

2018

MISSOURI ASSOCIATION OF BUILDING & FIRE OFFICIALS EDUCATIONAL CONFERENCE

09.12.18 09.13.18 09.14.18



FROM PRESIDENT

Thank you for considering the second MABFO Educational Conference!

All of the Missouri ICC Chapters have joined together for yet another historic event this September at the Lake of the Ozarks. Similar to our previous MEGA Conference, our primary purpose of this exciting event is to educate building officials while raising money for the upcoming ICC Annual Meeting to be held in St. Louis, Missouri in October 2020. We realize this will be a BIG undertaking as well as an honor to host this nation-wide event in Missouri yet again.

Your participation in this year's MEGA conference is paramount to the hosting of the 2020 ICC Meeting and we hope you will join us for this important educational conference. We understand that everyone is affected by budget constraints, and therefore the committee has been working hard to provide extra value at this conference. This event promotes 2 ½ Days of training by ICC Instructors and Industry Experts along with a Vendor Expo, Prize Opportunities, and – most importantly – the opportunity to network with your peers such as building officials, fire officials, architects, engineers, and other code professionals.

I hope you give serious consideration to attending this educational event.

Ed Berkel

President | Missouri Association of Building & Fire Officials

REGISTRATION

NAME	_____
AFFILIATION	_____
TELEPHONE	_____ EMAIL _____
ADDRESS	_____
CITY, STATE ZIP CODE	_____
MEAL RESTRICTIONS	_____
COMPANION'S NAME	_____
ADDITIONAL GUEST	_____

Early Bird Registration \$275.00
Deadline is August 14, 2018
Includes seminars, breakfast & lunch

Wednesday Session Number _____
Thursday Session Number _____
Friday Session Number _____

Full Registration \$325.00
Includes seminars, breakfast & lunch

Wednesday Session Number _____
Thursday Session Number _____
Friday Session Number _____

Single Day Registration \$150.00
Includes seminars, breakfast & lunch

Wednesday/Thursday/Friday
Session Number _____

Companion Fee \$50.00
Includes breakfast & lunch

Additional Guest \$50.00
Includes breakfast & lunch

Total Conference Fee
Lodging is not included in conference registration fees.

PLEASE NOTE BELOW WHICH CHAPTER YOU ARE A MEMBER OF

- Fire Marshals Association of Missouri
- Jefferson County Fire Marshal Association
Metropolitan Fire Marshals Association
- Missouri Association of Building Officials & Inspectors
Missouri Association of Code Administrators
- Missouri Association of Code Enforcement
- St Louis Professional Chapter of ICC
- Southwest Missouri Code Officials, Inc.
- None of the above

REFUNDS WILL BE GIVEN UNTIL SEPTEMBER 7, 2018

MAKE CHECKS PAYABLE TO MABFO

IF PAYING BY CREDIT CARD, PLEASE PROVIDE THE FOLLOWING:

Type of card
Card number
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Security code
Billing zip code

MAIL PAYMENT TO:

MABFO
c/o Eirene Knott BRR Architecture
6700 Antioch, Suite 300 Merriam, KS 66204

REGISTRATION MAY ALSO BE FAXED OR EMAILED:

Fax: 913-262-9044
Email: mabfo2004@gmail.com

[EVENTBRIGHT REGISTRATION LINK](#)

LODGING

Lodging is not included in the conference registration fee and can be completed separately. Reservations can be made by calling Tan-Tar-A Resort at 1-800-826-8272. Please use code "MBFO". Cut off date for the rate is August 14th, 2018.

Lodging is available at the resort for the low rate of \$109 plus \$10 resort fee per night. Please note, tax exempt organizations will need to provide all the required documentation to the resort in order to not pay state sales tax on lodging.



WHERE

TAN-TAR-A RESORT

494 Tan-Tar-A Dr
Osage Beach, MO 65065
(573)348-3131

WHEN

Wednesday September	Thursday September	Friday September
12	13	14

SCHEDULE

WEDNESDAY

12

7:00 - 8:00 am	Breakfast
7:30 am	Welcome by Ed Berkel (President, MABFO) & Bill Bryant (Vice President, ICC) speaking opportunity
8:00 - Noon	Sessions
Noon - 1:00 pm	Lunch- Dominic Sims (CEO, ICC) speaking opportunity
Noon - 6:00 pm	Vendor Expo
1:00 - 5:00 pm	Sessions resume
6:00 - 10:00 pm	Hospitality rooms open

THURSDAY

13

7:00 - 8:00 am	Breakfast
8:00 - Noon	Sessions
8:00 - 1:00 pm	Vendor Expo
Noon - 1:00 pm	Lunch- Dominic Sims (CEO, ICC) speaking opportunity
1:00 pm	Raffle Prize Drawings
1:00 - 5:00 pm	Sessions resume
6:00 - 10:00 pm	Hospitality rooms open

FRIDAY

14

7:00 - 8:00 am	Breakfast
8:00 - Noon	Sessions

MEET THE INSTRUCTORS

JARED AGEE

Session 16 - Understanding Design Concepts for 2018 IRC

BRIAN BAUGHMAN

Session 22 - Bridging the Generator Gap

MATT BROWN

Session 15 - Wall Bracing

JOHN B. CORSO

Session 14 - Rough & Final Inspections of Fire Sprinkler Systems

SAM FRANCIS

Session 7 - Fire Safety & Tall Wood Construction

JOHN M. GIBSON, JR.

Session 1 - IBC & IFC Assembly Spaces
Session 12 - IRC Townhouse Fire & Life Safety

MARC LOPATA

Session 21 - Solar Electric Systems Design & Safety

MATT PAISS

Session 21 - Solar Electric Systems Design & Safety

MICHAEL POPP

Session 18 - What You Need To Know- APEPLSPLA

JERRY RICE

Session 8 - Fire, Smoke & Egress Doors

PATRICK SHAW

Session 19 - Commercial Property Maintenance

KEVIN SKIBISKI

Session 18 - What You Need To Know- APEPLSPLA

BENJAMIN STATLER

Session 6 - Firestop Life Safety Seminar

RICHARD STERNADORI

Session 5 - Accessible Design in Action

TERRELL STRIPLING

Session 3 - IBC & IFC Hazardous Material
Session 9 - IBC Fire & Smoke Protection Features

SHARON SUTHERLAND

Session 6 - Firestop Life Safety Seminar

DALE K. THOMURE

Session 23 - the Building Code Effectiveness Grading Schedule

DOUGLAS W. THORNBURG

Session 2 - IBC Means of Egress
Session 10 - IBC Significant Changes

STEVE VAN NOTE

Session 4 - IRC Essentials
Session 11 - IRC Significant Changes

MARK WALD

Session 20 - IRC Ventilation Requirements

RICHARD N. WALKE

Session 13 - Fire Resistive Construction

CHRIS WILHELM

Session 17 - Emergency Responder Radio Systems

**JARED
AGEE**
MCP, CBO

Jared Agee is the Director of Building and Code Enforcement for St. Charles County, Missouri. Previously, he worked in urban and suburban municipal governments managing building code enforcement. Prior to his public-sector positions, he worked in the construction industry in design and project management. Jared has an undergraduate degree in Architectural and Mechanical Design and a graduate degree in Public Administration and Policy Analysis. As a Master Code Professional, he is one of approximately 800 people to obtain the highest level of certification from the International Code Council.

**BRIAN
BAUGHMAN**

Presenter Brian Baughman has been part of the Generac Power Systems technical team since March, 2013. In his role, he trains contractors, installers, and inspectors on products, codes, and installation practices. To date Brian Baughman has trained thousands of electrical professionals across the country through webinars, site visits, and conferences. Brian also trains Generac employees, does beta site installation, and testing of new products, and supports special projects. After graduating high school Brian served an electrical apprenticeship with a company that specialized in light industrial and commercial projects and achieved the rank of Journeyman Electrician in early 2004. In early 2009 Brian achieved the rank of master electrician and shortly thereafter Brian became a certified electrical inspector. Brian currently holds a State of Wisconsin Master Electrician License, State of Wisconsin Commercial Electrical Inspector Certification, and a State of Wisconsin UDC-Electrical Inspector Certification. Brian has maintained his knowledge of electrical codes and installation techniques through attending regular continuing education programs. Brian is also a member of the Western Section, Wisconsin Chapter of the IAEI, the ICC, and the NFPA.

**MATT
BROWN**

Matt Brown is an Engineered Wood Specialist at APA – The Engineered Wood Association. He is located in Indiana and works with builders, designers, code officials and suppliers across the greater Chicago area and surrounding region. His career in the construction industry began over 10 years ago as the Design and Quality Manager for a production builder in northern Indiana overseeing the company's design process and warranty service. Matt then moved into the energy rating industry working as Director of Research and Development for a large energy consulting firm, advising builders located in the states of Indiana, Illinois and Michigan. As a member of the Indiana Builders Association, he became involved in code development, training, and education that extended beyond Indiana and into neighboring states. At the national level, Matt has been active in the development of the International Energy Conservation Code and is an ICC Certified Residential Energy Code Inspector/Plans Examiner, a HERS Rater and Certified Green Professional (CGP). Matt combines his structural design background with his energy conservation expertise for APA by assisting builders and designers in cost effectively meeting both the structural and energy efficiency requirements of the code that are necessary in satisfying the demands of today's savvy home buyers and building owners.

**JOHN B.
CORSO**

John B. Corso is the Director of Training for the National Fire Sprinkler Association. He was born and currently lives in Louisville, KY where he is a graduate of the University of Louisville and a veteran of the U.S. Marine Corps.

Mr. Corso began his career with the National Fire Sprinkler association after retiring from the Louisville, KY Fire Department in 1999 with 31 years of service, the last four as Chief of the Department. He is now responsible for developing, implementing and updating training programs to improve the understanding and comprehension of all Codes and Standards relating to water based fire protection systems. He travels extensively throughout the United States and abroad conducting training seminars to achieve these goals.

**SAM
FRANCIS**
CBO

Sam is the AWC Senior Director for National Programs, formerly being a Regional Director with AWC (American Wood Council) covering the northeastern United States. He is a CABO certified building official, and has nearly 20 years of experience as a building code official. He also served on the Ohio Construction Industry Certification Board, and the National Construction Code Inspector Certification Program Test Preparation committee.

**JOHN M.
GIBSON, JR.**

MCP, CBO, CPCA,
CFM

John is a Technical Advisor and Instructor for the International Code Council (ICC). A certified Master Code Professional and Certified Fire Marshal; he has forty (40) other certifications, including thirty-three (33) from the ICC. Having earned a B.S. in Engineering from the University of Delaware, he has also studied Architecture at Georgia Tech and completed courses in Emergency Management and Fire Prevention at the National Emergency Training Center. Formerly the Director of the Department of Permits and Inspections for Frederick County Maryland, he is an ICC Honorary Member, has served on the ICC- Evaluations Services (ICC-ES) Board of Directors, the ICC Code Correlating Committee, the Board of Directors for BOCA International, Inc., Maryland's Governor's Smart Code Strategy Group, Chaired the ICC Board for International Professional Standards and is an Honorary Member and Past President of the Maryland Building Officials Association. He currently teaches ICC administrative, building, residential, existing building, property maintenance, zoning, green building, wildland/urban interface, energy courses, and is a contract instructor at the Dept. of Homeland Security, United States Fire Administration, National Fire Academy, and Emmitsburg, MD. He received the ICC Educator of the Year award in 2010.

**MARC
LOPATA**

PE

Marc Lopata is President of Azimuth Energy, a US-based, solar energy, microgrid, and energy efficiency engineering and construction company. Marc is a licensed, Professional Engineer with over 20 years of experience in engineering, construction, development, and applied sciences.

Marc is the engineer-of-record on over 400 solar projects, 80 microgrid and energy storage projects totaling over 75 MWh of energy storage capacity, and a dozen utility-scale solar projects. Marc is a NABCEP-certified Systems Inspector, one of only 40 worldwide.

Marc is a regular speaker, presenter and trainer on solar-energy-related topics to trade groups, firefighters, and first responders. He is a solar-energy technical advisor to the World Bank for the Eastern Caribbean, and a peer reviewer of hurricane survivability for the National Renewable Energy Laboratory.

**MATT
PAISS**

Fire Captain Matthew Paiss is a 22-year veteran of the San Jose Fire Department. He is the IAFF primary representative to NFPA 70 (NEC) and NFPA 855 Energy Storage Systems (ESS) standards. He is a subject-matter expert for the National Fire Protection Association on energy storage, and President of Energy Response Solutions, Inc (a training and consultation firm). He has contributed to the IFC & NFPA1 fire code sections on PV & ESS. Captain Paiss has delivered PV Safety training to over 7000 firefighters nationwide including the FDIC and the National Fire Academy. He has spoken in Europe on fire safety and PV design and holds certificates as a credentialed California Technical Education Teacher, Registered State Fire Instructor, and Certified State Fire Officer.

He is a member of UL Standards Technical Panels 1703 & 1741, and has written for Fire Engineering, SolarPro and SFPE magazines.

**MICHAEL
POPP**

AIA, CSI

Michael Popp, AIA, CSI, is a Senior Architectural Specification Writer at BRR Architecture, Merriam, KS. He received his Bachelor of Architecture degree from Kansas State University. In 2014, he was appointed to the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors and Professional Landscape Architects.

JERRY RICE

FDHI, FDAI, CSI, CCCA, LEED GA

Mr. Jerry Rice is the Vice President/Director of Code Compliance for the D. H. Pace Company, with a national presence through 40 offices offering products and services such as: overhead sectional and coiling doors, residential and commercial entry door products, aftermarket service programs, integrated security systems and monitoring, as well as varied construction services, including installation and carpentry packages. With over 32 years in the door industry – 20 as a line manager – Jerry brings an experienced skill-set to his job of improving the Organizations many processes through the company-wide integration of Lean Six Sigma, the creation and instruction of various training programs, and through Code research – training – and advocacy. Mr. Rice completed his 'Sigma Lean Black Belt' training in 2004 through the internationally renowned Six Sigma Academy and holds a BS (summa cum laude) in Management from Park University. He holds the construction related certifications, 'Certified Construction Contract Administrator', 'Fire Door Assembly Inspector', 'FireCheck® Inspector and Trainer', 'AAADM Automatic Door Inspector', 'LEED Green Associate', and is a 'Fellow' of the Door and Hardware Institute. Jerry has presented and instructed nationwide to thousands of attendees from various Associations on topics such as: Construction Documents, Professional Project Management, Fire/Life Safety/Building Codes, Fire and Smoke Assembly Inspections, and LEED Fundamentals. Mr. Rice is a Past President of the Construction Specifications Institute – Kansas City Chapter and a past Vice President of the national Board of Governors for the Door and Hardware Institute. His 'outside work' interests include: church activities; city planning and community involvement; archery coach for the Lee's Summit School District; and golfing with his 16-year old daughter.

PATRICK SHAW

CFM, EIT, LEED GA

Patrick has assumed the Director of Engineering & Maintenance Services position over the various operational teams throughout the St. Louis area. He works closely with the property managers and chief engineers to deliver solutions for operational challenges. This includes development and implementation of best practices, project management, emergency preparedness, new assignment evaluations and recruiting. Patrick also works on creating and developing new processes, procedures and Green corporate initiatives.

Patrick had been on the Edward Jones account for almost 10 years and his primary responsibilities covered the mechanical and electrical infrastructure of the Edward Jones World Headquarters. He was involved in the design development and construction of the new office buildings on the Edward Jones Campus as well as numerous build-outs and capital improvement projects. Patrick also was heavily involved in the Business Continuity Planning to maintain critical business operations. Prior to his position with Cushman & Wakefield he was a Process Engineer for an international chemical manufacturing company.

KEVIN SKIBISKI

PE, SE, PLS

Kevin Skibiski, PE, SE, PLS, is retired from Horner & Shrifrin, Inc. where he was Associate Vice President. He was part of their Springfield, MO, office. He received his Bachelor of Science and Master of Science in Civil Engineering from Missouri University of Science and Technology. He was appointed to the Engineering Division of the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors and Professional Landscape Architects and is currently Chair of the Division.

BENJAMIN STATLER

Benjamin Statler joined Hilti North America in 2013 as a Non-Structural Field Engineer for Missouri, Kansas and Nebraska providing education to the Design and Inspection Communities. In 2015 he took on the role as Regional Manager for the Louisiana Market and was recently promoted in 2017 to Division Technical Services Manager for the North Central United States. In his current role Ben supports a team of 12 Fire Protection Specialists in 13 states ensuring that they are well equipped to implement strategic initiatives in the construction, design and inspection communities. Additionally supporting with education, technical support and facilitation of proper installation of fire protection systems.

Prior to Hilti Ben worked for General Contractors in both Las Vegas, NV as well as St. Louis, MO working on a variety of different projects including Entertainment, Commercial and Multi-Family Residential. Ben graduated for the University of Missouri – Rolla (Missouri University of Science and Technology) in 2007 with a Bachelor of Science in Architectural Engineering.

**RICHARD
STERNADORI**
M.ED, M. ARCH,
CBO, PCRC, ACTCP

Richard has taught ADA programs for the MU Great Plains Disability ADA Center since 2008.

Richard holds a Masters of Education and a Masters of Architecture from the University of Missouri (MU). He has completed significant coursework toward his Ph.D. in Architecture. He is an Instructor in the MU College of Human Environmental Sciences, Dept. Of Architecture. His principle focus is sociological application of disability design.

Richard is a consultant, published researcher and author known for his work in accessibility, design and state/local government. He authored and co-authored publications regarding accessibility standards at American Universities. Published in the ICC Building Safety Journal and the Journal of Interior Design and presented at the Interior Design Educators Council in St. Louis, 2017.

He spent 15 years as a Union master carpenter in high rise and commercial construction, and 16 years as the Chief Building Official for communities in Missouri. Richard is the Chair of the International Codes Contractor Licensing Committee, developing the first nationwide examinations for contractor licensing. The examinations in all 50 states for residential, light and high rise commercial contractor licensing are based on his committee's work. Governor Joan Finney appointed Richard to the Kansas State Board of Architects/Technical Professions as the first Code Official Member. He received two ICBO Chapter Awards as Chapter President and Vice President, and garners 14 Code Certifications and State Inspector licenses.

Richard is the Great Plains ADA Center Principle Investigator for researching governmental implementation of accessibility regulations. To date he has researched 529 city and 80 county governments to understand how the compliance with Codes and ADA affects aging and disabilities within the communities.

**TERRELL
STRIPLING**

Terrell is a seasoned instructor with 20 years of fire service experience and has also worked in the construction industry. He holds a B.S. degree from Oklahoma State University in Fire Protection Engineering and Technology. His experience in fire prevention, code management and the ability to effectively communicate a pro-active philosophy is reflected in Terrell's passion for education. At the college level, he has served in the positions of Department Chair and adjunct professor in the Fire Science Department. He utilizes the theory of the code along with hands-on practical application to achieve ICC's vision of "Protecting the health, safety, and welfare of people creating better buildings and safer communities."

**SHARON
SUTHERLAND**

Sharon Sutherland joined Hilti North America in 2009 as an Account Manager. During her time as an Account Manager with Hilti she was responsible for driving profitable growth and retention of several strategic business partners in the Kansas City region.

In 2015, Sharon was promoted to the Fire Protection role where she is currently responsible for leading and implementing strategic initiatives of the Fire Protection business unit for Hilti. These initiatives include, but are not limited to educating and providing technical support to assure the facilitation of proper installation of Hilti's firestop products and UL Systems.

**DALE K.
THOMURE**
CBO, CFM

Dale is a Manager of Community Hazard Mitigation with ISO. In this capacity, Dale is responsible for the implementation of the Building Code Effectiveness Grading Schedule (BCEGS) at the national level. At ISO, Dale is a recognized subject matter expert in the field of building code enforcement and community hazard mitigation and speaks on related topics across the nation. Prior to his tenure at ISO, Dale worked for 20 years as a Community Development Director and as a Building Code Official in municipal governments. Dale holds a degree in construction management and is designated by ICC as a Certified Building Official.

DOUGLAS W. THORNBURG

AIA, CBO

Douglas is currently Vice-President and Technical Director of Products and Services for the International Code Council (ICC) where he provides administrative and technical leadership for the ICC product development activities. Prior to employment with ICC in 2004, he was in private practice as a code consultant and educator on building codes for nine years. Doug also spent ten years with the International Conference of Building Officials (ICBO) where he served as Vice-President/Education.

In his current role, Doug also continues to create and present building code seminars nationally and has developed numerous educational texts and resource materials. He was presented with ICC's inaugural Educator of the Year Award in 2008, recognizing his outstanding contributions in education and training.

A graduate of Kansas State University and a registered architect, Doug has over 36 years of experience in building code training and administration. He has authored a variety of code-related support publications, including the IBC Illustrated Handbook and the Significant Changes to the International Building Code.

STEVE VAN NOTE

Steve Van Note is the Managing Director of Product Development for the International Code Council (ICC), where he is responsible for developing technical resource materials in support of the International Codes. His role also includes the management, review, and technical editing of publications developed by ICC staff members and other expert authors. In addition, Steve develops and presents code seminars nationally. He has over 40 years of experience in the construction and building code arena. Prior to joining ICC in 2006, Steve was building official for Linn County, Iowa. Prior to his 15 years at Linn County, he was a carpenter and construction project manager for residential, commercial, and industrial buildings. A certified building official and plans examiner, Steve also holds certifications in several inspection categories.

MARK WALD

Mark is a graduate from MIZZOU with a bachelor degree in Mechanical Engineering. Mark has worked in the field of HVAC design and has held several positions in HVAC industry as a commercial plan specifications writer, wholesale distribution, as a manufacturer's representative. In recent years Mark has been employed with Fan Tech as a product manager and is currently the Regional Sales Manager.

RICHARD N. WALKE

Rich is a Senior Regulatory Engineer with Underwriters Laboratories (UL) in Northbrook, IL. His responsibilities include providing fire protection related technical support to the regulatory community, providing educational seminars, developing internet based training programs, interacting on code change activities and serving as a liaison between the UL engineering staff and the regulatory community. Prior to this assignment, Rich was actively engaged in fire protection engineering for 29 years. He provided the supervisory and review activities of engineering investigations conducted on fire resistive construction, through-penetration firestop systems, joint systems, perimeter fire containment systems, fire resistive electrical outlet boxes, electrical circuit protections systems, fire resistive grease and air ducts systems, interior finish building materials, air duct materials and solid fuel heating appliances.

Rich had the honor of serving on the Fire Safety Committee at the ICC Committee Action Hearings in Memphis in April of 2015 and in Columbus in April of 2018. He is also a member of the NFPA 101/5000 Fire Protection Features and NFPA 220/221 Building Construction Committees.

Rich received a Bachelor of Science Degree in Civil Engineering from Valparaiso University in 1976. He is currently a Certified Quality Engineer with the American Society for Quality Control.

CHRIS WILHELM

Chris Wilhelm has been with Tech Electronics since 1998 and was named the Executive Director of Construction in 2004. His duties include overseeing all construction projects in the St. Louis area as well as directing all construction strategy and marketing at all nine regional Tech Electronics offices. In addition to his construction market duties, he is also responsible for overseeing all fire alarm projects, including managing the relationship with Tech's fire alarm system manufacturers.

Due to his vast expertise in fire alarm code, Chris presents across the United States for various audiences including manufactures, AHJs, engineers, contractors, fire inspectors, state fire marshals, and building owners.

SESSION DESCRIPTIONS

WEDNESDAY

12

SESSION 1 - 2018 IBC & IFC ASSEMBLY SPACES

SESSION 2 - 2018 IBC MEANS OF EGRESS

SESSION 3 - 2018 IBC & IFC HAZARDOUS MATERIAL

SESSION 4 - 2018 IRC ESSENTIALS

SESSION 5 - ACCESSIBLE DESIGN IN ACTION

SESSION 6 - FIRESTOP LIFE SAFETY SEMINAR

SESSION 7 - FIRE SAFETY & TALL WOOD CONSTRUCTION

SESSION 8 - FIRE, SMOKE & EGRESS DOORS

THURSDAY

13

SESSION 9 - 2018 IBC FIRE & SMOKE PROTECTION FEATURES

SESSION 10 - 2018 IBC SIGNIFICANT CHANGES

SESSION 11 - 2018 IRC SIGNIFICANT CHANGES

SESSION 12 - 2018 IRC TOWNHOUSE FIRE & LIFE SAFETY

SESSION 13 - FIRE RESISTIVE CONSTRUCTION

SESSION 14 - ROUGH & FINAL INSPECTIONS OF FIRE SPRINKLER SYSTEMS

SESSION 15 - WALL BRACING

FRIDAY

14

SESSION 16 - UNDERSTANDING DESIGN CONCEPTS FOR 2018 IRC

SESSION 17 - EMERGENCY RESPONDER RADIO SYSTEMS

SESSION 18 - WHAT YOU NEED TO KNOW- MISSOURI BOARD FOR ARCHITECTS,
PROFESSIONAL ENGINEERS, PROFESSIONAL LAND SURVEYORS
& PROFESSIONAL LANDSCAPE ARCHITECTS (APEPLSPLA)

SESSION 19 - COMMERCIAL PROPERTY MAINTENANCE

SESSION 20 - IRC VENTILATION REQUIREMENTS

SESSION 21 - SOLAR ELECTRIC SYSTEMS DESIGN & SAFETY

SESSION 22 - BRIDGING THE GENERATOR GAP

SESSION 23 - THE BUILDING CODE EFFECTIVENESS GRADING
SCHEDULE

SESSION

1

09.12.18
All Day

2018 IBC & IFC Assembly Spaces

John Gibson

DESCRIPTION

This class will address the 2018 International Building Code (IBC) requirements applicable to design and construction of assembly spaces. It will address the differences between the various Group A occupancies and how assembly uses may also fit within the business or educational occupancy classifications. The seminar will cover the unique aspects of the code related to assembly uses including the stage and platform requirements of Section 410, the ICC 300 Standard for Bleachers, Folding and Telescopic Seating, and Grandstands, the special egress provisions of Section 1029, along with the special amusement building and motion picture projection room requirements from Chapter 4. International Fire Code provisions related to places of assembly such as requirements for a fire watch, limitations on open flames, combustibles and finishes will also be addressed. The discussion will include the unique IBC criteria applicable to accessibility, fire protection and building size issues in assembly buildings. *0.6 CEU's for code officials, 6.0 CEU's for architects and fire marshals*

SESSION

2

09.12.18
All Day

2018 IBC Means of Egress

Douglas Thornburg

DESCRIPTION

This workbook addresses numerous provisions in the 2018 International Building Code® (IBC®) where the code contains requirements pertaining to establishing a means of egress in buildings. Readers will be presented with specific problems related to means of egress and will be asked to solve each case study.

The course is intended to help plan reviewer or building code officials responsible for plan review identify those areas where plan review will include compliance with the IBC.

During this training, participants will be listening to lecture and viewing examples, as well as discussing sections of the IBC that pertain to plan review of a commercial building. They will participate in activities that involve a set of plans. *0.6 CEU's for code officials, 6.0 CEU's for architects and fire marshals*

SESSION

3

09.12.18
All Day

2018 IBC & IFC Hazardous Material

Terrell Stripling

DESCRIPTION

The 2018 IFC® and IBC® Hazardous Materials Provisions seminar addresses requirements for buildings utilizing hazardous materials and requiring coordination between the fire and building codes. It reviews the requirements found in Chapters 50 through 67 of the International Fire Code® (IFC®), as well as Chapter 3, and Sections 414 and 415 of the International Building Code® (IBC®). *0.6 CEU's for code officials, 6.0 CEU's for architects and fire marshals*

SESSION

4

09.12.18
All Day

2018 IRC Essentials

Steve Van Note

DESCRIPTION

This 6-hour seminar examines basic concepts of the 2018 International Residential Code® (IRC®). These concepts provide a basis for the correct utilization of the code. A clear understanding of the identified requirements allows the code user to apply the IRC in specific situations and helps to build an understanding of the intent of the code when asked to make a judgment on code compliance.

This course will also help the code user to correctly locate code requirements. It will also provide a basis for the correct use and application of the code as well as to begin to develop a procedure for applying them. *0.6 CEU's for code officials, 6.0 CEU's for architects and fire marshals*

SESSION

5

09.12.18
All Day

Accessible Design in Action

Richard Sternadori

DESCRIPTION

This is a highly advanced curriculum intended for professionals in design, construction, codes and others who have direct, extensive and ongoing experience in accessibility design, enforcement or education. Part one of the course applies the Federal requirements for accessibility to new and altered buildings using the 2010 DOJ Standards for Accessible Design (2010 Standards) analyzing all ten chapters, from cover to cover. The program contains significant content that is being constantly refined based on interpretations, technical assistance and clarifications from the US Access Board, the Dept. of Justice, the International Code Council and other experts. We discuss and analyze conflicts, questions and concerns that have been raised by designers, agencies and persons with disabilities, and technical assistance experts as the regulations are applied and tested in society.

The second part of the course is the Case Study of a \$13 million-dollar commercial building project as a means of applying select, fundamental accessibility design concepts discussed in the first section of the program. This Case Study looks at successes, errors and omissions of accessibility principles in the alterations and new additions of two multi-story, large, existing buildings that were originally separated by open space, and eventually connected. Prominent harmonization and differences between the 2010 Standards and the IBC are discussed.

LEARNING OBJECTIVES

- Participants will become familiar with the contact information, roles and various services available to them by the Federal network of ADA Centers.
- Attendees will gain a comprehensive understanding of the technical provisions of the 2010 Standards for new construction and alterations.
- Participants will be conversant in the Justice Departments 2010 supplemental guidelines, and how they interrelate with US Access Boards Americans with Disabilities Act and (ADAAG). Taken together, these two sets of regulations encompass the 2010 Standards for Accessible Design.
- Attendees will have an overview of the principles of how the ADA is implemented for existing and historic structures, and gain an enhanced understanding of when federal accessibility regulations may not be applicable, or may be modified, diminished or eliminated for new construction or alterations.

0.75 CEU's for code officials, 7.5 CEU's for architects and fire marshals

SESSION

6

09.12.18
8am - 12pm

Firestop Life Safety Seminar

Benjamin Statler & Sharon Sutherland

DESCRIPTION

Life Safety Seminar is a comprehensive 4 hour learning course that will give attendees a deep dive into the major components of firestop and how they impact life safety of buildings. During the course we will not only look at the major categories of passive compartmentation, firestop systems, including: joints, penetrations and edge of slab, but we will also look at how code has evolved over time and where firestop fits into the International Building Code. At the conclusion of the course participants should be able to identify: What is Firestop and why do we use it, Compartmentation and the elements that are included, Important Code updates from 2012, 2015, 2018, How firestop systems are tested and listed with the applicable testing jurisdictions, and secondary attributes attributed to proper use and selection. *0.4 CEU's for code officials, 4.0 CEU's for architects and fire marshals*

SESSION

7

09.12.18
All Day

Fire Safety & Tall Wood Construction

Sam Francis

LEARNING OBJECTIVES

- Visualize how mass timber and heavy timber building elements behave when subjected to fire.
- Learn how fire resistance ratings of wood assemblies and mass timber are calculated.
- Understand basic methods to achieve fire resistance ratings in the 2018 IBC.
- Utilize an introduction to CLT as incorporated in the 2018 IBC along with future code change concepts to form a basis of understanding about taller and larger timber structures.

0.75 CEU's for code officials, 7.5 CEU's for architects and fire marshals

SESSION

8

09.12.18
1pm - 5pm

Fire, Smoke & Egress Doors

Jerry Rice

DESCRIPTION

Do you know your obligations – per code – on inspecting and maintaining your fire rated and smoke rated door assemblies? How about the requirement in the new Life Safety code to annually inspect all doors designed to flow in the path of egress travel for Education, Assembly and other occupancy types? If your building is not code compliant and a tragedy occurs, who will they look to for accountability? Your attendance to the Fire and Smoke Assembly Maintenance and Inspection Seminar will ensure you have the necessary information to keep up with the changing code requirements. *0.4 CEU's for code officials, 4.0 CEU's for architects and fire marshals*

SESSION

9

09.13.18
All Day

2018 IBC Fire & Smoke Protection Features

Terrell Stripling

DESCRIPTION

This seminar addresses the critical concepts of the 2018 International Building Code (IBC) regarding Chapter 7, Fire and Smoke Protections Features. These concepts provide a basis for the analysis and identification of which components require fire-resistance ratings; where the fire-resistance-rated construction is required in building construction; where smoke-resistant construction is mandated; and the use of fire door assemblies, fire window assemblies, penetration firestop systems, fire dampers and smoke dampers.

GOAL

That participant will be able to apply the provisions of Chapter 7 of the 2018 IBC to the materials and assemblies used for structural fire resistance, as well as the fire-resistance-rated and smoke-resistance construction separation of adjacent spaces.

LEARNING OBJECTIVES

- Upon completion, participants will be better able to:
- Explain the scope of the fire-resistance-rated and smoke-resistant provisions of Chapter 7.
- Describe the manner in which a fire-resistance rating is achieved.
- Identify the individual building components that require a fire-resistance rating.
- Indicate how to properly protect opening and penetrations in fire-resistance-rated assemblies.

0.6 CEU's for code officials, 6.0 CEU's for architects and fire marshals

SESSION

10

09.13.18
All Day

2018 IBC Significant Changes

Douglas Thornburg

DESCRIPTION

Overviews the changes from the 2015 to the 2018 IBC. Identifies changes in the organization and code requirements and the applicability of these requirements to design, plan review and inspection. This course uses the Significant Changes to the International Building Code 2018 Edition.

GOAL

The goal of Significant Changes to the International Building Code 2018 Edition is to familiarize building officials, fire officials, plans examiners, inspectors, design professionals, contractors, and others in the construction industry with many of the important changes in the 2018 International Building Code (IBC).

This publication is designed to assist those code users in identifying the specific code changes that have occurred and, more important, understanding the reasons behind the changes.

LEARNING OBJECTIVES

- Upon completion of this seminar, participants will be better able to:
- Identify the most significant difference between the 2015 UBC and the 2018 IBC.
- Explain the differences between the current and previous edition.
- Identify the key changes in organization and code requirements.
- Identify the applicability of design, plan review and inspection requirements.

0.6 CEU's for code officials, 6.0 CEU's for architects and fire marshals

SESSION

11

09.13.18
All Day

2018 IRC Significant Changes

Steve Van Note

DESCRIPTION

This 6-hour seminar reviews and analyzes selected significant changes from the 2012 IRC to the 2018 IRC. It familiarizes building officials, fire officials, plans examiners, inspectors and design professionals with many of the significant changes in the 2018 IRC. It assists code users in identifying the specific code changes that have occurred, and more importantly, understanding the reason behind the change. Finally, it focuses on those code changes selected due to their frequency of application, special significance or change in application. This course uses the Significant Changes to the International Residential Code 2018 Edition.

GOAL

The goal of Significant Changes to the International Residential Code 2018 Edition is to familiarize building officials, fire officials, plans examiners, inspectors, design professionals, contractors, and others in the construction industry with many of the important changes in the 2018 International Residential Code (IRC).

This publication is designed to assist those code users in identifying the specific code changes that have occurred and, more important, understanding the reasons behind the changes.

LEARNING OBJECTIVES

- Upon completion of this seminar, participants will be better able to:
- Identify the most significant difference between the 2015 IRC and the 2018 IRC.
- Explain the differences between the current and previous edition.
- Identify the key changes in organization and code requirements.
- Identify the applicability of design, plan review and inspection requirements.

0.6 CEU's for code officials, 6.0 CEU's for architects and fire marshals

SESSION

12

09.13.18
All Day

2018 IRC Townhouse Fire & Life Safety

John Gibson

DESCRIPTION

Participants will be better able to apply the fire and life/safety provisions for townhouse construction using the 2018 International Residential Code. This course addresses issues based on exterior wall and opening protection, separation of dwelling and dwelling units and means of egress. In addition, it compares the similarities and differences between the IRC and the IBC related to multiple residential dwelling construction. Activities in this course provide opportunities for students to interact with the code discuss answers with other learners and obtain feedback from the instructor. Through case studies, participants will be able to use practical generalizations so that they can examine critical concepts of fire separation related to two-family dwellings and townhouses in the 2018 International Residential Code (IRC). They will also be able to correctly use and apply related tables and provisions. *0.6 CEU's for code officials, 6.0 CEU's for architects and fire marshals*

SESSION

13

09.13.18
All Day

Fire Resistive Construction

Richard Walke

DESCRIPTION

This program provides an in-depth look at the requirements of the 2015 International Building Code for fire-resistive construction. It will start with a detailed look at what is fire-resistance-rated construction, where it is required and what is the required rating. From there, it will cover the practical aspects as detailed in Chapter 7, including the unique requirements for structural elements, walls and horizontal assemblies, the referenced standards, the testing process described in the referenced standards, and the available methods of demonstrating code compliance. Following the discussion on fire-resistance-rated construction, the program will cover the protection of the four types of breaches within these assemblies. Specifically, it will cover the protection of penetrations, fire-resistant joint systems, opening protectives, and ducts and air transfer openings.

LEARNING OBJECTIVES

- At the end of this lesson, attendees will:
- Understand the intent and purpose behind fire resistive construction.
- Understand the code requirements, testing procedures, plan review requirements and inspection practices relating to fire resistive construction.
- Understand the code requirements, testing procedures, plan review requirements and inspection practices relating to the protection of penetrations, fire-resistant joint systems, opening protectives, and ducts and air transfer openings.
- Be able to navigate UL's Fire Resistance Directory, Online Certifications Directory and Product Spec in order to identify listed products and assemblies which demonstrate compliance with the requirements of the 2015 International Building Code.

0.75 CEU's for code officials, 7.5 CEU's for architects and fire marshals

SESSION

14

09.13.18
All Day

Rough & Final Inspections of Fire Sprinkler Systems

John B Corso

DESCRIPTION

This one day seminar provides the attendees with vital information on how to conduct the field inspections for new fire sprinklers and standpipe systems. Fire sprinkler and standpipes are installed in stages and inspections are required before commencing to the next stage. The code requires periodic on site inspections as the work progresses which is to be installed to the approved construction documents. This work is required to be inspected and approved before being covered or before the system is commissioned. This course points out the visual and physical inspection requirements of the latest codes and standards. *0.8 CEU's for code officials, 8.0 CEU's for architects and fire marshals*

SESSION

15

09.13.18
All Day

Wall Bracing

Matt Brown

DESCRIPTION

This course digs into the wall bracing requirements of IRC, details the requirements and provides example calculations. Common concerns and methods to simplify compliance.

LEARNING OBJECTIVES

- General wall bracing requirements of the IRC
- Methods for compliance
- Calculating bracing requirements
- Options to simplify wall bracing requirements

0.8 CEU's for code officials, 8.0 CEU's for architects and fire marshals

SESSION

16

09.14.18
8am - 12pm

Understanding Design Concepts for 2018 IRC

Jared Agee

DESCRIPTION

Course utilizes Chapters 1-3 and Referenced Standards to make determinations related to design parameters and building planning of IRC structures. Alternatives, modifications, code concepts, and the technical aspects of Chapter 3 Building Planning provide direction and understanding regarding plan review and inspection. Multiple examples provide real-life scenarios and problem-solving techniques to ensure compliance. *0.4 CEU's for code officials, 4.0 CEU's for architects and fire marshals*

SESSION

17

09.14.18
8am - 12pm

Emergency Responder Radio Systems

Chris Wilhelm

DESCRIPTION

In the event of an emergency situation, emergency responders rely heavily on clear communications to safely and effectively do their job. In this session, the presenter will provide an overview of how emergency responder radio has evolved and the driving force behind its progression.

The code has acknowledged the changes that have occurred in emergency responder radio – from the inception of wired solutions tethering a firefighter to the development and launch of wireless solutions allowing increased mobility. Join us and learn the evolution through the codes and where it can be found in IBC/IFC and NFPA codebooks today. During the discussion, the presenter will also focus on how environmental conditions and future building construction can adversely impact not only a single building but multiple neighboring buildings. Lastly, to ensure proper functionality, the presenter will discuss considerations and responsibilities during system design, throughout the project, and for the life of the system. *0.4 CEU's for code officials, 4.0 CEU's for architects and fire marshals*

SESSION

18

09.14.18
8am - 10am

What You Need To Know- Missouri Board for Architects, Professional Engineers, Professional Land Surveyors & Professional Landscape Architects (APEPLSPLA)

Michael Popp & Kevin Skibiski

DESCRIPTION

Board members, Michael Popp, AIA, CSI, Vice Chairman of the Architectural Division, and Kevin Skibiski, PE, SE, PLS, Chair of the Engineering Division, will speak about the Board, the Missouri Statutes, namely Chapter 327, and the Rules that govern the practices represented on the Board. The focus will be what the code enforcement officials should expect and what the licensed professionals should provide. It will include updates on the current Rules and touch on the proposed changes, including the design of fire suppression systems. *0.2 CEU's for code officials, 2.0 CEU's for architects and fire marshals*

SESSION

19

09.14.18
10am - 12pm

Commercial Property Maintenance

Patrick Shaw

DESCRIPTION

This course will cover the importance of a robust maintenance program for commercial applications. These programs ensure code compliance, reliability of building systems and ensure typical life-expectancies for components are achieved to minimize capital expenses. Additionally, this course will discuss the importance of fire inspections, tours and communication with local law enforcement, code officials and other authorities to maintain a safe work environment for tenants. *0.2 CEU's for code officials, 2.0 CEU's for architects and fire marshals*

SESSION

20

09.14.18
8am - 12pm

IRC Ventilation Requirements

Mark Wald

1 HOUR DESCRIPTION

Makeup air for residential kitchen exhaust. This is a requirement that first appeared in the 2009 IRC, and has undergone revisions up to and including 2018 IRC. A major cause of concern in today's tight homes is depressurization from exhaust fans and the effect on combustion appliances that give rise to life safety issues and insufficient airflow rates from exhaust fans. National Ventilation Standards and Codes now address these concerns and stipulate how and in what volume compensating makeup air is to be provided. This presentation will detail the current National Standards and Codes governing residential compensating makeup air and show why makeup air is required and various methods of supply and how they work.

LEARNING OBJECTIVES

- Detail the current Standards and Codes that cover residential makeup air
- Understand the effects of depressurization on homes and appliances
- Differentiate between the current allowed methods of compensating makeup air

0.75-1 HOUR DESCRIPTION

Dryer exhaust duct power ventilation (DEDPV) for residential-capacity clothes dryers. This is a requirement that first appeared in the 2015 IRC. Dryer "boosting" has been a topic of discussion and concern for over a decade. With an estimated 1 million such fans installed over the past 10 years, questions arose about their safety. Several years ago, UL published the first test standard for products in this specific application, and re-named such products as Dryer Exhaust Duct Power Ventilators (DEDPVs). The 2015 code versions began requiring UL-certified DEDPV products when used in this application. This presentation will detail the current standards and codes governing dryer exhaust duct power ventilation, and describe how such products work.

LEARNING OBJECTIVES

- Detail the current standards and codes that cover dryer exhaust duct power ventilating
- Differentiate between compliant and non-compliant products

1.5 HOURS DESCRIPTION

IRC ventilation requirements, where ASHRAE Standard 62.2 is referenced. This will cover the requirement for both local (bath and range hood) exhaust and the continuous (fresh air) ventilation requirement. ASHRAE Standard 62.2 is very specific with regards to ventilation rates for both local and continuous ventilation. This presentation will describe acceptable methods (flow rates and systems) for each type of local exhaust, as well as for the continuous ventilation requirement.

LEARNING OBJECTIVES

- Detail ASHRAE Standard 62.2 residential ventilation requirements as referenced by IRC.
- Determine required local and continuous ventilation rates and acceptable methods for furnishing the ventilation.

0.5 HOURS DESCRIPTION

Radon mitigation basics – what an inspector needs to know. Although radon mitigation is not an IRC requirement, such systems are becoming more common in Missouri and throughout the Midwest. This presentation will describe what radon is, how it enters a home, why it's a health risk, and explain the radon action level. Additionally, a detailed explanation of properly installed radon mitigation systems (sub-slab depressurization with a radon ventilation fan) will be provided.

LEARNING OBJECTIVES

- Describe radon, the modes of entrance into a building, and its health risks to dwelling occupants
- Detail a properly-installed sub-slab depressurization radon mitigation system.

0.4 CEU's for code officials, 4.0 CEU's for architects and fire marshals

SESSION

21

09.14.18
8am - 12pm

Solar Electric Systems Design & Safety

Marc Lopata and Matt Paiss

DESCRIPTION

Generating electricity from the sun is gaining popularity every year. Over the last 10 years, the Midwest solar-energy industry has grown rapidly, helping homeowners and business owners achieve their varied goals; whether financial, environmental, or marketing. The solar industry also provides hundreds of millions of dollars in tax revenue and tens of thousands of jobs to Midwestern states.

With this growth comes the need for education of all the stakeholders. Midwestern solar practitioners have a responsibility to follow best practices. Then, in parallel, Midwestern governmental entities and others that work in the building industries will be well served by also becoming educated on solar fundamentals augmented with expert interpretation. This includes the fire service, emergency responders, code officials, and architects. As with any growing and new technology, it is important to have a foundation of facts and understanding to make allow key community stakeholders to do their jobs safely and effectively and make better decisions.

Solar-electricity system costs have fallen by more than 75% in the last decade. Now, energy storage systems are becoming more cost effective and viable for use in businesses and residential applications. The safety of battery systems has improved significantly, although they still are a manageable risk to the fire service and others.

COURSE TOPICS AND SUBJECTS

In this 4-hour session, attendees will walk away with a better understanding of the following topics.

- Principals of solar-electricity generation, types of components, and how they operate
- Safely identifying the presence of a PV system
- What can be shut down, and most critically what may remain energized
- Battery safety
- Important design considerations and best practices
- Case studies of PV-related incidents
- Tactical considerations
- Recognizing good and bad workmanship
- Model codes and effect on solar system design
- What to look for during inspections
- Gaining confidence in how to safely work in structures supported by these systems
- Potential risk management practices for the fire service

0.4 CEU's for code officials, 4.0 CEU's for architects and fire marshals

SESSION

22

09.14.18
8am - 12pm

Bridging the Generator Gap

Brain Baughman

DESCRIPTION

The 4 hour generator course will cover all the basic codes required to properly select and install an Emergency, Legally Required, or Optional Standby system generator. The course will go over the accepted methods permitted in the 2017 NEC for sizing a permanently installed generator. Each accepted method will be discussed in detail and the proper methods for using each method will be discussed.

The proper placement of the generator is the next major topic of discussion in the course. The placement requirements of sections 4.1.3 and 4.1.4 of the NFPA 37 are discussed in great detail. This part of the presentation has pictures of bad installation placements that are used to show how the generator should be placed. The exact code of section 4.1.4 is also discussed, as certain generators have been 3rd party tested to meet the exceptions in this section. The presentation will also cover the ICC and NEC requirements as it applies to the placement of the generator.

The third topic for discussion is the proper installation of the fuel supply to the generator per the ICC International Fuel Gas Code requirements; the Generac provided flexible fuel lines, and the requirements for bonding gas piping systems. Proper gas pipe sizing with different fuel types and supply pressures is covered in the presentation. The NFPA 110 requirements for fuel duration are also covered.

The fourth topic covered in the course is the proper generator conductor sizing and installation. This part of the course covers the generator feeder wiring, how it is sized, and how the conductors can be installed. This section of the presentation also covers the proper size of the control wires and their installation with the feeder conductors in the same conduit from the generator to the transfers switch. This section also discusses the proper grounding of the generator as a non-separately derived system and also discusses the UL requirements for the listing of the generator. The 2017 NEC changes that apply to generator installation are covered in detail.

The fifth topic that is covered is the selection and installation of an automatic transfer switch to an electrical system. The different types of transfer switches are discussed and how each type has to be installed is covered in detail. The requirements for service rated transfer switches are covered in detail.

The final section of the presentation covers the requirements for operational testing, exercise, and maintenance for NFPA 110 generators and the requirements for Optional Standby. After this section there will be a question and answer period for whatever remaining time is left.

COURSE OBJECTIVES

The objectives of this course are to educate on the proper methods in installing an optional standby system generator. Generators require the installer and the inspectors to be well versed with the NEC, NFPA 37, NFPA 54/ICC IFGC, NFPA 110, UL 2200 Standard for Generators, and the UL 1008 Standard for Transfer Equipment. This course goes through the selection and installation of the generator step by step. The course educates the attendees on why the generator has to be installed to meet all these codes. *0.4 CEU's for code officials, 4.0 CEU's for architects and fire marshals*

SESSION

23

09.14.18
8am - 12pm

The Building Code Effectiveness Grading Schedule

Dale K. Thomure

DESCRIPTION

Session covers the background and application of ISO's BCEGS program. Participants will gain a better understanding of the key criteria used in the evaluation process and the overall impact of the classification in the insurance industry and in the government sector. Session attendees will also gain a better understanding of national trends in building code enforcement and will be able to compare their own departments to the national trends to discover how they are progressing compared to their peers. Session will also cover FEMA uses of BCEGS data and various grants and programs that utilize building code enforcement data. *0.4 CEU's for code officials, 4.0 CEU's for architects and fire marshals*