



# CITY OF RAPID CITY

Growth Management Department

300 Sixth Street

Rapid City, South Dakota 57701-5035

## MEMORANDUM

TO: Legal and Finance Committee

FROM: Marcia Elkins, Director  
Growth Management Department

DATE: January 2, 2008

RE: ICC International Codes Training  
Denver, Colorado

Staff requests City Council approval of the travel request for Charles Janson, Code Consultant and Bernie Hall, Chief Electric Inspector to attend the ICC International Codes Training seminar. The purpose of the seminar is to provide continuing education to the Development Service Center staff and to help comply with the educational requirement of the Insurance Services Organization (I.S.O.). Participants will earn 3.5 Continuing Education Units for the five-day seminar.

The cost of travel is estimated at \$2,135.00 and includes the following expenses:

\$310.00	transportation costs
\$325.00	Meals (3/2/08-3/7/08)
\$800.00	Lodging (double occupancy)
\$650.00	Registration
<u>\$50.00</u>	Parking fee
\$2,135.00	Total Travel Estimate

**Staff Recommendation:** Staff recommends approval of the travel request for Charles Janson, Code Consultant and Bernie Hall, Chief Electric Inspector to attend the ICC International Codes Training seminar in Denver Colorado March 3-7, 2008 (travel dates March 2-7, 2008) in an estimated amount of \$2,135.00.



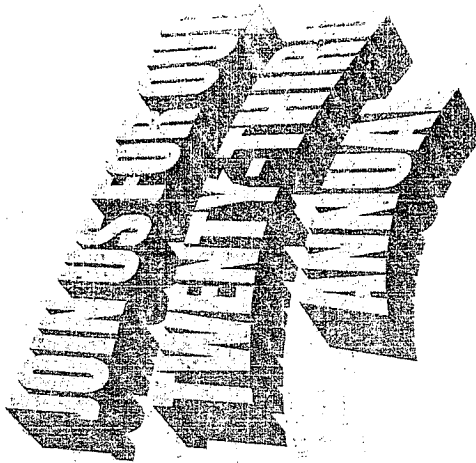
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# INTERNATIONAL CODES TRAINING

- International Building Code®
- International Residential Code®
- International Fire Code®
- International Energy Conservation Code®
- International Plumbing Code®
- International Mechanical Code®
- International Fuel Gas Code®
- International Zoning Code®



# COLORADO CHAPTER EDUCATIONAL INSTITUTE

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COLORADO CHAPTER  
EDUCATION COMMITTEE  
P.O. BOX 961  
ARVADA, COLORADO 80001



# MARCH 2008 CURRICULUM

COURSE PATH	MAR 3 MONDAY	MAR 4 TUESDAY	MAR 5 WEDNESDAY	MAR 6 THURSDAY	MAR 7 FRIDAY
<b>SPECIAL INTEREST</b>	181 Attitude Management: A Supervisor's Key to Success	281 Egress Behavior and Analytical Techniques	381 Residential Energy Code	481 Administration and Management of the Building Function	581 Accessibility
<b>SPECIAL INTEREST</b>	182 Soils Identification and Foundation Design	282 Meth Labs	382 Property Maintenance Code & Dangerous Buildings	482 Alternate Materials	582 Performance Based Energy Code Compliance
<b>SIMPLIFIED ENGINEERING PRINCIPLES</b>	183 IBC Wood Framing	283 Design of Wood Frame Buildings for High Wind, Snow & Seismic Loadings	383 Wind Load Provisions of the 2006 IBC	483 Wood-Frame Roof, Shear Diaphragms & Various Wood Products	583 Basic Structural Concepts
<b>BASIC PLANS EXAMINATION</b>	184 2006 IBC Means of Egress	284 2006 IRC Update	384 Building Areas, Fire Areas and Mixed Occupancies	484 Residential Plan Review	584 2006 IRC Update
<b>ADVANCED PLANS EXAMINATION</b>	185 IBC Advanced Occupancy Classification	285 IBC Advanced Schematic Design	385 IBC Advanced Types of Construction	485 IBC Advanced Means of Egress Components	585 IBC Advanced Means of Egress Design
<b>FIELD INSPECTION</b>	186 2006 IBC Multi-Family Construction	286 Exterior Wall Systems	386 and 486 Moisture Control, Indoor Air Pollution and Mold in Buildings		586 Roofing Inspection
<b>FIELD INSPECTION</b>	187 Fundamentals of the 2006 IRC	287 2006 IBC Overview: Nonstructural Provisions	387 2006 IBC Update	487 IBC Fire-Resistive Construction	587 Prestressed Concrete Special Inspection
<b>PERMIT TECHNICIANS</b>	188 Creating a Hazard Mitigation and Emergency Management Plan	288 and 388 The Complete Permit Technician		488 and 588 Over the Counter Plan Review	
<b>INTERNATIONAL PLUMBING CODE</b>	189 Backflow Prevention and Water Distribution	289 Commercial Plumbing Provisions of the 2006 IPC	389 Plumbing for Combination Inspectors	489 Radiant Basics	589 A Field Guide to Modulating/Condensing Hydronic Heat Sources
<b>INTERNATIONAL MECHANICAL CODE</b>	190 HVAC Fabrication & Installation Standards and Procedures	290 and 390 Mechanical Inspection Under the 2006 IMC, IFGC and IRC		490 Grease Hoods	590 Up with Fire and Smoke (Fire & Smoke Dampers)
<b>NATIONAL ELECTRICAL CODE</b>	191 and 291 Grounding Verses Bonding of Electrical Systems		391 Changes to the 2005 NEC	491 and 591 Electrical Fires: Causes and Prevention	
<b>INTERNATIONAL FIRE CODE</b>	192 Legal Aspects of Fire Code Enforcement	292 Big Box Retail and Fire Sprinklers: A Practical Approach	392 Basic Fire Sprinkler Review	492 Basic Fire Alarm Review	592 Use of Codes and Standards in Court
<b>INTERNATIONAL FIRE CODE</b>	193 and 293 2006 International Fire Code Overview		393 IFC Chapter 27 Hazardous Materials	493 IFC Chapter 34 Flammable and Combustible Liquids	593 Alternate Fire Suppression (Not 13, 13R or 13D)

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# OVERVIEW

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The Colorado Chapter of the International Code Council, along with the Fire Marshal's Association of Colorado, the Colorado Association of Plumbing and Mechanical Officials and the Colorado Association of Permit Technicians, invite you to attend the Colorado Chapter's Twenty-Third Annual Educational Institute.

## 2008 HIGHLIGHTS:

- Once again 65 full-day classes in 13 different course paths, with the "best of the best" instructors from all over the United States. A number of all new classes and many revised and improved versions of our most popular offerings, now updated to the 2006 I-Codes.
- **New!** A new class from Lynn Pollard on "Attitude Management: A Supervisor's Key to Success."
- **Back!** A comprehensive course path on HVAC requirements for residential and commercial applications.
- **Back!** IPC class covering both hydronic heating and electric radiant heating systems, including installation and controls.
- **More!** Two offerings of the Update to the 2006 IRC as well as a new class on IRC Fundamentals!
- **New!** New classes on residential plan review and residential exterior wall systems.
- **New!** A new class on the Performance Alternative for compliance with the International Energy Conservation Code (IECC) residential provisions, including review of REM/Rate software!
- **Revised and Improved!** The Simplified Engineering Principles course path is updated with a new class on wood framing using the Wood Frame Construction Manual (WFCM).
- **Back!** "Moisture Control & Indoor Air Pollution," with the latest information on mold thrown in, from the only person who can make these subjects thoroughly entertaining, Joe Lstiburek.
- **Back!** A graduate level weeklong marathon in Advanced Plan Review to explore the intricacies of the 2006 IBC from Greg Keith! This is a week that you won't forget!
- **New!** A second Special Interest course path including new classes on Alternate Materials, Dangerous Buildings and Meth Labs.
- **Back, Updated, Revised & Improved by CAPT!** The seventh year of our full five-day course path especially designed to fit the training, networking and certification needs of Permit Technicians.
- **Electrical!** Back by popular demand; Electrical Fires: Causes and Prevention!

- **More Electrical!** Two days on grounding & bonding, arguably one of the most important and least understood subjects in the electrical code, from Mike Hobb, the best guy to tell it!
- **Hot!** Check out our International Fire Code (IFC) course paths! Ten full-day classes of top notch instruction on the most current fire prevention topics, including new courses on Big Box Retail and Alternate Fire Suppression and Basic Review of Fire Sprinkler and Fire Alarm Systems.

## EXHIBITS: Monday, Tuesday & Wednesday in the Atrium

- This is your opportunity to learn about the latest building and construction products and services offered by manufacturers, trade associations and related companies exhibiting at the Institute.

## REGISTRATION:

- One or more persons may attend any combination of classes for not more than 5 days total for only \$260. Individual classes are offered at \$65 per day.
- In return for the fees noted above, registrants receive instruction, handout materials plus lunch and break refreshments.
- Register early! The most popular classes fill quickly and often need to be closed.
- **REGISTRATION DEADLINE IS FEBRUARY 4, 2008. Registrations or fees received after February 4<sup>th</sup> and faxed registrations cannot be accepted. Credit card payments cannot be accepted.**
- **CEUs.** Continuing education units will be offered, with individual certificates to be mailed within 90 days.
- **PUBLICATIONS.** The ICC will once again have an onsite bookstore offering code books and other reference materials for viewing and purchase.

## LOCATION:

- Marriott Hotel, Denver Technological Center (DTC), 4900 S. Syracuse Dr., Denver, CO 80237, south of Denver at I-25 & Belleview (Exit 199).
- Room rates are \$135/night single or double until February 15<sup>th</sup>, 2008 or until our room block is filled.
- Reservations can be made by calling 1-800-228-9290 or local number 303-779-1100. Hotel reservations can also be made on-line by using the link on the Colorado Chapter ICC web site at [www.coloradochaptericc.org](http://www.coloradochaptericc.org). Be sure to reference the **Colorado Chapter Educational Institute** when making your reservations, and obtain those reservations as soon as possible.

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# COURSES AND INSTRUCTORS

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All courses will be based upon the 2006 editions of the IBC, IECC, IFGC, IFC, IMC, IPC and the IRC, and the 2005 edition of the NEC. Code books will also be available for purchase. **PLEASE BRING THE APPLICABLE CODE BOOK(S) AND/OR REFERENCE MATERIALS.** The instructors listed below are scheduled to teach, however substitutions may be made. All classes begin at 8:00 a.m. and end at 4:30 p.m. A 1-hour lunch break is provided at noon. Course descriptions are listed by Course Path, Monday - Friday.

## 181: ATTITUDE MANAGEMENT: A SUPERVISOR'S KEY TO SUCCESS

Lynn Pollard, Pollard Consulting. Ever wonder how you can make people focus, stay positive, and be productive, all at the same time. This session is about learning some basic skills to make this happen. Supervisors and managers must manage both their own and others attitudes to enhance productivity and create an environment where people do their best. Learn basic practical steps to do this in our session.

## 182: SOILS IDENTIFICATION AND FOUNDATION DESIGN

Bill Koechlein, P.E., Koechlein Consulting Engineers. This class provides a detailed discussion and examples of soils and foundation investigations and how they're implemented into current foundation designs.

## 183: IBC WOOD FRAMING

David P. Tyree, P.E., Dennis Pitts, American Forest and Paper Assn. This class is a complete course composed of numerous subjects in one comprehensive program for building officials, plans examiners and contractors on wood frame construction basics. Detailed discussions are included on conventional construction, wood characteristics, grade marking, termites and decay protection, conventional wall, floor and roof / ceiling framing, lateral load bracing, shear walls, fireblocking / draftstopping and much more!

## 184: 2006 IBC MEANS OF EGRESS

Gary Pringey, CCC, LLC. This class is a basic overview of the means of egress requirements included in Chapter 10 of the 2006 IBC. The presentation will include detailed discussions on the design of the means of egress in buildings. Subjects included in the class are the three parts of the means of egress plus occupant loads, egress width, number of exits, travel distance, common path of egress travel and exit enclosures. Practical examples will be used to illustrate the code requirements.

<b>185: IBC ADVANCED OCCUPANCY CLASSIFICATION</b>	<b>Greg Keith, P.h.D.</b> This graduate level workshop will discuss the occupancies contained in Chapter 3 of the 2006 IBC. Methods relating to the proper classification of occupancies will be discussed. Differences between UBC and IBC occupancy categories will be emphasized.
<b>186: 2006 IBC MULTI-FAMILY CONSTRUCTION</b>	<b>Dan Weed, CCC, LLC.</b> This class provides an overview of the requirements for multi-family dwellings in the International Building Code. Type V-A structures may be the most difficult type of construction to build. This seminar discusses the design, construction and inspection of Group R-2 occupancies including, building planning, fire resistive rated construction, fire protection requirements and means of egress requirements.
<b>187: FUNDAMENTALS OF THE 2006 IRC</b>	<b>Tom Meyers, CCC, LLC.</b> This one-day seminar provides a broad overview of the provisions of Chapters 1 through 10 of the 2006 IRC, which cover those portions of the code that deal with "building" issues. This seminar will not address the mechanical, plumbing and electrical portions of the IRC. Topics will include administrative provisions, building planning; foundation systems; wood framed construction of floors; walls and roofs; wall and roof coverings; and chimneys and fireplaces. The class is designed to provide an introduction to the provisions of the code.
<b>188: CREATING A HAZARD MITIGATION &amp; EMERGENCY MANAGEMENT PLAN</b>	<b>Terrell Stripling, ICC.</b> This class will assist the building department administration in laying the groundwork for developing a hazard mitigation and emergency management plan. The class will identify potential hazards to the built environment, mitigation strategies to address those hazards and operational procedures to follow in the event of a disaster and help coordinate the efforts of the building department with the jurisdiction's emergency operation center. This class is suitable and recommended for all building and construction professionals interested in building code administration and enforcement.
<b>189: BACKFLOW PREVENTION AND WATER DISTRIBUTION</b>	<b>Robert Nagle, PE, City &amp; County of Denver and John LaTorra, Redwood City, CA.</b> This class serves as a primer on backflow prevention using the 2006 IPC and the Colorado Cross-Connection Control Manual along with water distribution per the 2006 IPC. The class will cover the recent changes to the IPC dealing with the above two items.
<b>190: HVAC FABRICATION &amp; INSTALLATION STANDARDS AND PROCEDURES</b>	<b>Jerry Hall, SMACNA Colorado.</b> This class is designed to assist in identifying proper HVAC fabrication, installation and operation procedures for residential, commercial and industrial applications. In addition, a portion of the program will be devoted to a review of established methods of inspecting HVAC components. The program will utilize hands-on training, textbook learning and open dialogue to examine HVAC problems that are encountered in the field on a daily basis.
<b>191 AND 291: GROUNDING VERSES BONDING OF ELECTRICAL SYSTEMS</b>	<b>Mike Holt, Mike Holt Enterprises, Inc.</b> This two-day course will cover basic as well as advanced topics necessary to understand the practical grounding and bonding rules in the NEC for systems not over 600V. As the most important and least understood activity in the electrical, data process and communications industry, this class will explain the concepts necessary to design, install, inspect, measure and trouble shoot electrical systems including sensitive electronic and communications equipment.
<b>192: LEGAL ASPECTS OF FIRE CODE ENFORCEMENT</b>	<b>Dino A. Ross, Esq., Ireland, Stapleton, Prior and Pascoe, P.C. , Kristen Cook and Kathleen Spicer, Colorado Springs City Attorney's Office.</b> This class addresses the aspects of fire code enforcement from both a municipal law and fire district perspective. The Colorado Revised Statutes and the 2006 International Fire Code will serve as references in discussing the various aspects of fire code enforcement during inspections of new construction and existing occupancies. This class will also address issues related to the plan review process and the application of the IFC in granting modifications and in the approval of alternative materials and methods.
<b>193 AND 293: 2006 INTERNATIONAL FIRE CODE OVERVIEW</b>	<b>FMAC IFC Instructor Team.</b> This class will be a two day in-depth overview of the 2006 International Fire Code. The instructors are fire marshals and fire protection engineers representing FMAC. Each has extensive practical experience in applying the IFC in real world application.
<b>281: EGRESS BEHAVIOR AND ANALYTICAL TECHNIQUES</b>	<b>Steve Gwynne, Hughes Associates, Inc.</b> Human behavior is a vital component of the evacuation process. Even if not explicitly stated the codes employed during the design process make broad assumptions regarding evacuee behavior that directly influence the results produced. This course will provide an overview of human behavior in fire. It will discuss the factors that affect this behavior, the responses that can be expected and the impact that it has on the assessment of egress performance.
<b>282: METH LABS</b>	<b>Lynn Riemer, N. Metro Drug Taskforce and Coleen Brisnett, Co. Health Dept.</b> This session will address how to recognize a user and the drug's effect on the user. It is important to be able to recognize and know how to deal with a meth user, because dealing with someone high on meth can be just as dangerous as walking in to a lab. This session will also address manufacturing Methamphetamine. It will give the participants knowledge of what to look for, the hazards associated with labs and what to do if you find yourself in one and how to properly decontaminate a location.
<b>283: DESIGN OF WOOD FRAME BUILDINGS FOR HIGH WIND, SNOW &amp; SEISMIC LOADINGS</b>	<b>Robert Taylor and David P. Tyree, P.E., American Forest and Paper Assn.</b> The course will benefit designers, code enforcement officials; and building contractors of one- and two-family dwellings, providing specific design details for wood frame buildings for High Wind, Snow, and Seismic Loadings. This workshop combines lectures, slide presentations and interactive participation of the participants with the instructor in the use of <i>ANSI/AF&amp;PA Wood Frame Construction Manual (WFCM) for One- and Two-Family Dwellings</i> . Both the 2001 WFCM + Commentary, and WFCM Workbook, are required for this course.
<b>284 OR 584: 2006 IRC UPDATE</b>	<b>Tom Meyers and Dan Weed, CCC, LLC.</b> This fast-paced one-day seminar explores the major provisions of the 2006 International Residential Code. The presentation includes detailed discussions of the provisions addressing the following issues: building planning; foundation, floor, wall and roof construction; exterior wall finishes; and roofing systems. (Note: This class is offered on Tuesday or Friday)
<b>285: IBC ADVANCED SCHEMATIC DESIGN</b>	<b>Greg Keith, P.h.D.</b> This advanced workshop, geared towards plans examiners and Architects, will discuss the provisions contained in Chapters 3-5 of the 2006 IBC. Technical requirements relating to allowable area and height determination and mixed occupancies will be stressed.

<b>286: EXTERIOR WALL SYSTEMS</b>	Steve Thomas, CCC, LLC. Water intrusion through exterior walls may be the largest problem in residential construction today. This class discusses the International Residential Code's requirements for exterior walls. General installation requirements of products will be discussed, including weather barriers, flashing, wood/hardboard siding, masonry veneer, stucco and exterior insulated finish systems.
<b>287: 2006 IBC OVERVIEW: NONSTRUCTURAL PROVISIONS</b>	Gary Pringey, CCC, LLC. This fast-paced one-day seminar explores the major provisions of the 2006 International Building Code. The presentation will include discussions of the provisions addressing the following issues: occupancy classification, types of construction, means of egress, fire, sprinklers and fire-resistance-rated construction, administrative provisions and accessibility. This class is designed to provide an introduction to the new provisions of the code.
<b>288 AND 388: THE COMPLETE PERMIT TECHNICIAN</b>	Steve Burger, Bureau Veritas. This 2-day course is intended to provide essential information in the areas of code history and administration, legal aspects, customer service, basic construction, inspection process, zoning terms, permit fee calculations, basic occupancy, construction types, basic means of egress and dealing with difficult customers. Please bring a calculator, 2006 IBC, 2006 International Zoning Code, Legal Aspects of Code Administration and Basic Code Enforcement books.
<b>289: COMMERCIAL PLUMBING PROVISIONS OF THE 2006 IPC</b>	Daryl Kuiper, Pikes Peak Regional and John LaTorra, Redwood City, CA. This class will cover the commercial plumbing provisions of the 2006 IPC including the following; Indirect waste piping, interceptors, examples of different types of DWV systems and sizing, water pipe sizing for commercial applications, determining appropriate fixture levels, and roof drainage.
<b>290 AND 390: MECHANICAL INSPECTION UNDER THE 2006 IMC, IFGC &amp; IRC</b>	Sam Dardano, City of Boulder. This two day class will be a broad overview of doing inspections under the IMC, IFGC and IRC. The overview will include many residential and commercial provisions commonly encountered by inspectors and contractors, such as: equipment, warm air heating, vented decorative appliances, ducts, combustion air, venting and other miscellaneous subjects. The class will also include significant changes to the 2006 IMC, IFGC and IRC mechanical provisions.
<b>292: BIG BOX RETAIL AND FIRE SPRINKLERS: A PRACTICAL APPROACH</b>	Steven Scandaliato, Scandaliato Design Group. Big box retail and storage occupancies have turned into the residential frenzy of the 1980's. For the past fifteen years there has been more full scale fire testing for fire protection solutions for these occupancies than ever before. This seminar will include candid discussions about the issues surrounding these buildings as well as how we are integrating the results of testing and new technologies that are now available. Topics include IBC and NFPA requirements, fire test results, establishing design criteria that make sense and performance based design techniques.
<b>381: RESIDENTIAL ENERGY CODE</b>	Eric Makela, Britt/Makela Group Inc. This class will provide an overview of the energy efficiency provisions of the 2006 IRC as well as the compliance methods included in the residential provisions of the 2006 International Energy Conservation Code. The different options for compliance using the prescriptive, UA or the simulated performance methods will be discussed. Plan review, including the use of REScheck, and inspection issues will be addressed.
<b>382: PROPERTY MAINTENANCE CODE &amp; DANGEROUS BUILDINGS</b>	Steve Thomas, CCC, LLC. This one-day seminar provides an overview of housing and property maintenance inspections as outlined in the International Property Maintenance Code. Defining and identifying specific ways to handle dangerous buildings will be discussed. The seminar will assist code personnel who are seeking a better understanding of how to approach a property maintenance inspection, how to conduct a thorough inspection and how to follow through with appropriate enforcement actions.
<b>383: WIND LOAD PROVISIONS OF THE 2006 IBC</b>	John R. Henry, P.E., ICC Staff. This training program examines the wind load provisions of the IBC. The design requirements for wind are illustrated by design examples, addressing both the simplified wind design procedure of the 2006 IBC and the analytical procedure in ASCE 7.
<b>384: BUILDING AREAS, FIRE AREAS AND MIXED OCCUPANCIES</b>	Dan Weed, CCC, LLC. This seminar provides a comprehensive discussion of the major compartmentation concepts of the IBC, focusing on those requirements that deal with building size, sprinkler options and mixed-use buildings. Fire-resistance-rated construction is also addressed. This class will include topics on allowable areas, area increases, unlimited area buildings, fire area concept and construction, incidental/accessory use areas and separated/non-separated uses.
<b>385: IBC ADVANCED TYPES OF CONSTRUCTION</b>	Greg Keith, P.h.D. This graduate level workshop will explain the types of construction requirements contained in Chapters 4, 6 and 7 of the 2006 IBC. Fire-resistive and materials requirements will be emphasized. Techniques on how to select the proper type of construction and identify the type of construction on existing buildings will be stressed.
<b>386 AND 486: MOISTURE CONTROL, INDOOR AIR POLLUTION AND MOLD IN BUILDINGS</b>	Joseph Lstiburek, Building Science Corporation. An entertaining, stimulating and thought-provoking two days that will change the way you think about how we build today's buildings. Topics include changes in building technology, why we don't build the way we used to, vapor diffusion and air flow retarders, vented & unvented roof and crawl spaces, keeping the rain & ground water out, biologicals, indoor air quality, HVAC, issues on mold and alternative materials & techniques
<b>387: 2006 IBC UPDATE</b>	Gary Pringey, CCC, LLC. This seminar will review the changes from the 2003 edition to the 2006 edition of the International Building Code. The background behind many of the changes will be discussed to provide the participant with an understanding of the intent of the changes and how to apply it to their everyday work. Subjects covered in the class will include the code change process, mixed occupancies, atriums, accessible means of egress and many more.
<b>389: PLUMBING FOR COMBINATION INSPECTORS</b>	Patrick Clark, Jefferson County. This class is for the IPC Combination and the IRC Combination inspectors. The class will include an update of significant changes in the 2006 codes.
<b>391: CHANGES TO THE 2005 NATIONAL ELECTRICAL CODE</b>	John Travers, Hialeah, FL. This is a brand new course covering the various changes to the National Electrical Code. Be sure to bring your copies of the 2002 and the 2005 NEC. The 2005 NEC will also be available for purchase from the ICC Bookstore on site.

<b>392: BASIC FIRE SPRINKLER REVIEW</b>	Jared Moravec, Bainbridge Island Fire Dept., WA. This one day two part course is a very basic overview of the NFPA 13 standard. The class is targeted for NEW personnel entering the fire prevention bureau with very limited to no knowledge of fire sprinkler plan review. The second part of the course will be presented by TYCO addressing design issues in high sloped ceiling in residential occupancies.
<b>393: IFC CHAPTER 27 HAZARDOUS MATERIALS</b>	Reinhard Hanselka, IES. IFC Chapter 27 Hazardous Materials. This class will show the participants how to use Chapter 27, including, its use as a road map to other chapters, MAQ's, control area concepts, storage, dispensing and use of hazardous materials.
<b>401: ADMINISTRATION AND MANAGEMENT OF THE BUILDING FUNCTION</b>	Jere Kerston. A class for building and fire officials, community development directors, city and county managers and others involved in decision-making, staffing and budgeting for the administration of building and fire codes. Discussion will include progressive administrative procedures and management approaches, department organization, determining and justifying staffing and fee levels, program budgets, performance measures, enterprise funding and more.
<b>482: ALTERNATE MATERIALS</b>	Tom Meyers, CCC, LLC. This class reviews the use of ICC evaluation reports when using the International Building Code. Specific materials discussed will be I-Joists, wood trusses, exterior insulated finish systems (EIFS), synthetic stucco systems, structural insulated panel systems (SIPS) and insulated concrete form (ICF) systems.
<b>483: WOOD-FRAME ROOF, SHEAR DIAPHRAGMS &amp; VARIOUS WOOD PRODUCTS</b>	Tom Buist, WILLDAN. This class will provide an understanding of the wood-framed structure as well as an understanding of material; product knowledge; marking and identification; sizing; spans and tables. This seminar will cover common engineering terminology and provisions regulating lateral force-resisting systems (shear and diaphragm) in accordance with the 2006 <i>International Building Code (IBC)</i> . There will be a productive question-and-answer period
<b>484: RESIDENTIAL PLAN REVIEW</b>	Dan Weed, CCC, LLC. This class is designed to provide a broad overview of the process for residential plan review. This 1-day course will provide the basic steps to complete a comprehensive review of a residence. The class will discuss the tools and process for conducting a residential plan review. It will also increase your awareness of the necessary items required to insure code compliance of the homes built in your jurisdiction.
<b>485: IBC ADVANCED MEANS OF EGRESS COMPONENTS</b>	Greg Keith, P.h.D. This graduate level workshop will focus on the means of egress component requirements contained in Chapter 10 of the 2006 IBC. Prescriptive means of egress component provisions will be reviewed. The differences in corridor construction requirements contained in the UBC and IBC will be pursued.
<b>487: 2006 IBC FIRE-RESISTIVE CONSTRUCTION</b>	Tom Thompson, Wally Prebis, P.E. An in-depth discussion of the general fire-resistive requirements of Chapters 7 and 8, 2006 IBC, ASTM E-119 and other ASTM Standards, including a detailed discussion of specific fire-resistive construction requirements.
<b>488 AND 588: OVER THE COUNTER PLAN REVIEW</b>	Steve Thomas, CCC, LLC. This fast paced, 2-day class is designed primarily for the building department employee who has an interest in learning more about the plan review aspects of working at the front counter. The course is intended to provide essential information that will assist in doing plan review as it relates to such items as patio covers, room additions, decks, garages, hot tubs and other items.
<b>489: RADIANT BASICS</b>	Mark Eatherton, Radiant Panel Association. You will receive the basic knowledge required to successfully design and install a radiant heating system. You will learn about simple and advanced control equipment and strategies.
<b>490: GREASE HOODS</b>	Guy McMann, Jefferson County. This class is an in depth review of type I hood systems and grease ducts with an emphasis on correct hood installation, understanding what type of hood is required over what type of appliances, inspection of grease ducts, and make-up air and exhaust systems. The class will also include a brief explanation of required fire suppression systems.
<b>491 AND 591: ELECTRICAL FIRES: CAUSES AND PREVENTION</b>	John Travers, Hialeah, FL. This very popular two day course will include even more hands-on information that is guaranteed to generate a great deal of discussion. A must attend for Code Officials and Electricians alike.
<b>492: BASIC FIRE ALARM REVIEW</b>	David Lowrey, Boulder Fire Dept. This one day course is a very basic overview of Section 907 of the 2006 IFC and NFPA 72 standard. The class is targeted for NEW personnel entering the fire prevention bureau with very limited to no knowledge of fire alarm plan review.
<b>493: IFC CHAPTER 34 FLAMMABLE AND COMBUSTIBLE LIQUIDS</b>	Reinhard Hanselka, IES. IFC Chapter 34 Flammable and Combustible Liquids. This class will show the participants how to use Chapter 34, including MAQ's, control area concepts, liquid storage rooms, warehouses, sprinkler density for storage arrangements, dispensing and use of flammable combustible liquids.
<b>581: ACCESSIBILITY</b>	Tom Meyers, CCC, LLC. This class provides an overview of the scoping provisions for accessibility in the International Building Code and the technical provisions of the ICC/ANSI A117.1 Accessible and Usable Buildings and Facilities. The class will also discuss differences between the provisions enforced by building department and the American Disabilities Act Accessibility Guidelines.
<b>582: PERFORMANCE BASED ENERGY CODE COMPLIANCE</b>	David R. Roberts, P.E., A.E.C. Architectural Energy Corporation's REM/Rate™ home energy rating software and REM/Design™ home energy analysis software are becoming increasingly popular for use in demonstrating compliance with model energy codes, including the 2006 IECC, especially the Simulated Performance Alternative (Section 404). This class will provide an overview of Section 404 of the IECC and demonstrate the applicability of the REM software in demonstrating compliance with the 2006 IECC.
<b>583: BASIC STRUCTURAL CONCEPTS</b>	Tom Buist, WILLDAN. This class provides information, examples and a general discussion of various engineering principles and fundamentals required to better understand how structures are designed and function.
<b>585: IBC ADVANCED MEANS OF EGRESS DESIGN</b>	Greg Keith, P.h.D. This graduate level workshop will cover the means of egress design requirements contained in Chapter 10 of the 2006 IBC. The differences in the approach to the "three part" means of egress between the UBC and IBC will be discussed in detail.



**586: ROOFING INSPECTION**

Rich Boon. An overview of the provisions of Chapter 15, 2006 IBC. Instruction will focus on proper application techniques and review of all types of roof coverings as well as evaluation reports applicable to roof covering products

**587: PRESTRESSED CONCRETE SPECIAL INSPECTION**

Walter J. "Wally" Prebis, P.E., Doug Schlegel, P.E. An in-depth discussion of prestressed concrete theory, pretension and post-tension methods, inspections, and practical applications. The latest version of the *Prestressed Concrete Institute Design Handbook* will be provided.

**588: A FIELD GUIDE TO MODULATING/CONDENSING HYDRONIC HEAT SOURCES**

Mark Edrington, Advanced Hydraulics. This course will deal with the plethora of new ultra high efficiency, modulating/condensing heat sources that seem to be popping up on the job on a regular basis. This course will cover accepted venting/combustion air issues, primary/secondary piping issues, condensate neutralization issues and more.

**590: UP WITH FIRE AND SMOKE (FIRE & SMOKE DAMPERS)**

Sam Dardano, City of Boulder. Everything you ever wanted to know about fire/smoke dampers using sections 716 of the IBC and 607 of the IMC. The class will include instruction on damper types and required locations and a review of through-penetration firestop system.

**592: USE OF CODES AND STANDARDS IN COURT**

Wayne J. McKenna and Terry-Dawn Hewitt, McKenna Hewitt. Everyone involved in fire litigation should be aware of the trend towards standardization and the effect industry codes and standards can have in court. This presentation summarizes the uses of industry codes and standards in court, including criminal and regulatory prosecutions, and civil cases. It provides an overview of some important standards and their value in a litigation context.

**593: ALTERNATE FIRE SUPPRESSION (NOT 13, 13R OR 13D)**

David Tomecek, PE, Hughes Associates, Inc. This course will examine the various types of suppression and extinguishing systems that may be used as alternatives to traditional sprinkler systems. While some sprinkler-based technologies will be presented - such as pre-action sprinklers and special purpose sprinklers/nozzles - the course focuses on non-sprinkler water-based systems, gaseous systems and chemical agents. A variety of agents and delivery methods will be discussed, along with the benefits and drawbacks of each.

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## PLEASE READ - IMPORTANT STUFF

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PLEASE COMPLETE the Registration Form. You must check the classes you wish to attend in order to register. Please fill out a SEPARATE FORM FOR EACH PERSON attending and be sure to PRINT CLEARLY all requested information.

PLEASE NOTE: Tuition fees include instruction, noon meals, break refreshments, and handout materials. Please register as soon as possible as certain classes will be limited in size. Individual classes will be filled on a first come, first served basis. If a selected class is filled, you will be notified by the education committee and asked for your alternative choice(s).

REFUND POLICY: If the request for a registration fee refund is received by **February 15, 2008**, 100 percent of the fee will be refunded. Fees will not be refunded if the request is received after **February 15, 2008**.

Please mail the completed registration form(s) and appropriate payment to:  
Colorado Chapter ICC, Education Committee, P.O. Box 961, Arvada, Colorado 80001  
[www.coloradochaptericc.org](http://www.coloradochaptericc.org)

NOTE: WE CANNOT ACCEPT REGISTRATIONS BY FAX. FULL PAYMENT MUST ACCOMPANY REGISTRATION FORM.  
OUR FEDERAL TAX IDENTIFICATION NUMBER IS: 23-7421122

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### FELLOWSHIP BREAKFAST-Tuesday, March 4<sup>th</sup>, 6:30 AM

The Colorado Chapter of ICC would like to invite you to our first Educational Institute Fellowship breakfast.

We are excited to have our long time electrical instructor, Mike Holt, speak during this breakfast. We all know Mike as America's most knowledgeable electrical trainer and author. Mike Holt is a former high school dropout and former gang member that turned his life around with God's help.

Besides being considered one of the nation's top NEC experts Mike is the father of seven children and a world class rated Barefoot Water-skier, winning his 5<sup>th</sup> barefoot championship in 2007. Videos of Mike's water-skiing will be shown during breakfast. What sets Mike apart from some is his commitment to living a balanced lifestyle; he places God first, then family, career, and self.

COST: \$15.00  
REGISTRATION: Reservation and payment must accompany registration. Please check the box for the fellowship breakfast on the registration and course selection form.

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### PARKING...PARKING...PARKING...PARKING...PARKING...PARKING

The Education Committee is working hard to address the problems with the parking situation we experienced last year. The fact is that there are far more attendees than available on-site parking spaces. The Marriott will be making some additional spaces available to attendees, but parking on-site will cost \$ 7.00 a day. Free parking vouchers will not be provided for attendees.

Attendees, especially local attendees, are encouraged to carpool or take RTD's light rail. We will be continuing to try and identify other alternatives for parking in the area. Please refer to the Chapter website at [www.coloradochaptericc.org](http://www.coloradochaptericc.org) from time to time to get updated information and alternatives.

**COLORADO CHAPTER EDUCATIONAL INSTITUTE**

www.coloradochaptericc.org

**REGISTRATION AND COURSE SELECTION FORM**

REGISTER EARLY - REGISTRATION DEADLINE IS MONDAY, FEBRUARY 4, 2008. Complete a **SEPARATE REGISTRATION FORM FOR EACH PARTICIPANT**. Please **PRINT OR TYPE** the following exactly as you wish it to appear on your badge:

NAME: (PRINT CLEARLY PLEASE!)

REPRESENTING: \_\_\_\_\_

PHONE: (    ) \_\_\_\_\_ EMAIL: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_

Telephone: (303) 430-2400 x2077 or Email: [dhorras@ci.westminster.co.us](mailto:dhorras@ci.westminster.co.us) for program information

**FEE CALCULATION (CHECKS ONLY) AND COURSE SELECTION – MARK THE APPLICABLE BOXES**

Attendance	Payment Received by 1/7/08	Payment Received after 1/7/08	Amount Enclosed for This Individual
Full Week	<input type="checkbox"/> \$ 260	<input type="checkbox"/> \$ 325	\$
Per Day	<input type="checkbox"/> \$ 65	<input type="checkbox"/> \$ 75	
Fellowship Breakfast	Tuesday, 3/4/08, 6:30AM	<input type="checkbox"/> \$ 15	

**MAIL TO: COLORADO CHAPTER ICC, EDUCATION COMMITTEE, P.O. BOX 961, ARVADA, COLORADO 80001**

Full payment **MUST** accompany registration form(s). Registration deadline is Monday, February 4, 2008.

Checks are the only form of acceptable payment. Our Federal Tax ID Number is: 23-7421122.

**DAY ONE - MONDAY, MARCH 3, 2008 - 8:00 AM** (All Classes Are Full Day - Choose Only One Class Per Day)

- |   |   |
|---|---|
| <input type="checkbox"/> 181 Attitude Management: A Supervisor's Key to Success<br><input type="checkbox"/> 182 Soils Identification and Foundation Design<br><input type="checkbox"/> 183 IBC Wood Framing<br><input type="checkbox"/> 184 2006 IBC Means of Egress<br><input type="checkbox"/> 185 IBC Advanced Occupancy Classification<br><input type="checkbox"/> 186 2006 IBC Multi-Family Construction | <input type="checkbox"/> 187 Fundamentals of the 2006 IRC<br><input type="checkbox"/> 188 Creating a Hazard Mitigation and Emergency Management Plan<br><input type="checkbox"/> 189 Backflow Prevention and Water Distribution<br><input type="checkbox"/> 190 HVAC Fabrication & Installation Standards and Procedures<br><input type="checkbox"/> 191 Grounding / Bonding of Electrical Systems (also check Day 2)<br><input type="checkbox"/> 192 Legal Aspects of Fire Code Enforcement<br><input type="checkbox"/> 193 2006 International Fire Code Overview (also check Day 2) |
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**DAY TWO - TUESDAY, MARCH 4, 2008 - 8:00 AM** (All Classes Are Full Day - Choose Only One Class Per Day)

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|--|---|
| <input type="checkbox"/> 281 Egress Behavior and Analytical Techniques<br><input type="checkbox"/> 282 Meth Labs<br><input type="checkbox"/> 283 Design of Wood Frame Bldgs for High Wind, Snow & Seismic...<br><input type="checkbox"/> 284 2006 IRC Update<br><input type="checkbox"/> 285 IBC Advanced Schematic Design<br><input type="checkbox"/> 286 Exterior Wall Systems | <input type="checkbox"/> 287 2006 IBC Overview: Nonstructural Provisions<br><input type="checkbox"/> 288 The Complete Permit Technician (also check Day 3)<br><input type="checkbox"/> 289 Commercial Plumbing Provisions of the 2006 IPC<br><input type="checkbox"/> 290 Mech. Insp. Under the IMC, IFGC and IRC (also check Day 3)<br><input type="checkbox"/> 291 Grounding / Bonding of Electrical Systems (also check Day 1)<br><input type="checkbox"/> 292 Big Box Retail and Fire Sprinklers: A Practical Approach<br><input type="checkbox"/> 293 2006 International Fire Code Overview (also check Day 1) |
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**DAY THREE - WEDNESDAY, MARCH 5, 2008 - 8:00 AM** (All Classes Are Full Day - Choose Only One Class Per Day)

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| <input type="checkbox"/> 381 Residential Energy Code<br><input type="checkbox"/> 382 Property Maintenance & Dangerous Buildings<br><input type="checkbox"/> 383 Wind Load Provisions of the 2006 IBC<br><input type="checkbox"/> 384 Building Areas, Fire Areas and Mixed Occupancies<br><input type="checkbox"/> 385 IBC Advanced Types of Construction<br><input type="checkbox"/> 386 Moisture Control, Indoor Air Pollution & Mold (also check Day 4) | <input type="checkbox"/> 387 2006 IBC Update<br><input type="checkbox"/> 388 The Complete Permit Technician (also check Day 2)<br><input type="checkbox"/> 389 Plumbing for Combination Inspectors<br><input type="checkbox"/> 390 Mech. Insp. Under the IMC, IFGC and IRC (also check Day 2)<br><input type="checkbox"/> 391 Changes to the 2005 NEC<br><input type="checkbox"/> 392 Basic Fire Sprinkler Review<br><input type="checkbox"/> 393 IFC Chapter 27 Hazardous Materials |
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**DAY FOUR - THURSDAY, MARCH 6, 2008 - 8:00 AM** (All Classes Are Full Day - Choose Only One Class Per Day)

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|---|--|
| <input type="checkbox"/> 481 Administration and Management of the Building Function<br><input type="checkbox"/> 482 Alternate Materials<br><input type="checkbox"/> 483 Wood-Frame Roof, Shear Diaphragms & Var. Wood Products<br><input type="checkbox"/> 484 Residential Plan Review<br><input type="checkbox"/> 485 IBC Advanced Means of Egress Components<br><input type="checkbox"/> 486 Moisture Control, Indoor Air Pollution & Mold (also check Day 3) | <input type="checkbox"/> 487 IBC Fire-Resistive Construction<br><input type="checkbox"/> 488 Over the Counter Plan Review (also check Day 5)<br><input type="checkbox"/> 489 Radiant Basics<br><input type="checkbox"/> 490 Grease Hoods<br><input type="checkbox"/> 491 Electrical Fires: Causes & Prevention (also check Day 5)<br><input type="checkbox"/> 492 Basic Fire Alarm Review<br><input type="checkbox"/> 493 IFC Chapter 34 Flammable and Combustible Liquids |
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**DAY FIVE - FRIDAY, MARCH 7, 2008 - 8:00 AM** (All Classes Are Full Day - Choose Only One Class Per Day)

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|--|--|
| <input type="checkbox"/> 581 Accessibility<br><input type="checkbox"/> 582 Performance Based Energy Code Compliance<br><input type="checkbox"/> 583 Basic Structural Concepts<br><input type="checkbox"/> 584 2006 IRC Update<br><input type="checkbox"/> 585 IBC Advanced Means of Egress Design<br><input type="checkbox"/> 586 Roofing Inspection | <input type="checkbox"/> 587 Prestressed Concrete Special Inspection<br><input type="checkbox"/> 588 Over the Counter Plan Review (also check Day 4)<br><input type="checkbox"/> 589 Field Guide to Modulating/Condensing Hydronic Heat Sources<br><input type="checkbox"/> 590 Up with Fire and Smoke (Fire & Smoke Dampers)<br><input type="checkbox"/> 591 Electrical Fires: Causes & Prevention (also check Day 4)<br><input type="checkbox"/> 592 Use of Codes and Standards in Court<br><input type="checkbox"/> 593 Alternate Fire Suppression (Not 13, 13R or 13D) |
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\*\*\* Call the Marriott DTC at 800-228-9290 or 303-779-1100 for Hotel Accommodations. \*\*\*  
 When calling, be sure to reference the 'Colorado Chapter Educational Institute' for available room rates of \$ 135 per night.