

# **2005 SUPPLEMENT**

**TO THE 2002 WISCONSIN ENROLLED  
COMMERCIAL BUILDING CODE**

**February 1, 2005**



## PREFACE

This publication is intended to enable purchasers of the *2002 Wisconsin Enrolled Commercial Building Code* to update that code to be consistent with January 1, 2005, changes to the *Wisconsin Commercial Building Code* – chapters Comm 61 to 65 of the Wisconsin Administrative Code.

This publication is designed to apply equally to both the First and Second Printings of the *2002 Wisconsin Enrolled Commercial Building Code*. However, full compatibility with the First Printing is dependent upon having that Printing updated through inclusion of two previously published sets of replacement pages, dated 2002 and 2003.

This publication consists of the following three parts:

- (1) A summary of the January 1, 2005, changes to the *Wisconsin Commercial Building Code*. This summary describes the substantive changes and is similar to the summary that has been on the Division web site. It generally does not address any associated renumbering of Comm sections, or changes to corresponding cross references. This part is for information and does not replace any existing part of the enrolled code or require insertion into the Enrolled Code.
- (2) A reprint of all of chapter Comm 61, as affected by the January 1, 2005, changes. This chapter is intended to completely replace Part AE of the 2002 Enrolled Code.
- (3) Excerpts of all of the January 1, 2005, changes to chapters Comm 62 to 65. These excerpts are grouped according to the corresponding chapters of the *International Building Code*<sup>®</sup>, *International Energy Conservation Code*<sup>®</sup>, *International Mechanical Code*<sup>®</sup>, and *International Fuel Gas Code*<sup>®</sup>. This grouping is intended to allow inserting the excerpts at the end of each corresponding chapter in the 2002 Enrolled Code. For example, the excerpted changes in sections Comm 62.0302, 62.0303, 62.0305, and 62.0310 – on pages B3-1 and B3-2 – can be inserted at the end of IBC chapter 3 in the Enrolled Code. The excerpts include the history notes at the end of each revised Comm section, which show – in bold font – the type and extent of the January 1, 2005, revision within each section, except revisions to informational notes are not shown.

This publication is not the official *Wisconsin Commercial Building Code*. Official copies of the Code can be purchased only from the Wisconsin Department of Administration, Document Sales and Distribution, at P.O. Box 7840, Madison, Wisconsin, 53707-7840, or at telephone 800/362-7253 and 608/264-8499 (TTY). Copies of the IBC, IECC, IMC, and IFGC are not included with an official copy of the Code.

## **Summary of January 1, 2005, Substantive Changes to the *Wisconsin Commercial Building Code***

### **Chapter Comm 61**

Comm 61.02 (5) – Clarifies that the scope of the code includes existing buildings which are converted to community-based residential facilities for 9 to 20 residents, because these facilities are places of employment even though they are specifically excluded from the statutory definition of a public building.

Comm 61.03 (10) (a) 4. – Addresses a change of occupancy or use that does not include any construction.

Comm 61.03 (10) (a) Note – Provides separate, further description of the application of Comm 61 to 65 to changes of use for buildings that predate Comm 61 to 65.

Comm 61.03 (10) (b) – Clarifies that a new use which is equal in hazard to an existing use does not trigger compliance with new code requirements, and provides guidance in how to determine the relative hazard of the new use.

Comm 61.03 (12) (a) – Deletes an unnecessary, condensed repetition of the application of Wisconsin’s fire prevention code – chapter Comm 14. The application of Comm 14 is entirely prescribed in Comm 14.

Comm 61.03 (12) (b) – Clarifies that buildings and structures which are within the scope of chapters Comm 75 to 79, i.e., buildings and structures constructed prior to October 9, 1914, must be maintained to conform to those chapters.

Comm 61.03 (13) (a) 1. and 6. – Incorporates the requirements from the *International Fire Code*<sup>®</sup> for indoor storage and display of black powder, smokeless propellants, and small arms ammunition.

Comm 61.03 Note – Expands the list of other possibly applicable rules to include Comm 90 and 91, and clarifies that the Department’s Safety and Buildings Division administers all of the referenced codes except Comm 10, which is administered by the Environmental and Regulatory Services Division.

Comm 61.04 (3) – Resolves the differences between the statutory definition of “dwelling unit” and the corresponding definition in Section 202 of the *International Building Code*<sup>®</sup> (which is repeated in Section 202 of the *International Energy Conservation Code*<sup>®</sup> and Section 202 of the *International Mechanical Code*<sup>®</sup>).

Comm 61.115 (1) (intro.) – Changes the threshold for submitting a soil erosion Notice of Intent from 5 acres to 1 acre, to be consistent with recent changes in corresponding federal requirements.

Comm 61.30 (1) (b) 1. – Clarifies that Departmental approval of plans is not required for community-based residential facilities serving 5 to 8 unrelated adults.

Comm 61.30 (4) – Clarifies where plan review is not required for minor alterations.

Comm Table 61.30-3 – Changes the fire protection system-plan-review thresholds to include all R-2 occupancies that have sprinkler or fire alarm systems.

Comm 61.31 (2) (b) 2. b. – Changes the submission requirements to accept just one full set of building plans if the set is accompanied with at least 3 additional, acceptable cover sheets, which allows returning only the additional cover sheets.

Comm 61.40 (subchapter IV) is repealed, and the subsequent subchapters of Comm 61 are renumbered, to reflect current local practices of not utilizing a building permit developed by the Department specifically for multifamily dwellings.

## **Chapter Comm 62**

Comm 62.0100 and 62.0115 – IBC 115 is deleted, due to its overlap with the authority and requirements for local governments, in section 66.0413, Stats., for addressing unsafe buildings and structures.

Comm 62.0100 Note – Because of numerous references in the IBC and IECC to one- and two-family dwellings (and to IBC Section 101.2, which has been deleted in Wisconsin) this informational Note is created to explain that the scope of the *Wisconsin Commercial Building Code* differs from the scope of the IBC. In particular, three or more attached townhouses, as are referenced in an exception under IBC 101.2, are noted as being within the scope listed in Comm 61.02. Detached one- and two-family dwellings, as are likewise referenced in an exception under IBC 101.2, are noted as being regulated in Wisconsin by chapters Comm 20 to 25. Various subsequent rule changes, as listed below, delete the IBC and IECC references to detached one- and two-family dwellings.

Comm 62.0202 (1) (a) – Changes air “barrier” to air “retarder” which is more accurate, and is consistent with vapor “retarder,” as is used throughout the IBC.

Comm 62.0202 (1) (b) – Incorporates the definition of “high-piled combustible storage” from the *International Fire Code*<sup>®</sup>.

Comm 62.0202 (2) and (3) – Definitions that include references to previously deleted text are modified or repealed.

Comm 62.0302 (1) and (2) and IBC Table 302.1.1 – Clarifies that IBC 302.1.1 only requires an incidental-use enclosure if the building has an object or a room that is listed in the associated table; and incorporates the corresponding text and Table in the 2003 IBC, to provide more options and clarity for incidental-use areas.

Comm 62.0302 (3) – Replaces the IBC Table 302.3.3 hourly separations between identical occupancies, with a dash.

Comm 62.0303 – Clarifies which occupancies are considered assembly occupancies, including the clarification that a nonaccessory assembly use serving fewer than 50 persons is a B occupancy.

Comm 62.0305 – Clarifies the classification of an E occupancy.

Comm 62.0310 (1) – Includes a clarification that the R-2 occupancy includes buildings with multiple sleeping areas sharing a central facility for cooking and eating, such as boarding houses, convents, or dormitories.

Comm 62.0400 (4) – Changes the defining, lower threshold of 3 adults for a Community Based Residential Facility, to 5 adults, to be consistent with section 50.01 (1g) of the Wisconsin Statutes.

Comm 62.0404 – In the definition of an atrium, “connecting” is substituted for “through,” and “stories” is substituted for “floor levels,” to eliminate ambiguity in the number stories that can be connected before an atrium is created.

Comm 62.0406 (1) and (2) (b) – The requirements for locating heating equipment in parking garages are revised to match the requirements for repair garages, and the requirements for repair garages are matched up with the IMC.

Comm 62.0406 (2) (a) – Clarifies that mixed uses can be allowed in the same building as a repair garage, subject to the provisions of IBC 302.3.

Comm 62.0412 – Expands the text for unit heaters in aircraft hangars, to allow all heating equipment to be similarly suspended above the aircraft, rather than located in a separated room.

Comm 62.0415 (2) – Deletes IBC 415.6, for consistency with corresponding deletion of some of the requirements in IBC 910 for smoke and heat vents.

Comm 62.0603 (1) – Replaces footnote c.3 under Table 601, with a new footnote which expands use of fire-retardant-treated wood in Type I and II construction, to buildings over 2 stories.

Comm 62.0706 (1) and Table 62.0706 – New sections and a new Table are incorporated to clarify fire separations between mixed occupancies, and to clarify the fire rating for barriers that are used to divide a single occupancy into different fire areas.

Comm 62.0711 – Incorporates more requirements into the exception regarding the membrane penetration of fire rated walls by listed electrical outlet boxes.

Comm 62.0715 (1), (3), and (4) – For duct and air transfer openings that are permitted to penetrate shaft enclosures, the smoke damper exceptions are expanded, along with revising the

text for other fire damper exceptions in those penetrations. And, the smoke damper exemptions are expanded to also apply to ducts that are for the exhaust portion of systems covered by NFPA 45, i.e., laboratory fume hoods. In subsection (3), text is incorporated to no longer require fire dampers at through penetrations of exhaust ducts within residential occupancies, under certain circumstances. In subsection (4), text is incorporated to clarify the requirements for duct systems that penetrate fire-resistive-rated ceiling membranes.

Comm 62.0901 (1) Note – The Note is revised to clarify that Comm 14 has requirements relating to shutting down or impairing fire sprinkler systems; and Comm 61 has requirements relating to availability of sprinkler documents and to submittal and approval of plans prior to altering, modifying, or removing sprinkler systems.

Comm 62.0903 (1m) (a) – Requires a review of IBC 903 for the potential installation of a fire sprinkler system, when an existing building or structure, or portion of an existing building or structure, has its use changed to include a Group A-2 occupancy.

Comm 62.0903 (1m) (b) – Requires a review of Comm 62.0903 (2) for the potential installation of a fire sprinkler system, when an existing building or structure, or portion of an existing building or structure, has its use changed to include a multifamily dwelling occupancy.

Comm 62.0903 (1m) (c) – Requires installation of a fire sprinkler system when an existing building or structure, or portion of an existing building or structure, has its use changed to include a Group R-1 or R-2 occupancy, if the building or structure – or the portion thereof that contains the R-1 or R-2 occupancy – is greater than 60 feet in height.

Comm 62.0903 (2) to (5) and (8) to (10) – Clarifies how the level of exit discharge affects fire sprinkler thresholds in several occupancies, and clarifies sprinkler thresholds in underlying parking garages and in fire stations.

Comm 62.0903 (13) – Clarifies that Comm 14, rather than Comm 61 to 65, contains the requirements for inspection, testing, and maintenance of fire sprinkler systems.

Comm 62.0904 (1) and 62.0907 (1) – Clarifies that Comm 14, rather than Comm 61 to 65, contains the requirements for inspection, testing, and maintenance of alternative fire sprinkler systems and fire alarm systems.

Comm 62.0905 – Requires installation of a standpipe system when an existing building or structure, or portion of an existing building or structure, has its use changed to include a Group R-1 or R-2 occupancy, if the building or structure – or the portion thereof that contains the R-1 or R-2 occupancy – is greater than 60 feet in height.

Comm 62.0910 – The text in IBC 910.1 is modified to no longer require smoke and heat vents, and curtain boards, in buildings that are protected by an approved automatic fire sprinkler system. The text in IBC 910.2.3 is modified to no longer require smoke and heat vents in high-piled combustible storage areas that are protected by an early suppression fast-response automatic sprinkler system, as has been previously approved by the Department as an alternate

standard. Text for corresponding curtain boards is also clarified, and the location requirements for them in the *International Fire Code*<sup>®</sup> are incorporated.

Comm 62.1003 (1) – Text is incorporated to clarify that the number of occupants determined by a reasonable seating layout (or any other reasonable number provided by the owner) can be used to design the means of egress (and to establish the minimum quantity of plumbing fixtures under IBC 2902.1). In several included, related sections, other clarifications are incorporated for open risers, clear door widths in restroom partitions, and accumulations of snow or ice on outdoor walking surfaces.

Comm 62.1003 (7) – Clarifies the clearance that is needed between doors in series, to avoid blockage by a wheelchair.

Comm 62.1004 (1) – Incorporates a clarification for allowing egress through stock rooms.

Comm 62.1004 (2) – Clarifies which intervening spaces can occur along a corridor without disrupting the continuity of the corridor.

Comm 62.1005 (1) – Incorporates a clarification for basing the number of exits for a story on the occupant loading for that story.

Comm 62.1009 – Incorporates revised criteria and exceptions for emergency escape and rescue openings.

Comm 62.1103 (2) (d) – Repeals an exemption for detached one- and two-family dwellings, because those dwellings are regulated instead in Wisconsin by chapters Comm 20 to 25.

Comm 62.1103 (2) (g) – Allows omitting an accessible route to storage spaces that do not include permanent workstations, are infrequently accessed by employees, and are not open to the general public.

Comm 62.1104 (3) (b) and (c) and (4) (b) – Incorporates revised criteria and exceptions for accessible routes to assembly areas with fixed seating, press boxes, air traffic control towers, and two-story buildings with five or fewer people on one story.

Comm 62.1106 (1) – Clarifies that the number of accessible parking spaces are to be based on the total number of parking spaces which are provided.

Comm 62.1106 (3m) – Incorporates a requirement to provide a higher percentage of accessible parking spaces for hospital outpatient facilities.

Comm 62.1106 (5) (a) – Incorporates a requirement that allows users to disperse accessible parking spaces among the various types of parking facilities that are provided.

Comm 62.1106 (5) (b) 2. – Incorporates an allowance for locating parking spaces in a nearby, different parking facility if substantially equivalent or greater accessibility is provided there.

Comm 62.1107 (5) (e) – Modifies the minimum number of accessible dwelling or sleeping units in Group I-3.

Comm 62.1108 (2m) – Expands the requirements for accessible routes for performance areas.

Comm 62.1109 (12) – Incorporates changes to the requirements for accessible check-out aisles.

Comm 62.1109 (15) – Deletes an unnecessary reference for a stairway along an accessible route that connects floor levels which are not connected by an elevator.

Comm 62.1403 (1) and (2) (b) – Clarifies where air retarders are required.

Comm 62.1405 (2) – Includes the parameters for using extruded polystyrene sheathing as a required backing material for vinyl siding.

Comm 62.1407 (4) – Deletes a reference to previously deleted requirements for special inspections.

Comm 62.1505 (2) – Eliminates an unnecessary reference to a testing standard for shingles and shakes on some small roofs.

Comm 62.1507 – Creates exceptions for allowing installation of single-ply thermoset or thermoply roofing membranes, and sprayed polyurethane foam or liquid-applied roofs, on slopes of less than 2 percent, if permitted by the manufacturer’s literature or listing criteria.

Comm 62.1603 (1) and (2) – Requires construction plans to show any sloped-roof snow loads or any unbalanced, drift, or sliding snow loads, and deletes a reference to previously deleted requirements for special inspections.

Comm 62.1604 (2) – For obtaining approval of alternate materials and methods of construction, replaces a reference to previously deleted requirements for special inspections, with corresponding criteria in Comm 61.

Comm 62.1607 (1) and (4) – Incorporates a change to (1) reduce the required minimum uniform live load in passenger-vehicle garages, from 50 psf to 40 psf; and (2) maintain a lower limit there of 30 psf if the alternative load-reduction calculations in IBC 1607.9.2 are used.

IBC Table 1607.1, Line 27 – For residential occupancies, revised minimum uniform live loads are incorporated, with modifications to be consistent with Wisconsin’s one- and two-family dwelling code.

Comm 62.1607 (5) – Deletes a loading requirement for overhanging eaves.

Comm 62.1608 (3) – Incorporates an alternative methodology for determining unbalanced snow loads on gable and hip roofs.

Comm 62.1608 (4) – Clarifies that an existing roof which is expected to be substantially impacted by drifting or sliding snow, as caused by a nearby, newly constructed, taller structure on the same property, must be analyzed for structural adequacy, and reinforced if necessary. Where the existing roof is on an adjoining property, the owner of the newly constructed structure is required to notify the adjoining owner of the potential for increased snow loads.

Comm 62.1611 – Creates a cross-reference for requirements in Comm 82 to not connect a secondary roof-drain system to a primary roof-drain system, and to discharge a secondary roof-drain system to the ground surface.

Comm 62.1614 (2) – Deletes a reference to previously deleted requirements for special inspections.

Comm 62.1621 (1) and (2) – References are deleted, to previously deleted requirements for special inspections.

Comm 62.1616 – Incorporates an exception that allows use of IBC Table 1616.3(1) alone in determining the seismic design category, where specified criteria are met.

Comm 62.1805 (2) – Incorporates design standard ANSI/ASAE EP486.1 OCT00 for shallow post foundations; modifies the included Table 1; and clarifies that the standard, as modified, is an acceptable alternative to the design criteria in IBC section 1805.7.2.

Comm 62.1807 (3) (e) – Modifies the reference to analyzing loads on piers or piles.

Comm 62.1807 (6) – Deletes a reference to previously deleted requirements for special inspections.

Comm 62.1901 and Comm 62.1903 – References are deleted, to previously deleted requirements for special inspections.

Comm 62.1910 – Deletes references to one- and two-family dwellings, because those dwellings are regulated instead in Wisconsin by chapters Comm 20 to 25.

Comm 62.2209 – Deletes a reference to previously deleted requirements for special inspections.

Comm 62.2303 – Deletes a reference to previously deleted requirements for special inspections.

Comm 62.2306 – Incorporates a reference to standard ANSI/ASAE EP486.1 OCT00, for designing wood elements in shallow post foundations, to be consistent with adoption of this standard under Comm 62.1805 for designing the foundation elements.

Comm 62.2308 – Deletes references to one- and two-family dwellings, because those dwellings are regulated instead in Wisconsin by chapters Comm 20 to 25.

Comm 62.2403 Note – Clarifies that Comm 18 includes (1) a prohibition against elevator hoistway windows that give a false appearance of a floor level, and (2) a requirement that all glass in an elevator hoistway be laminated safety glazing conforming to IBC 2406.1.

Comm 62.2406, 62.2407, and 62.2408 – Eliminates use of wire glass as safety glazing in E occupancies and in certain athletic facilities, due to injuries that have resulted from that use.

Comm 62.2900 (2) – Clarifies that a separate room is not required for a service sink.

Comm 62.2900 (4) (b) 3. – Clarifies that privacy compartments are not required for water closets in prison or jail cells.

Comm 62.2902 (1) (a) 2. and (c) 2. – Clarifies that drinking fountains are not required where other acceptable drinking-water arrangements are provided, and clarifies how the minimum number of bathtubs, showers, and water closets are determined for child day care facilities and day nurseries.

Comm 62.2902 (1) (c) 3. and (d) – Clarifies compliance with the statutory requirements for equal, gender-based speed of access to toilets, where 500 or more people congregate.

Comm 62.2902 (4) and (5) – Expands to allow the use of a single toilet facility in mercantile uses where the occupant load is 50 or less, and clarifies how IBC Table 2902.1 distributes the fixtures across the genders.

Comm 62.3001 (4) – Requires installation of elevator controls for emergency recall and in-car operation when an existing building or structure, or portion of an existing building or structure, is changed to include a Group R-1 or R-2 occupancy, if the building or structure – or the portion thereof that contains the R-1 or R-2 occupancy – is greater than 60 feet in height.

Comm 62.3006 (1) Note – Clarifies that Comm 18 prohibits (1) accessing an elevator machine room through a toilet room, sleeping room or private space; and (2) accessing other spaces in a building through an elevator machine room.

Comm 62.3006 (3) – Corrects an outdated NFPA reference for shutting off electrical power to an elevator prior to activation of a sprinkler system.

Comm 62.3408 (5) – Replaces references to IBC chapter 11 sections, with references to the Comm 62.1104 to 62.1107 sections that previously replaced those IBC sections.

Comm 62.3500 (2) (a) and (b), and (3) (a) and (d) – Updates the adopted version of the National Design Specification for wood; updates the adopted version the National Fire Protection Association standards for low expansion foam, carbon dioxide extinguishing systems, installation of sprinkler systems, installation of sprinkler systems in residential occupancies up to and including four stories in height, dry chemical extinguishing systems, wet chemical extinguishing systems, and the National Fire Alarm Code; incorporates an ANSI/ASAE standard for design of shallow post foundations; and incorporates the NFPA requirements for laboratory fume hoods.

Comm 62.3600 (1) – Incorporates IBC Appendix E, which includes supplementary accessibility guidance.

### **Chapter Comm 63**

Comm 63.0003 (3) (c) 1. and 2. – Requires compliance with lighting conservation requirements in an altered area, rather than throughout a building, when an alteration replaces more than 50 percent of the lighting fixtures in the altered area.

Comm 63.0202 (2) (b) – Replaces the IECC definition of multifamily dwelling with the definition prescribed in Wisconsin’s statutes.

Comm 63.0502 (3) – Deletes references and tables for detached one- and two-family dwellings, because those dwellings are regulated instead in Wisconsin by chapters Comm 20 to 25.

Comm 63.0503 (2) (a) and (b) – Clarifies the substitution of Wisconsin’s requirements for insulation of piping, ducts, and plenums, in heating, ventilating, and air conditioning systems.

Comm 63.0505 – Modifies the format of how Wisconsin’s requirements for lighting-power budgets are substituted for the IECC requirements.

Comm 63.0605 (1) – Clarifies that if IECC chapter 6 is used instead of IECC chapter 5, separate electrical meters are still needed for individual dwelling units.

Comm 63.0803 (2) (g) – Clarifies the substitution of Wisconsin’s requirements for insulation of heating or cooling piping, by replacing an indirect reference with a direct reference to the corresponding Comm sections.

Comm 63.0806 – Clarifies the substitution of Wisconsin’s requirements for lighting systems, by replacing an indirect reference with a direct reference to the corresponding Comm section.

Comm 63.1026 (2) (b) – Changes the minimum setting for thermostatic heating controls, from 50°F to 55°F, to be consistent with the setting in IECC 503.3.2.2 and 803.3.3.3.1., and in Section 9.4.3.2.1 of ASHRAE 90.1-1989.

Comm Table 63.1029 – Deletes the insulation-thickness numbers for plumbing and HVAC piping, because they are no longer valid and the included R values provide all the information that is needed.

Comm 63.1050 (6) – Clarifies that timers for exterior lighting controls must be capable of maintaining the correct time during a power outage that lasts up to 10 hours, rather than 10 hours or more.

### **Chapter Comm 64**

Comm 64.0103 – Deletes IMC 108.7, due to its overlap with the authority and requirements for local governments, in section 66.0413 of the statutes, for addressing unsafe buildings and structures.

Comm 64.0301 (1) – The reference to the scope in previously deleted IMC 101.2 is replaced with the corresponding scope in subchapter I of Comm 64.

Comm Table 64.0403 – Clarifies the ventilation rates for car washes, and clarifies that the ventilation rate for an elevator is based on the floor area of the car rather than the floor area of the elevator shaft.

Comm 64.0507 – Clarifies that Type I and II kitchen hoods are required in commercial-type kitchens, rather than in domestic-type kitchens which happen to be in commercial buildings; clarifies where Type I rather than Type II hoods are required; and incorporates approval of unvented, listed removal systems.

Comm 64.0513 – Deletes a reference to previously deleted requirements for special inspections.

Comm 64.607 – Changes the IMC requirements for smoke and fire dampers in shaft enclosures, through penetrations, and ceiling membranes, to be consistent with concurrent changes to IBC sections 715.5.3.1, 715.6.1, and 715.6.2.

Comm 64.0801 (2) – Clarifies the prohibition of portable or permanently installed, fuel-fired, unvented room heaters.

Comm 64.1500 (2) – Incorporates a UL standard for commercial electric cooking appliances.

## **Chapter Comm 65**

Comm 65.0101 – Deletes IFGC 108.7, due to its overlap with the authority and requirements for local governments, in section 66.0413 of the statutes, for addressing unsafe buildings and structures.

Comm 65.0301 (1) – The reference to the scope in previously deleted IFGC 101.2 is replaced with the corresponding scope in subchapter I of Comm 65.

Comm 65.0620 – Changes the prohibition of all gas-fired, unvented room heaters to be consistent with other sections of the Code that allow permanently installed, gas-fired, unvented room heaters.

Comm 65.0700 – Updates the adopted version of the National Fire Protection Association code for fuel gas.

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