

Wisconsin Commercial Building Code Refresher- Day 1

Monday, February 17, 2025

7:45 AM – 8:45 AM Registration, Continental Breakfast, Welcome, and Introduction

Welcome From Dan Hereth, Secretary, Wisconsin Department of Safety and Professional Services (DSPS)

Announcements and Introduction, Benjamin J. Jordan, PE, MPA - Program Director, University of Wisconsin-Madison, Interdisciplinary Professional Programs.

8:45 AM – 10:15 AM

Track M1 Commercial Building Code Fire Rated Assemblies

(M1-A) Mendota 6-8

This session will look at what constitutes a fire-resistive assembly specified by building code. What items are needed to be shown on a plan submittal to successfully show the code provision for a fire rating is adequately provided by that design. How are ratings created to meet the fire test standards they are to satisfy. Understanding of ASTM E119 fire test provisions will permit code officials and designers to clearly communicate how the rated assembly will survive for the minimum time required for that assembly under actual fire conditions. How opening protectives are tested to some different standard giving them a smaller allowance than a full rated assembly will be covered as well. Knowing about Gypsum Association Fire-Resistance Design Manual and UL Fire Resistive Directory general provisions will help all users know designs better.

Jack A. Miller, DSPS

Track M2 Overview of the International Mechanical Code (2015) w/WI Amendments

(M2-A) Mendota 2-4

This far-reaching presentation will address minimum ventilation requirements, kitchen hood requirements as well as damper installation requirements. HVAC equipment installations, duct construction, exhaust requirements and plethora of surrounding information is also addressed.

Randall R. Dahmen PE, MS - DSPS

**Track M3 2015 IBC Healthcare, 2012 Life Safety Code, and DHS Licensure
(M3-A) Mendota 1**

Recent healthcare plan reviews have revealed significant issues relative to the Building Code (IBC), Life Safety Code NFPA 101 (LSC), and Healthcare Licensure (DHS) codes. This session will reveal how to effectively engage a healthcare facility project through the DHS plan review process. Explore critical construction type minimum compliance to ensure long-term reliable building and patient safety. Lastly, explain the underlying reason for smoke compartments and the universal healthcare defend-in-place methodology.

David Soens PE, RA and Dan Hatch RA – DHS

10:15AM -10:30 AM Break

10:30 AM – Noon

**Track M1 Commercial Building Code SPS 361 Administration Provisions
(M1-B) Mendota 6-8**

This session will cover the administrative provisions of the commercial building code as found in SPS 361. Since I-Codes chapter 1 are not adopted by Wisconsin Commercial Building Code, all administrative provisions are found in SPS 361 rules as a single chapter, rather than being spread through the IBC, IECC, IMC, IFGC & IEBC. Specifics of each provision are covered by slides that deal with what codes are adopted, to plan review, to inspection, and even petitions for variance & material approvals. Topic such as “what is or is not a commercial building”, “what submittal requirements are necessary to provide a complete plan submittal”, and “what does the supervising professional need to do” and similar materials are answered in this session.

Jack A. Miller, DSPS

**Track M2 Overview of the International Mechanical Code 2015 w/WI Amendments
(M2-A continued) Mendota 2-4**

This far-reaching presentation will address minimum ventilation requirements, kitchen hood requirements as well as damper installation requirements. HVAC equipment installations, duct construction, exhaust requirements and plethora of surrounding information is also addressed.

Randy R. Dahmen PE, MS – DSPS

**2015 IBC Healthcare, 2012 Life Safety Code, and DHS Licensure
(M3-A continued) (M3-A) Mendota 1**

Recent healthcare inspections have revealed significant constructability issues relative to private patient and resident spaces. This session will explain accessibility minimums (ANSI A117.1) for healthcare facilities relative to sleeping units, bathing, and toileting spaces. Next a DHS licensure code link to the federal ADA and associated ADAAG minimum requirements will be overviewed. Lastly, explore how sound control through sleeping unit partitions can enhance patient and resident health outcomes.

David Soens PE, RA and Dan Hatch RA – DHS DQA

12:00 PM – 1:00 PM Lunch

1:00 PM – 2:30 PM

**Track M1 Commercial Building Code Multi Family Housing Overview
(M1-C) Mendota 6-8**

This presentation will discuss different classifications of dwelling units, the fire protection measures required, and accessibility requirements. Classification of dwelling units as UDC, R-1, R-2, or R-3 or R-4 with a focused conversation on R-2. Fire protection required to separate building elements, sprinkler requirements, fire alarms, etc. Accessibility requirements from shared community spaces, Type A & Type B units, and parking.

Jennifer Zettler, RA, DSPP

**Track M2 2015 Overview of the International Mechanical Code w/WI Amendments
(M2-B) Mendota 2-4**

Continuation of this far-reaching presentation will address minimum ventilation requirements, kitchen hood requirements as well as damper installation requirements. HVAC equipment installations, duct construction, exhaust requirements and plethora of surrounding information is also addressed.

Randall R. Dahmen PE, MS - DSPP

Track M3 Healthcare Facilities - 2015 IBC Healthcare and the 2012 Life Safety Code, and DHS Licensure

(M3-B) Mendota 1

Healthcare utility and infrastructure reinforce minimum health, welfare, and safety for patients and residents. Given that cooking remains the number one source of most common fires in healthcare facilities, this session will explore the three primary methods for safe cooking stations to assist minimum dietary compliance. Non-compliance issues revealed during some recent federal surveys will be shared to enhance retention. Lastly overview how a common fire alarm system compliments the building defend-in-place methodology through the control of ventilation system smoke.

David Soens PE, RA and Dan Hatch RA – DHS

2:30 PM – 2:45PM Break

2:45PM – 4:45 PM

Track M1- Commercial Building Code Multi Family Housing Overview

(M1-C continued) Mendota 6-8

This presentation will discuss different classifications of dwelling units, the fire protection measures required, and accessibility requirements. Classification of dwelling units as UDC, R-1, R-2, or R-3 or R-4 with a focused conversation on R-2. Fire protection required to separate building elements, sprinkler requirements, fire alarms, etc. Accessibility requirements from shared community spaces, Type A & Type B units, and parking.

Jennifer Zettler, RA, DSPS

Track M2 2015 Overview of the International Mechanical Code w/WI Amendments

(M2-B Continued) Mendota 2-4

This far-reaching presentation will address minimum ventilation requirements, kitchen hood requirements as well as damper installation requirements. HVAC equipment installations, duct construction, exhaust requirements and plethora of surrounding information is also addressed.

Randall R. Dahmen PE, MS - DSPS

Track M3 Healthcare Facilities 2015 IBC Healthcare and the 2012 Life Safety Code, and DHS Licensure

(M3-B Continued) Mendota 1

Recent innovative plan review projects motivate sharing some unique compliance outcomes. Review the common hazardous room types for both the IBC and LSC and then explore how they can be consolidated to afford facility flexibility. Next, discuss a newer healthcare delivery option via a free-standing Emergency Department per DHS 124. Lastly, overview how some challenging treatment spaces are provided ventilation and the associated impact to the room enclosure.

David Soens PE, RA and Dan Hatch RA – DHS

Wisconsin Commercial Building Code Refresher - Day 2

Tuesday, February 18, 2025

7:45 AM – 8:45 AM Registration, Continental Breakfast, Welcome , and Introduction Announcements and Introduction, Benjamin J. Jordan, PE, MPA, Program Director, University of Wisconsin-Madison, Interdisciplinary Professional Programs.

8:45 AM – 10:15 AM

Track T1- Commercial Building Code ICC A117 and IBC Chapter 11 Accessibility

(T1-A) Mendota 2-4

This session will discuss proper design to provide accessibility and meet applicable codes including 2015 IBC Chapter 11 and ICC A117 Accessible and Usable Buildings and Facilities

Jeremy Kaukl, DES, DSPS

Track T2 - 2015 IECC Commercial Requirements for Building Envelope w/WI amendments

(T2-A) Mendota 6-8

The building envelope requirements for various building assemblies are addressed as based on locations within the State of Wisconsin. Fenestration is similarly discussed. The prescriptive and performance means of compliance options are highlighted.

Randall R. Dahmen, PE, MS, DSPS

Track T3 Understanding Wisconsin Electrical Code SPS 316 and its relation to NFPA 70 and NEC 2017

(T3-A) Mendota 1

This session discusses the uniqueness's of the Wisconsin Electrical Code and how it relates to NFPA 70, NEC 2017 Edition.

Joseph Folger and Craig Mulder, DSPS

10:15 AM -10:30 AM Break

10:30 AM - Noon

Track T1 Commercial Building Code ICC A117 and IBC Chapter 11 Accessibility

(T1-A Continued) Mendota 2-4

This session will discuss proper design to provide accessibility and meet applicable codes including 2015 IBC Chapter 11 and ICC A117 Accessible and Usable Buildings and Facilities

Jeremy Kaukl, DES, DSPS

Track T2 - 2015 IECC Commercial requirements for Building Envelope w/WI amendments

(T2-A Continued) Mendota 6-8

The building envelope requirements for various building assemblies are addressed as based on locations within the State of Wisconsin. Fenestration is similarly discussed. The prescriptive and performance means of compliance options are highlighted.

Randall R. Dahmen, PE, MS, DSPS

Track T3 Grounding and Bonding - 2017 NEC Article 250

(T3-B) Mendota 1

This session will discuss electrical grounding and bonding code requirements including National Electric Code® Article 250, requirements.

Joseph Folger and Craig Mulder, DSPS

12:00 PM – 1:00 PM Lunch

1:00 PM – 2:30 PM

Track T1 Meet & Greet and Q&A with WI DSPS Bureau Director and Section Chiefs - drop by Question-and-Answer Session

(T1-B) Mendota 2-4

Meet the Department of Safety and Professional Services Division of Industry Services Section Chiefs and ask questions and share experiences and concerns.

Track T2 ICC Chapter 10 Means of Egress

(T2-B) Mendota 6-8

This session reviews design considerations for exit paths, exit doors, and accessible means of egress under International Building Code Chapter 10.

Jeremy Kaukl, DES, DSPS

Track T3 2017 NEC Art. 690/705/700 PV Systems, Interconnected Electric Power, & Emergency Systems

(T3-C) Mendota 1

This session will discuss NEC Article 690 Solar Photovoltaic (PV) Systems, NEC Article 700 Emergency Systems, and NEC Article 705 Interconnected Electric Power Production Sources (more than one Power Source)

Joseph Folger & Craig Mulder DSPS

2:30 PM – 2:45 PM Break

2:45 PM – 4:45 PM

Track T1 Ethics for Engineers, Architects and Others

(T1-C) Mendota 2-4

This session will examine professional codes of ethics and how these guiding documents provide greater clarity when facing ethical dilemmas. Real case examples of ethics problems will be evaluated and ethical implications of designing to minimum standards versus designing to anticipate future conditions will be discussed.

Laura Grossenbacher, Ph.D., University of Wisconsin-Madison

Track T2 ICC Chapter 10 Means of Egress

(T2-B Continued) Mendota 6-8 Ends at 4:15 PM

This session reviews design considerations for exit paths, exit doors, and accessible means of egress under International Building Code Chapter 10.

Jeremy Kaukl, DES, DSPS

**Track T3 2017 NEC Art. 690/705/700 PV Systems, Interconnected Electric Power, and
Emergency Systems**

(T3-C Continued) Mendota 1 Ends at 4:15 PM

This session will discuss NEC Article 690 Solar Photovoltaic (PV) Systems, NEC Article 700
Emergency Systems, and NEC Article 705 Interconnected Electric Power Production
Sources (more than one Power Source)

Joseph Folger & Craig Mulder DSPS

Wisconsin Commercial Building Code Refresher - Day 3

Wednesday, February 19, 2025

7:45 AM – 8:45 AM Registration, Continental Breakfast, Welcome , and Introduction Announcements and Introduction, Benjamin J. Jordan, PE, MPA, Program Director, University of Wisconsin-Madison, Interdisciplinary Professional Programs.

8:45 AM – 10:15 AM

Track W1- **COMcheck & REScheck Envelope Compliance**

(W1-A) (Mendota 6-8)

Thermal envelope compliance alternative to prescriptive method utilizing computer software. This presentation will briefly go over the process of using the software, discuss DO's and DON'T's of creating the report, and highlight the corresponding information to be provided in plans or specifications.

Jennifer Zettler, RA, DSPS

Track W2 **"Toilet Training" - Sinks and Lavs IBC Chapter 29 and WI Code**

(W2-A) Mendota 1

This valuable and fun presentation seeks to provide helpful information on the basic questions involving how to determine the minimum number of toilet fixtures, sinks and lavatories; possible options; what are and are not acceptable toilet room layouts; requirements for their location; as well as some of the special requirements of the code related to these topics. Simple topic, but there is much to discuss.

Randall R. Dahmen, PE, MS, DSPS

Track W3 Wisconsin Plumbing Code - Plumbing State of the State & Plan Review Requirements

(W3-A) Mendota 2-4

This session will focus on the current Wisconsin Plumbing Code adopted on October 1, 2023. The course will also outline the current scope of possible revisions to the Wisconsin Plumbing Code. The course will also focus on the Wisconsin Department of Safety and Professional Services plumbing program, resources, and guidance documents. The second part of the session will focus on plumbing plan review requirements and provide information on delegated agents.

Mike McNally, DSPS

10:15 AM -10:30 AM Break

10:30 AM – Noon

Track W1 Commercial Building Common Problems Encountered

(W1-B) Mendota 6-8

Returning with the good and bad examples of what went right and went wrong in 2024 plans & inspections so that we all can avoid these same mistakes others made. A plan examiner and a building inspector share a few successes and some of what went wrong with buildings in the past year with the goal of learning good practices from the mistakes of others (who shall remain anonymous) so as not to repeat those same mistakes. Discussion & participation by all will be welcome, as we try to make better buildings in Wisconsin.

Jack Miller & Brian Noe, DSPS

Track W2 Fire Suppression/Fire Alarm Plan Submission requirements

(W2-B) Mendota 1

This course session includes of Designer Requirements and credentials, Expiration Dates, and Antifreeze systems and applicable IBC chapters and Wisconsin Building Codes.

Jon Yaskal, DES & Bob Jeske, DES DSPS

Track W3 Wisconsin Plumbing Code Requirements for Public Pools SPS 382 & SPS 390 (W3-B) Mendota 2-4

This session will be beneficial for you if you plan and design plumbing in buildings with public swimming pools. Learn about the current state of the Wisconsin Plumbing Code and understand plumbing requirements for public swimming pools.

Richard Rochelt, DSPS

12:00 PM – 1:00 PM Lunch

1:00 PM – 2:30 PM

Track W1 Meet & Greet and Q&A with WI DSPS Bureau Director and Section Chiefs -- drop by Question and Answer

(W1-C, a repeat of Tuesday session) Mendota 1

Meet the Department of Safety and Professional Services Division of Industry Services Section Chiefs and ask questions and share experiences and concerns.

Track W2 NFPA13/NFPA13R/NFPA13D

(W2-C) Mendota 6-8

This course session will discuss requirements and differences between NFPA 13, 13R, and 13 D Systems. The presentation will also review frequently asked questions and provide responses to audience questions.

John Yaskal, DES & Bob Jeske, DES, DSPS

Track W3 Wisconsin Plumbing Code Hot Topics (Common Questions, Plan Review Errors, etc.)

(W3-C) Mendota 2-4

This session will benefit those who plan, design, review, or inspect plumbing in buildings to ensure public health and safety. Learn about the current state of the Wisconsin Plumbing Code and understand some of the common non-code compliant deficiencies. We will highlight common plan review submittal mistakes from and discuss common questions received from designers, installers, and inspectors in 2024.

Matt Gullickson & Shayne Kucko DSPS

2:30 PM – 2:45 PM Break

2:45 PM – 4:45 PM

Track W1 Ethics for Engineers, Architects and Others

(W1-D a repeat of Tuesday session) Mendota 1

This session will examine professional codes of ethics and how these guiding documents provide greater clarity when facing ethical dilemmas. Real case examples of ethics problems will be evaluated and ethical implications of designing to minimum standards versus designing to anticipate future conditions will be discussed.

Laura Grossenbacher, Ph.D., University of Wisconsin-Madison

Track W2 Fire Dampers/Ceiling Radiation Dampers/Smoke Dampers/ Fire Rated Penetrations

(W2-D) Mendota 6-8 ends at 4:15 PM

This course session will discuss the code requirements related to fire dampers, smoke dampers, ceiling radiation dampers, and combination fire-smoke dampers. The code sections and requirements for fire penetrations for ductwork and pipes and when and where dampers are required will be discussed . Common issues will be examined, and practical solutions will be presented.

Brian Noe, DSPS

Track W3 Wisconsin Plumbing Code - Cross Connection Control (Theory, Principles, & Where Required)

(W3-D) Mendota 2-4 ends at 4:15 PM

Learn about the current state of the Wisconsin Plumbing Code as it relates to cross-connection control and understand essential cross connection control methodologies. This session will focus on the history, importance, and basics of cross connection control in plumbing installations. The course also covers other aspects related to cross connection control such as registration, renewal applications, where cross-connection control is needed, and how are cross-connection control applications are inspected.

Ryan Boebel, DSPS