

### CITY OF RAPID CITY TRAVEL REQUEST

Person requesting travel William Knight Department 0202 - FIRE

I hereby request permission to travel for the following purpose: (Give specific nature of business and interest of the City to justify cost involved.)  
to attend International Code Council

List all other City employees, if any, making the trip for the same purpose: Timothy Behlings

Place of meeting or destination: Denver, CO


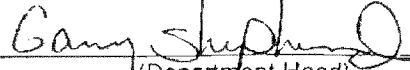
Date of meeting March 1-5, 2004

Date trip to begin February 29, 2004 Date trip will end March 6, 2004

Method of transportation requested Department Vehicle

Estimated transportation cost	\$	<u>125.00</u>
Meals		<u>316.00</u>
Lodging <u>6</u> days		<u>670.00</u>
Other costs - description <u>registration x 2</u>		<u>520.00</u>

Total estimated cost of trip \$ 1631.00

Signed  Date  Date 01-13-04  
(person requesting travel) (Department Head)

When the cost of the trip will exceed \$500, per employee, this section must be signed.

In accordance with the provisions of Rapid City ordinances and travel regulations, consent is hereby given for travel as requested in the foregoing application. Maximum cost of trip authorized is \$ \_\_\_\_\_

Approved: \_\_\_\_\_ Date \_\_\_\_\_  
Mayor

When the cost of the trip will exceed \$1,500, per employee, Council approval is required.

Approved by Common Council on \_\_\_\_\_ (Date)

White copy - Mayor

Yellow copy - Finance

Gold copy - Department copy

**CITY OF RAPID CITY  
TRAVEL REQUEST**

Person requesting travel Curt Bechtel Department Growth Management

I hereby request permission to travel for the following purpose: (Give specific nature of business and interest of the City to justify cost involved.)

ICBO CO Chapter Educational Institute - International Codes Training

List all other City employees, if any, making the trip for the same purpose: Mark Brodrick

Place of meeting or destination: Marriott Denver Technological Center

Date of meeting 3-1-04 thru 3-5-04

Date trip to begin 2-29-04 Date trip will end \_\_\_\_\_

Method of transportation requested City Vehicle

Estimated transportation cost \$ 134.00

Meals 382.00

Lodging 5 days 495.00

Other costs - description Registration 650.00

Total estimated cost of trip \$ 1661.00

Signed [Signature] Date March 1, 2004 Date 1/9/04  
(person requesting travel) (Department Head)

When the cost of the trip will exceed \$500, per employee, this section must be signed.

In accordance with the provisions of Rapid City ordinances and travel regulations, consent is hereby given for travel as requested in the foregoing application. Maximum cost of trip authorized is \$ \_\_\_\_\_

Approved: \_\_\_\_\_ Date \_\_\_\_\_  
Mayor

When the cost of the trip will exceed \$1,500, per employee, Council approval is required.

Approved by Common Council on \_\_\_\_\_ (Date)

White copy - Mayor

Yellow copy - Finance

Gold copy - Department copy



# CITY OF RAPID CITY

RAPID CITY, SOUTH DAKOTA 57701-2724

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Growth Management Department

300 Sixth Street

## MEMO

**TO:** Legal and Finance Committee

**FROM:** Brad Solon, Plans Examiner

**DATE:** January 9, 2003

**SUBJECT:** Travel request for Curt Bechtel and Mark Brodrick to attend International Codes training in Denver, Colorado.

Development Service Center staff is requesting to send Mark Brodrick and Curt Bechtel to International Code Training in Denver, Colorado from March 1 to March 5, 2004.

This training will provide technical instruction on model codes. This educational opportunity provides excellent training on many of the model codes, especially the new 2000 and 2003 International Building Code that we will be addressing in 2004. The total cost of the travel and training will not exceed \$1661.00.



EQUAL OPPORTUNITY EMPLOYER

# **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**

MARCH FIRST THROUGH FIFTH, TWO THOUSAND AND FOUR  
**MARRIOTT DENVER TECHNOLOGICAL CENTER**

# MARCH 2004 CURRICULUM

COURSE PATH	MAR 1 MONDAY	MAR 2 TUESDAY	MAR 3 WEDNESDAY	MAR 4 THURSDAY	MAR 5 FRIDAY
<b>SPECIAL INTEREST</b>	181 Leadership Essentials: The Keeper of the Vision	281 Leadership Essentials: The Power of Positive Leadership	381 The 2003 International Energy Conservation Code	481 Administration & Management of the Building Function	581 ICC Performance Code Workshop
<b>SIMPLIFIED ENGINEERING PRINCIPLES</b>	182 Soils Identification and Foundation Design	282 IBC Wood Framing	382 Wind Load Provisions of the 2003 IBC	482 Structural Concepts and Performance	582 Basic Structural Concepts
<b>BASIC PLANS EXAMINATION</b>	183 Accessibility Provisions of the 2003 IBC	283 Fire Protection Requirements of the IBC	383 Building Areas, Fire Areas and Mixed Occupancies	483 2003 International Residential Code	583 2003 IBC Means of Egress
<b>ADVANCED PLANS EXAMINATION</b>	184 IBC Advanced Occupancy Classification	284 IBC Advanced Schematic Design	384 IBC Advanced Types of Construction	484 IBC Advanced Means of Egress Components	584 IBC Advanced Means of Egress Design
<b>FIELD INSPECTION</b>	185 IBC Fire-Resistive Construction	285 and 385 Moisture Control, Indoor Air Pollution and Mold in Buildings		485 Roofing Inspection	585 Concrete Inspection
<b>FIELD INSPECTION</b>	186 2003 International Residential Code	286 2003 IBC Overview: Nonstructural Provisions	386 2003 IBC Means of Egress	486 2003 IBC Overview: Nonstructural Provisions	586 Prestressed Concrete Special Inspection
<b>PERMIT TECHNICIANS</b>	187 Personal SAVVY for the Successful Permit Technician	287 and 387 The Complete Permit Technician		487 Permit Technician Plan Review and Inspection Process	587 Zoning And Land Use
<b>INTERNATIONAL PLUMBING CODE</b>	188 IPC Water Distribution & Backflow Prevention	288 International Fuel Gas Code & Gas Pipe Sizing	388 Fundamentals of the 2003 IPC	488 Residential & Light Commercial Plumbing for the Combination Inspector	588 Fundamentals of the 2003 IPC
<b>INTERNATIONAL MECHANICAL CODE</b>	189 Venting of Gas Appliances Using Venting Tables	289 2003 International Mechanical Code Overview	389 Commercial Kitchen Hoods	489 Mechanical & Fuel Gas Provisions of the 2003 IRC	589 Smoke and Fire Dampers
<b>NATIONAL ELECTRICAL CODE</b>	190 and 290 Grounding and Bonding Of Electrical Systems		390 Changes to the 2002 NEC	490 Motors	590 Electrical Fires: Causes & Prevention
<b>INTERNATIONAL FIRE CODE</b>	191 and 291 Fire Alarm Systems		391 Hydraulic Calculations	491 Testing & Inspections of Sprinkler Systems	591 Company Level Inspections
<b>INTERNATIONAL FIRE CODE</b>	192 and 292 2003 International Fire Code Overview		392 Spray Operations and Paint Booths	492 Strategic Planning for Fire Prevention and Building Departments	592 Special Extinguishing Systems

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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 Nineteenth Annual Educational Institute.

### 2004 HIGHLIGHTS:

- 60 full-day classes in 12 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.
- **New!** Plumbing for the Combination Inspector and two opportunities to learn the Fundamentals of the 2003 IPC.
- **New!** Two new courses from Lynn Pollard on the important topics of "Leadership Essentials: The Keeper of the Vision" and "The Power of Positive Leadership."
- **More!** Two offerings each on the IRC, Non-Structural Provisions of the IBC and IBC Means of Egress.
- **Back!** The International Energy Conservation Code (IECC)!
- **Back!** Wind Load Provisions of the International Building Code!
- **Back!** Pete Tyree is back with "Basic Structural Concepts," the best in "engineering for non-engineers"!
- **Back and Revised!** A practical interactive workshop for the ICC Performance Code!
- **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 2003 IBC from Greg Keith! This is a week that you won't forget!
- **Back, Updated, Revised & Improved by CAPT!** The fifth year of our full five-day course path especially designed to fit the training, networking and certification needs of Permit Technicians.
- **Back!** Our revised and improved International Mechanical Code course path.

- **Electrical!** A new class on 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 Holt, 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 Spray Operations, Strategic Planning for Departments and Special Extinguishing Systems.

### 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.
- **ABSOLUTE DEADLINE IS FEBRUARY 9, 2004.** Registrations or fees received after February 9<sup>th</sup> or faxed registrations 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 code books and other references available for viewing and purchase at the Institute.

### LOCATION:

- Marriott Denver Technological Center (DTC), south of Denver at I-25 & Belleview (Exit 199).
- Room rates are \$99/night single or double until February 9<sup>th</sup> or until our room block is filled.
- Reservations 1-800-228-9290 or local number 303-779-1100, or write Marriott Denver Tech Center at 4900 S. Syracuse Dr., Denver, CO 80237. Be sure to note you will be attending the Colorado Chapter Educational Institute, and obtain your reservations as soon as possible.

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## COURSES AND INSTRUCTORS

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All courses will be based upon the 2003 editions of the IBC, IFGC, IFC, IMC, IPC, IRC and the ICC Performance Code and the 2002 edition of the NEC. Code books will also be available for purchase. **PLEASE BRING A CALCULATOR AND THE APPLICABLE CODE BOOK(S).** 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 one-hour lunch break is provided at noon. Course descriptions are listed by Course Path, Monday through Friday.

### 181: LEADERSHIP ESSENTIALS: THE KEEPER OF THE VISION

**Lynn Pollard.** This new class, the first of a two-day series, will cover leadership basics, like mission and vision statements, values, what we do and why we do it, understanding the importance of teams and how they work, employee participation and how to engage the staff in that participation.

### 281: LEADERSHIP ESSENTIALS: THE POWER OF POSITIVE LEADERSHIP

**Lynn Pollard.** How can positive thinking affect the attitudes of staff, and how does this affect productivity? In this second day of a new two-day series, you'll learn about attitude management, positive thinking, creating new directions and finding ways to create innovation and "buy in" at every level.

### 381: THE 2003 INTERNATIONAL ENERGY CONSERVATION CODE

**Eric Makela, Steve Andrews,** E-Star Colorado. This class will provide an overview of the commercial and residential provisions of the *International Energy Conservation Code* (IECC). Plan review and inspection issues will be addressed. The use of the U.S. Department of Energy's *COMcheck-EZ* and *MECcheck* energy code compliance tools will also be discussed.

481: ADMINISTRATION AND MANAGEMENT OF THE BUILDING FUNCTION	<b>Jere Kersnar.</b> 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, departmental organization, determining and justifying staffing levels and corresponding fee levels, program budgeting, performance measures, enterprise funding and other useful topics.
581: ICC PERFORMANCE CODE WORKSHOP	<b>Gary Goodell, Jeff Tubbs, P.E.</b> A hands on interactive workshop on the use of the 2003 ICC Performance Code for Buildings & Facilities. Will include examples and design exercises for new and existing buildings and some new tools to make the performance code easier to understand and use.
182: SOILS IDENTIFICATION AND FOUNDATION DESIGN	<b>Bill Koechlin, P.E.</b> A detailed discussion of soils and foundation investigations and how they are implemented into foundation design.
282: IBC WOOD FRAMING	<b>David P. Tyree, P.E., Dennis Pitts.</b> This is an all-day course intended for new inspectors and plans examiners and for anyone else desiring a refresher in the basics of general wood frame construction, primarily as it applies to dwellings.
382: WIND LOAD PROVISIONS OF THE 2003 IBC	<b>ICC Staff.</b> This training program examines the new wind load provisions of the International Building Code. The design requirements for wind are illustrated by design examples, addressing both the simplified wind design procedure of the 2003 IBC and the analytical procedure in ASCE 7.
482: STRUCTURAL CONCEPTS AND PERFORMANCE	<b>Gene Zimmer, P.E.</b> A discussion of engineering fundamentals and their application to bending, shear, deflection and combined loads in structures, as well as examples and discussion of failures in structures.
582: BASIC STRUCTURAL CONCEPTS	<b>Perry C. "Pete" Tyree, P.E.</b> A general discussion of engineering fundamentals necessary to better understand how structures are designed.
183: ACCESSIBILITY PROVISIONS OF THE 2003 IBC	<b>Tom Meyers.</b> This seminar is designed to provide an in-depth look at the accessibility provisions of the 2003 International Building Code. The class will focus on not only the scoping provisions of the code, but also the design standards, which are needed to assure that accessibility is provided.
283: FIRE PROTECTION REQUIREMENTS OF THE IBC	<b>Doug Thornburg, AIA, CBO.</b> This class focuses on those areas of the code that deal with a building's fire safety features, including both fire protection and resistance. The relationship between active and passive fire protection will be discussed. The class will cover topics such as Types of Construction, Fire Walls/Barriers/Areas, Fire/Smoke Dampers, Opening/Penetration Protection, Sprinklers, Standpipes and Alarm/Detection systems.
383: BUILDING AREAS, FIRE AREAS AND MIXED OCCUPANCIES	<b>Doug Thornburg, AIA, CBO.</b> 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/nonseparated uses.
483: 2003 INTERNATIONAL RESIDENTIAL CODE	<b>Tom Meyers.</b> Learn about the 2003 International Residential Code from an individual who has been directly involved in the I-Codes drafting and code development process. This course will explore the differences between the IRC and the residential provisions of the UBC. The IRC is now the only code governing all aspects of one- and two-family dwelling construction.
583 OR 386: 2003 IBC MEANS OF EGRESS	<b>Steve Thomas.</b> A basic overview of the means of egress requirements of Chapter 10, 2003 IBC, with supporting practical exercises.
184: IBC ADVANCED OCCUPANCY CLASSIFICATION	<b>Greg Keith.</b> This graduate level workshop will discuss the occupancies contained in Chapter 3 of the 2003 IBC. Methods relating to the proper classification of occupancies will be discussed. Differences between UBC and IBC occupancy categories will be emphasized. <b>IT IS HIGHLY RECOMMENDED THAT THE STUDENT REGISTER FOR ALL FIVE CLASSES IN THE ADVANCED PLANS EXAMINATION COURSE PATH.</b>
284: IBC ADVANCED SCHEMATIC DESIGN	<b>Greg Keith.</b> This graduate level workshop, geared towards plans examiners and architects, will discuss the provisions contained in Chapters 3-5 of the 2003 IBC. Technical requirements relating to allowable area and height determination and mixed occupancies will be stressed.
384: IBC ADVANCED TYPES OF CONSTRUCTION	<b>Greg Keith.</b> This graduate level workshop will explain the types of construction requirements contained in Chapters 4, 6 and 7 of the 2003 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.

484: IBC ADVANCED MEANS OF EGRESS COMPONENTS	<b>Greg Keith.</b> This graduate level workshop will focus on the means of egress component requirements contained in Chapter 10 of the 2003 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.
584: IBC ADVANCED MEANS OF EGRESS DESIGN	<b>Greg Keith.</b> This graduate level workshop will cover the means of egress design requirements contained in Chapter 10 of the 2003 IBC. The differences in the approach to the "three part" means of egress between the UBC and IBC will be discussed in detail.
185: IBC FIRE-RESISTIVE CONSTRUCTION	<b>Tom Thompson, Bob Eugene, Wally Prebis, P.E.</b> An in-depth discussion of the general fire-resistive requirements of Chapters 7 and 8, 2003 IBC and E-119 and other ASTM Standards, including a detailed discussion of specific fire-resistive construction requirements.
285 AND 385: MOISTURE CONTROL AND INDOOR AIR POLLUTION AND MOLD IN BUILDINGS	<b>Joseph Lstiburek.</b> An entertaining, stimulating and thought-provoking two days that will change the way you think about how we build our buildings today. Topics will include changes in building technology, why we don't build the way we used to, vapor diffusion and air flow retarders, vented and unvented roof assemblies and crawl spaces, keeping the rain and ground water out, biologicals, indoor air quality, HVAC, recent issues on mold and alternative materials & techniques.
485: ROOFING INSPECTION	<b>Rich Boon.</b> An overview of the provisions of Chapter 15, 2003 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.
585: CONCRETE INSPECTION	<b>Red Holland, P.E., Mark Kluver, P.E.</b> A discussion of the fundamentals of producing and inspecting quality reinforced concrete construction. Instruction will provide a practical working knowledge of the basic inspection and testing practices for concrete and reinforcing steel.
186: 2003 INTERNATIONAL RESIDENTIAL CODE	<b>Steve Thomas.</b> Learn about the 2003 International Residential Code from an individual who has been directly involved in the I-Codes drafting and code development process. This course will explore the differences between the IRC and the residential provisions of the UBC. The IRC is now the only code governing all aspects of one- and two-family dwelling construction.
286 OR 486: 2003 IBC OVERVIEW: NONSTRUCTURAL PROVISIONS	<b>Steve Thomas.</b> This seminar is designed to provide a broad overview of the nonstructural provisions of the 2003 IBC. It will be of special interest to anyone associated with the building construction industry: code regulatory agencies, design professionals, contractors, home builders and building owners. (Note: This class is offered on either Tuesday or Thursday)
586: PRESTRESSED CONCRETE SPECIAL INSPECTION	<b>Walter J. "Wally" Prebis, P.E., Doug Schlegel, P.E.</b> An in-depth discussion of prestressed concrete theory, pretension and posttension methods, inspection requirements, and practical applications. Attendees will receive the latest version of the <i>Prestressed Concrete Institute Design Handbook</i> .
187: PERSONAL SAVVY FOR THE SUCCESSFUL PERMIT TECHNICIAN	<b>The SAVVY Institute Presents Billi Lee.</b> Keep your sense of humor and get SAVVY. Billi will help you reach your goals, increase your personal/professional effectiveness by showing you a different way to look at people, systems, situations and will help you understand your choices and the corresponding consequences. You will be provoked, entertained, informed and delighted. <b>Shelly Espinosa</b> Presents The Emotional Cookie Diet. A Guide to Real Life Stress Management. This workshop provides practical, fast and easy ways to reduce stress through a unique "Emotional Cookie Diet." No calories, great fun and flavor.
287 AND 387: THE COMPLETE PERMIT TECHNICIAN	<b>Steve Burger, CBO.</b> This two-day course is intended to provide essential information in the areas of code history and administration, legal aspects, customer service, basic construction, inspection process and zoning terms, permit fee calculations, basic occupancy types, and dealing with difficult customers. Please bring a calculator, 2000 or 2003 International Building Code, 2000 or 2003 International Zoning Code, Legal Aspects of Code Administration, and You Can Build It information book.
487: PERMIT TECHNICIAN PLAN REVIEW AND INSPECTION PROCESS	<b>Tom Thompson, CBO.</b> The course is designed for the Permit Technician illustrating a practical approach to plan review and building inspections. Permit Technicians will learn to perform nonstructural review and recognize building components on a set of plans. In addition, instruction will be provided on required inspections, special inspection requirements and inspection request terminology. Please bring both an engineering scale and an architectural scale.
587: ZONING AND LAND USE	<b>Harold Sftitt, Tim Carl.</b> This class will provide a thought-provoking and entertaining overview of the 2003 International Zoning Code. The class is intended for permit technicians and those interested in learning basic zoning concepts. Topics to be covered include zoning history, classifications and uses, access requirements, easements, water and sewer services, fire department development conditions and additional improvements that may be required.



<b>188: IPC WATER DISTRIBUTION &amp; BACKFLOW PREVENTION</b>	<b>John LaTorra.</b> A discussion of the water distribution provisions of the 2003 IPC, as well as cross connection, back flow and back siphonage hazards and related requirements.
<b>288: INTERNATIONAL FUEL GAS CODE &amp; GAS PIPE SIZING</b>	<b>John LaTorra.</b> A discussion of the provisions for fuel gas piping as contained in the 2003 International Fuel Gas Code, along with supporting practical exercises.
<b>388 or 588: FUNDAMENTALS OF THE 2003 IPC</b>	<b>ICC Staff.</b> This class overviews the administration and enforcement requirements of the 2003 IPC. It will assist contractors, inspectors, design professionals and plumbers in locating, understanding and applying those requirements.
<b>488: RESIDENTIAL &amp; LIGHT COMMERCIAL PLUMBING FOR COMBINATION INSPECTORS</b>	<b>Pat Clark.</b> This new class will include a structured discussion regarding residential and light commercial plumbing installation requirements as presented by a master plumber. The 2003 IPC and IRCP will be covered through day to day inspection scenarios and practical applications of these codes.
<b>189: VENTING OF GAS APPLIANCES USING VENTING TABLES</b>	<b>Glen Edgar.</b> Fundamentals of using the venting tables as they are published in the National Fuel Gas Code and the International Fuel Gas Code. The "how" and "why" along with practical applications of the venting tables will be discussed to correctly size type B venting systems for use with gas fired appliances.
<b>289: 2003 INTERNATIONAL MECHANICAL CODE OVERVIEW</b>	<b>Bob Guenther, Sam Dardano.</b> A broad overview of the International Mechanical Code (IMC), including instructions on the residential and light commercial provisions and an overview of the provisions commonly encountered by inspectors and contractors, such as: equipment, warm air heating, vented decorative appliances, ducts, combustion air, venting, and other miscellaneous subjects plus any significant changes that will appear in the next edition of the IMC.
<b>389: COMMERCIAL KITCHEN HOODS</b>	<b>Bob Guenther.</b> Review of the installation requirements for commercial kitchen hoods, including mechanical, fire-resistive construction and fire suppression systems, as well as proper acceptance testing of the completed installation. Training will be based on the IMC and UL300 standards and include information on approved fire protective systems.
<b>489: MECHANICAL &amp; FUEL GAS PROVISIONS OF THE 2003 IRC</b>	<b>Sam Dardano.</b> The topics for this new class will cover the approval and inspection of mechanical and fuel gas for the proper materials and installation of heating, cooling and ventilation equipment as well as chimneys and vents under the 2003 IRC.
<b>589: SMOKE AND FIRE DAMPERS</b>	<b>Sam Dardano.</b> This class will include specific review of code requirements for the proper installation of fire and fire/smoke dampers and through-penetration firestop systems.
<b>190 AND 290: GROUNDING FUNDAMENTALS AND GROUNDING OF SENSITIVE COMMUNICATIONS EQUIPMENT</b>	<b>Mike Holt.</b> This two-day course will cover the purpose and fundamentals of grounding and bonding of electrical systems, lightning protection, ground loops, EMI and Rf interference, services equipment, generators, UFER ground, grounding of communications systems and much more. The goal is to help the attendee understand the concepts necessary to design, install, inspect, measure and troubleshoot electrical systems, with help to clear up misconceptions, or conflicting rules. Tips and warnings will also be included.
<b>390: CHANGES TO THE 2002 NATIONAL ELECTRICAL CODE</b>	<b>John Travers.</b> John is the director of Codes and Education for the Miami-Dade division of I.A.E.I. and has over 15 years of experience as an inspector. This is a brand new course covering the various changes to the National Electrical Code.
<b>490: NATIONAL ELECTRICAL CODE ARTICLE 430: MOTORS</b>	<b>John Travers.</b> A comprehensive study of Article 430 of the 2002 National Electrical Code on basic motor and control theory. Bring your questions for some interactive discussion.
<b>590: ELECTRICAL FIRES: CAUSES AND PREVENTION</b>	<b>John Travers.</b> This is a brand new course with hand-on information that will generate a great deal of discussion. A must attend for Code Officials and electricians alike.
<b>191 AND 291: FIRE ALARM SYSTEMS</b>	<b>David Lowrey, Tami Holley.</b> Tami is a Fire Protection Engineer and has over ten years of experience in design of mechanical and fire protection systems. David is the Fire Protection Engineer for the City of Boulder Fire Department and serves on NFPA 72 technical committee. This two-day fire alarm class will give a unique understanding of fire alarm systems from the aspect of an experienced fire alarm designer and an Authority Having Jurisdiction. Day one will focus on changes and review of NFPA 72, 2002 edition. Day two will mainly focus on performance base design as it relates to Annex B of NFPA 72. This class is designed for designers, installers and AHJ's.
<b>391: HYDRAULIC CALCULATIONS</b>	<b>Jared Moravec.</b> Jared is the Fire Protection Engineer for Union Colony Fire/Rescue Authority in Greeley, Colorado. Basic theory of hydraulic calculations of fire sprinkler systems will be introduced and practiced. Upon completion of this program, participants will be able to better understand and verify these calculations. Participants must provide a calculator capable of performing critical function exponents and a copy of NFPA 13. This course meets continuing education requirements for those certified as a Fire Suppression Systems Inspector by the State of Colorado.

**491: TESTING & INSPECTIONS OF  
SPRINKLER SYSTEMS**

**Joe Jaramillo.** This course will provide an opportunity for code officials to develop a more comprehensive understanding of field inspection, testing and approval practices for water-based fire protection systems. Emphasis will be placed upon regulatory requirements and trade practices as seen from the code official perspective. This course meets continuing education requirements for those certified as a Fire Suppression Systems Inspector by the State of Colorado.

**591: COMPANY LEVEL INSPECTIONS**

**Tom DeMint.** Tom has 27 years in the fire/EMS field and is a member of the ICC, NFPA, FMAC, FMAC Code Committee, and NFPA North Central Regional Code Development Committee. This course has been updated and revised to reflect current code requirements and provides a one-day overview of the 2003 IFC and its impact on basic fire prevention inspections. The class is designed and recommended for fire company officers and company level inspectors as well as fire inspectors responsible for basic fire inspections.

**192 AND 292: IFC OVERVIEW**

**Kevin Scott.** Kevin has been involved with the code development process since 1988. He is past Chairman of the International Fire Code Institute and Chairman of the IFC Code Development Committee. This course provides a two-day in-depth review of the new IFC. It covers all of the major aspects of the IFC and is appropriate for Fire Code enforcers, Architects, Engineers, and Designers. A workbook will be provided, but bring your copy of the IFC with you.

**392: SPRAY OPERATIONS AND PAINT  
BOOTHS**

**Ben Greene.** Flammable finishes is an exciting, dangerous and confusing subject. This class will assist you in understanding all the codes related to this subject. It will cover all types of spray operations and flammable finish operations. The newest material available will be covered, how they are used, stored and protection of the operation. IFC Article 15 will be covered in depth. Other codes to be covered include the IBC and NEC. Spray operations are not just for the Fire Marshal anymore. Building Officials, Mechanical Inspectors, Electrical Inspectors have to be involved with plan reviews and acceptance testing. Come and find out what is new, where the industry is going and what is state of art. If you can only spend one day at the Institute, this is the class to attend!

**492: STRATEGIC PLANNING FOR FIRE  
PREVENTION AND BUILDING  
DEPARTMENTS**

**Tom DeMint.** Tom is the Strategic Plan Coordinator for Poudre Fire Authority in Fort Collins. This class will give the students tools to understand the strategic planning process. Steps of planning will be discussed as well as preparing the final document for presentation. The student will also learn the definition of SWOT's. This class is suitable for anyone in charge of future development of a Fire Prevention Bureau, Building Department, Planning and Zoning Department or any organization that uses planning as a tool for searching out the future.

**592: SPECIAL EXTINGUISHING  
SYSTEMS**

**Simplex-Grinnell Staff, Denver Office.** This course covers the numerous special hazard extinguishing systems from the basic pre-engineered kitchen or cooking hood system to the specially designed carbon dioxide or clean agent fire suppression system. Industry experts will cover the purpose of each system, the documents necessary for plan submittals, the plan review process and the procedures to field-test the system upon installation.

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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, especially the name for your badge.

**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 at least seven (7) days before the Institute, 100 percent of the fee will be refunded. Fees will not be refunded if the request is received less than seven (7) days prior to the Institute.

Please mail the completed registration form(s) and appropriate payment to:

**Colorado Chapter ICC, Education Committee, P.O. Box 961, Arvada, Colorado 80001**

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

COLORADO CHAPTER EDUCATIONAL INSTITUTE

# REGISTRATION AND COURSE SELECTION FORM

REGISTER EARLY - REGISTRATION DEADLINE IS **MONDAY, FEBRUARY 9, 2004**. 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!) MARK A. Brodrick

REPRESENTING: Rapid City So. Dak. Building Inspection

PHONE: (605) 394-4157 EMAIL: mark.brodrick@rcgov.org

MAILING ADDRESS: 300 Sixth Street  
Rapid City, So. Dak 57704

Telephone: (303) 987-7554 or (303) 987-7573 for program information

## FEE CALCULATION AND COURSE SELECTION - CHECK APPLICABLE BOXES

Attendance	Payment Received by 1/12/04	Payment Received after 1/12/04	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	

**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 9, 2004.  
We cannot accept purchase orders, credit/debit cards or SF 182 forms for payment. Our Federal Tax ID Number is: 23-7421122.

<b>DAY ONE - MONDAY, MARCH 1, 2004</b> (All Classes Are Full Day - Choose One Class Only Per Day)	
<input type="checkbox"/> 181 Leadership Essentials: The Keeper of the Vision <input type="checkbox"/> 182 Soils Identification and Foundation Design <input type="checkbox"/> 183 Accessibility Provisions of the 2003 IBC <input type="checkbox"/> 184 IBC Advanced Occupancy Classification <input type="checkbox"/> 185 IBC Fire-Resistive Construction <input type="checkbox"/> 186 2003 International Residential Code	<input type="checkbox"/> 187 Personal SAVVY for the Successful Permit Technician <input type="checkbox"/> 188 IPC Water Distribution & Backflow Prevention <input checked="" type="checkbox"/> 189 Venting of Gas Appliances Using Venting Tables <input type="checkbox"/> 190 Grounding & Bonding of Electrical Systems (also check Day 2) <input type="checkbox"/> 191 Fire Alarm Systems (also check Day 2) <input type="checkbox"/> 192 2003 IFC Overview (also check Day 2)
<b>DAY TWO - TUESDAY, MARCH 2, 2004</b> (All Classes Are Full Day - Choose One Class Only Per Day)	
<input type="checkbox"/> 281 Leadership Essentials: The Power of Positive Leadership <input type="checkbox"/> 282 IBC Wood Framing <input type="checkbox"/> 283 Fire Protection Requirements of the IBC <input type="checkbox"/> 284 IBC Advanced Schematic Design <input type="checkbox"/> 285 Moisture Control, Indoor Air Pollution & Mold (also check Day 3) <input type="checkbox"/> 286 2003 IBC Overview: Nonstructural Provisions	<input type="checkbox"/> 287 The Complete Permit Technician (also check Day 3) <input type="checkbox"/> 288 International Fuel Gas Code & Gas Pipe Sizing <input checked="" type="checkbox"/> 289 2003 International Mechanical Code Overview <input type="checkbox"/> 290 Grounding & Bonding of Electrical Systems (also check Day 1) <input type="checkbox"/> 291 Fire Alarm Systems (also check Day 1) <input type="checkbox"/> 292 2003 IFC Overview (also check Day 1)
<b>DAY THREE - WEDNESDAY, MARCH 3, 2004</b> (All Classes Are Full Day - Choose One Class Only Per Day)	
<input type="checkbox"/> 381 The 2003 International Energy Conservation Code <input type="checkbox"/> 382 Wind Load Provisions of the 2003 IBC <input type="checkbox"/> 383 Building Areas, Fire Areas and Mixed Occupancies <input type="checkbox"/> 384 IBC Advanced Types of Construction <input type="checkbox"/> 385 Moisture Control, Indoor Air Pollution & Mold (also check Day 2) <input type="checkbox"/> 386 2003 IBC Means of Egress	<input type="checkbox"/> 387 The Complete Permit Technician (also check Day 2) <input type="checkbox"/> 388 Fundamentals of the 2003 IPC <input checked="" type="checkbox"/> 389 Commercial Kitchen Hoods <input type="checkbox"/> 390 Changes to the 2002 NEC <input type="checkbox"/> 391 Hydraulic Calculations <input type="checkbox"/> 392 Spray Operations and Paint Booths
<b>DAY FOUR - THURSDAY, MARCH 4, 2004</b> (All Classes Are Full Day - Choose One Class Only Per Day)	
<input type="checkbox"/> 481 Administration & Management of the Building Function <input type="checkbox"/> 482 Structural Concepts and Performance <input type="checkbox"/> 483 2003 International Residential Code <input type="checkbox"/> 484 IBC Advanced Means of Egress Components <input type="checkbox"/> 485 Roofing Inspection <input type="checkbox"/> 486 2003 IBC Overview: Nonstructural Provisions	<input type="checkbox"/> 487 Permit Technician Plan Review and Inspection Process <input type="checkbox"/> 488 Residential & Light Commercial Plumbing for Comb. Inspectors <input checked="" type="checkbox"/> 489 Mechanical & Fuel Gas Provisions of the 2003 IRC. <input type="checkbox"/> 490 Motors <input type="checkbox"/> 491 Testing & Inspections of Sprinkler Systems <input type="checkbox"/> 492 Strategic Planning for Fire Prevention and Building Depts.
<b>DAY FIVE - FRIDAY, MARCH 5, 2004</b> (All Classes Are Full Day - Choose One Class Only Per Day)	
<input type="checkbox"/> 581 The ICC Performance Code Workshop <input type="checkbox"/> 582 Basic Structural Concepts <input type="checkbox"/> 583 2003 IBC Means of Egress <input type="checkbox"/> 584 IBC Advanced Means of Egress Design <input type="checkbox"/> 585 Concrete Inspection <input type="checkbox"/> 586 Prestressed Concrete Special Inspection	<input type="checkbox"/> 587 Zoning and Land Use <input type="checkbox"/> 588 Fundamentals of the 2003 IPC <input checked="" type="checkbox"/> 589 Smoke and Fire Dampers <input type="checkbox"/> 590 Electrical Fires: Causes & Prevention <input type="checkbox"/> 591 Company Level Inspections <input type="checkbox"/> 592 Special Extinguishing Systems