



# CHAPTER NEWS



VOLUME VI ISSUE I

MONTEREY BAY CHAPTER - ICC

JANUARY 2007

**CHAPTER OFFICERS:**  
 PRESIDENT: JOHN KUEHL, CITY OF MONTEREY  
 VICE PRESIDENT: DAVE CHANTLER, CITY OF WATSONVILLE  
 SECRETARY: JENNIFER HUTCHINSON, COUNTY OF SANTA CRUZ  
 TREASURER: LISA FELICIANO, CITY OF MONTEREY

## MONTEREY BAY CHAPTER ICC

### December 21, 2006 Meeting Minutes

#### 1.0 CALL TO ORDER

##### 1.01 CALL TO ORDER

- J.D. Jones called the meeting to order at 11:07 am

##### 1.02 PLEDGE OF ALLEGIANCE

- J.D. Jones led the members in the Pledge of Allegiance.

##### 1.03 SELF INTRODUCTIONS

- The members' present provided self-introductions.

#### 2.0 CHAPTER BUSINESS

##### 2.01 APPROVAL OF MINUTES

- J. Kuehl made the motion to approve the November minutes as amended (corrections made to the information on AB 2977)
- D. Stubendorff seconded, and the minutes were approved

##### 2.02 OLD BUSINESS

- J. Kuehl reminded everyone of the upcoming installation dinner on January 19<sup>th</sup>, 2007. Reservation must be in by January 5<sup>th</sup>, 2006.
- The installation dinner will be held at the Bayonet and Black Horse Golf Course in Seaside.
- J. Kuehl updated the members on the changes to the chapter bylaws as voted on in the November meeting. The bylaw changes allow non-class A members to participate as officers of the chapter in the positions of President and Vice President. The bylaw changes will be included in the chapter's 2007 ICC report.
- J. Kuehl shared his discussion with Dennis Richardson of the City of San Jose and the efforts of the Height and Area Study Group. The study group has focused on R1 and R2 height limitations in an effort to limit 3 stories or less to non-rated construction and 4 to 6 stories to one-hour construction. The group is also addressing building area limitations and I occupancies within their four areas of consideration. The group's efforts are taking them to 5 meetings across the county with the next meeting to take place in January of 2007.
- D. Richardson will update the chapters upon completion of the meetings.
- A brief discussion followed regarding the I Codes and California State amendments to them.
- C. Oliver noted the IBC adoption schedule is January of 2007.
- D. Stubendorff suggested we post the chapter bylaw changes on the chapter website.

##### 2.03 NEW BUSINESS

- J.D. Jones advised the membership of the up coming CALBO ABM in Sacramento this spring. Sacramento Valley Chapter will be the sponsor of this years ABM.
- C. Oliver motioned for the chapter to contribute \$1,000.00 to the Sacramento Valley Chapter to assist in the cost of sponsoring the CALBO ABM.

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- R. Thissen seconded and the motion unanimously passed.
- D. Stubendorff noted the correlation of funding from FEMA for redevelopment projects and the I code adoptions. The members and chapter will need to monitor this development.

#### **2.04 TREASURERS REPORT**

- R. Thissen presented the report and noted the funds from the recent education offerings should be under workshop instead of membership and will make the corrections.
- C. Oliver suggested a separate account or line item be considered to help track the funding needed for the chapter to sponsor the 2009 CALBO ABM.
- The Executive Board will discuss tracking of needed ABM funding at the January board meeting.

### **3.0 COMMITTEE REPORTS**

#### **3.01 CODE CHANGE**

- J. D. Jones advised on the code change update letter from John LaTorra. The letter is in the December Chapter Newsletter and will also be posted on the Monterey Bay Chapter website.

#### **3.02 LEGISLATION:**

- No discussion.

#### **3.03 SPECIAL INSPECTION**

- D. Rick noted the City of San Jose appears to be one of a few to follow for an approved list of Special Inspection Agencies.

#### **3.04 MEMBERSHIP AND HONORS:**

- Mr. Benjamin Turner, construction inspection and technology instructor at Hartnell College addressed the members regarding partnering with the chapter and members to guide apprentice building inspector training programs.
- C. Oliver noted Mr. Wally Bailey and other ICC staff members would be visiting California Chapters during the weeks of February 12-16 and March 12-16. We are looking towards a tentative meeting for the visit on February 13<sup>th</sup>, with a location to be determined.

#### **3.05 IA EI**

- M. Stone informed the membership on the passing of Creighton Swan, a long time member of IA EI and noted his many publications and achievements.

#### **3.06 EDUCATION**

- C. Oliver advised on the (5) Half Day Seminars being offered in 2007 at the San Jose UL facility;  
 Dates and topics are:  
     March 8<sup>th</sup>, Building envelope.  
     May 10<sup>th</sup>, Swimming Pools electrical and mechanical.  
     July 12<sup>th</sup>, Residential Electrical.  
     September 13<sup>th</sup>, Clinics, TI's.  
     November 8<sup>th</sup>, HVAC, Heating, Water Heaters etc.

#### **3.07 CEC and GREEN BUILDING**

- D. Stubendorff presented an article in the Santa Cruz Sentinel regarding the city's new mandatory green building program. The program and any related information can be found on the City of Santa Cruz website. After years of extensive research and development and the analysis of several different states environmental and sustainability hypotheses including the LEED program, D. Stubendorff encouraged bay area communities to adopt a Green Building Program similar to the Santa Cruz model.

### **4.0 OTHER REPORTS**

#### **4.01 ICC**

- No discussion.

#### **4.02 CALBO**

- D. Stubendorff advised the group of the recent simulated disaster and inspector mobilization exercise within Northern California

#### **4.03 CODE DISCUSSION**

- No discussion.



# MONTEREY BAY CHAPTER ICC

January 18, 2006 Agenda

**JOHN KUEHL**  
PRESIDENT  
City of Monterey

**DAVE CHANTLER**  
VICE PRESIDENT  
City of Watsonville

**JENNIFER HUTCHINSON**  
SECRETARY  
County of Santa Cruz

**LISA FELICIANO**  
TREASURER  
City of Monterey

**J.D. JONES**  
PAST PRESIDENT  
City of Marina

## 1.0 CALL TO ORDER

- 1.01 CALL TO ORDER
- 1.02 PLEDGE OF ALLEGIANCE
- 1.03 SELF INTRODUCTIONS

## 2.0 CHAPTER BUSINESS

- 2.01 APPROVAL OF MINUTES
- 2.02 OLD BUSINESS
- 2.03 NEW BUSINESS
- 2.04 TREASURERS REPORT

## 3.0 COMMITTEE REPORTS

- 3.01 CODE CHANGE
- 3.02 LEGISLATION
- 3.03 SPECIAL INSPECTION
- 3.04 EDUCATION
- 3.05 MEMBERSHIP AND HONORS

## 4.0 OTHER REPORTS

- 4.01 2009 ABM
- 4.02 ICC
- 4.03 IAEI
- 4.04 CODE DISCUSSION

## 5.0 LUNCH

## 6.0 PROGRAM

## 7.0 ADJOURNMENT

## .5.0 LUNCH

## 6.0 PROGRAM

- M. Stone presided over the nomination and election of officers for 2007.
  - Treasurer, Lisa Feliciano
  - Secretary, Jennifer Hutchinson,
  - Vice President, Dave Chantler
  - President, John Kuehl
  - Immediate Past President, J.D. Jones
- All officers were unanimously approved by the attending members.
- **The meeting was adjourned by JD. Jones @ 1:24 p.m**



# MONTEREY BAY CHAPTER

## Attendance for the December 16, 2006

Ron Thissen.....	City of Pinole
Craig Oliver.....	City of Marina
Dick Stubendorff.....	City of Santa Cruz
Ben Turner.....	Hartnell College
Ray Proffitt.....	City of Marina/Harris
Lisa Feliciano.....	City of Monterey
Carl Henn.....	Santa Cruz/Seaside Co.
Mike Stone.....	City of Salinas
Moe Tavakolian.....	PSI
Jennifer Hutchinson.....	County of Santa Cruz
Craig Tole.....	4 Leaf, Inc.
Douglas Rick.....	City of Pacific Grove
Doug Oliver.....	Precision Inspection
J.D. Jones.....	City of Marina
John Kuehl.....	City of Monterey
Dave Chantler.....	City of Watsonville/CSG
Evan Hill.....	Precision Inspection
Carey Burke.....	Dynamic Consultants Inc.

Some of you may remember the style of the front page of this Newsletter from earlier versions created by Craig Oliver/Dick Stubendorff and Gwen Wells.

Thank you

**MONTEREY BAY CHAPTER ICC ANNOUNCEMENTS**

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**Coming Events**



Jan	15, 2006	To Be Selected	Bay Park Hotel
Feb	20, 2006	To Be Selected	Bay Park Hotel
March	17, 2006	To Be Selected	Bay Park Hotel
April	17, 2006	To Be Selected	Bay Park Hotel
May	17, 2006	To Be Selected	Bay Park Hotel
June	16, 2006	To Be Selected	Bay Park Hotel
July	21, 2006	To Be Selected	Bay Park Hotel

**MEETINGS & EVENTS**

**Monterey Bay Chapter ICC**

**At The Bay Park Hotel**  
1425 Munras Ave. Monterey 93940

Jan 15, 2007  
Feb. 20, 2007

**TRI-CHAPTER MEETINGS**  
**On the first Thursday of each Month**

**2007**

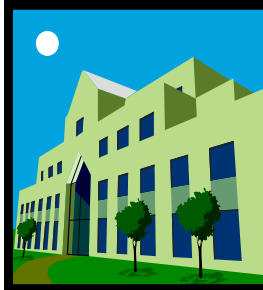
**January 22-26, 2007**  
**World of Concrete 2007**  
**Las Vegas, NV**

**2007**

**January 12, 2007**  
**Graniterock Contractor Expo**  
**Seaside CA.**

*The Monterey Bay Chapter ICC Recommends*  
**The Builders Exchange of the Central Coast**  
and  
**The Contractors Development Center**

Check with Gwen or Allie at 831-883-3933 and don't forget to visit their website at <http://www.bxcc.org>



**KNOW 'DA LINGO**

## Concrete-Encased Electrodes Required

The goal when establishing a grounding electrode or grounding electrode system for a building or structure should be to strive for the best possible connection to the earth. Concrete-encased electrodes have a proven record of providing this.

by Michael J. Johnston

### A Closer Look

The National Association of Home Builders has recently submitted seven excellent questions related to the requirements for concrete-encased grounding electrodes. Let's take a closer look at these questions and address each one specifically.

1. Are more than a total of 20 feet of reinforcing steel located in a footing required for compliance with Sections 250.50 and 250.52? The 20 feet can include pieces of rebar that are tied together in the usual manner. In other words, if more than 20 feet of reinforcing steel is located in the footing does all of the steel need to be bonded together to form the electrode, or will a minimum of 20 feet of the steel be the maximum length required? This is important to understand as having footings at different levels (step footings) may occur. This also may include concrete pads for the support for interior columns, or many concrete piers to support the entire structure. If all of the steel needs to be bonded together this would require a bonding conductor to jump from one footing to the other and possibly the pads, or to each separate pier.

Answer: The *Code* establishes the minimum requisite, which means one is required to do at least that much. The answer is yes; a single section of rebar in a length of 6.0 m (20 ft) satisfies the requirements of Section 250.52(A)(3). The minimum length of 6.0 m (20 ft) can be accomplished by multiple reinforcing bars being bonded together using the usual steel tie wire as indicated in the last sentence of this section. To answer the second part of this question, if there are multiple concrete-encased electrodes in the same overall concrete footing that are not tied together by the usual tie wire, then by the current minimum requirements in the *Code*, they should be used and bonded together. This situation can be compared to conditions where multiple water pipe grounding electrodes are in the same structure. They all are required to be used in the grounding electrode system, without exception.

2. If steel reinforcement is not normally contained in the footing design, can the installation of only 20 feet of ½ inch rebar in the footing serve as the primary grounding electrode?

Answer: Yes. A length of reinforcing bar not less than 6.0 m (20 ft) meeting the criteria in Section 250.52(A)(3) can be installed within and near the bottom of a concrete footing that has little or no reinforcing rods and would meet the *Code* criteria for concrete-encased grounding electrode. However, the *NEC* does not require a length of reinforcing bar to be installed in a concrete footing where it is not required by any structural code.

3. If reinforcing steel and a metal water pipe are used as the grounding electrode(s) for the system, is a supplemental ground rod required, even if the 25 ohms or less resistance cannot be achieved?

Answer: No. A grounding electrode system does not have to meet the "25 ohms or less" resistance requirements contained in Section 250.56. A single electrode of the rod, pipe, or plate type is required to meet the "25 ohms or less" requirement in 250.56. The concrete-encased grounding electrode can supplement the water pipe electrode as required by Section 250.53(D)(2). This section indicates that the water pipe electrode must be supplemented by any of the types specified in 250.52(A)(2) through (A)(7). The concrete-encased electrode is included. A rod, pipe, or plate grounding electrode would not be required in this particular case.

4. If no footing is used in the construction of the building, will the typical current method of using the metal water piping and/or ground rods meet the provisions for the grounding electrode system?

Answer: Yes. The requirements of 250.50 hold consistent in this application. If there were no concrete-encased electrode to use, it would not have to be installed and used. Section 250.50 requires grounding electrodes that are there for use, to be used. If no electrodes exist, then one or more of the grounding electrodes in Section 250.52(A)(4) through (A)(7) must be installed and used.

5. Where there may be a total of 20 feet of rebar in a footing but it consists of a few small pieces separated by many feet, would these small, remotely placed pieces be required to be bonded together to serve as an electrode?

Answer: No. The last sentence of the rule in 250.52(A)(3) is permissive text according to the *NEC Style Manual*. The smaller sections of reinforcing bars could be bonded together using the usual steel tie wire to form a 6.0 m (20 ft) length and then used, but it would not be a requirement. This section also offers the alternative of creating a concrete-encased grounding electrode by installing a 6.0 m (20 ft) length of copper wire sized not less than 4 AWG copper, but this is also not a requirement, just another option. Where the reinforcing bars are inherent to the construction and meet the criteria provided in Section 250.52(A)(3), then they become required electrodes to be used in the system.

6. Are new footings containing steel reinforcement for an addition to an existing building exempt from these provisions?

Answer: Possibly. I always try to stick to more direct answers, but when the answer will be primarily dependant on the judgment of the AHJ, it is the best approach. There is no "yes" or "no" answer for this question. The answer is going to be based on how each local jurisdiction handles existing installations or alterations to existing buildings or structures through their own specific administrative provisions or local code rules.

7. If a new addition is constructed as noted above and the existing electric service is upgraded, would the reinforcing steel now need to be used as an electrode, even if the panel is located remote from the new addition?

Answer: Based on the information provided in this question, the answer would be yes, the concrete-encased electrode installed in the new footings would be required to be used as part of the grounding electrode system for the new service being installed. This situation will be handled individually by each local jurisdiction enforcing the code in that particular area. Each existing installation is going to have to be handled case by case. There are going to be situations where it would be practical to accomplish using a concrete-encased grounding electrode in a remodel or retrofit that includes installing new or additional building footings. There will be other instances where it will be less practical, if it is possible at all. Judgment by the AHJ in those situations is going to have to be applied.

Michael J. Johnston is IAEI's director of education and an IAEI principal member on CMP-5. Johnston was formerly employed as an electrical field inspections supervisor for the city of Phoenix, Arizona. He is fully certified in many areas. He is a member of the IBEW. He achieved both journeyman E-2 and master electrician E-1 licenses in the state of Connecticut. Additionally, he holds all IAEI certifications. He also holds ICC Electrical Inspections Certification. He is a member of the UL Electrical Council.

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