



State of Wisconsin \ Department of Commerce

HEARING DRAFT of PROPOSED RULES

Rule No.: Chapters Comm 2, 5, 14, 21 and 61 to 66

Relating to: Commercial Buildings

The Wisconsin Department of Commerce proposes an order to repeal chs. Comm 2.36, Comm 61.03 (14) (d) and (e), Comm 61.30 (1) (b) 2. and 3. and Table 61.30–2, Comm Table 61.30–3, Comm 61.34, Comm 62.0402, Comm 62.0414, Comm 62.0703, Comm 62.0903 (1), Comm 62.0903 (6) (b), (d) 1. and 2. and Table 62.0903, Comm 62.0903 (6m) (b) 1. and 2., Comm 62.0903 (8) to (10), Comm 62.0903 (14) (b), Comm 62.0907 (2) to (4), Comm 62.0909 (7), Comm 62.1007, Comm 62.1009 and 62.1016, Comm 62.1019 (2), Comm 62.1020, Comm 62.1103 (1), Comm 62.1110 (2) (b) Note, Comm 62.1407, Comm 62.1603 (title), (1), (3), (4) and (6), Comm 62.1604 (title) and (1), Comm 62.1607 (2), Comm 62.1612, Comm 62.161 (1) and (2), Comm 62.1802, Comm 62.1810, Comm 62.1808 (4) and (6), Comm 62.1901 to 62.1908, Comm 62.1915 and 62.2101, Comm 62.2105, Comm 62.2109 (2) and Table 62.2109–1, Comm 62.2206, Comm 62.3001 (1), Comm 63.0403 (3), Comm 63.0503 (3) to (6) and Tables 503.2.3 (1) and 503.2.3 (2), Comm 63.0505 (1), (2) (a) 3. and (3), Comm 64.0101, Comm 64.0403 (6) (c) 4., Comm 64.0403 (7), Comm 64.0403 (9), Comm 64.0702 and 64.0710, Comm 64.0801 (3), Comm 64.0918 (2), Comm 65.0610, Comm 65.0630 (1) and Comm 82.40 (3) (e) 2. b. to 2. d.;

to renumber Comm 61.30 (1) (b) 1., Comm 61.30 (4), Comm 62.0903 (14), Comm 62.0903 (15), Comm 62.1103 (2) (a) and (b), Comm 62.1603 (2), Comm 62.1604 (2), Comm 62.1613 (3), Comm Table 62.2109–2, Comm 63.0505 (2) and (4), Comm 64.0102, Comm 64.0401 (1), Comm 64.0501, Comm 64.0918 (3), Comm 66.0910, Comm 66.1101 and Comm 82.40 (3) (e) 2. a.;

to renumber and amend Comm 61.03 (14) (f), 62.0202 (2) (a), Comm 62.0704 and 62.0705, Comm 62.0903 (2) to (5), Comm 62.0903 (6) (intro.), (a), (c) and (d) 3. and 4., Comm 62.0903 (6m) (intro.), (a), (b) 3. to 5., Comm 62.0903 (11) to (13), Comm 62.0907 (5) to (7), Comm 62.1017, Comm 62.1019, Comm 62.1107 (2) (c), Comm 62.1603 (5), Comm 62.1607 (3), Comm 62.1808 (1), Comm 62.1808 (title) (2) and (3), Comm 62.1808 (5), Comm 62.1809, Comm 62.2109 (3), Comm 62.3001 (2) and (3), Comm 63.0102, Comm 63.0503 (7) to (9), Comm 64.0401 (4) (a) and (b), Comm 64.0403 (2) to (5), Comm 64.0403 (6), Comm 64.0403 (8), Comm 64.0506 (2) (bm), Comm 65.0630 (2) and Comm. 66.0701;

to amend Comm 2.31 (1) (a) and (d), Comm 2.52 (3) (title) and (a), Comm 5.61 (1), Comm 5.63 (1) (b) 5., Comm 14.13 (3) (title) and (intro.), Comm 61.03 (14) (a) to (c), Comm 61.04 (15), Comm 61.05, Comm 61.30 (1) (a), Comm 62.0401 Note, Comm 62.0902 and (title), Comm 62.1008 (2), Comm 62.1101 (2) (a), Comm 62.1107 (title), (1) (a) to (c) and (2) (a), Comm 62.1107 (3) (a), Comm 62.1107 (3) (b) (title), Comm 62,1119 (1) (title) and (2) (title) and (a), Comm 62.1200 (2) (a) 1., Comm 62.1200 (3) (d), Comm 62.1607 (1), Comm Table 1607.1 and footnote j, Comm 62.1700, Comm 62.2902 (5) Note, Comm 62.3500 (3) (b) and (d), Comm 63.0101, Comm 63.0402 (intro.) and (2), Comm 63.0501 (2), Comm 63.0502 and (title), Comm Table 63.0503, Comm 64.0300, Comm 64.0401 (5) (intro.), Comm 64.0514, Comm 64.0601 and 64.0602, Comm 64.1500 (2) (a) and Note, Comm 65.0303 (2), Comm 66.0202 (2), Comm 66.0602, Comm 66.0901 (1) and Comm 66.1301 (title);

to repeal and recreate Comm 2.31 (1) (i), Comm 21.095, Comm 61.30 (3), Comm 62.0202 (1) and (2), Comm 62.0310, Comm 62.0702, Comm 62.0707, Comm 62.1405, Comm 62.1803, Comm 62.1805, Comm 62.1807, Comm 62.1913, Comm 62.2204, Comm 62.2303, Comm 62.3500 (3) (a), Comm 63.002 (2), Comm 63.0403 (2), Comm 64.0402 and Comm Table 64.0403;

and to create Comm 14.13 (3) Note [2], Comm 61.03 (15), Comm 61.30 (4) (b), Comm 61.31 (1) (b) 3., Comm 62.0400 (1) Note, Comm 62.0708, Comm 62.0721, Comm 62.0903 (5) (d), Comm 62.0903 (10) (b), Comm 62.1021 (2), Comm 62.1022, Comm 62.1101.2 (2) (c), Comm 62.1107 (2)

(c), Comm 62.1107 (3) (a) Note, Comm 62.1211, Comm 62.1804, Comm 62.1806, Comm 62.1808, Comm 62.1809, Comm 62.1810 (3) to (5) and (7), Comm 62.2210, Comm 62.3002, Comm 63.0503 (6), Comm 64.0307, Comm 64.0401 (1) (a) and (b) 2. and 3., Comm 64.0401 (4) (a) and (b), Comm 64.0407, Comm 64.0501 (1), Comm 66.0100 Note [2], Comm 66.0104, Comm 66.0503, Comm 66.0509 Note, Comm 66.0607 (2) (e) to (h), Comm 66.0607 (3), Comm 66.1301 (3), Comm 66.1400 and Comm 82.40 (3) (e) 1. Note [2] relating to construction, use and maintenance of public buildings and places of employment and affecting small businesses.

ANALYSIS OF PROPOSED RULES

1. Statutes Interpreted.

Sections 101.02 (1) and (15), 101.025, 101.027, 101.13, 101.132, 101.14 (1) and (4), 101.63, 101.973 (1) and 145.02, Stats.

2. Statutory Authority.

Sections 101.02 (1), (7), (7m) and (15), 101.025, 101.027, 101.11, 101.12, 101.13, 101.132, 101.14 (1), (4) and (4m), 101.145, 101.149, 101.19, 101.63, 101.73, 101.973 and 145.02, Stats.

3. Related Statute or Rule.

- Chapter Comm 2, Fee Schedule
- Chapter Comm 5, Licenses, Certifications and Registrations
- Chapter Comm 14, Fire Prevention
- Chapter Comm 16, Electrical
- Chapter Comm 18, Elevators, Escalators and Life Devices
- Chapter Comm 20, Uniform Dwelling Code
- Chapter Comm 41, Boilers and Pressure Vessels
- Chapter Comm 45, Mechanical Refrigeration
- Chapter Comm 82, Uniform Plumbing Code

4. Explanation of Agency Authority.

Under the statutes cited, the Department of Commerce protects public health, safety, and welfare by promulgating comprehensive requirements for design, construction, maintenance and inspection of public buildings and places of employment, including commercial buildings and structures and multifamily dwellings. The department also updates these requirements as necessary to be consistent with nationally recognized standards that are incorporated by

reference into the Wisconsin Commercial Building Code (WCBC), specifically, the building code requirements developed by the *International Code Council*[®] (ICC).

5. Summary of Proposed Rules.

Currently, the department adopts by reference the 2006 editions of the ICC suite of building codes – the *International Building Code*[®] (IBC), the *International Energy Conservation Code*[®] (IECC), *International Existing Buildings Code*[®] (IEBC), the *International Fuel Gas Code*[®] (IFGC) and the *International Mechanical Code*[®] (IMC) – and makes Wisconsin modifications to these codes within the WCBC. The department proposes to adopt the 2009 editions of these ICC codes.

Significant changes from the 2006 to the 2009 editions of the ICC codes include:

- Defining and clarifying live/work unit provisions; IBC section 419.
- Adding provisions for Ambulatory Health Care Facilities; IBC section 422.
- Adding storm shelter provisions and references to ICC 500; IBC section 423.
- Requiring new locking provisions for egress doors serving certain types of occupancies; IBC sections 1008.1.9.6, 1008.1.9.8 and 1008.1.9.9.
- Clarifying accessibility provisions for live/work units are to be evaluated separately; IBC section 1103.2.13.
- Requiring at least lavatory with enhanced reach ranges in toilet rooms having 6 or more lavatories for accessibility purposes; IBC section 1109.2.3.
- Providing specific provisions on tightness of buildings (air barriers); IECC section 402.4.2.
- Requiring shutoff controls for snow/ice-melting systems serving residential occupancies; IECC section 403.8.
- Specifying the heating of outside spaces to be radiant type and provided with efficiency controls; IECC section 503.2.11.
- Revising the mechanical ventilation table to provide more detailed occupancy classifications that reflect ASHRAE standard 62 – Ventilation for Acceptable Indoor Air Quality; IMC table 403.3.
- Requiring that make-up air to be provided for domestic kitchen exhaust hoods with capacities of greater than 400 cfm be tied in to operation of hood; IMC section 505.2.
- Eliminating details on combustion air from within the IMC by deferring to NFPA standard 31 for oil-fired appliances and the manufacturers' recommendations for solid-fuel-fired appliances.
- Expanding the provisions for the piping of hydronic heating systems to reflect newer materials and standards; IMC chapter 12.
- Requiring thermal insulation below radiant floor heating systems; IMC sections 1209.5 to 1209.5.4.
- Establishing bonding/grounding provisions specific to corrugated stainless steel gas tubing (CSST); IFGC section 310.1.1.
- Prohibiting gas piping from entering/exiting a building below grade; IFGC section 404.4.
- Requiring LP-Gas piping to be electrically isolated (dielectric fitting) where the underground piping comes above ground to enter the building; IFGC section 404.8.

- Requiring gas clothes dryer exhaust ducts to be protected from penetration by nails/screws; IFGC section 614.6.3.
- Specifying minimum vertical clearances between gas cooktops and materials or cabinets above; IFGC section 623.7.
- Adding provisions associated with the use of used materials and equipment; IEBC section 104.9.1.
- Clarifying that when undergoing a partial change of occupancy, accessibility will be driven by the alteration provisions found in ss. 605 or 706. ; IEBC section 912.8.1.

Many of the current Wisconsin modifications under the WCBC are proposed to be repealed because of changes in the 2009 editions of the ICC codes. Minor amendments, including renumbering, are being made to several Wisconsin modifications to reflect changes in the 2009 IBC codes.

The proposed rules include creating some general global modifications that replace various current individual deletions of unnecessary ICC requirements, such as requirements that address (1) designing one- and two- family dwellings; (2) employing special inspectors or obtaining special inspections; (3) obtaining a mandated approval from a local building or fire code official; and (4) building in flood-hazard areas. Other proposed Wisconsin modifications include:

- Modifying the provisions for firewalls or division walls separating townhouses for the purpose of allowing sprinkler protection in accordance with NFPA standard 13D; s. Comm 62.0903 (5).
- Extending an automatic sprinkler exemption for small R-2 multifamily dwellings to other small residential buildings, such as cabins at summer camps; s. Comm 62.0903 (5) (d).
- Revising the sprinkling requirements for townhouses with less than 20 units to reflect the changes in the latest edition of the *International Residential Code*[®]; s. Comm 62.0903 (5) (d).
- Eliminating the required international symbol accessibility signage for assigned parking serving a residential apartment building; s. Comm 62.1103.
- Extending the modified uniform live loads for attics in townhouses to attics in all residential occupancies; s. Comm 62.1607.
- Codifying additional criteria for ground improvement methods relating to foundations and floor slabs, such as for Geopier[®] systems; s. Comm 62.1804.
- Reducing presumptive load-bearing values by ½ for saturated soils; s. Comm 62.1806.
- Alerting building owners or occupants to the heating assumption for frost-protected shallow foundations; s. Comm 62.1809.
- Requiring an elevator car that accommodates an ambulance stretcher for fire department emergency access in defined buildings; s. Comm 62.3002.
- Exempting the need for economizers for package RTU's 33,000 BTU/hr and larger; s. Comm 63.0503.
- Clarifying the exemption of an economizer for a closed circuit cooling tower heat pump system, s. Comm 63.0503.
- Providing alternative mechanical ventilation table and provisions, Comm Table 64.0403.
- Clarifying maintenance requirements for smoke alarms; s. Comm 66.0503.

6. Summary of, and Comparison with Existing or Proposed Federal Regulations.

General Building Code

- Code of Federal Regulations – An Internet-based search for “federal commercial building code” and “building code regulations” in the *Code of Federal Regulations* (CFR) did not identify any federal regulations pertaining to these topics.
- Federal Register – An Internet-based search for “federal commercial building code” and “building code regulations” in the 2005 to 2010 issues of the *Federal Register* did not identify any proposed federal regulations pertaining to these topics.

Energy Conservation Requirements

- Code of Federal Regulations – The portion of the CFR relating to energy conservation for commercial buildings and facilities is found under 10 CFR 420–State Energy Program. The purpose of this regulation is to promote the conservation of energy, to reduce the rate of growth of energy demand and to reduce dependence on imported oil through the development and implementation of comprehensive state energy programs. This regulation initially required that each state’s energy conservation rules for new buildings be no less stringent than the provisions of the 1989 edition of ASHRAE Standard 90.1, *Energy Standard for Buildings Except Low-Rise Residential Buildings*.
- Federal Register – According to the January 23, 2009, *Federal Register*, the Department of Energy (DOE) is determining if ANSI/ASHRAE/IESNA Standard 90.1–2007 would save energy in commercial buildings. DOE is doing a comparative analysis of the 2007 edition of that standard to the 2004 edition. The 2009 edition of the IECC energy conservation requirements for commercial buildings, which the proposed rules would adopt by reference, reflect the 2007 edition of the ASHRAE 90.1 Standard.

Accessibility Requirements

- Code of Federal Regulations – The portions of the CFR relating to accessibility in commercial buildings and facilities include the following:
 1. 28 CFR 35 – Nondiscrimination on the Basis of Disability in State and Local Government Services
 2. 28 CFR 36 – Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities
 3. 24 CFR 40 – Accessibility standards for design, construction, and alteration of publicly owned residential structures
 4. 24 CFR 41 – Policies and procedures for the enforcement of standards and requirements for accessibility by the physically handicapped

Both 28 CFR 35 and 28 CFR 36 require public buildings and commercial facilities – including government-owned and -operated buildings and facilities – be designed, constructed and altered in compliance with the accessibility construction regulations specified under the federal Americans with Disabilities Act Accessibility Guidelines

(ADAAG). The purpose of 24 CFR 40 and 24 CFR 41 is to provide technical guidance on the design and construction of dwelling units as required by the federal Fair Housing Amendments Act of 1988.

The intent of the IBC and the amendments included under chapter Comm 62 is to ensure the Wisconsin construction requirements related to accessibility are equivalent to these applicable federal laws and regulations.

- *Federal Register* – Proposed federal regulations and amendments to established federal regulations for accessibility are found in the following issues of the *Federal Register*:
 1. October 24, 2008 – Design and Construction Requirements; Compliance with ANSI A117.1 (2003) Standards
 2. August 5, 2005 – ADAAG; Corrections
 3. December 7, 2009 – Nondiscrimination on the Basis of Disability in Public Accommodations and Commercial Facilities
 4. March 23, 2007 – ADAAG Supplementary Material
 5. November 23, 2005 – ADAAG Public Rights-of-Way
 6. April 17, 2006 – Multifamily Building Conformance with the Fair Housing Accessibility Guidelines: Improving the Methodology

The ICC is actively monitoring the proposed changes to the federal standards affecting accessibility and will include these changes in future editions of the IBC and the corresponding ICC/ANSI A117.1–Accessible and Usable Buildings and Facilities Standard.

7. Comparison with Rules in Adjacent States.

An Internet-based search of the four adjacent states found the following regulations that include similar requirements relating to public buildings and places of employment:

- **Illinois** – Illinois does not administer a statewide building code.
- **Iowa** – The Iowa Department of Public Safety administers the Iowa State Building Code. Effective January 1, 2010, the department adopted the 2009 editions of the IBC, IMC, IEBC and IECC with Iowa amendments.
- **Michigan** – The Michigan Department of Labor and Economic Growth administers the Michigan construction codes, which adopt by reference the 2006 editions of the IBC, IMC and IEBC with amendments. The 2009 Michigan Building, Residential, and Rehabilitation Code for Existing Buildings review process is in progress.
- **Minnesota** – The Minnesota Department of Labor and Industry administers the Minnesota State Building Code, which adopted the 2006 editions of the IBC, IFGC and IMC.

8. Summary of Factual Data and Analytical Methodologies.

The primary methodology for updating the Wisconsin Commercial Building Code, chapters Comm 61 to 66, has been a review and assessment of the latest editions of the national model codes that serve as the basis for the Wisconsin code. The department's review and assessment process involved the participation and support of 10 advisory councils. The members of the councils represent many stakeholders involved in the building industry, including designers, contractors, developers, regulators, labor, the fire service and the public. (A listing of the councils and the current members is provided at the end of this analysis.)

The department believes that the national model codes reflect current societal values with respect to protecting public health, safety and welfare in the design, construction, use, operation and maintenance of commercial buildings that serve as public buildings and places of employment. The model code organization – International Code Council, ICC – uses a process open to all parties to develop its codes. More information, including background information in the development of the 2009 model code editions, may be found at the ICC web site, <http://www.iccsafe.org>.

The review and assessment process for the Commercial Building Code involved an examination of the revisions in the 2009 editions of the IBC, IECC, IMC, IFGC and IEBC. The assessment included the evaluation of the current rules under chapters Comm 61 to 66 that modified these ICC codes. Working with the 10 advisory councils, the department determines if the various technical requirements in the 2009 model codes are reasonable for addressing potential risks or concerns and promoting the public health, safety and welfare. Such determinations are made based upon experience, forecasts, intuition or projection.

9. Analysis and Supporting Documents Used to Determine Effect on Small Business or in Preparation of Economic Impact Report.

The department used 10 advisory code councils to analyze and develop the proposed revisions to the Commercial Building Code. The councils involve a variety of organizations whose memberships include many types of small businesses. The department uses these councils to gather information on potential impacts in complying with the technical and administrative requirements of the codes. Council members are responsible for bringing forth the concerns that their respective organizations may have with the requirements including economic impacts. (Copies of the council meetings summaries are available on the Safety and Building Division web site, <http://www.commerce.state.wi.us/SB/SB-CodeCouncilsComBldgSum.html> .)

The department also offers an e-mail subscription service to anyone who is interested in rule development and/or council activities. The service provides e-mail notification of council meetings, meeting agendas and council meeting progress reports. Currently, there are about 2,000 subscriptions for information pertaining to the commercial building program.

The department believes the rules will not increase the effect on small businesses from what the current rules impose on them. An economic impact report is not required pursuant to section 227.137, Stats.

10. Effect on Small Business

The requirements of the Commercial Building Code impact all businesses, regardless of size, that use public buildings and places of employment in Wisconsin. The codes impact a variety of businesses, including small businesses, particularly those businesses that design, build, or maintain commercial buildings; provide or produce building materials or components; own commercial buildings; or occupy commercial buildings. It is indeterminable how many small businesses may be impacted by the rules in some manner.

The potential effects of the codes occur on two basic levels, administrative and technical. The codes dictate certain administrative procedural requirements that are to be followed to acquire various approvals. For the most part, the codes establish numerous technical standards that are to be adhered to when designing, constructing, using, operating or maintaining a commercial building to protect public health, safety and welfare.

The proposed rule revisions do not substantially modify the current administrative requirements of the Commercial Building Code. Therefore, this type of impact on small businesses will not substantially change.

How the code’s technical standards may impact small businesses is dependent upon many variables. The proposed revisions for the Commercial Building Code do not apply retroactively to existing buildings. The proposed revisions would apply when a new building or modification to an existing building is proposed. The various advisory councils did not identify major economic concerns for updating the Commercial Building Code to the latest ICC codes as amended in this proposal.

Regarding s. 227.115, Stats., the department believes the proposed rule changes for the Commercial Building Code will not directly or substantially affect the development, construction, cost or availability of housing.

11. Agency Contact.

Jim Smith, Program Manager, jim.smith@wisconsin.gov, (608) 266-0251.

12. Public Hearing Comments.

A public hearing has been scheduled for October 5, 2010. The hearing record on this proposed rulemaking will remain open until October 18, 2010. Written comments on the proposed rules may be submitted to Jim Smith, at the Department of Commerce, P.O. Box 2689, Madison, WI 53701-2689, or email at jim.smith@wisconsin.gov.

Council Members and Representation

The Commercial Building Code Council (CBCC) and the Multi-Family Dwelling Code Council (MDCC) oversaw the rule promulgation development process. Eight advisory code councils met as needed to develop the proposed rules. Their recommendations were forwarded to the CBCC/MDCC for final review.

The following councils were involved in the development of the proposed rules:

Commercial Building Code Council

Norm Arendt	SEH – Wisconsin Society of Professional Engineers
Thomas Clark.....	Pleasant Prairie Fire & Rescue – Wisconsin State Fire Inspectors Association
Curt Hastings	J. H. Findorff & Son Inc. – Associated General Contractors of Wisconsin
Joe Jameson.....	City of Middleton – League of Wisconsin Municipalities
Joseph Jurkiewicz.....	Kahler Slater Architects – American Institute of Architects, Wisconsin Society
David Keller.....	Keller Real Estate Group – Associated Builders and Contractors
Steve Klessig.....	Keller Inc. – Associated Builders and Contractors
William Napier.....	Wisconsin Department of Administration, Division of State Facilities
Bill Pennoyer.....	VJS Construction Services – Associate General Contractors of Greater Milwaukee
Ed Ruckriegel.....	Madison Fire Department
Gary Ruhl.....	North East Wisconsin Building & Construction Trades Council – Wisconsin State AFL-CIO
Chris Rute	City of Milwaukee
Janet Segelken.....	Eau Claire Fire Department – Wisconsin State Fire Chiefs Association
Michael Shoys.....	Wisconsin Manufacturers & Commerce
Jeff Stauber	Wisconsin State Fire Chiefs Association

Multifamily Dwelling Code Council

Kraig Biefeld	Watertown Fire Department – Fire Service
Jeffery Brohmer.....	LaCross Fire Department – Fire Service
Emory Budzinski.....	Weather Shield Windows & Doors – Manufacturer/Supplier Wood Products
Beth Gonnering.....	Building Contractors/Developers
Edward Gray.....	Electrical Workers, Local 127 – Labor
Greta Hansen.....	Community Action Coalition for South Central Wisconsin
James Klett.....	Architects/Engineers/Developers
Michael Morey.....	Oakbrook Corp. – Contractors/Developers
Dave Nitz	City of Berlin – Building Inspectors
Richard Paur	City of Milwaukee – Building inspectors
Stan Ramaker	Design II Architects – Wisconsin Builders Association
Nicholas Rivecca.....	Sonag Ready Mix LLC – Manufacturer/Supplier (Concrete)

Kori Schneider.....Metropolitan Milwaukee Fair Housing Council
 Mark Scott.....Chicago Regional Council of Carpenters
 Kevin Wippurthur.....Wisconsin Drywall Distributors

Alteration and Change of Occupancy

Joel Becker.....Associated General Contractors of Greater Milwaukee
 Tom Clark.....Pleasant Prairie Fire & Rescue – Wisconsin State Fire
 Inspectors Association
 Bruce Johnson.....Wisconsin Builders Association
 Jennie Macaluso-Ruditys.....Building Owners and Managers Association
 Charles Quagliana.....American Institute of Architects
 Chris Rute.....City of Milwaukee
 Jim Sewell.....Wisconsin Historical Society
 Harry Sulzer.....City of Madison Building Inspection – League of Wisconsin
 Municipalities

Energy Conservation

Jeffrey Boldt.....KJWW Engineering Consultants – Wisconsin Chapter of the
 American Society of Heating, Refrigeration, and Air-
 Conditioning Engineers (ASHRAE)
 Thomas Cox.....Cox Group Architects, LLC – American Institute of
 Architects, Wisconsin Society
 Dan Dehnert.....Planning Design Build Inc. – Associated General Contractors
 of Wisconsin
 Ross DePaola.....Integrated Energy Services – Clean Wisconsin
 Michael Mamayekk.....Illingworth Corp. – Plumbing, Mechanical and Sheet Metal
 Dave Osborne.....Wisconsin Builders Association
 Gerald Schulz.....Wisconsin Chapter National Electrical Contractors
 Harry Sulzer.....City of Madison Building Inspection – League of Wisconsin
 Municipalities

Fire Safety

Peter Braun.....Wall-tech Inc. – Associated General Contractors of Greater
 Milwaukee, Inc.
 Kevin Cavanaugh.....Wisconsin Concrete Masonry Association
 Thomas Clark.....Pleasant Prairie Fire and Rescue Department – Wisconsin
 State Fire Inspectors Association
 Michael Gardner.....Gypsum Association
 Chris LaShorne.....American Institute of Architects – Wisconsin Society
 Kerry Vondross.....County Materials Corporation – Associated Builders and
 Contractors of Wisconsin, Inc.
 David Wheaton.....City of Wauwatosa – League of Wisconsin Municipalities

Fire Protection Systems

Brandon Bartow.....	Bartow Builders Inc. – Wisconsin Builders Association
Tom Binish.....	A&A Fire and Security – Associated Builders and Contractors of Wisconsin, Inc.
Thomas Clark.....	Pleasant Prairie Fire and Rescue Department – Wisconsin State Fire Inspectors Association
John Crook.....	City of Fitchburg – League of Wisconsin Municipalities
Chris LaShorne.....	American Institute of Architects, Wisconsin Society

General

Norm Arendt.....	SEH – Wisconsin Society of Professional Engineers
Curt Hastings.....	J.H. Findorff & Son Inc. – Associated General Contractors of Wisconsin
Joseph Jurkiewicz.....	Kahler Slater Architects – American Institute of Architects, Wisconsin Society
James Klett.....	American Institute of Architects, Wisconsin Society
Richard Paur.....	City of Milwaukee
Bill Pennoyer.....	VJS Construction Services – Associated General Contractors of Greater Milwaukee
Ed Ruckriegel.....	Madison Fire Department
Mark Scott.....	Chicago Regional Council of Carpenters

HVAC

Jeffrey Boldt.....	KJWW Engineering Consultants – Wisconsin Chapter of the American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE)
Jennie Macaluso-Ruditys.....	Building Owners and Managers Association
Michael Mamayek.....	Illingworth Corp. – Plumbing and Mechanical Contractors of Milwaukee and Southeast Wisconsin
Jay Myers.....	Komfort Heating – Wisconsin Builders Association
Richard Pearson.....	Pearson Engineering – American Society of Heating, Refrigeration, and Air-Conditioning Engineers, Madison Chapter
Dan Rogers.....	Bredan Mechanical Systems, Inc. – Sheet Metal and Air-Conditioning Contractors of Wisconsin
Keith Spruce.....	City of Milwaukee, Department of Neighborhood Services – American Institute of Architects, Wisconsin Society
David Stockland.....	Capitol Mechanical Inc. – Associated Builders and Contractors of Wisconsin
Harry Sulzer.....	City of Madison, Building Inspection Unit – League of Wisconsin Municipalities

Means of Egress and Accessibility

Larry Earll.....	Wisconsin Department of Administration
Tom Hirsch.....	Hirsch Group LLC – American Institute of Architects, Wisconsin Society

Joseph Jurkiewicz.....Kahler Slater Architects – American Institute of Architects,
Wisconsin Society
 Larry Palank.....Hunzinger Construction Co. – Associated General Contractors
of Greater Milwaukee
 Monica Sommerfeldt.....Archer Lion Inc. – Wisconsin Builders Association
 David Wheaton.....City of Wauwatosa – Wisconsin Building Inspectors
Association

Structural

Steven Cramer.....UW-Madison, Department of Civil and Environmental
Engineering
 David HyzerAmerican Institute of Architects, Wisconsin Society
 Tom Luttrell.....Wisconsin Department of Administration, Division of State
Facilities
 Michael Oliva.....UW-Madison, Department of Civil and Environmental
Engineering
 John Rave.....4th Dimension Design Inc. – Associated Builders and
Contractors of Wisconsin
 Robert Schumacher.....GRAEF – American Society of Civil Engineers, Wisconsin
Section
 Alan WagnerWagner Komurka Geotechnical Group, Inc. – American
Society of Civil Engineers, Wisconsin Section
 Michael West.....Computerized Structural Design –American Society of Civil
Engineers, Wisconsin Section

SECTION 1. Comm 2.31 (1) (a) and (d) are amended to read:

Comm 2.31 (1) (a) General. Fees relating to the submittal of all plans, submitted in accordance with the requirements of chs. Comm ~~60~~ 61 to 66, shall be determined in accordance with this section.

(d) *Miscellaneous plans.* The fee for miscellaneous plans shall be \$250 per plan. Miscellaneous plans are plans which have no building, HVAC or fire protection system plan submissions and those plans for which no area may be associated. Miscellaneous plans include, but are not limited to, all of the following:

1. Footing and foundation plans submitted prior to the submission of the building plans.
2. ~~Industrial exhaust~~ Exhaust systems for dust, fumes, vapors and gases, ~~for government-owned buildings only.~~
3. ~~Spray booth plans, for government-owned buildings only.~~
4. 3. Stadium, grandstand and bleacher plans, and interior bleacher plans submitted as independent projects.
5. ~~Structural plans submitted as independent projects, such as docks, piers, antennae, outdoor movie screens and observation towers.~~
6. 4. Any building component, other than building, HVAC and fire protection systems, submitted after installation.
7. ~~Building, HVAC and fire protection system plans submitted following denial of plan approval, if the submission is within 8 months of the denial.~~

SECTION 2. Comm 2.31 (1) (i) is repealed and recreated to read:

Comm 2.31 (1) (i) Resubmission. The fee for building, HVAC and fire protection system plans resubmitted following denial of plan approval, if the submission is within 8 months of the denial shall be \$250 per plan.

SECTION 3. Comm 2.36 is repealed.

SECTION 4. Comm 2.52 (3) (title) and (a) are amended to read:

Comm 2.52 (3) (title) PETITIONS FOR VARIANCE ON RULES UNDER CHS. COMM ~~60~~ 61 TO 66, WISCONSIN COMMERCIAL BUILDING CODE. (a) Except as provided under sub. (4), the fee for reviewing petitions for variance on rules under chs. Comm ~~60~~ 61 to 66 shall be \$550.00 per petition.

SECTION 5. Comm 5.61 (1) is amended to read:

Comm 5.61 (1) GENERAL. A person who holds a certification issued by the department as a certified commercial building inspector may conduct inspections of public buildings and places of employment for the purpose of administering and enforcing chs. Comm ~~60~~ 61 to 66 and 75 to 79.

SECTION 6. Comm 5.63 (1) (b) 5. is amended to read:

Comm 5.63 (1) (b) 5. Certified soil erosion inspector may inspect one- and 2-family dwellings for the purpose of administering and enforcing s. Comm 21.125, ~~and public buildings and places of employment for the purpose of administering and enforcing ch. Comm 60.~~

SECTION 7. Comm 14.13 (3) (title) and (intro.) are amended to read:

Comm 14.13 (3) (title) MAINTENANCE OF SMOKE DETECTORS ~~IN RESIDENTIAL BUILDINGS AND ALARMS.~~ ~~This is a~~ These are department informational ~~note~~ notes to be used under NFPA 1 section 13.7.4.6:

SECTION 8. Comm 14.13 (3) Note [2] is created to read:

Comm 14.13 (3) Note [2]: Under chapter Comm 66, all smoke alarms must be replaced by the end of the service period specified by their manufacturer, and a replacement alarm that uses a battery as the primary power source must have a non-replaceable, non-removable battery which is capable of powering the alarm for at least ten years.

SECTION 9. Comm 21.095 is repealed and recreated to read:

Comm 21.095 Automatic fire sprinklers. (1) Except as provided in subs. (2) and (3), the design, installation, testing and maintenance of automatic fire sprinklers shall conform to NFPA 13D.

(2) (a) The requirements of NFPA 13D sections 6.3 (4), 8.1.3 and 8.6 are not included as part of this code.

(b) Fire department connections are prohibited in multipurpose piping systems.

(3) (a) Limited area automatic fire sprinkler systems are allowed in dwellings.

(b) 1. A limited area automatic fire sprinkler system shall add the following wording to the warning sign required in 6.3(5) of NFPA 13D: "The number and location of sprinklers in this system does not conform to NFPA 13D."

2. An automatic fire sprinkler system providing fire protection throughout the dwelling in accordance with NFPA 13D shall add the following wording to the warning sign required in 6.3(5) of NFPA 13D: "The number and location of sprinklers in this system conform with NFPA 13D."

Note: Multipurpose piping systems need to conform to provisions of the Plumbing Code, chs. Comm 81 to 87. These systems attach fire sprinkler heads to the dwelling's potable water piping system.

Note: Chapter 145 of the Statutes requires automatic fire sprinkler systems on dedicated water supply systems, to be installed by a licensed sprinkler fitter.

SECTION 10. Comm 61.03 (14) (a) to (c) are amended to read:

Comm 61.03 (14) (a) Design and construction-related requirements shall apply that are addressed in IFC section 102.6; IFC chapters 2 to 4; IFC sections 501 to 502 and 504 to 510; IFC sections 601 to 605 and 607 to 609; IFC chapters 7 and 8; IFC sections 901.1 to 901.4.2, 901.4.4 to 909.18.9, and 909.20 to 913; and IFC chapters 10, 12 to 21, 23 to 29, 31 to 33, 36, 37, and 39 to 44 47.

(b) Occupant loads addressed in IFC section ~~1003.2.2.10~~ 1004.8 shall apply but shall be established by the owner rather than by the code official.

(c) Construction-related inspections and reports shall apply that are addressed in IFC chapters 2 to 8; IFC sections 901 to 909.18.9 and 909.20 to 913; and IFC chapters 10, 12 to 21, 23 to 29, 31, 32, 33, 36, 37, and 39 to 44 47 but may be performed or compiled by any qualified agency, rather than by a special inspector.

SECTION 11. Comm 61.03 (14) (d) and (e) are repealed.

SECTION 12. Comm 61.03 (14) (f) is renumbered Comm 61.03 (14) (d) and amended to read:

Comm 61.03 (14) (d) Use and operation provisions shall apply which are a contingency of design and construction-related requirements and which are addressed in IFC chapters 2 to 4; IFC sections 501 and 502 and 504 to 510; IFC sections 601 to 605 and 607 to 609; IFC chapters 7 and 8; IFC sections 901.1 to 901.4.2, 901.4.4 to 909.18.9, and 909.20 to 913; and IFC chapters 10, 12 to 21, 23 to 29, 31 to 33, 36, 37, and 39 to 44 47.

SECTION 13. Comm 61.03 (15) is created to read:

Comm 61.03 (15) GLOBAL DELETIONS FOR THE INTERNATIONAL CODES. Unless specifically applied by another department-written rule in this code, the following requirements of the IBC, IEBC, IECC, IFC, IFGC and IMC do not apply as rules of the department:

(a) All requirements that specify submittal and approval of construction documents, shop drawings or acceptance tests and records.

(b) All requirements that specify employing special inspectors or obtaining special inspections or structural observations.

(c) All requirements that mandate obtaining approval, acceptance or other direction from a building or fire code official.

Note: This paragraph does not delete options to obtain approval from the Department or its authorized agents for specific circumstances that differ from conditions which are more generally prescribed in the above-listed codes.

(d) All requirements that specify providing information to a building or fire code official, unless that official requests the information.

(e) All requirements that address construction in flood hazard areas.

(f) All requirements that address construction of detached one- or two-family dwellings.

(g) All requirements that specify obtaining a permit or certificate of occupancy.

Note: For an example of a Department-written rule that specifically applies one or more of the requirements referenced above, see section Comm 62.1700, which specifically applies the special inspections and determinations in IBC sections 1711 to 1716.

SECTION 14. Comm 61.04 (15) is amended to read:

Comm 61.04 (15) “This code” means chs. Comm ~~60~~ 61 to 66, which is the Wisconsin Commercial Building Code.

SECTION 15. Comm 61.05 is amended to read:

Comm 61.05 Adoption of the International Codes. (1) IBC. The *International Building Code*[®] – ~~2006~~ 2009, subject to the modifications specified in this chapter and ch. Comm 62 is hereby incorporated by reference into this code.

(2) IECC. The *International Energy Conservation Code*[®] – ~~2006~~ 2009, subject to the modifications specified in this chapter and in ch. Comm 63 is hereby incorporated by reference into this code.

(3) IMC. The *International Mechanical Code*[®] – ~~2006~~ 2009, subject to the modifications specified in this chapter and in ch. Comm 64 is hereby incorporated by reference into this code.

(4) IFGC. The *International Fuel Gas Code*[®] – ~~2006~~ 2009, subject to the modifications specified in this chapter and in ch. Comm 65 is hereby incorporated by reference into this code.

(5) IEBC. The *International Existing Building Code*[®] – ~~2006~~ 2009, subject to the modifications specified in this chapter and ch. Comm 66, is hereby incorporated by reference into this code.

Note: A copy of the *International Building Code*[®], *International Energy Conservation Code*[®], *International Mechanical Code*[®], *International Fuel Gas Code*[®], and *International Existing Building Code*[®] is on file in the offices of the Department and the Legislative Reference Bureau. Copies of the International Codes may be purchased from the

Note: The references in ~~chs. chapters~~ Comm 62 to 66 to individual ICC code sections typically are to a particular paragraph or set of paragraphs within a referenced ICC section, and are not intended to affect any subsequent subdivisions of the specified section unless stated otherwise. For example, the directive in ~~s. section~~ Comm 62.0907 (1) to substitute certain language for IBC section 907.1 is not intended to mean that IBC sections 907.1.1 through 907.1.2 are also being changed.

SECTION 16. Comm 61.30 (1) (a) is amended to read:

Comm 61.30 (1) (a) Except as provided in par. (b) and sub. (4), the construction of, the alteration of or the addition to a public building or a place of employment may not commence unless plans for the project have been submitted to and approved by department or its authorized representative in accordance with s. Comm 61.31.

SECTION 17. Comm 61.30 (1) (b) 2. and 3. and Table 61.30-2 are repealed.

SECTION 18. Comm 61.30 (1) (b) 1. is renumbered 61.30 (1) (b).

SECTION 19. Comm 61.30 (3) is repealed and recreated to read:

Comm 61.30 (3) TYPES OF BUILDING COMPONENTS. (a) Except as provided in sub. (4), building component or system plans shall be submitted to and approved by the department or authorized representative prior to installation of the component or system, for each of the following type components or systems:

1. Pre-manufactured and pre-engineered structural components.
2. Heating, ventilating and air conditioning systems.
3. Fire protection systems.

(b) Component or systems plans shall be submitted in one of the following manners:

1. Included with the plans under sub. (1) (a).
2. Submitted as a separate plan for the component or system.

SECTION 20. Comm Table 61.30-3 is repealed.

SECTION 21. Comm 61.30 (4) is renumbered Comm 61.30 (4) (a).

SECTION 22. Comm 61.30 (4) (b) is created to read:

Comm 61.30 (4) (b) The submission and approval of automatic fire sprinkler plans is not required for a project involving the alteration or addition of 20 or fewer sprinkler heads to an existing automatic fire sprinkler system.

SECTION 23. Comm 61.31 (1) Note [2] is created to read:

Comm 61.31 (1) Note [2]: Nothing in this code is intended to prohibit the submission of plans and construction documents in an electronic or digital media.

SECTION 24. Comm 61.31 (1) (b) 3. is created to read:

Comm 61.31 (1) (b) 3. Be signed, including license number, and dated by the master plumber who is responsible for the installation of a NFPA 13D multipurpose piping system and who is licensed by the department of commerce.

Note: Plans for a multipurpose piping system must to be submitted under section Comm 82.20 to determine compliance for the non-fire protection aspects of the system.

SECTION 25. Comm 61.34 is repealed.

SECTION 26. Comm 62.0202 (1) and (2) are repealed and recreated to read:

Comm 62.0202 (1) ADDITIONS. This is a department definition for this chapter in addition to the definitions in IBC section 202: “High-piled combustible storage” means storage of combustible materials in closely packed piles, or on pallets, in racks or on shelves, where the top of storage is greater than 12 feet in height. When required by the fire code official, high-piled combustible storage also includes certain high-hazard commodities, such as rubber tires, Group A plastics, flammable liquids, idle pallets and similar commodities, where the top of storage is greater than 6 feet in height.

(2) SUBSTITUTIONS. Substitute the following definition for the corresponding definition in IBC section 202: “Approved” means acceptable to the department.

SECTION 27. Comm 62.0400 (1) Note is created to read:

Comm 62.0400 (1) Note: Pursuant to section 167.10 (6) (d) of the Statutes, no wholesaler, dealer or jobber may store fireworks within 50 feet of a dwelling.

SECTION 28. Comm 62.0401 Note is amended to read:

Comm 62.0401 Note: See chapter Comm 10 for additional requirements ~~for relating to motor vehicle service stations fuel dispensing facilities and repair garages and for to~~ storage, handling, processing and transporting of flammable, ~~and~~ combustible and hazardous liquids.

SECTION 29. Comm 62.0402 is repealed.

SECTION 30. Comm 62.0414 is repealed.

SECTION 31. Comm 62.0702 is repealed and recreated to read:

Comm 62.0702 Fire separation distance. Substitute the following definition for the corresponding definition listed in IBC section 702: “Fire separation distance” means the distance measured at right angles from the face of the building wall to one of the following:

- (1) The closest interior lot line.
- (2) To a permanent no-build easement line.
- (3) To the centerline of a street, an alley or public way.
- (4) To an imaginary line between two buildings on the same property.

SECTION 32. Comm 62.0703 is repealed.

SECTION 33. Comm 62.0704 and 62.0705 are renumbered Comm 62.0705 and 62.0706, and Comm 62.0705 and 62.0706 (intro.), as renumbered, are amended to read:

Comm 62.0705 Connections between buildings. This is a department exception to the requirements in IBC section ~~704.4~~ 705.1: This section does not apply to connections between buildings, that are in compliance with IBC section 3104.

Comm 62.0706 Fire wall identification. These are department rules in addition to the requirements in IBC section ~~705~~ 706:

SECTION 34. Comm 62.0707 is repealed and recreated to read:

Comm 62.0707 Fire barriers. Substitute the following wording for IBC section 707.5: Fire barriers shall extend from the top of the foundation; or horizontal assembly constructed in accordance with IBC section 712; or floor/ceiling assembly below to the underside of the floor or roof sheathing, slab or deck above, or to the underside of the horizontal assembly constructed in accordance with IBC section 712 and shall be securely attached thereto. Such fire barriers shall be continuous through concealed spaces, such as the space above a suspended ceiling.

SECTION 35. Comm 62.0708 is created to read:

Comm 62.0708 Shaft enclosures. Substitute the following wording for the 7.2 exception in IBC section 708.2: Is not part of a required exit enclosure.

SECTION 36. Comm 62.0721 is created to read:

Comm 62.0721 Calculated fire resistance (1) NONSYMMETRICAL ASSEMBLIES. Substitute the following wording for the exception in each of IBC sections 721.2.1.4.3, 721.3.2.3 and 721.4.1.4: Exception: For an exterior wall with a fire separation distance greater than 10 feet, the fire shall be assumed to occur on the interior side only.

(2) EXTERIOR WALLS. Substitute the following wording for IBC Section 721.6.2.3: For an exterior wall with a fire separation distance greater than 10 feet, the wall is assigned a rating dependant on the interior membrane and the framing as described in IBC Tables 721.6.2(1) and 721.6.2(2). The membrane on the outside of the nonfire-exposed side of exterior walls with a fire separation distance greater than 10 feet may consist of sheathing, sheathing paper and siding as described in IBC Table 721.6.2(3).

SECTION 37. Comm 62.0902 and (title) are amended to read:

Comm 62.0902 ~~Definition~~ Definitions. Substitute the following ~~definition~~ definitions and informational note for the corresponding ~~definition~~ definitions listed in IBC section 902.1:

(1) “Automatic sprinkler system” or “Automatic fire sprinkler system” has the meaning given in s. 145.01 (2), Stats.

Note: Section 145.01 (2), Stats., reads as follows: “ ‘Automatic fire sprinkler system,’ for fire protection purposes, means an integrated system of underground and overhead piping designed in accordance with fire protection engineering standards. The system includes a suitable water supply, such as a gravity tank, fire pump, reservoir or pressure tank or connection beginning at the supply side of an approved gate valve located at or near the property line where the pipe or piping system provides water used exclusively for fire protection and related appurtenances and to standpipes connected to automatic sprinkler systems. The portion of the sprinkler system above ground is a network of specially sized or hydraulically designed piping installed in a building, structure or area, generally overhead, and to which sprinklers are connected in a systematic pattern. The system includes a controlling valve and a device for actuating an alarm when the system is in operation. The system is usually activated by heat from a fire and discharges water over the fire area.”

(2) “Fire area” means the aggregate floor area enclosed and bounded by fire walls, fire barriers, exterior walls or fire-resistance-rated horizontal assemblies of a building.

SECTION 38. Comm 62.0903 (1) is repealed.

SECTION 39. Comm 62.0903 (2) to (5) are renumbered Comm 62.0903 (1) to (4) and Comm 62.0903 (4) (intro.), as renumbered, is amended to read:

Comm 62.0903 (4) GROUP E. Substitute the following wording for the requirements in IBC section ~~903.2.2~~ 903.2.3:

SECTION 40. Comm 62.0903 (6) (b), (d) 1. and 2. and Table 62.0903 are repealed.

SECTION 41. Comm 62.0903 (6) (intro.), (a), (c) and (d) 3. and 4. are renumbered Comm 62.0903 (5) (intro.), (a), (b) and (c) 1. and 2., and Comm 62.0903 (5) (intro.), (b) (intro.) and (c) 1. (intro.) and 1. b., as renumbered, are amended to read:

Comm 62.0903 (5) GROUP R. Substitute the following wording for the requirements in IBC section ~~903.2.7~~ 903.2.8:

(b) An automatic sprinkler system installed in a multifamily dwelling may conform with sub. ~~(14)~~ (10) provided the multifamily dwelling complies with all of the following:

(c) 1. An automatic sprinkler system installed in a townhouse may conform with sub. ~~(14)~~ (10) provided the townhouse complies with all of the following:

1. b. Each dwelling unit within the townhouse is separated from other dwelling units by at least ~~2-1~~ hour fire-resistive-rated separation walls constructed in accordance with the requirements of IBC section ~~705~~ 706 and do not contain any openings ~~and~~ or have any plumbing equipment or mechanical equipment within. The separation wall does not have to comply with the structural stability requirements of IBC section ~~705.2~~ 706.2 and the horizontal continuity requirements of IBC section ~~705.5-706.5~~.

SECTION 42. Comm 62.0903 (5) (d) is created to read:

Comm 62.0903 (5) (d) An automatic sprinkler system installed in a building with a Group R-3 fire area may conform with sub. (10) provided the Group R-3 use complies with all of the following:

1. The Group R-3 use is limited to a single-room bunkhouse type sleeping unit.
2. The fire area does not exceed 1,500 square feet.
3. The fire area is not more than 1 story above grade plane in height.
4. The fire area has an occupant load of 10 or less.
5. The Group R-3 use is not served by either a community water system or a municipal water system as defined under s. NR 811.02.

Note: Under section NR 811.02, “community water system means a public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents. Any water system serving 7 or more homes, 10 or more mobile homes, 10 or more apartment units or 10 or more condominium

units shall be considered a community water system unless information is provided by the owners indicating that 25 year-round residents will not be served.”

Note: Under section NR 811.02, “municipal water system means a community water system owned by a city, village, county, town, town sanitary district, utility district, public inland lake and rehabilitation district, municipal water district or a federal, state, county or municipal owned institution for congregate care or correction, or a privately owned water utility serving the foregoing.”

SECTION 43. Comm 62.0903 (6m) (b) 1. and 2. are repealed.

SECTION 44. Comm 62.0903 (6m) (intro.), (a), (b) 3. to 5. and (c) are renumbered Comm 62.0903 (6) (intro.), (a), (b) 1. to 3. and (c), and Comm 62.0903 (6) (intro.), as renumbered, is amended to read:

Comm 62.0903 (6) STUDENT HOUSING. These are department rules in addition to the requirements in IBC section ~~903.2.7~~ 903.2.8:

SECTION 45. Comm 62.0903 (8) to (10) are repealed.

SECTION 46. Comm 62.0903 (11) to (13) are renumbered Comm 62.0903 (7) to (9), and Comm 62.0903 (7) (intro.) and (b) 4. and (9), as renumbered, are amended to read:

Comm 62.0903 (7) BUILDINGS OVER 60 FEET IN HEIGHT. This is a department rule in addition to the requirements in IBC section ~~903.2.10.3~~ 903.2.11.3:

(b) 4. Special industrial occupancies complying with the criteria outlined in IBC section ~~503.1.2~~ 503.1.1.

(9) BALCONIES. Substitute the following wording for the requirements in IBC section 903.3.1.2.1: Sprinkler protection complying with NFPA 13 shall be provided for exterior balconies, decks and ground-floor patios of dwelling units where the building is of Type V construction, provided there is a roof or deck above. Sidewall sprinklers that are used to protect such areas shall be permitted to be located such that their deflectors are within 1 inch to 6 inches below the structural members, and a maximum distance of 14 inches below the deck of the exterior balconies and decks that are constructed of open wood joist construction.

SECTION 47. Comm 62.0903 (14) (b) is repealed.

SECTION 48. Comm 62.0903 (14) is renumbered Comm 62.0903 (10).

SECTION 49. Comm 62.0903 (10) (b) is created to read:

Comm 62.0903 (10) (b) 1. The requirements in NFPA 13D section 6.3 (4) are not included as part of this code.

2. Fire department connections are prohibited in multi-purpose piping systems.

Note: Multipurpose piping systems must conform with the applicable provisions of the Plumbing Code, chapters Comm 81 to 87.

SECTION 50. Comm 62.0903 (15) is renumbered Comm 62.0903 (11).

SECTION 51. Comm 62.0907 (2) to (4) are repealed.

SECTION 52. Comm 62.0907 (5) to (7) are renumbered Comm 62.0907 (2) to (4) and amended to read:

Comm 62.0907 (2) SMOKE ALARMS. These are department informational notes to be used under IBC section ~~907.2.10 (intro.)~~ 907.2.11:

(3) PROTECTIVE COVERS. Substitute the following wording for the requirements in IBC section ~~907.3.5~~ 907.4.2.5: The building official is authorized to require the installation of listed manual fire alarm box protective covers to prevent malicious false alarms or provide the manual fire alarm box with protection from physical damage. The protective cover shall be transparent or red in color with a transparent face to permit visibility of the manual fire alarm box. Each cover shall include proper operating instructions. Protective covers shall not project more than that permitted by IBC section 1003.3.3.

(4) EMPLOYEE WORK AREAS. Substitute the following wording for the requirements in IBC section ~~907.9.1.2~~ 907.5.2.3.2: Where employee work areas have audible alarm coverage, the alarm system shall be designed so that visible notification appliances can be integrated into the system.

SECTION 53. Comm 62.0909 (7) is repealed.

SECTION 54. Comm 62.1007 is repealed.

SECTION 55. Comm 62.1008 (2) is amended to read:

Comm 62.1008 (2) DOOR ARRANGEMENT. This is a department exception to the requirements in IBC section ~~1008.1.7~~ 1008.1.8: Where ~~ample~~ maneuvering space is provided between the doors in accordance with IBC section 1101.2 such that use by an individual in a wheelchair will not block the operation of the doors.`

SECTION 56. Comm 62.1009 and Comm 62.1016 are repealed.

SECTION 57. Comm 62.1017 is renumbered Comm 62.1018, and Comm 62.1018 (intro.), as renumbered, is amended to read:

Comm 62.1018 Corridor continuity. This is a department exception to the requirements in IBC section ~~4017.5~~ 1018.6: Other spaces or rooms constructed as required for corridors, and that are adjacent to a fire-resistance-rated corridor, shall not be construed as intervening rooms; and may be open to the corridor when all of the following are satisfied:

SECTION 58. Comm 62.1019 (2) is repealed.

SECTION 59. Comm 62.1019 is renumbered Comm 62.1021, and Comm 62.1021 (title) and (1), as renumbered, are amended to read:

Comm 62.1021 (title) ~~Minimum number of exits~~ Exits from stories. (1) Substitute the following wording for the requirements in IBC section ~~4019.1~~ 1021.1: All rooms and spaces within each story shall be provided with and have access to the minimum number of approved independent exits required by Table ~~4019.1~~ 1021.1 based on the occupant load of the story. For the purposes of this chapter, occupied roof shall be provided with exits as required for stories. The required number of exits from any story, basement or individual space shall be maintained until arrival at grade or the public way.

SECTION 60. Comm 62.1021 (2) is created to read:

Comm 62.1021 (2) This is a department exception to the requirements in IBC section 1021.1: Buildings of Group I-3 occupancy that are used as guard towers, provided the towers are no higher than 2 stories above grade, accommodate no more than 10 occupants, and have a travel distance of no more than 75 feet.

SECTION 61. Comm 62.1020 is repealed.

SECTION 62. Comm 62.1022 is created to read:

Comm 62.1022 Enclosures required. Substitute the following wording for exceptions 6. and 7. in IBC section 1022.1:

(1) Stairways as required by IBC sections 410.5.3 and 1015.6.1 are not required to be enclosed.

(2) Stairways from balconies, galleries or press boxes as provided for in IBC section 1028.5.1 are not required to be enclosed.

SECTION 63. Comm 62.1101 (2) (a) is amended to read:

Comm 62.1101 (2) (a) When toilet and bathing rooms are provided in dwelling units and sleeping units within an R-2 occupancy, the rooms shall conform to ICC/ANSI A117.1 section 1004.11.3.2 and with the requirements specified under ~~par.~~ pars. (b) and (c).

SECTION 64. Comm 62.1101.2 (2) (c) is created to read:

Comm 62.1101 (2) (c) The controls for a roll-in, 60-inch transfer shower may be located on the back wall of the shower.

SECTION 65. Comm 62.1103 (1) is repealed.

SECTION 66. Comm 62.1103 (2) (a) and (b) are renumbered Comm 62.1103 (1) and (2).

SECTION 67. Comm 62.1107 (title), (1) (a) to (c) and (2) (a) are amended to read:

Comm 62.1107 (title) ~~General dwelling unit~~ Dwelling units and sleeping unit exceptions units. (1) GROUP I. (a) *Group I-1*. Substitute the following wording for the requirements, but not the exception, in IBC section 1107.5.1.2: In structures with three or more dwelling units or sleeping units intended to be occupied as a residence, every dwelling unit and sleeping unit intended to be occupied as a residence shall be a Type B unit.

(b) *Group I-2 nursing homes*. Substitute the following wording for the requirement, but not the exception, in IBC section 1107.5.2.2: In structures with three or more dwelling units or sleeping units intended to be occupied as a residence, every dwelling unit and sleeping unit intended to be occupied as a residence shall be a Type B unit.

(c) *Group I-2 hospitals*. Substitute the following wording for the requirement, but not the exception, in IBC section 1107.5.3.2: In structures with three or more dwelling units or sleeping units intended to be occupied as a residence, every dwelling unit and sleeping unit intended to be occupied as a residence shall be a Type B unit.

(2) (a) *Group R-1*. Substitute the following wording for the requirement, but not the exception, in IBC section 1107.6.1.2: In structures with three or more dwelling units or sleeping units intended to be occupied as a residence, every dwelling unit and sleeping unit intended to be occupied as a residence shall be a Type B unit.

SECTION 68. Comm 62.1107 (2) (c) is renumbered Comm 62.1107 (2) (d) and amended to read:

Comm 62.1107 (2) (d) *Group R-4*. Substitute the following wording for the requirement, but not the exception, in IBC section 1107.6.4.2: In structures with three or more dwelling units or

sleeping units intended to be occupied as a residence, every dwelling unit and sleeping unit intended to be occupied as a residence shall be a Type B unit.

SECTION 69. Comm 62.1107 (2) (c) is created to read:

Comm 62.1107 (2) (c) Group R-3. Substitute the following wording for the requirement, but not the exception, in IBC section 107.6.3: In Group R-3 occupancies where there are three or more dwelling units or sleeping units intended to be occupied as a residence in a single structure, every dwelling unit and sleeping unit intended to be occupied as a residence shall be a Type B unit.

SECTION 70. Comm 62.1107 (3) (a) is amended to read:

Comm 62.1107 (3) (a) Petition for variance. This is a department rule in addition to the requirements in IBC section 1107.7.4: In accordance with s. 101.132 (2) (b) 4. and (c) 2., Stats., the owner may use the petition for variance procedure specified in s. Comm 61.22 to request a reduction in the number of Type A or Type B dwelling units due to site impracticality ~~through the petition for variance procedures specified in ch. Comm 61.~~

SECTION 71. Comm 62.1107 (3) (a) Note is created to read:

Comm 62.1107 (3) (a) Note: The Department may grant a variance in accordance with chapter Comm 3 which requires the submittal of a petition for variance form (SBD-9890) and a fee, and that an equivalency is established in the petition for variance that meets the intent of the rule being petitioned. Chapter Comm 3 also requires the Department to process regular petitions within 30 business days and priority petitions within 10 business days. The SBD-9890 form is available from the Department's web site at www.commerce.wi.gov, through links to Safety and Buildings Division forms.

SECTION 72. Comm 62.1107 (3) (b) (title) is amended to read:

Comm 62.1107 (3) (b) (title) ~~Condition~~ Condition.

SECTION 73. Comm 62.1110 (1) (title) and (2) (title) and (a) are amended to read:

Comm 62.1110 (1) (title) ~~PUBLIC PARKING SIGNS~~ SIGNAGE.

(2) (title) ~~DIRECTIONAL AND INFORMATIONAL SIGNS~~ SIGNAGE. (a) Substitute the following wording for the introductory paragraph of IBC section ~~1110.3~~ 1110.2: ~~Signs~~ Signage indicating directional information or information about functional spaces or signage indicating special accessibility provisions shall comply with ICC A117.1 and be provided as follows at the following locations:

SECTION 74. Comm 62.1110 (2) (b) Note is repealed.

SECTION 75. Comm 62.1200 (2) (a) 1. is amended to read:

Comm 62.1200 (2) (a) 1. Listed and labeled carbon monoxide alarms or detectors shall be installed at locations specified in s. 101.149 (2), Stats., and maintained in accordance with s. 101.149 (3), Stats., in buildings, including buildings existing on October 1, 2008, which are residential buildings or include residential buildings, and contain fuel-burning appliances, except as provided in subd. 4- 5.

SECTION 76. Comm 62.1200 (3) (d) is amended to read:

Comm 62.1200 (3) (d) For the propose of sub. (2) (a) 5. b., the inspection of the sealed combustion appliances, vents and chimneys shall be performed by an individual who holds a certification issued under s. Comm ~~5.73~~ 5.71 as an HVAC qualifier.

SECTION 77. Comm 62.1211 is created to read:

Comm 62.1211 Air Leakage. These are department rules in addition to the requirements in IBC chapter 12.

(1) DEFINITION. In this section, “air barrier” means a material or combination of materials collectively installed to resist leakage of indoor air into the exterior envelope of a building.

(2) DESIGN AND INSTALLATION (a) 1. The design of above-grade exterior walls, floors and ceilings may not create conditions of accelerated deterioration from moisture condensation. The design shall also conform to the air-leakage requirements found elsewhere in this code.

Note: For examples of other air-leakage provisions established under this code, see the following sections of the International Energy Conservation Code for allowable air leakage through various openings in exterior walls: IECC section 402.4, for windows, skylights, sliding glass doors, and recessed lighting, in residential occupancies; and IECC section 502.4 for curtain walls, storefront glazing, glazed entrance doors, outdoor-air intakes, exhaust openings, and recessed lighting, in commercial occupancies.

2. Except as specified in par. (d), a continuous air barrier shall be provided where a building component or assembly separates a building’s interior conditioned space from the outdoors.

(b) The air barrier shall have a maximum air leakage rate of 0.04 cfm/ft.² at 0.30 in. H₂O, when tested in accordance with ASTM E 2357.

(c) The air barrier shall be located on the warm-in-winter side of the thermal insulation.

(d) An air barrier is not required in any of the following locations:

1. Where other approved means to avoid condensation and frost within the wall, floor or ceiling assembly are provided.

2. In monolithic portions of plain or reinforced concrete exterior walls that are designed and constructed in accordance with IBC chapter 19.

Note: Although air barriers are to reduce transmission of water vapor by convection (air movement), and vapor retarders are to reduce transmission of water vapor by diffusion, these functions may be combined when desired into a single membrane. In practice, considerably more moisture is transported by convection than by diffusion.

SECTION 78. Comm 62.1405 is repealed and recreated to read:

Comm 62.1405 Polystyrene sheathing. This is a department rule in addition to the requirements in IBC section 1405.14.1: Polystyrene sheathing may be utilized as the required backing material for vinyl siding provided all of the following characteristics and conditions are met:

- (1) The sheathing is extruded, rigid and cellular.
- (2) The sheathing is type IV, as specified in ASTM C 578.
- (3) The sheathing has a thickness of at least one inch.
- (4) The sheathing is installed with an on-center stud spacing of 16 inches or less.
- (5) The mean roof height of the building is 40 feet or less.
- (6) The building wall has with a wind exposure category of B or C, as established in IBC section 1609.4; and the building is not sited on the upper half of an isolated hill or escarpment meeting conditions 1, 2, and 3 in IBC section 1609.1.1.1.

SECTION 79. Comm 62.1407 is repealed.

SECTION 80. Comm 62.1603 (title), (1), (3), (4) and (6) are repealed.

SECTION 81. Comm 62.1603 (5) is renumbered Comm 62.0400 (5) and amended to read:

Comm 62.0400 (5) LIVE LOADS POSTED. ~~Substitute the following wording for the requirements in IBC section 1603.3:~~ Where the live loads for which each floor or portion thereof of a commercial or industrial building is or has been designed to exceed 100 pounds per square foot, such design live loads shall be conspicuously posted by the owner in that part of each story in which they apply, using durable signs. It shall be unlawful to remove or deface such notices.

SECTION 82. Comm 62.1603 (2) is renumbered Comm 62.1603.

SECTION 83. Comm 62.1604 (title) and (1) are repealed.

SECTION 84. Comm 62.1604 (2) is renumbered Comm 62.1604.

SECTION 85. Comm 62.1607 (1) is amended to read:

Comm 62.1607 (1) RESIDENTIAL FLOOR LOADS. Substitute the following wording and live loads for the requirements in line ~~28~~ 27 and footnote j of IBC Table 1607.1:

SECTION 86. Comm Table 1607.1 and footnote j are amended to read:

Table 1607.1
Minimum Uniformly Distributed Live Loads
and Minimum Concentrated Live Loads^g
(Partial Table)

Occupancy or Use	Uniform (psf)	Concentrated (lbs.)
28 <u>27</u> . Residential		
Three or more attached dwelling units not more than 3 stories high, with separate means of egress for each unit		
Uninhabitable attics without storage ⁱ	5	
Uninhabitable attics with storage ^{i,j,k}	20	—
All other areas except balconies <u>Habitable attics</u>	40	
Hotels and Group R-2		
Private rooms and corridors serving them	40	
Public rooms and corridors serving them	100	

j. For attics with storage and constructed with trusses, this live load need only be applied to those portions of the bottom chord where there are two or more adjacent trusses with the same web configuration capable of containing a rectangle 42 inches high by 2 feet wide or greater, located within the plane of ~~he~~ the truss. The rectangle shall fit between the top of the bottom chord and the bottom of any other truss member, provided that each of the following criteria is met:

- i. The attic area is accessible by a pull-down stairway or framed opening in accordance with ~~Section~~ IBC section 1209.2, and
- ii. The truss shall have a bottom chord pitch less than 2:12.
- iii. Bottom chords of trusses shall be designed for the greater of actual imposed dead load or 10 psf, uniformly distributed over the entire span.

SECTION 87. Comm 62.1607 (2) is repealed.

SECTION 88. Comm 62.1607 (3) is renumbered Comm 62.1607 (2) and amended to read:

Comm 62.1607 (2) TRUCK AND BUS GARAGES. Substitute the following wording for the requirements in IBC section 1607.6: Minimum live loads for garages having trucks or buses

shall be as specified in IBC Table 1607.6, but shall not be less than 50 pounds per square foot, unless other loads are specifically justified and approved by the department. Actual loads shall be used where they are greater than the loads specified in the table.

SECTION 89. Comm 62.1612 is repealed.

SECTION 90. Comm 62.1613 (1) and (2) are repealed.

SECTION 91. Comm 62.1613 (3) is renumbered Comm 62.1613.

SECTION 92. Comm 62.1700 is amended to read:

Comm 62.1700 Structural tests and special inspections. The requirements in IBC chapter 17, except for the requirements in IBC sections ~~1710~~ 1711 to ~~1715~~ 1716, are not included as part of this code.

SECTION 93. Comm 62.1802 is repealed.

SECTION 94. Comm 62.1803 is repealed and recreated to read:

Comm 62.1803 Deep foundations. Item 5 in IBC section 1803.5.5 is not included as part of this code.

SECTION 95. Comm 62.1804 is created to read:

Comm 62.1804 Ground improvement. These are department rules in addition to the requirements in IBC section 1804:

(1) DESIGN OF GROUND IMPROVEMENT. Ground improvement for support of foundations or floor slabs shall be designed by an architect or engineer who is registered by the department of regulation and licensing.

(2) ALLOWABLE FOUNDATION PRESSURE OF IMPROVED GROUND. The allowable foundation pressure for improved ground shall incorporate a minimum safety factor of 3 with respect to a bearing capacity failure within the composite improved ground.

(3) SETTLEMENT OF STRUCTURES SUPPORTED ON IMPROVED GROUND. The improved ground shall be designed and constructed for a maximum anticipated total settlement of one inch and a maximum anticipated differential settlement of three fourths of an inch, unless it can be shown that the predicted total and differential settlement will cause neither harmful distortion of, nor instability in, the structure, nor cause any element to be loaded beyond its capacity.

(4) DESIGN CONFIRMATION TESTING. The registered design professional responsible for the design of the ground improvement shall determine the scope of field testing required to confirm the design, shall supervise the testing, and shall write a report indicating whether the test results confirm the design. At the discretion of that design professional, testing may be limited to a modulus load test to measure deformation behavior of a single ground improvement element. The design of the ground improvement shall be modified as appropriate based on the results of the confirmatory testing.

(5) QUALITY CONTROL OBSERVATIONS AND TESTING. The registered design professional responsible for the design of the ground improvement, or a technician working under supervision of that professional, shall observe construction of the ground improvement, perform quality control testing, and upon completion of work, prepare a report stating whether the ground improvement meets the intent of the approved construction documents. A copy of the report shall be provided to the registered design professional in responsible charge of the project, and to the building official if requested.

SECTION 96. Comm 62.1805 is repealed and recreated to read:

Comm 62.1805 Basement floor base course. This is a department rule in addition to the requirements in IBC section 1805.4.1: A required base course shall be placed on a geotextile fabric that is designed to limit migration of silt and fine sand into the base course.

SECTION 97. Comm 62.1806 is created to read:

Comm 62.1806 Presumptive load-bearing values for saturated soils. This is an additional department footnote for IBC Table 1806.2: Footnote c. Values to be multiplied by 0.5 for saturated soils.

SECTION 98. Comm 62.1807 is repealed and recreated to read:

Comm 62.1807 Shallow post foundations. This is a department alternative to the requirements in IBC section 1807.3.2: The design criteria in ANSI/ASAE EP 486.1 may be used in lieu of the design criteria in IBC section 1807.3.2.

SECTION 99. Comm 62.1808 (1) is renumbered Comm 62.1802 and amended to read:

Comm 62.1802 Definition of neutral plane. This is a department definition in addition to the definitions in IBC section ~~1808.1~~ 1802.1: NEUTRAL PLANE. A pile's neutral plane is the level at which drag load, accumulated from the top down, added to the long-term static service load, equals the upward acting shaft resistance accumulated from the bottom up, added to the pile's toe resistance.

SECTION 100. Comm 62.1810 is repealed.

SECTION 101. Comm 62.1808 (title), (2) and (3) are renumbered Comm 62.1810 (title) and (1) and (2), and Comm 62.1810 (title), (1), (2) (intro.) and (e) and (f), as renumbered, are amended to read:

Comm 62.1810 (title) Pier and pile Deep foundations. (1) DOWNDRAG. This is a department rule in addition to the requirements in IBC section ~~1808.2.2~~ 1803.5.5: Investigations and reports for deep pier or pile foundations shall include analysis of whether downdrag is anticipated. Where downdrag is anticipated, the report shall include a determination of the position of the pile's neutral plane, an estimate of the soil settlement at the neutral plane, and a determination of the maximum load at the neutral plane.

(2) DETERMINATION OF ALLOWABLE LOADS. Substitute the following wording for the requirements in IBC section ~~1808.2.8.1~~ 1810.3.3:

(e) 1. If one or more static load tests are performed, in addition to a static analysis, a minimum factor of safety of 2.0 shall be applied to the ultimate allowable capacity, except as provided in subd. 2.

~~(f) A minimum factor of safety of 2.0 shall be used for occupiable structures in occupancy categories II to IV provided that all of the conditions in pars. (a) to (e) are met. 2. A minimum factor of safety of 1.5 may be used for non-occupiable structures in occupancy category I, provided that all of the following conditions are met:~~

a. The deep foundations are required only to control settlement, ~~and it can be demonstrated that.~~

b. The deep foundations are not required to prevent a bearing capacity failure.

c. A static load test, a static analysis and dynamic field testing have been performed.

SECTION 102. Comm 62.1808 (4) and (6) are repealed.

SECTION 103. Comm 62.1808 (5) is renumbered Comm 62.1810 (6), and Comm 62.1810 (6) (intro.), as renumbered, is amended to read:

Comm 62.1810 (6) PILES IN SUBSIDING AREAS. Substitute the following wording for the requirements in IBC section ~~1808.2.11~~ 1810.3.4:

SECTION 104. Comm 62.1808 is created to read:

Comm 62.1808 Foundations. Substitute the following wording for the requirements in IBC section 1808.7.5: Alternate setbacks and clearances are permitted, subject to the approval of the department.

SECTION 105. Comm 62.1809 is renumbered Comm 62.1810 (8) and amended to read:

Comm 62.1810 (8) DRIVEN PILE FOUNDATIONS TIMBER PILES. Substitute the following wording for the requirements in IBC section ~~1809.1.3~~ 1810.4.1.5: Any sudden decrease in driving resistance of an end-supported timber pile shall be investigated with regard to the possibility of damage. If the sudden decrease in driving resistance cannot be correlated to load-bearing data, the pile shall be removed for inspection or rejected, or shall be assigned a reduced capacity commensurate with the loss of end-bearing in lieu of removing or rejecting the pile.

SECTION 106. Comm 62.1809 is created to read:

Comm 62.1809 Frost-protected shallow foundations. This is a department rule in addition to the requirements in IBC section 1809.5: Where a frost-protected shallow foundation is relied upon for a heated or semi-heated structure, permanent, legible notices shall be posted near the thermostats of all building heating appliances that indicates all of the following:

- (1) That the structure is designed using a frost-protected-shallow foundation.
- (2) The minimum monthly average temperature that the structure must be maintained at to avoid frost damage to the foundation.

SECTION 107. Comm 62.1810 (3) to (5) and (7) are created to read:

Comm 62.1810 (3) DRIVING CRITERIA. This is a department rule in addition to the requirements in IBC section 1810.3.3.1.1: Driving criteria for deep foundations shall be submitted prior to installing the foundations, if requested by the building official.

(4) APPROVED FORMULAS. This is a department informational note to be used under IBC section 1810.3.3.1.1:

Note: The Department has approved the following two dynamic driving formulas, when used within the parameters prescribed below.

1. Washington State Department of Transportation formula:

$$R_n = 6.6F_{eff}WH \ln(10N)$$

Where:

R_n is the ultimate axial compression capacity in kips.

F_{eff} is an efficiency factor based on hammer and pile type.

W is the hammer weight in kips.

H is the drop height of the hammer in feet.

N is the average penetration resistance at the end of driving, in blows/ft per inch.

Acceptable F_{eff} values are:

0.55 for all pile types driven with an air or steam hammer.

0.37 for open-ended diesel hammers for concrete and timber piles.

0.47 for open-ended diesel hammers for steel piles.

0.35 for closed-ended diesel hammers for all pile types.

2. Corrected FHWA-Modified Gates Equation:

$$R_u = [(1.75)((eE_r)^{0.5}) (\log(10N_b)) - 100] (F_o) (F_s) (F_p) (F_h)$$

Where:

R_u is the ultimate axial compression capacity in kips.

e is the hammer efficiency.

E_r is the hammer energy in foot-pounds.

N_b is the final penetration resistance in blows per inch.

F_o is an overall correction factor.

F_s is a correction factor for soil type.

F_p is a correction factor for pile type.

F_h is a correction factor for hammer type.

Acceptable hammer-efficiency values are:

0.75 for drop hammers.

0.85 for other hammers, or an efficiency recommended by the hammer manufacturer.

Acceptable correction factors are:

Overall F_o : 0.94.

Soil F_s : 1.00 for mixed soil profile.

0.87 for sandy soil profile.

1.20 for clayey soil profile.

Pile F_p : 1.00 for closed-ended pipe.

1.02 for open-ended pipe.

0.80 for H-Section piles.

Hammer F_h : 1.00 for open-ended diesel.

0.84 for closed-ended diesel.

1.16 for air or steam single-acting.

1.01 for air or steam double-acting.

1.00 for hydraulic.

If at least 1 static load test is performed to field-check the penetration resistance criteria calculated by the above dynamic formulas, a minimum safety factor of 2.5 must be applied to the ultimate axial compression capacity calculated by the dynamic formula to determine the allowable pile load. If only dynamic testing (including signal matching) is performed to field-check the penetration resistance criteria determined by the dynamic formula, a minimum safety factor of 2.75 must be applied to the ultimate axial compression capacity calculated by the dynamic formula to determine the allowable pile load. If no field testing is performed to check the penetration resistance criteria calculated by the dynamic formula, a minimum safety factor of 3.0 must be applied to the ultimate axial compression capacity calculated by the dynamic formula to determine the allowable pile load.

The above formulas are predicated on the following three conditions: (1) static load testing and/or dynamic testing being performed on pile(s) driven in uniform site soil conditions, (2) test pile(s) being driven with the same hammer and cushion used for installation of production piles, and (3) test pile(s) being of the same type and section used for production piles. If any of the three conditions is not met, additional field testing is required. With static load testing and/or dynamic testing, penetration resistance criteria calculated by the dynamic formula must be modified as appropriate based on the results of the field testing. A site must be defined as a project site, or a portion of it, where subsurface conditions can be characterized as geologically similar in terms of subsurface stratigraphy, including the sequence, thickness, geologic history, engineering properties and groundwater aspects.

(5) FACTOR OF SAFETY FOR UPLIFT. The exception in IBC section 1810.3.3.1.5 is not included as part of this code.

(7) DESIGN CRACKING MOMENT. Substitute the following equation for IBC equation 18-11: $\phi M_n = 3(f'_c)^{0.5}(S_m)$.

SECTION 108. Comm 62.1901 to 62.1908 are repealed.

SECTION 109. Comm 62.1913 is repealed and recreated to read:

Comm 62.1913 Shotcrete clearance. Substitute the following wording for the exception under IBC section 1913.4.2: Subject to the approval of the department, required clearances may be reduced where it is demonstrated by preconstruction tests that adequate encasement of the bars used in the design will be achieved.

SECTION 110. Comm 62.1915 and 62.2101 are repealed.

SECTION 111. Comm 62.2105 is repealed.

SECTION 112. Comm 62.2109 (2) and Table 62.2109-1 are repealed.

SECTION 113. Comm 62.2109 (3) is renumbered Comm 62.2109 (2), and Comm 62.2109 (2) (b), as renumbered, is amended to read:

Comm 62.2109 (2) (b) Vertical jointing. Vertical movement joints shall be provided at a spacing in compliance with Table ~~62.2109-2~~ 62.2109.

SECTION 114. Comm Table 62.2109-2 is renumbered Comm Table 62.2109.

SECTION 115. Comm 62.2204 is repealed and recreated to read:

Comm 62.2204 Welded connections. This is a department informational note to be used under IBC section 2204.1:

Note: The rules pertaining to registration of structural welders are specified in chapter Comm 5.

SECTION 116. Comm 62.2206 is repealed.

SECTION 117. Comm 62.2210 is created to read:

Comm 62.2210 Trusses spanning 60 feet or greater. The requirements in IBC section 2210.3.4 are not included as part of this code.

SECTION 118. Comm 62.2303 is repealed and recreated to read:

Comm 62.2303 Trusses spanning 60 feet or greater. The requirements in IBC section 2303.4.1.3 are not included as part of this code.

SECTION 119. Comm 62.2902 (5) Note is amended to read:

Comm 62.2902 (5) Note: Additional ~~location~~ requirements for restaurant toilet rooms may be applied by the Department of Health Services.

SECTION 120. Comm 62.3001 (1) is repealed.

SECTION 121. Comm 62.3001 (2) and (3) are renumbered Comm 62.3001 (1) and (2), and Comm 62.3001 (1), as renumbered, is amended to read:

Comm 62.3001 (1) REFERENCED STANDARDS. Substitute the following wording for the requirements in IBC section 3001.2: Except as otherwise provided for in this code, the design, construction, installation, alteration, repair and maintenance of conveyances ~~elevators, dumbwaiters, escalators, moving walks~~ and their components shall comply with ch. Comm 18.

SECTION 122. Comm 62.3002 is created to read:

Comm 62.3002 Elevator car to accommodate ambulance stretcher. Substitute the following wording for IBC section 3002.4:

(1) Where passenger elevators are provided, at least one elevator shall be provided for fire department emergency access to all floors served by passenger elevators in all of the following situations:

- (a) Building four or more stories above or four or more stories below grade plane.
- (b) Any floor above or below the level affording fire department vehicle access, if the floor accommodates any one of the following occupancies:

1. Group I.
2. R-2.
3. Outpatient clinic and ambulatory health care facility.

(2) The elevator car provided for fire department emergency access shall be of such a size and configuration to accommodate an ambulance stretcher 24 inches by 84 inches with not less than 5-inch radius corners, in the horizontal, open position.

(3) The elevator car provided for fire department emergency access shall be identified by the international symbol for emergency medical services, star of life. The symbol may not be less than 3 inches high and shall be placed inside on both sides of the hoistway door frame.

SECTION 123. Comm 62.3500 (3) (a) is repealed and recreated to read:

Comm 62.3500 (3) (a) ASTM E 2357 – 05, Standard Test Method for Determining Air Leakage of Air Barrier Assemblies.

SECTION 124. Comm 62.3500 (3) (b) and (d) are amended to read:

Comm 62.3500 (3) (b) NFPA 30A – ~~2000~~ 2008, Code for Motor Fuel Dispensing Facilities and Repair Garages.

(d) NFPA 750 – ~~1996~~ 2010, Standard on Water Mist Fire Protection Systems.

SECTION 125. Comm 63.002 (2) is repealed and recreated to read:

Comm 63.002 (2) EXEMPTED BUILDINGS AND STRUCTURES. Glazed structures or glazed portions of buildings used for the production of plant life or for maintaining plant life as the primary purpose are exempt from the building thermal envelope provisions of this code, provided that glazed portions are separated from the remainder of the building by building thermal envelope assemblies complying with this chapter.

SECTION 126. Comm 63.0101 is amended to read:

Comm 63.0101 Administration and enforcement. The requirements in IECC sections 101, and 103 to ~~406~~ 109 are not included as part of this chapter.

SECTION 127. Comm 63.0102 is renumbered Comm 63.0303 and Comm 63.0303 (intro.), as renumbered, is amended to read:

Comm 63.0303 Materials, systems and equipment. These are department rules in addition to the requirements in IECC section ~~402~~ 303.

SECTION 128. Comm 63.0402 (intro.) and (2) are amended to read:

Comm 63.0402 Building thermal envelope. ~~Substitute the following wording for the requirements and the exceptions~~ This is a department rule in addition to the requirements in IECC section ~~402.5~~ 402.4.1:

(2) EXCEPTION. Where other approved means to avoid condensation in unventilated framed wall, floor, roof, ~~and~~ ceiling cavities, and box sills are provided.

SECTION 129. Comm 63.0403 (2) is repealed and recreated to read:

Comm 63.0403 (2) DUCTS. Substitute the following wording for the requirements in IECC section 403.2.2: All ducts, air handlers, and filter boxes shall be sealed. Joints and seams shall comply with IMC section 603.9.

SECTION 130. Comm 63.0403 (3) is repealed.

SECTION 131. Comm 63.0501 (2) is amended to read:

Comm 63.0501 (2) Sections Comm 63.0503 ~~(7)~~ (3) and ~~(8)~~ (4) relating to economizers.

SECTION 132. Comm 63.0502 and (title) are amended to read:

Comm 63.0502 (title) ~~Moisture control~~ Air leakage. ~~Substitute the following wording for~~ This is a department rule in addition to the requirements and the exceptions in IECC section 502.5 502.4:

(1) MOISTURE CONTROL. Except as specified in sub. (2), the building design may not create conditions of accelerated deterioration from moisture condensation. Above-grade frame walls, floors and ceilings shall be provided with ~~an approved vapor retarder. The vapor retarder a~~ moisture vapor permeable wrapping material, which shall be installed on the warm-in-winter side of the thermal insulation.

(2) EXCEPTION. Where other approved means to avoid condensation in unventilated framed wall, floor, roof, ~~and ceiling cavities,~~ and box sills are provided.

SECTION 133. Comm 63.0503 (3) to (6) and Tables 503.2.3 (1) and 503.2.3 (2) are repealed.

SECTION 134. Comm 63.0503 (7) to (9) are renumbered Comm 63.0503 (3) to (5) and Comm 63.0503 (5), as renumbered, is amended to read:

Comm 63.0503 (5) COMPLEX HVAC SYSTEMS AND EQUIPMENT. Substitute the following wording for the requirements, but not the exceptions, in IECC section 503.4.1: Each cooling system shall have economizer controls complying with sub. ~~(8)~~ (4). Economizers shall be capable of operating at 100 percent of outside air, even if additional mechanical cooling is required to meet the cooling load of the building.

SECTION 135. Comm 63.0503 Table 63.0503 is amended to read:

Table 63.0503

Climate Zones	Economizer Requirement
6 and 7	Economizers on all split cooling systems and groundwater source cooling systems $\geq 54,000$ Btu/h, <u>but only for package rooftop units $\geq 33,000$ Btu/h</u> Economizers on all other cooling systems $\geq 33,000$ Btu/h

SECTION 136. Comm 63.0503 (6) is created to read:

Comm 63.0503 (6) CLIMATE ZONES 3 AND 4. Substitute the following wording for the requirements in IECC section 503.4.3.3.2.2: For climate Zones 5 through 8 as indicated in Figure 301.1 and Table 301.1, if an open-circuit cooling tower is used, then a separate heat exchanger shall be required to isolate the cooling tower from the heat pump loop, and heat loss shall be controlled by shutting down the circulation pump on the cooling tower loop and providing an automatic valve to stop the flow of fluid.

SECTION 137. Comm 63.0505 (1), (2) (a) 3. and (3) are repealed.

SECTION 138. Comm 63.0505 (2) and (4) are renumbered Comm 63.0505 (1) and (2).

SECTION 139. Comm 64.0101 is repealed.

SECTION 140. Comm 64.0102 is renumbered Comm 64.0313 (4).

SECTION 141. Comm 64.0300 is amended to read:

Comm 64.0300 Health care facilities. This is a department rule in addition to the requirements in IMC chapter 3: In addition to the requirements in this code, the heating and ventilation systems for health care facilities only shall conform to the applicable provisions of ~~the American Institute of Architects (AIA)~~ The Facility Guidelines Institute (FGI) Guidelines for Design and Construction of Health Care Facilities.

Note: The Guidelines for Design and Construction of Health Care Facilities are not intended for use in the design or construction of HVAC systems for other types of institutional facilities including community-based residential facilities (CBRFs) or residential care apartment complexes (RCACs).

SECTION 142. Comm 64.0307 is created to read:

Comm 64.0307 Auxiliary and secondary drain systems. The requirements in IMC section 307.2.3 are not included as part of this chapter.

SECTION 143. Comm 64.0401 (1) is renumbered Comm 64.0401 (1) (b) 1.

SECTION 144. Comm 64.0401 (1) (a) and (b) 2. and 3. are created to read:

Comm 64.0401 (1) (a) These are department rules in addition to the requirements in IMC section 401.2:

1. Natural ventilation shall be in accordance with s. Comm 64.0402.
2. Mechanical ventilation shall be in accordance with one of the following:
 - a. IMC section 403 and as modified in s. Comm 64.0403 (1) and (4).
 - b. Section Comm 64.0403 (2) to (6).

(b) 2. A toilet room that has only one water closet or urinal and no bathtub or shower may be provided with either natural ventilation via a window or louvered opening with at least 2 square feet of area openable directly to the outside or mechanical exhaust ventilation as specified in Table 64.0403.

3. A janitor closet that has only one service sink may be provided with either natural ventilation via a window or louvered opening with at least 2 square feet of area openable directly to the outside or mechanical exhaust ventilation as specified in Table 64.0403.

SECTION 145. Comm 64.0401 (4) (a) and (b) are renumbered Comm 64.0401 (4) (c) and (d) and amended to read:

Comm 64.0401 (4) (c) This is a department rule in addition to the requirements in IMC section ~~401.4.1~~ 401.4: The lowest side of outside air intake required openings shall be located at least 12 inches vertically from the adjoining grade level, above adjoining roof surfaces, or above the bottom of an areaway.

(d) These are department exceptions in addition to the requirements in IMC section ~~401.4.1~~ 401.4 and par. ~~(a)~~ (c):

1. The setback distances as specified in IMC section ~~401.4.1~~ 401.4 and par. ~~(a)~~ (c) shall not apply to the combustion air intake of a direct vent appliance.

2. Where it can be demonstrated that an engineered system design will prevent the maximum concentration of contaminants brought in through the outside air intake from exceeding the maximum contaminant concentration obtainable by providing the separation distances in

accordance with IMC section ~~401.4.1~~ 401.4 and par. ~~(a)~~ (c), the outdoor air intakes may be located in accordance with such engineered system design.

SECTION 146. Comm 64.0401 (4) (a) and (b) are created to read:

Comm 64.0401 (4) (a) Substitute the following wording for the requirements in IMC section 401.4.: Air intake openings for both mechanical and gravity outdoor intake openings shall comply with all of the following:

(b) Substitute the following wording for the requirements in IMC section 401.4. 2.: Intake openings shall be located not less than 10 feet horizontally from any hazardous or noxious contaminant source.

SECTION 147. Comm 64.0401 (5) (intro.) is amended to read:

Comm 64.0401 (5) EXHAUST OPENINGS. These are department rules in addition to the requirements in IMC section ~~401.4.2~~ 401.6.

SECTION 148. Comm 64.0402 is repealed and recreated to read:

Comm 64.0402 Natural ventilation. This is a department rule in addition to the requirements in IMC section 402: The use of natural ventilation shall be permitted under either of the following:

(1) For any occupancy, provided a ventilation engineering analysis accounts for the number of occupants.

(2) As specified in Table 64.0402.

**Table 64.0402
Natural Ventilation
Allowed for Specific Occupancies**

Occupancy Classification		
<p>Correctional facilities Cells without plumbing features Dining halls < 100 persons Guard stations Day room Booking/waiting</p> <p>Dry cleaners, laundries Coin-operated dry cleaners Coin-operated laundries Storage, pick up</p> <p>Education Auditoriums < 100 persons Media center Music/theater/dance Day care facilities < 20 children (through age 4) Lecture < 100 persons Multiuse assembly < 100 persons</p> <p>Food and beverage service Bars, cocktail lounges < 100 persons Cafeterias, fast food < 100 persons Dining rooms < 100 persons Kitchens (cooking)</p> <p>Hotels, motels, resorts and dormitories Multipurpose assembly < 100 persons Bedroom/living room Conference/meeting < 100 persons Dormitory sleeping areas Gambling casinos < 100 persons Lobbies/prefunction</p>	<p>Offices Conference rooms < 100 persons Reception areas < 100 persons Main entry lobbies < 100 persons</p> <p>Public spaces Places of religious worship < 100 persons Courtrooms < 100 persons Legislative chambers < 100 persons Libraries < 100 persons Museums/galleries < 100 persons</p> <p>Dwellings units Garages Kitchens Living areas</p> <p>Retail stores, sales floors and showroom floors Sales Dressing rooms Mall common areas Storage rooms</p> <p>Specialty shops Pet shops (animal areas) Supermarkets Car Washes Enclosed parking garages 850 S.F. or less in area and storing 5 or fewer vehicles</p>	<p>Sports and amusement Discos/dance floors < 100 persons Bowling alleys (seating areas) < 100 persons Game arcades < 100 persons Ice arenas without combustion engines < 100 persons Gym, stadium, arena (play area) < 100 persons Spectator areas < 100 persons Swimming pools (pool and deck area) < 100 persons Health club/aerobics room < 100 persons Health club/weight room < 100 persons</p> <p>Theaters Auditoriums < 100 persons Lobbies < 100 persons Stages, studios < 100 persons</p> <p>Transportation Platforms < 100 persons Waiting rooms < 100 persons</p> <p>Workrooms Meat processing Pharmacy (prep. area) Photo studios Copy, printing rooms</p>

SECTION 149. Comm 64.0403 (2) to (5) are renumbered Comm 64.0403 (1) to (4) and Comm 64.0403 (2) and (4), as renumbered, are amended to read:

Comm 64.0403 (2) RECIRCULATION PROHIBITED. Substitute the following wording for exception 3 in IMC section 403.2.1: Where ~~indicated~~ mechanical exhaust is required by footnote b in IMC Table 403.3 or footnote c in Table 64.0403, recirculation of air from such spaces is prohibited. All air supplied to such spaces shall be exhausted, including any air in excess of that required by IMC Table 403.3 or Table 64.0403.

(4) TRANSFER AIR. Substitute the following wording for the requirements in IMC section 403.2.2: Except where recirculation from such spaces is prohibited by IMC Table 403.3 or Table 64.0403, air transferred from occupied spaces is not prohibited from serving as makeup air for required exhaust systems in such spaces as kitchens, baths, toilet rooms, elevators and smoking lounges. The amount of transfer air and exhaust air shall be sufficient to provide the flow rates as specified in IMC sections section 403.3 and 403.3.1 and sub. (5). The required outdoor air rates specified in IMC Table 403.3 or Table 64.0403 shall be introduced directly into such spaces or into the occupied spaces from which air is transferred or a combination of both.

SECTION 150. Comm 64.0403 (6) (c) 4. is repealed.

SECTION 151. Comm 64.0403 (6) is renumbered Comm 64.0403 (5) and Comm 64.0403 (5) (title), (intro.) and (a) 1., as renumbered, are amended to read:

Comm 64.0403 (5) (title) ~~VENTILATION RATE~~ MECHANICAL VENTILATION ALTERNATIVE. ~~Substitute the following working for~~ This is a department alternative to the requirements—and exception—in IMC section 403.3:

(a) 1. Except as provided in sub. ~~(2)~~ (1) (a) and s. Comm 64.0300, a mechanical ventilation system shall be designed to have the capacity to supply a minimum outdoor airflow rate of 7.5 cfm per person as determined in accordance with Table ~~Comm 64.0403~~ based on the occupancy of the space and the occupant load or other parameters stated therein. A mechanical ventilation system shall be designed to have the capacity to exhaust air as specified in Table ~~Comm 64.0403~~ except as provided in par. (c).

SECTION 152. Comm 64.0403 (7) is repealed.

SECTION 153. Comm 64.0403 (8) is renumbered Comm 64.0403 (6) (d) and Comm 64.0403 (6) (d) 1., 2. a. and 2. d., as renumbered, are amended to read:

Comm 64.0403 (6) (d) 1. ~~This is a department alternative to the requirements in IMC section 403.3.2:~~ Where multiple spaces having different ventilation rate requirements are served by a common ventilation system, the minimum amount of outdoor airflow supplied by the ventilation system shall equal the total outdoor airflow required for each space if each space is provided with minimum air changes in accordance with this ~~subsection~~ paragraph.

2. a. Except as provided in subd. 4. ~~2. d.~~, an air change rate of 6 air changes per hour shall be provided in each space.

d. Air change rate of less than 6 air changes per hour is permitted where mechanical cooling is provided to maintain an interior design temperature of 78°F or lower. The air change rate may not be less than the minimum air changes rate per hour specified in Table 64.0403. ~~b.~~ Air changes are not required to be provided for spaces required to be mechanically exhausted.

SECTION 154. Comm 64.0403 (9) is repealed.

SECTION 155. Comm Table 64.0403 is repealed and recreated to read:

**Table 64.0403
Mechanical Ventilation Requirements**

Occupancy Classification	Estimated Maximum Occupant Load (persons per 1,000 sq. ft.) ^a	Exhaust ^b (cfm/net sq. ft. floor area unless noted otherwise)
Correctional facilities		
Cells		
without plumbing features	25	NR
with plumbing features	25	1.0
Dining halls (see food and beverage service)	100	NR
Guard stations	15	NR
Day room	30	NR
Booking/waiting	50	NR
Dry cleaners, laundries		
Coin-operated dry cleaner	20	NR
Coin-operated laundries	20	NR
Commercial dry cleaner	30	2.0
Commercial laundry	10	2.0
Storage, pick up	10	NR
Education		
Auditoriums	150	NR
Corridors (see public spaces)	NA	NR
Media center	25	NR
Sports locker rooms ^c	NA	0.5
Music/theater/dance	35	NR
Day care facilities (through age 4)	30	NR
Classrooms (ages 5-8)	25	NR
Classrooms (ages 9 plus)	35	NR
Lecture classroom	65	NR
Lecture hall (fixed seats)	150	NR
Art classroom	20	NR
Science laboratories	25	NR
Wood/metal shops	20	NR
Computer lab	35	NR
Multiuse assembly	100	NR
Locker/dressing rooms ^c	NA	0.5
Food and beverage service		
Bars, cocktail lounges	100	NR
Cafeterias, fast food	100	NR
Dining rooms	70	NR
Kitchens (cooking) ^{d,e}	20	NR

**Table 64.0403 - continued
Mechanical Ventilation Requirements**

Hospitals, nursing and convalescent homes^k		
Autopsy rooms	NA	0.5
Medical procedure rooms	20	NR
Operating rooms	20	NR
Patient rooms	10	NR
Physical therapy	20	NR
Recovery and ICU	20	NR
Hotels, motels, resorts and dormitories		
Multipurpose, assembly	120	NR
Bathrooms/toilet-private	NA	50 cfm intermittent or 20 cfm continuous per room ^g
Bedroom/living room	footnote f	NR
Conference/meeting	50	NR
Dormitory sleeping areas	20	NR
Gambling casinos	120	2.0
Lobbies/prefunction	30	NR
Offices		
Conference rooms	50	NR
Office spaces	5	NR
Reception areas	30	NR
Telephone/data entry	60	NR
Main entry lobbies	10	NR
Private dwellings, single and multiple		
Garages, common for multiple units ^c	NA	0.5
Garages, separate for each dwelling	NA	100 cfm/ vehicle
Kitchens ^d	NA	100 cfm intermittent or 20 cfm continuous
Living areas	2 people for first bedroom plus one person for each additional bedroom	NR
Toilet rooms and bathrooms ^d	NA	50 cfm intermittent or 20 cfm continuous per room ^g

**Table 64.0403 - continued
Mechanical Ventilation Requirements**

Public spaces		
Corridors	NA	NR
Elevator car	NA	NR
Shower room	NA	2.0
Toilet rooms – public ^c	NA	75 cfm for each water closet or urinal ^g
Places of religious worship	120	NR
Courtrooms	70	NR
Legislative chambers	50	NR
Libraries	10	NR
Museums (children)	40	NR
Museums/galleries	40	NR
Retail stores, sales floors and showroom floors		
Sales (except as below)	15	NR
Dressing rooms	1 per room	NR
Mall common areas	40	NR
Shipping and receiving	NA	NR
Storage rooms	NA	NR
Warehouses (see storage)	NA	NR
Specialty shops		
Automotive motor-fuel dispensing stations	NA	0.5
Barber	25	NR
Beauty and nail salons ^h	25	0.5
Embalming room	NA	0.5
Pet shops (animal areas)	10	NR
Supermarkets	8	NR
Sports and amusement		
Disco/dance floors	100	NR
Bowling alleys (seating areas)	70	NR
Game arcades	70	NR
Ice arenas without combustion engines	5	NR
Gym, stadium, arena (play area)	30	NR
Spectator areas	150	NR
Swimming pools (pool and deck area)	NA	2 cfm/sq. ft. pool area
Health club/aerobics room	40	NR
Health club/weight room	10	NR
Storage		
Repair garages, enclosed parking garages ^{i, c}	NA	0.5
Warehouses	NA	NR

**Table 64.0403 - continued
Mechanical Ventilation Requirements**

Theaters		
Auditoriums (see education)	150	NR
Lobbies	150	NR
Stages, studios	70	NR
Ticket booths	60	NR
Transportation		
Platforms	100	NR
Transportation waiting	100	NR
Workrooms		
Bank vault/safe deposit	5	NR
Darkrooms	5	footnote j
Copy, printing rooms	13	footnote j
Meat processing	10	NR
Pharmacy (prep. area)	20	NR
Photo studios	10	NR
Computer (without processing)	25	NR

NA = not applicable; NR = none required; cfm = cubic feet per minute; TF = toilet fixtures (water closets and urinals); A/C = air conditioning

a Based upon net floor area.

b The ventilation rate is based upon cubic feet per minute per square foot of the floor area being ventilated.

c Mechanical exhaust is required and the recirculation of air from these spaces that would otherwise be allowed by IMC section 403.2.1 is prohibited.

d Outdoor air shall be provided at the rate of 1.0 cfm/net sq. ft. floor area. Transfer air is permitted in accordance with IMC section 403.2.2.

e The sum of the outdoor and transfer air from adjacent spaces shall be sufficient to provide an exhaust rate of not less than 1.5 cfm/sf.

f The minimum mechanical ventilation rate is 15 cfm/room of outside air.

g Natural ventilation may be allowed under this section.

h The classification of a salon depends on the types of services provided; salons that routinely provide chemical processing of hair to produce texture or color changes, or manicures or other services with a similar need for air-borne contaminant and odor control.

i Enclosed parking garages are parking garages with less than 30% open areas in the total wall area enclosing the garage. Ventilation systems in enclosed parking garages shall comply with IMC section 404. A mechanical ventilation system shall not be required in garages having a floor area of 850 square feet or less and used for the storage of 5 or fewer motorized vehicles.

j Refer to IMC chapter 5 for exhaust requirements based upon the chemicals used.

k See Comm 64.0300.

SECTION 156. Comm 64.0407 is created to read:

Comm 64.0407 Chemical and septic toilets. This is a department rule in addition to the requirements in IMC section 400: Chemical or septic toilets and composting privies are prohibited in spaces under negative pressure. Toilet rooms with chemical or septic toilets shall be provided with natural ventilation via a window, louver or skylight with at least 2 square feet of area openable directly to the outside. The opening shall be provided with a screen to limit the passage of insects and vermin.

SECTION 157. Comm 64.0501 is renumbered Comm 64.0501 (2).

SECTION 158. Comm 64.0501 (1) is created to read:

Comm 64.0501 (1) Substitute the following wording for the requirements in IMC section 501.1: This chapter shall govern the design, construction and installation of mechanical exhaust systems, including exhaust systems serving clothes dryers and cooking appliances; environmental air exhaust systems; hazardous exhaust systems; dust, stock and refuse conveyor systems; subslab soil exhaust systems; smoke control systems; energy recovery ventilation systems and other systems specified in IMC Section 502.

SECTION 159. Comm 64.0506 (2) (bm) is renumbered Comm 64.0506 (2) (c) and amended to read:

Comm 64.0506 (2) (c) The requirements of IMC section ~~506.3.3.4~~ 506.3.2.5 are not included as part of this chapter.

SECTION 160. Comm 64.0514 is amended to read:

Comm 64.0514 Energy recovery ventilation systems. This is a department exception to the ~~requirements prohibitions~~ in IMC section 514.2: An engineered energy recovery ventilation system design may be used in the systems specified in IMC section 514.2 provided that corrosion, cross-contamination and fouling are addressed by the engineered system.

SECTION 161. Comm 64.0601 and 64.0602 are amended to read:

Comm 64.0601 General. Substitute the following wording for the requirements in IMC section 601.2 Exception 1: Use of a corridor as a source of makeup air for exhaust systems in rooms that open directly onto such corridors shall be permitted provided that each such corridor is directly supplied with ~~outdoor~~ air at a rate greater than the rate of makeup air taken from the corridor.

Comm 64.0602 Plenums. Substitute the following wording for the requirements, but not the exceptions, in IMC section 602.2.1: Except as required by Sections 602.2.1.1 through 602.2.1.5, materials within plenums shall be noncombustible or shall have a flame spread index of not more than 25 and a smoke-developed index of not more than 50 when tested in accordance with ASTM E 84₂ ~~or~~ CAN/ULC S102.2 or UL 723.

SECTION 162. Comm 64.0702 and 64.0710 are repealed.

SECTION 163. Comm 64.0801 (3) is repealed.

SECTION 164. Comm 64.0918 (2) is repealed.

SECTION 165. Comm 64.0918 (3) is renumbered Comm 64.0918 (2).

SECTION 166. Comm 64.1500 (2) (a) and Note are amended to read:

Comm 64.1500 (2) (a) ~~AIA-FGI Guidelines for Design and Construction of Health Care Facilities, 2006~~ 2010.

Note: ~~AIA-FGI guidelines may be purchased from the American Institute of Architects, Order Department, 9 Jay Gould Court, P.O. Box 753, Waldorf, MD 20601~~ The Facility Guidelines Institute, 1919 McKinney Avenue, Dallas, TX 75201.

SECTION 167. Comm 65.0303 (2) is amended to read:

Comm 65.0303 (2) PROHIBITED LOCATIONS. ~~The requirements exceptions 3. and 4. in IFGC section 303.3 exceptions 3. and 4. are not included as part of this chapter code.~~

SECTION 168. Comm 65.0610 is repealed.

SECTION 169. Comm 65.0630 (1) is repealed.

SECTION 170. Comm 65.0630 (2) is renumbered Comm 65.0630 and Comm 65.0630 (intro), as renumbered, is amended to read:

Comm 65.0630 Infrared radiant heaters. ~~These are~~ This is a department rules rule in addition to the requirements in IFGC section 630.1: Unvented infrared radiant heaters may be used only in the following occupancies:

SECTION 171. Comm 66.0100 Note [2] is created to read:

Comm 66.0100 Note [2]: Section 101.126, Stats., requires the owner of a building to provide a separate room or designated space within or adjacent to the building for the separation, temporary storage and collection of recyclable materials that are likely to be generated by the building occupants, if there is an increase in the size of the building by 50% or more or an alteration of 50% or more of the existing area of a building that is 10,000 square feet or more in area. See Appendix B for guidelines for recommended designated areas.

SECTION 172. Comm 66.0104 is created to read:

Comm 66.0104 Used materials and equipment. Substitute the following wording for the requirements in IEBC section 104.9.1: The use of used materials that meet the requirements of this code for new materials is permitted. Used equipment and devices shall be permitted to be reused subject to approval.

SECTION 173. Comm 66.0202 (2) is amended to read:

Comm 66.0202 (2) SUBSTITUTIONS. (a) Substitute the following definition for the corresponding definition in IEBC section 202: “Historic building” means a “qualified historic building” as defined under s. ~~Comm 62.0202 (2) (e)~~ 101.121 (2) (c), Stats.

Note: Section 101.121 (2) (c) of the Statutes reads as follows: “Qualified historic building” means a historic building which:

1. Is listed on, or has been nominated by the state historical society for listing on, the national register of historic places in Wisconsin or the state register of historic places;

2. Is included in a district which is listed on, or has been nominated by the state historical society for listing on, the national register of historic places in Wisconsin or the state register of historic places, and has been determined by the state historical society to contribute to the historic significance of the district;

2m. Is determined by the state historical society to be eligible for listing on the national register of historic places in Wisconsin or the state register of historic places;

3. Is listed on a certified local register of historic property; or

4. Is included in a district which is listed on a certified local register of historic property, and has been determined by the city, village, town or county to contribute to the historic significance of the district.

(b) Substitute the following definition for the corresponding definition in IEBC section 202: “Unsafe” means buildings, structures or equipment that are unsanitary, or that are deficient due to inadequate means of egress facilities, inadequate light and ventilation, or that constitute a fire hazard, or in which the structure or individual structural members meet the definition of “dangerous,” or that are otherwise dangerous to human life or the public welfare, or that involve illegal or improper occupancy or inadequate maintenance shall be deemed unsafe.

SECTION 174. Comm 66.0503 is created to read:

Comm 66.0503 Smoke alarms. These are department rules in addition to the requirements in IEBC section 503:

(1) No smoke alarm, including an alarm that exists on [the effective date of this rule ... LEGISLATIVE REFERENCE BUREAU TO INSERT DATE] may remain in service for more than that specified by the manufacturer.

(2) The replacement of a smoke alarm that uses a battery as its primary power source shall be a new smoke alarm that complies with UL 217 and either of the following:

(a) The alarm is hardwired in accordance with IBC section 907.2.11.4 and has backup power in accordance with that section.

(b) The alarm uses, as its primary power source, a non-replaceable, non-removable battery that is capable of powering the alarm for at least 10 years.

SECTION 175. Comm 66.0509 Note is created to read:

Comm 66.0509 Note: See the Wisconsin Uniform Plumbing Code, chapters Comm 82 to 87, for plumbing and water conservation provisions.

SECTION 176. Comm 66.0602 is amended to read:

Comm 66.0602 Building elements and materials. (1) MATERIALS AND METHODS. Substitute the following wording for the requirements in IEBC section ~~602.3~~ 602.4: All new work shall comply with materials and methods requirements in the ~~ICC-EC~~, IBC, IECC, IFGC, IMC, and IPC, as applicable, that specify material standards, detail of installation and connection, joints, penetrations, and continuity of any element, component, or system in the building.

(2) INTERNATIONAL FUEL GAS CODE. The requirements in IEBC section ~~603.3.1~~ 602.4.1 are not included as part of this code.

SECTION 177. Comm 66.0607 (2) (e) to (h) are created to read:

Comm 66.0607 (2) (e) Reroofing for roofs where neither the sheathing nor the insulation is exposed.

(f) Replacement of existing doors that separate conditioned space from the exterior shall not require the installation of a vestibule or revolving door, provided, however, that an existing vestibule that separates a conditioned space from the exterior shall not be removed.

(g) Alterations that replace less than 50 percent of the luminaires in a space, provided that such alterations do not increase the installed interior lighting power.

(h) Alterations that replace only the bulb and ballast within the existing luminaires in a space provided that the alteration does not increase the installed interior lighting power.

SECTION 178. Comm 66.0607 (3) is created to read:

Comm 66.0607 (3) REROOFING. This is a department rule in addition to the requirements in IEBC section 607: Roofs without insulation in the cavity and where the sheathing or insulation is exposed during reroofing shall be insulated either above or below the sheathing.

SECTION 179. Comm 66.0701 is renumbered Comm 66.0704 and amended to read:

Comm 66.0704 Compliance Automatic sprinkler systems. This is a department exception to the requirement in IEBC section ~~701.3~~ 704.2: The installation or extension of an automatic sprinkler system may exclude the protection of combustible concealed spaces that are not accessible in existing buildings.

SECTION 180. Comm 66.0901 (1) is amended to read:

Comm 66.0901 (1) CHANGE IN OCCUPANCY WITH NO OCCUPANCY CLASSIFICATION. Substitute the following wording for the requirements in IEBC section 901.2:

A change in occupancy, as defined in IEBC section 202, with no change of occupancy classification shall ~~may~~ not be made to any structure ~~which~~ that will subject the structure to any special provisions of ~~the applicable international codes~~ this code, including the provisions of IEBC sections 902 through 911, without the approval of the code official.

SECTION 181. Comm 66.0910 is renumbered Comm 66.0912.

SECTION 182. Comm 66.1101 is renumbered Comm 66.1105.

SECTION 183. Comm 66.1301 (title) is amended to read:

Comm 66.1301 (title) ~~Compliance with other codes~~ Applicability.

SECTION 184. Comm 66.1301 (3) is created to read:

Comm 66.1301 (3) Substitute the following wording for the requirements in IEBC section 1301.2.5: All portions of the buildings proposed for change of occupancy shall conform to the accessibility provisions of the IBC chapter 11.

SECTION 185. Comm 66.1400 is created to read:

Comm 66.1400 Construction safeguards. The requirements in IEBC chapter 14 are not included as part of this code.

SECTION 186. Comm 82.40 (3) (e) 1. Note [2] is created to read:

Comm 82.40 (3) (e) 1. Note [2]: See section Comm 21.095 of the Dwelling Code and section Comm 62.0903 (10) of the Commercial Building Code as to fire protection provisions for multipurpose piping systems.

SECTION 187. Comm 82.40 (3) (e) 2. b. to 2. d. are repealed.

SECTION 188. Comm 82.40 (3) (e) 2. a. is renumbered Comm 82.40 (3) (e) 2.

(END)

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.
