in the lower level; and

d. Have only pneumatic power equipment available for use.

(b) Smoke partitions enclosing stairways or vertical openings shall be constructed of solid and rigid materials.

(c) Openings in smoke partitions shall be protected with doors equipped with automatic closing devices.

SECTION 225. ILHR 59.22 is repealed and recreated to read:

ILHR 59.22 OCCUPANCY SEPARATIONS. A storage garage or repair garage shall be separated from any other occupancy in accordance with s. ILHR 51.08.

SECTION 226. ILHR 59.23 (1) and (2) are renumbered 59.23 (2) and (3) and 59.23 (2)(a) (intro.), as renumbered, is amended to read:

ILHR 59.23 (2) (a) ~~Except as provided in part (c),~~ five Fire department standpipes shall be provided as follows:

SECTION 227. ILHR 59.23 (1) is created to read:

ILHR 59.23 FIRE PROTECTION SYSTEMS. (1) SPRINKLER SYSTEMS. Automatic fire sprinkler systems shall be provided as outlined in ss. ILHR 52.01, 52.011 52.012 and 52.013.

SECTION 228. ILHR 60.01 (1) is repealed and recreated to read:

ILHR 60.01 DEFINITIONS. (1) "Day care center" means a facility required to be licensed under s. 48.65, Stats.

SECTION 229. ILHR 60.10 is repealed and recreated to read:

ILHR 60.10 OCCUPANCY SEPARATIONS. A day care center shall be separated from any other occupancy in accordance with s. ILHR 51.08.

SECTION 230. ILHR 60.11 Note is repealed and recreated to read:

ILHR 60.11 Note: The minimum staff-to-child ratio under ch. HSS 55 is:

MAXIMUM GROUP SIZE AND MINIMUM NUMBER OF CHILD
CARE WORKERS IN GROUP DAY CARE CENTERS

Age of Children	Minimum Number of Child Care Workers to Children	Maximum Number of Children in a Group
Birth to 2 years	1:4	8
2 years to 2 1/2 years	1:6	12
2 1/2 years to 3 years	1:8	16
3 years to 4 years	1:10	20
4 years to 5 years	1:13	24
5 years to 6 years	1:17	32
6 years and over	1:18	32

SECTION 231. ILHR 60.35 is repealed and recreated to read:

ILHR 60.35 FIRE PROTECTION SYSTEMS. (1) SPRINKLER SYSTEMS. Automatic fire sprinkler systems shall be provided as outlined in s. ILHR 52.012.

(2) FIRE EXTINGUISHERS. Portable fire extinguishers suitable for Class B fires shall be provided in kitchens or cooking areas in accordance with s. ILHR 51.22. Portable fire extinguishers suitable for Class A fires shall be provided throughout the remainder of the day care center in accordance with s. ILHR 51.22 and Table 60.35.

Table 60.35

Basic Minimum Extinguisher Rating for Area Specified	Maximum Travel Distance to Extinguishers (feet)	Area to be Protected per Extinguisher (square feet)
2A	75	6,000
3A	75	9,000
4A	75	11,250
6A	75	11,250

Note: See Appendix A for further explanatory material.

SECTION 232. ILHR 60.37 is renumbered 60.37 (1) and amended to read:

~~ILHR 60.37 HAZARDOUS AREAS. (1) GENERAL. Hazardous~~ Except as provided in sub. (2), hazardous areas, including boiler or furnace rooms, fuel storage, maintenance shops, woodworking shops, painting areas, and laundries having gas- or oil-fired units with a maximum aggregate input of 37,000 Btu or more, shall be separated from other parts of the building by construction having not less than a one-hour fire-resistive rating. All openings shall be protected by 3/4-hour self-closing doors in buildings of 3 stories or less in height. Enclosures shall have a 2-hour fire-resistive rating with 1 1/2-hour "B" label doors in buildings more than 3 stories in height. ~~If the hazard is severe, automatic sprinklers shall be provided in addition to the fire-resistive enclosure when deemed necessary by the department.~~

SECTION 233. ILHR 60.37 (2) and (3) are created to read:

(2) EXCEPTION. As outlined in Table 64.21 direct vent sealed combustion chamber appliances may be used without a fire-resistive enclosure.

(3) COMBUSTIBLE AND FLAMMABLE LIQUIDS. Combustible and flammable liquids shall be isolated in accordance with ch. ILHR 10.

SECTION 234. ILHR 60.38 (2) is repealed and recreated to read:

ILHR 60.38 (2) EMERGENCY POWER SOURCE. (a) Standby emergency power shall be supplied to exit lights in accordance with ss. ILHR 16.42 and 16.43.

Note: Section ILHR 16.43 requires standby emergency power for a day care center multi-purpose room with 2,000 square feet or more of area.

(b) When standby emergency power is not required under s. ILHR 16.43, exit lights shall be supplied with sources of power in accordance with s. ILHR 16.42 (4) (a) 3.

Note: Section ILHR 16.42 (4) (a) 3 requires the power to exit lights to be supplied either in accordance with the National Electrical Code, section

700-12 or to be supplied from a separate switch or circuit breaker in a branch circuit panelboard with certain stipulations.

SECTION 235. ILHR 61.001 (4) is created to read:

ILHR 61.001 (4) SHELTERS FOR THE HOMELESS. The requirements of this chapter shall apply to shelter facilities serving 20 or less occupants.

SECTION 236. ILHR 61.01 (4) and (5) are repealed.

SECTION 237. ILHR 61.10 (2)(a) is repealed and recreated to read:

ILHR 61.10 (2)(a) A CBRF shall be separated from an attached storage garage or repair garage in accordance with s. ILHR 51.08.

SECTION 238. ILHR 61.215 is created to read:

ILHR 61.215 COMBUSTIBLE AND FLAMMABLE LIQUIDS. Combustible and flammable liquids shall be isolated in accordance with ch. ILHR 10.

SECTION 239. ILHR 61.24 (1) (e) 2 and 3 are repealed.

SECTION 240. ILHR 61.24 (1) (e) 4 to 6 is renumbered 2 to 4.

SECTION 241. ILHR 61.25 (3) (a) is amended to read:

ILHR 61.25 (3) (a) Every lavatory, bathroom, kitchen or kitchenette, dining room, laundry room, and furnace room shall contain at least one approved ceiling or wall-type electric light fixture equipped with sufficient lamps or tubes to provide no less than 5 footcandles at the floor level at the center of the room. ~~Where more than one fixture is used or required, they shall be equally spaced as far as practicable.~~ A switched outlet may be substituted for a ceiling or wall fixture in ~~lavatories, bathrooms and dining rooms.~~; and

SECTION 242. ILHR 62.23 is repealed and recreated to read:

ILHR 62.23 SEPARATED FROM OTHER OCCUPANCIES. An open parking structure shall be separated from any other occupancy in accordance with s. ILHR 51.08.

SECTION 243. ILHR 62.30 (1) (intro.) is amended to read:

ILHR 62.30 (1) FIRE DEPARTMENT STANDPIPES. ~~Except as provided in sub/~~ (2) ~~fire~~ Fire department standpipes shall be provided in all open parking structures 3 or more stories in height.

SECTION 244. ILHR 62.30 (1) (c) is amended to read:

ILHR 62.30 (1) (c) Fire department standpipes shall be provided in each stair enclosure and shall be provided with approved 2 1/2 inch valve hose connections at each ~~flow~~ floor level with one ~~valve~~ connection in the stair enclosure and one ~~valve~~ connection immediately outside the enclosure.

SECTION 245. ILHR 62.32 (4) is created to read:

ILHR 62.32 (4) COMBUSTIBLE AND FLAMMABLE LIQUIDS. Combustible and flammable liquids shall be isolated in accordance with ch. ILHR 10.

SECTION 246. ILHR 62.40 is amended to read:

ILHR 62.40 ANTENNA SYSTEM SUPPORT. Poles used for electric power or for communication lines ~~shall~~ may not be used for supporting or for guying any antenna system. ~~Where antenna installations are so located the damage will be caused to adjacent power or communication lines by the falling of the antenna structure, a separate safety wire shall be attached to the top of the tower and secured in a direction away from the power or communication lines.~~

SECTION 247. ILHR 62.46 (5) is created to read:

ILHR 62.46 (5) COMBUSTIBLE AND FLAMMABLE LIQUIDS. Combustible and flammable liquids shall be isolated in accordance with ch. ILHR 10.

SECTION 248. ILHR 62.81 (2) is created to read:

ILHR 62.81 (2) COMBUSTIBLE AND FLAMMABLE LIQUIDS. Combustible and flammable liquids shall be isolated in accordance with ch. ILHR 10.

SECTION 249. ILHR 62.965 is created to read:

ILHR 62.965 ISOLATION OF HAZARDS. (1) GENERAL. All fuel-fired heating boilers and furnaces, power boilers, breeching, fuel rooms, storage vaults for paints, oils, and similar combustibles and other similar hazards in a building shall be isolated from the rest of the building by at least a 2-hour fire-resistive enclosure, except that:

(a) In buildings which are not more than 2 stories in height and which have a floor area of not more than 3,000 square feet per floor, a 1-hour fire-resistive enclosure or better, may be provided;

(b) The rated enclosure for heating equipment in greenhouses may be omitted if the burner of the equipment is located at least 7 feet off the floor and the equipment is protected from physical damage;

(c) Direct vent sealed combustion chamber appliances need not be enclosed with fire-resistive rated construction; and

Note: See s. ILHR 64.21 for additional requirements.

(d) Boilers up to 200,000 Btu input, water heaters up to 200,000 Btu input, and gas- and liquid fuel-fired heating equipment may be used without an enclosure, provided:

1. The units are located at least 7 feet above the floor; and
2. The blow-off pipe for suspended boilers and water heaters is extended down to within 6 inches of the floor.

(2) PROTECTION OF OPENINGS. All openings shall be protected with self-closing fire-resistive doors as specified in s. ILHR 51.047.

Note: See ch. ILHR 10 for isolation of flammable and combustible liquids.

SECTION 250. ILHR 62.98 (5) is repealed and recreated to read:

ILHR 62.98 (5) LOT LINES. Pedestrian access structures which are constructed over lot lines and connecting buildings with different owners shall conform with subs. (3) and (4).

SECTION 251. Note is created to read:

Note: Section 101.08, Stats., and the National Appliance Energy Conservation Amendments of 1988, P.L. 100-357, establish energy efficiency standards for fluorescent lamp ballasts. For a list of ballasts certified as conforming to s. 101.08, Stats., contact the office of division codes and application at 608/266-1542.

[Note to Revisor: This note is to be inserted before s. ILHR 63.41.]

SECTION 252. ILHR 64.03 (1) is amended to read:

ILHR 64.03 (1) BUILDING HEAT LOSS. The total building heat loss shall be equal to the sum of the building transmission losses and infiltration losses or the building transmission losses and ventilation losses, whichever sum is greater.

SECTION 253. ILHR 64.05 Table 1 is amended to read:

ILHR 64.05 TABLE 1
(Partial)

Use or Occupancy	Minimum Inside Temp. (Deg. F)	Ventilation Requirements			Applicable Occupancy Code Section (ILHR No.)	
		Ventilation Classifica- tion ²	Basis of Capacity			
			Determination of No. of Persons ³ Net sq. ft. Per person	Percent of Openings ⁴		CFM/net sq. ft. Floor Area
<u>Schools and other places of instruction</u>						
Toilet rooms	65	(d)	--	--	2 or 60/TF 50/TF	64.65
<u>General sanitation and service areas</u>						
Toilet rooms	65	(d)	--	--	2 or 60/TF 50/TF	64.65
Toilet rooms (w/outdoor stadium)	50	(d)	--	--	2 or 60/TF 50/TF	64.65

SECTION 254. ILHR 64.09 (7) (Title) is amended to read:

ILHR 64.09 (7) (Title) AIR HANDLING EQUIPMENT LOCATED IN A BOILER OR FURNACE ROOM.

SECTION 255. ILHR 64.09 (2) (b) is repealed and recreated to read:

ILHR 64.09 (2) (b) A motorized damper shall be permitted in combustion air intake if a means is provided to ensure that the damper is open when the burner is in operation.

SECTION 256. ILHR 64.20 (3) Note is amended to read:

ILHR 64.20 (3) Note: The department accepts heating equipment listed by the American Gas Association (AGA), Underwriters Laboratories (UL), ETL Testing Laboratories, Warnock Hersey International, Inc., Northwest Testing Laboratories, Inc., and PFS corporation.

SECTION 257. ILHR 64.21 (1) and (2) is created to read:

ILHR 64.21 (1) CENTRAL FURNACES. For the purpose of this section, a central furnace shall be considered as a direct vent sealed combustion chamber appliance, if the furnace conforms to ANSI Z21.64 and has been issued a material approval under s. ILHR 50.19.

(2) BOILERS AND WATER HEATERS. For the purpose of this section, a low pressure boiler or a water heater shall be considered as a direct vent sealed combustion chamber appliance, if:

(a) The boiler or water heater conforms to those parts of ANSI Z21.13, Z21.10.1, or Z21.10.3, whichever is applicable, relating to direct vent sealed combustion chamber appliances; and

(b) All parts of the direct vent system for the boiler or water heater conform to s. 1.1.7 of ANSI Z21.64.

Note: See appendix for further explanatory material.

SECTION 258. Table 64.21, Footnote 15 is amended to read.

Table 64.21 Footnote 15. Waste oil burners are permitted provided they are installed on ~~mezzanines or~~ service platforms located at least 8'- 0" above the main floor and are visible from the main floor and are guarded as specified in this section or suspended, if recognized under the units' listings, at least 8'- 0" above the main floor and are visible from the main floor.

SECTION 259. ILHR 64.22 (3) is amended to read:

ILHR 64.22 (3) (title) SUSPENDED EQUIPMENT. Equipment suspended ~~or guarded~~ as specified in s. ILHR 64.21 shall be installed in an occupied space. Suspended ~~or guarded~~ equipment may be used in multiple tenant buildings providing the equipment is located in tenant spaces of an occupancy use where suspended ~~or guarded~~ equipment is permitted. The equipment shall be visible to persons within the room.

SECTION 260. ILHR 64.22 (4) (c) is repealed and recreated to read:

ILHR 64.22 (4) (c) The amount of air supplied which exceeds the building's designed infiltration rate shall be relieved through relief openings or interlocked power exhaust. Relief openings may be louvers, gravity siphon-type roof ventilators, counterbalanced gravity dampers or motorized dampers provided the motorized damper is interlocked with the supply fan so as not to permit blower operation until the damper is proved in the open position.

SECTION 261. ILHR 64.22 (4) (e) is amended to read:

ILHR 64.22 (4) (e) Direct fired unvented natural gas heaters shall comply with ~~the provisions of American National Standards Institute (ANSI) standard Z83.4-1980, Direct Gas-Fired Make-Up Air Heaters~~ ANSI Z83.4 or Z83.18.

SECTION 262. ILHR 64.23 (5) (a) 1 and 2 are amended to read:

ILHR 64.23 (5) (a) 1. National Fuel Gas Code , NFPA No. 54 ~~[[ILHR/51/27/(7d)]]~~; or

2. Installation of Oil-Burning Equipment, NFPA No. 31 ~~[[ILHR/51/27/(7d)]]~~.

SECTION 263. ILHR 64.23 (5) (b) is repealed and recreated to read:

ILHR 64.23 (5) (b) Oil tank installation. Oil tanks serving oil-burning equipment shall be installed in accordance with ch. ILHR 10.

SECTION 264. ILHR 64.38 (3) is amended to read:

ILHR 64.38 (3) PLENUMS. Gravity ventilation ducts, used with mechanical ventilation supply systems, shall not terminate in an attic plenum unless the plenum is airtight, of ~~noncombustible~~ noncombustible construction, and the attic floor is smooth. All collecting plenums shall be connected to an approved siphon-type roof ventilator or to an exhaust fan discharging outside the building.

SECTION 265. ILHR 64.41 (5) is amended to read:

ILHR 64.41 (5) HAZARDOUS PIPING. The installation of hazardous piping as defined in s. ILHR 51.01 (102) is prohibited in the plenum space, except as permitted under NFPA 54.

SECTION 266. ILHR 64.41 (8) (a) is amended to read:

ILHR 64.41 (8) (a) Exception. Plastic plumbing pipe and fittings may be used provided the plastic material is of the self-extinguishing type with an average extent of burn not greater than 10 mm and an average time of burn not greater than 20 seconds when tested according to ASTM D-635. The plastic material shall be wrapped with at least one inch of ~~inorganic~~ noncombustible insulation or enclosed with 1/2 inch type X gypsum wallboard.

SECTION 267. ILHR 64.44 (2) is repealed.

SECTION 268. ILHR 64.44 (1) is renumbered 64.44.

SECTION 269. ILHR 64.45 (1) is amended to read:

ILHR 64.45 CHIMNEYS, SMOKE STACKS, GAS VENTS, MECHANICAL DRAFT AND VENTING DEVICES. (1) GENERAL REQUIREMENTS. Heating equipment using solid, liquid or gas fuels shall be vented to the outside, except as permitted in s. ILHR 64.21. A natural draft chimney or other venting device shall have the height and area to remove the products of combustion. Chimneys, smoke stacks, gas vents, mechanical draft and venting devices shall comply with the requirements of NFPA No. 211 [~~ILHR 51.27(7a)]/Chimneys, Fireplaces and Vents.~~

SECTION 270. ILHR 64.47 (2) is amended to read:

ILHR 64.47 (2) SMOKESTACKS LESS THAN 30 FEET. Smokestacks less than 30 feet high may be constructed of not less than No. 10 U.S. gauge steel, with either welded or riveted joints, and may be mounted directly upon masonry chimneys or foundations or upon industrial heating or power boilers provided all of which are designed to support the stack load. A clearance of not less than 6 inches shall be maintained at all times around such ~~smokestack~~ smokestacks and any combustible material within 12 inches of such ~~smokestack~~ smokestacks shall be protected by 1/4 inch of asbestos noncombustible insulation covered by sheet metal.

SECTION 271. ILHR 64.48 (2) (a) Note is created to read:

ILHR 64.48 (2) (a) Note: Residential type and building heating appliance chimneys were formerly referred to as Class A chimneys.

SECTION 272. ILHR 64.50 (1) (d) (intro.) and 1 to 4 are renumbered to be 64.50 (1) (d) 1 and a to d.

SECTION 273. ILHR 64.50 (1) (d) 2 is created to read:

ILHR 64.50 (1) (d) 2. Gas utilization appliances and appliances burning liquid fuel may be connected to one chimney flue in accordance with NFPA 211.

SECTION 274. ILHR 64.53 is amended to read:

ILHR 64.53 FINAL TEST REQUIRED. The designer, installer or recognized balancing agency shall be responsible for the testing and balancing of every heating, ventilating and air conditioning system. The person or agency responsible for balancing of the ventilating system shall document in writing the amount of outdoor air being provided and distributed for the building occupants and any other speciality ventilation. The document shall be retained at the site and shall be made available to the department upon request.

SECTION 275. ILHR 64.54 (1) is amended to read:

ILHR 64.54 FACTORIES, OFFICE AND MERCANTILE BUILDINGS. (1) SCOPE. ~~THIS CLASSIFICATION SHALL INCLUDE~~ This section applies to all places of employment, mercantile buildings, retail establishments where goods and commodities are bought and sold, and places where not more than 100 persons assemble for worship, recreation, entertainment or dining purposes.

Note: For mall corridors of enclosed mall shopping centers, see s. ILHR 64.05, Table 1.

SECTION 276. ILHR 64.55 (1) and (3) are amended to read:

ILHR 64.55 THEATERS AND PLACES OF ASSEMBLY. (1) SCOPE. ~~THIS CLASSIFICATION SHALL INCLUDE~~ This section applies to all auditoriums, arenas, armories, assembly halls, banquet halls, billiard rooms, bowling alleys, cafeterias, club rooms, dance halls, dining rooms, gymnasiums, lecture halls, lodge halls, playrooms, restaurants, school auditoriums, Sunday schools and places of worship, funeral home chapels, parochial schools, convents, indoor skating rinks, and theaters which accommodate more than 100 persons for entertainment, recreation, worship, or dining purposes.

Note: For areas that will accommodate less than 100 persons, see s. ILHR 64.54.

(3) ALTERNATE SERVICE AND CAPACITY. Heating and ventilating systems installed in places of worship, Sunday schools, ~~socalled/community buildings~~ and lodge halls may be arranged for selective delivery of the entire service to either the first floor area or to the basement floor area provided these areas are not used simultaneously.

SECTION 277. ILHR 64.55 (4) Note is created to read:

ILHR 64.55 (4) Note: See ss. ILHR 55.21 through 55.23 concerning proscenium walls and curtains.

SECTION 278. ILHR 64.56 (1) is amended to read:

ILHR 64.56 SCHOOLS AND OTHER PLACES OF INSTRUCTION. (1) SCOPE.
THIS CLASSIFICATION SHALL INCLUDE This section applies to all public and private schools, colleges, universities, academies, seminaries, libraries, museums, art galleries, all places used for vocational instruction and research such as laboratories, shops, science rooms, and all parts of buildings used for instructional purposes.

SECTION 279. ILHR 64.57 (2) and (3) are amended to read:

ILHR 64.57 (2) GENERAL. (a) The heating, ventilating and air conditioning systems of all occupancies within the scope of this section shall be designed, operated and maintained as specified in sections 2, 7.29 A to D, 8.12 A to C, 9.2 L, 9.4 I, 9.5 M, and 9.6 J, depending upon the occupancy, of THE GUIDELINES FOR CONSTRUCTION AND EQUIPMENT FOR HOSPITALS AND MEDICAL FACILITIES, DSSS PUBLICATION NO. (NRS-M-NF)/84-1 AIA standard R673.
Guidelines for Construction and Equipment of Hospital and Medical Facilities.

(b) The heating, ventilating and air conditioning systems shall also be designed, operated and maintained as specified in the applicable sections of the following standards as referenced in DSSS PUBLICATION NO. (NRS-M-NF)/84-1 AIA standard R673:

1. INSTALLATION OF AIR CONDITIONING AND VENTILATING SYSTEMS, NFPA No. 90A;
2. ASHRAE Handbook of Fundamentals; and
3. METHODS OF TESTING AIR CLEANING DEVICES USED IN GENERAL VENTILATION FOR REMOVING PARTICULATE MATTER, ASHRAE standard No. 52.

(3) APPLICATION OF RULES. Where other sections provisions of ch. ILHR 64 specify different requirements than those contained in this section, the requirements specified in this section shall govern.

SECTION 280. ILHR 64.58 (1) is amended to read:

ILHR 64.58 PENAL INSTITUTIONS AND PLACES OF DETENTION. (1) SCOPE.
THIS CLASSIFICATION SHALL INCLUDE This section applies to all corridors and areas of compulsory occupancy in penal institutions, mental hospitals and other places of detention.

SECTION 281. ILHR 64.59 (1) is amended to read:

ILHR 64.59 RESIDENTIAL OCCUPANCIES. (1) SCOPE. THIS CLASSIFICATION SHALL INCLUDE This section applies to all apartments, row houses, rooming houses, hotels, motels, dormitories, and all other places of abode.

Note: See s. ILHR 51.01 (102a) for definition of "place of abode".

SECTION 282. ILHR 64.59 (2) (a) is amended to read:

ILHR 64.59 (2) (a) Exception. For ~~motel and motel/sleeping~~ habitable rooms without openable outside windows and facing naturally lighted pool or recreation areas, see ~~ss. s. ILHR 52.02(1)(b) and~~ 57.13 (2).

SECTION 283. ILHR 64.60 (1) is amended to read:

ILHR 64.60 DAY CARE FACILITIES. (1) SCOPE. ~~THIS CLASSIFICATION SHALL INCLUDE~~ This section applies to all public and private day care centers accommodating more than 4 children, including all buildings or parts of buildings used as child day care facilities.

SECTION 284. ILHR 64.61 (1) is amended to read:

ILHR 64.61 REPAIR AREAS. (1) SCOPE. ~~THIS CLASSIFICATION INCLUDES~~ This section applies to all areas where motor-driven vehicles are repaired involving the fuel system components or requiring the operation of the internal combustion engine.

SECTION 285. ILHR 64.63 (1) is amended to read:

ILHR 64.63 GARAGES. (1) SCOPE. ~~THIS CLASSIFICATION INCLUDES~~ This section applies to all buildings, or parts of buildings, where motor-driven vehicles are stored.

SECTION 286. ILHR 64.63 (2) is repealed and recreated to read:

ILHR 64.63 (2) VENTILATION. (a) Except as permitted in par. (b), the air movement, supply and distribution for garages shall be provided in accordance with s. ILHR 64.05, Table 1. Exhaust air shall be drawn not more than 18 inches above the floor.

(b) The air movement, supply and distribution for a storage garage accommodating 6 or more vehicles may be provided by permanent open-wall areas, if:

1. The open-wall areas equal at least 30% of the total wall area enclosing the garage;

2. The open-wall areas are distributed to permit air circulation throughout the garage; and

3. The entire floor of the garage is located at or above grade.

(c) An intermittent mechanical exhaust ventilation system may be employed if the system is activated by a continuous monitoring/detector system

which can maintain carbon monoxide levels below 50 ppm and combustible fumes below 0.5% by volume.

SECTION 287. ILHR 64.64 (1) is amended to read:

ILHR 64.64 VEHICLE SHOWROOMS. (1) SCOPE. THIS CLASSIFICATION INCLUDES This section applies to all vehicle showrooms with offices and occupancies unless designed as part of the vehicle garage adjacent to repair or vehicle storage areas where all vehicles displayed in the showroom are without batteries and fuel tanks are empty and free of fumes.

Note: A live storage area is any area used for storage of fire trucks, tractors, automobiles, trucks, and similar self-propelled vehicles which are driven in and out of the storage area under their own power; it does not include areas where vehicles and equipment are stored for seasonal periods, or areas where vehicles are displayed without batteries and where the gasoline tanks of the vehicles are empty and free of fumes.

SECTION 288. ILHR 64.65 (1) and (3) (a) are amended to read:

ILHR 64.65 GENERAL SANITATION AND SERVICE AREAS. (1) SCOPE. THIS CLASSIFICATION SHALL INCLUDE This section applies to toilet rooms, locker rooms, shower rooms and janitor closets.

Note #1: A janitor closet is a service closet with one or more plumbing fixtures.

Note #2: For exhaust ventilation requirements in hospital service areas, see s. ILHR 64.57.

Note #3: For exhaust ventilation requirements in places of employment, see s. ILHR 64.54.

Note #4: The use of wall registers within 4 inches of the floor, baseboard registers and floor registers is prohibited in these areas. (See s. ILHR 52.57 Note.)

(3) (a) Exhaust ventilation. Exhaust ventilation shall be provided for all areas of this class unless otherwise exempted. The volume of air exhausted shall be provided at a rate of not less than 2 cubic feet per minute per square foot of floor area, or ~~60~~ 50 cubic feet per minute per fixture (water closets and urinals). Mechanical exhaust ventilation shall be installed in toilet rooms having more than one fixture (water closets and urinals). The effectiveness of the exhaust shall be greater than the supply.

SECTION 289. ILHR 64.67 (1) is amended to read:

ILHR 64.67 KITCHENS. (1) SCOPE. THIS CLASSIFICATION INCLUDES This section applies to all areas where food is prepared, except in domestic science educational facilities from grades kindergarten through 12, and single family unit apartments in hotels, motels and apartment buildings.

SECTION 290. ILHR 64.67 (2) (b) is repealed and recreated to read:

ILHR 64.67 (2) (b) Kitchen exhaust hoods. Cooking equipment which produces grease laden vapors, including but not limited to fryers, grills, griddles and broilers, shall be provided with a kitchen exhaust hood, except an exhaust hood does not have to be provided for a single piece of equipment if:

1. The piece of equipment has a frying/cooking surface area of 4 square feet or less; and

2. The piece of equipment is the only piece of grease-producing equipment for the entire food preparation operation..

SECTION 291. ILHR 64.67 (4) (b) 1 to 4 are amended to read:

ILHR 64.67 (4) (b) 1. 'Canopy hood.' Hood open on all 4 sides:
 $Q = \del{150} 125 \text{ cfm } A$ (area).

2. 'Wall hood.' Hood open on 3 sides or less:
 $Q = \del{100} 80 \text{ cfm } A$ (area).

3. 'Slotted-type hood.' $V = 350$ feet per minute through the slot opening. The slot shall be at least 3 inches in width and shall extend around the open sides of the hood; and

4. 'Noncanopy hood.' The minimum volume of exhaust air for noncanopy type hoods, (prefabricated backshelf), ~~shall~~ may be not less than
 $Q = \del{300} 200 \text{ cfm } L$ (length).

Note: Q equals the exhaust air in cubic feet per minute; A equals the area of the hood over the grease-producing equipment in square feet; V equals the velocity in feet per minute; and L equals the total length in feet of the cooking appliance being ventilated, and measured parallel to the front edge of the appliance.

SECTION 292. ILHR 64.67 (6) (c) is repealed and recreated to read:

ILHR 64.67 (6) (c) A manual station for actuation of the suppression system shall be located at or near one of the means of egress from the area but not nearer than 10 feet to the range hood and shall be securely mounted not less than 4-1/2 feet nor more than 5 feet above the floor, unless otherwise specifically approved by the chief of the fire department having jurisdiction;

SECTION 293. ILHR 64.67 (6) (e) (Note) is created to read:

ILHR 64.67 (6) (e) Note: Effective date for s. ILHR 64.67 (6) requiring automatic fire suppression systems for exhaust hoods was July 1, 1983.

SECTION 294. A-50.21 is repealed and recreated to read:

A-50.21 CERTIFIED MUNICIPALITIES. The following municipalities have been certified by the department to review plans and conduct inspections under s. ILHR 50.21. These lists are current as of the date of printing this code. Additions and deletions may occur during the effective period of this code. For information regarding the current status of a municipality, call 608-267-7586.

FIRST CLASS CITIES

Milwaukee

COUNTIES

Eau Claire

CITIES

Antigo	Fond du Lac	Lake Geneva	New Richmond	Superior
Appleton	Fort Atkinson	Madison	Oak Creek	Two Rivers
Beloit	Glendale	Manitowoc	Oconomowoc	Waukesha
Brookfield	Green Bay	Marshfield	Oshkosh	Waupun
Burlington	Greenfield	Mequon	Racine	Wausau
Cudahy	Janesville	Middleton	Rhineland	Wauwatosa
Delafield	Kaukauna	Muskego	Sheboygan	West Allis
Eau Claire	Kenosha	Neenah	Stevens Point	West Bend
	La Crosse	New Berlin	Sun Prairie	Wis. Rapids

VILLAGES

Clinton	Grafton	Hortonville	Plover	Sussex
Dousman	Hartland	Johnson Creek	Shiocton	Walworth
Elm Grove				Waterford

TOWNS

Bloomfield (Walworth)	Grand Chute (Outagamie)	LaGrange (Walworth)	Waterford (Racine)
Delavan (Walworth)	Grand Rapids (Wood)	Norway (Racine)	Waukesha (Waukesha)
Geneva (Walworth)	Hull (Portage)	Plover (Portage)	

SECTION 295. A-51.044 is created to read:

A-51.044 APPROVED TESTING LABORATORIES. The following laboratories have been approved by the department under s. ILHR 50.19. This list is current as of the date of printing this code. Additions and deletions may occur during the effective period of this code. For information regarding the current status of a testing laboratory, call 608-266-1542.

TABLE A-51.044
APPROVED TESTING LABORATORIES

Name of Recognized Laboratory	ASTM STANDARD TEST						
	E-84	E-108	E-119	E-136	E-152	E-163	E-648
1. Applied Research Laboratories, Inc., Miami, FL	X	X	X	X	X	X	X
2. Commercial Testing Co., Inc., Dalton, GA	X	--	X	X	X	--	X
3. Construction Technologies, Laboratories, Skokie, IL	--	--	X	--	--	--	--
4. Factory Mutual Research Corp., Norwood, MA	X	X	X	X	X	X	X
5. Forest Prod. Lab., Madison, WI*	--	--	X	--	X	--	X
6. Hardwood Plywood Mfgs. Assoc., Reston, VA	X	--	--	--	--	--	X
7. Northwest Testing Lab., Inc., Portland, OR	--	--	X	--	X	X	--
8. Omega Point Laboratories, Inc., San Antonio, TX	X	X	X	X	X	X	X
9. PFS Corporation, Madison, WI	X	--	X	--	X	--	--
10. Southwest Research Inst., San Antonio, TX	X	X	X	X	X	X	X
11. Underwriters Lab., Inc., Northbrook, IL	X	X	X	X	X	X	X
12. Univ. of Calif.--Berkeley, Richmond, CA	--	X	X	--	--	--	--
13. U.S. Testing Co., Fairfield, NJ	X	X	--	X	--	--	X
14. U.S. Testing Co., Los Angeles, CA	X	--	--	X	--	--	X
15. VTEC, Inc., Bronx, NY	X	X	X	X	--	--	X
16. Warnock Hersey Intl-Inc., Pittsburg, CA	X	X	X	--	X	X	--

* Reference based on research and development data. Facility is not available for conducting routine rating tests.

[Note to Revisor: Please delete Form SBD 7299 - Fee Schedule as it appears on page 400 of Appendix A of the 1986/1987 Edition of the Code.]

SECTION 296. A-53.64 and illustrations are repealed.

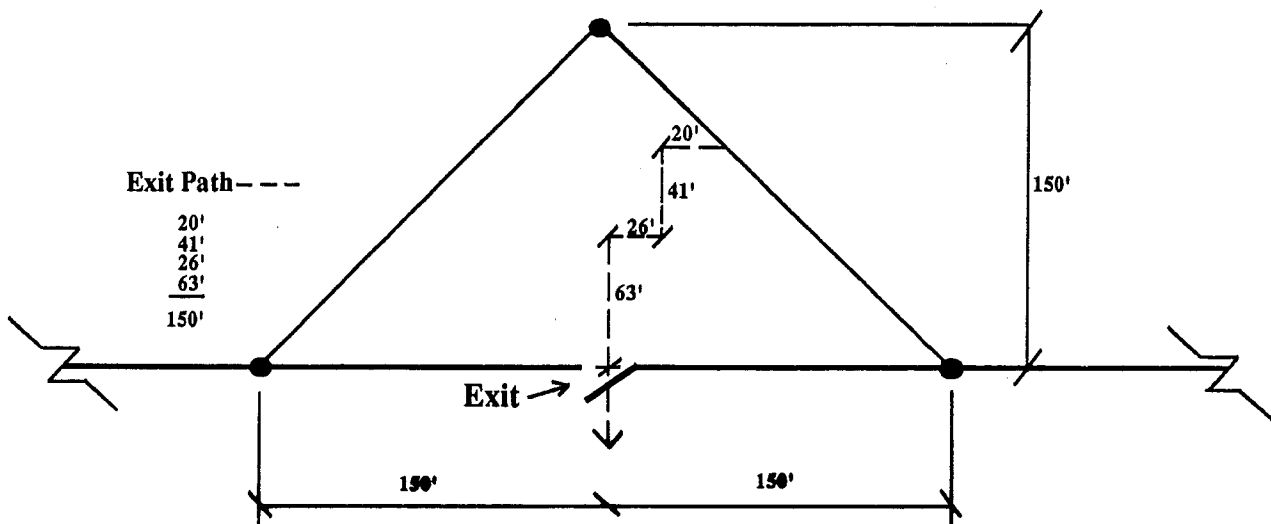
SECTION 297. A-54.02 (4) is repealed and recreated to read:

A-54.02 (4). EXIT DISTANCE. The following illustrations and text are provided to explain the procedure and intent of using the triangulation method of exit distance determination.

Exit travel must terminate at one of the following types of exits:

1. Standard exit to grade (ILHR 51.15)
2. Enclosed stairways (ILHR 51.17 and 51.18)
3. Horizontal exits (ILHR 51.19)
4. Fire escapes (ILHR 51.20)

Therefore, exit distance must be measured from one of these exit types. All exits must lead to a street, alley or open court which is connected to a street or alley.



Procedure:

1. Beginning at designated exit type, measure required exit distance (150 feet, for example) at right angles to and parallel with (on both sides) the exit.
2. Connect end points to form the "exit triangle".
3. All areas within the triangle are within the required exit distance when traveling toward or at right angles to the exit.
4. All the interior space of a building must fall within the "exit triangles" formed by using the required exits for the building.
5. When measuring exit distance in stairways, only the horizontal travel distance is included in the determination.

SECTION 298. A-54.02 (4) (c) is created to read:

A-54.02 (4) (c) The use of the term "high hazard" as referred to in this section is intended to apply to the following list of operations and occupancies:

1. Aircraft hangars.
2. Dry cleaning establishments: using gasoline or other volatile flammable liquids.
3. Enameling or japaning.
4. Mills: sugar, starch cereal, feed, flour and grist mills.
5. Paint and varnish: manufacturing, storing, handling, spraying, and other related operations.
6. Proxylin products: manufacture and storage.
7. Repair garages.
8. Smoke houses.
9. Storage of: explosive gases under pressure (15 psi and over 2500 cubic feet) such as acetylene, hydrogen, natural gas, etc.
10. Storage of: materials with a flash point under 200° F. such as celluloid products, kerosene, oils, etc.
11. Woodworking establishments.

SECTION 299. ILHR 84.20 (5) (m) 2 to 5 is repealed.

SECTION 300. ILHR 84.20 (5) (m) 2 and 3 are created to read:

ILHR 84.20 (5) (m) 2. Except as permitted in subd. 3, all water closets required to be provided in public buildings and places of employment shall be of an elongated bowl type, and provided with either:

- a. Hinged, open-front seats without covers; or
- b. Hinged, closed-front seats, without covers, which are encased with a continuous plastic sleeve capable of providing a clean surface for every user and for which a specific material approval under s. ILHR 50.19 has been issued.

3. Water closets which are required to be provided in day care centers or individual living units or sleeping units of residential occupancies within the scope of either ch. ILHR 57 or 61 may be of a round-bowl type with a hinged, closed front seat with or without a cover.

SECTION 301. ILHR 84.20 (5) (m) 7 and 8 are renumbered 84.20 (5) (m) 4 and 5.

EFFECTIVE DATE

Pursuant to s. 227.22 (2) (intro.), Stats., these rules shall take effect on the first day of the month following publication in the Wisconsin Administrative Register.

16591

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Revisor of Statutes.
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