



# SPEE.tectonics

CSI Houston Chapter  
The Construction Specifications Institute

March 2013

## March 25th meeting:

PLACE: H.E.S.S. Building  
5430 Westheimer

TIME:

5:30 P.M. (Registration and  
mixer)

6:00 P.M. (Evening Meal and  
Meeting)

COST:

\$35.00 Per Person; Gratis to  
CSI members.

RESERVATIONS: Go to:  
<http://www.csihouston.org>

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CSI Houston Website:  
<http://www.csihouston.org>

## "Door Hardware in Rated and Non-Rated Assemblies"

Rated and non-rated egress assemblies are a vital component of a building and are required to uphold the health, safety and welfare of its occupants in case of emergencies. These requirements are complicated by requirements for electrified hardware, and access and security control.

This month's meeting program will offer a dialog between specifier and installer. Their dialog will attempt to shed light on common and critical issues faced by architects, installers, suppliers, end users and authorities having jurisdiction in proper specification, coordination, installation, maintenance, and operation of these critical assemblies. Our participants will include:

- Bob Cook, Certified AHC, CSI – Architectural Consultant Rep. with Stanley Security Solutions
- Jeff Holstein with Amistad Door & Specialty Installations, Inc.

Please join us at the next meeting of CSI Houston Chapter on March 25, 2013, for an interesting and informative evening of discussion.

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**CSI SOUTH CENTRAL REGION (<http://www.scr-csi.org>) / INSTITUTE LEADERS (<http://www.csinet.org>)**

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## March 2013

### President's Message

by Holly A. Jordan, CSI, CCS, LEED AP BD+C, SCIP

President, CSI Houston Chapter

President-Elect, CSI South Central Region

The month of March marks a busy time for CSI Houston. Chapter Officer Ballots went out, the Golf Committee has begun meeting and is in full swing planning the Golf Tournament, the Foundation Board has been working on scholarship applications, the Program Committee has been working on the April tour, etc.



By now, every member should have received notification from the South Central Region about the Region Conference to be held in San Antonio April 4 through 7th. The theme for the South Central Region Conference and the 50<sup>th</sup> Anniversary of the San Antonio Chapter is "Walking the Walk Specifying the Future for 50 Years". The venue will be the Hyatt Regency Hotel on the Riverwalk. There will be a skeet shooting event, touring opportunities, educational sessions, a 50<sup>th</sup> Anniversary Gala, Region Awards and information, and much more. To register, go to <http://www.scr-csi.org>. In order for our Chapter voice to be heard, active participation is the key. I encourage everyone who can to participate in not only Region, but Institute activities as well.

On a serious note, I would like to remind members and guests that CSI Houston Chapter meetings and events are professional networking and educational events. It is important that everyone remember that professionalism is key to the image and success of our Chapter. Over indulging on alcoholic beverages and behaving inappropriately is not the image that we want for our Chapter.

Finally, please remember to send in your ballot for Chapter Officers by March 25, 2013 at noon. If you are a CSI Houston Chapter member and have not received a ballot, please contact Betsy Finch, CSI Houston Chapter Secretary at [betsy.finch13@gmail.com](mailto:betsy.finch13@gmail.com).

## 2013 Brian Harrington Golf Classic

By Joey Penna, CSI, CDT, LEED AP



**Save the Date:** The 2013 CSI Brian Harrington Golf Classic will be held Monday, October 21, 2013.

**Golf Course:** Falcon Point Golf Club, Katy, TX

**Entry Forms & Sponsorship Forms:** Go to the CSI Houston Chapter website at <http://www.csihouston.org>. Forms will be available shortly for you to attend and support the CSI Houston Golf Classic.

We hope to see you there!

## CSI CDT Prep Classes for Spring 2013

by Holly A. Jordan, CSI, CCS, LEED AP BD+C, SCIP, President CSI Houston Chapter

In preparation for the CSI CDT Exam during the month of April 2013, CSI-Houston will once again be sponsoring a CDT Prep Class this spring. The eleven week course is scheduled to begin on Thursday, January 17, 2013 at 6:00pm. The class is scheduled for two hours every Thursday evening, concluding on the week of March 25, 2013. Classes are scheduled to be held at Building Exterior Solutions, LLC; 6975 Portwest Dr., Suite 100; Houston, TX 77024

This is conveniently located near the intersection of the Katy Freeway and the West Loop. The cost for students attending will be \$75.00 for CSI members and \$100.00 for non-CSI members. Checks must be made payable to 'CSI-Houston.' In addition, CSI-Houston is also offering to order all study materials for prospective students as a group. This will enable all who order this way to receive a "group discount" and save some money on study materials. Please inform us upon sign-up that you wish to order your materials with the group.

New for this session is that the final class will be held on Monday March 25, 2013 at 4:00pm. This will be just before our monthly CSI-Houston Dinner. All prospective students are invited to join us for dinner without charge that evening. Individuals that would like to sign-up for the CDT Prep Class should contact the local Certifications Chairman, Tim Wilson. His contact information is Cell (832) 289-6765; Email [twilson@weatherizationpartners.com](mailto:twilson@weatherizationpartners.com)



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Division 07 - Thermal and Moisture Protection

## Houston Code News and Events

By Di Ann Hassloch, CSI, CCS, CCA, LEED AP

### New Electrical Code - Effective 09/01/2011.

On August 10, City Council approved the adoption of the 2011 National Electrical Code and local amendments.

### New Commercial Energy Codes - Effective 09/02/2011.

September 2, 2011, commercial buildings and structures shall comply with the 2009 IECC or 2007 ASHRAE 90.1, pursuant to Section 19.53 of Chapter 34, Texas Administrative Code. In accordance with this provision and the rules thereto, the City has reviewed the codes and has proposed amendments for review by the Energy Systems Laboratory.

Please visit the City of Houston Form & Publications Page at <http://www.houstonpermittingcenter.org/code-enforcement/code-updates.html> to access the new Commercial Energy Codes

### New Construction Codes—Effective 12/31/10.

On November 3rd, City Council approved the 2006 Code Package to adopt updated Construction Codes. The new amendments are available at our Forms & Publications page.

Texas Adopts New Energy Code 2009 IECC effective April 1st, 2011. The major points to be guided by for the building envelope are:

- All commercial projects will need insulated glass. No more monolithic exceptions for small window to wall ratios.
- All commercial projects will need to exhibit an SHGC (Solar Heat Gain Coefficient) of .25 or less. This is a major revision and improvement to save energy for our building owners. There are exceptions for projection factors i.e. shading.

As published in the Texas Register today: ADOPTED RULES June 4, 2010 35 TexReg 4727


### Current codes in the City of Houston include:

- Building Code: 2006 IBC with Houston Amendments.
- Residential Code: 2006 IRC with Houston Amendments.
- Electrical Code: 2011 NEC with Houston Amendments—1st Printing.
- Mechanical Code: 2006 UMC with Houston Amendments.
- Plumbing Code: 2006 UPC with Houston Amendments.
- Fire Code: 2006 International Fire Code



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### FEATURE YOUR PRODUCTS WITH A TABLE TOP DISPLAY

At each monthly meeting, the Chapter encourages Industry Members to provide a table top display of their products and services for the inspection and education of those attending the meeting.

The table top display is also encouraged to be presented during the social hour and after the program for any questions by attendees.

The presentation fee for this time is \$200 for members and \$250 for non-members, or free with a Golf Sponsor-

### WHERE IS YOUR BUSINESS ADVERTISEMENT?

A quarter page ad is only \$250 for 12 issues

A half page ad is only \$500 for 12 issues

A business card ad is only \$225 for 12 issues

Contact Don Smith at (713) 688-0092 or [don.smith315@sbdglobal.net](mailto:don.smith315@sbdglobal.net) for more information.



## **CSI Houston Chapter Board Meeting Minutes**

**Location: HESS Building**

**5430 Westheimer Rd., Houston, TX**

**January 28, 2013**

Present: Amanda Carrington, Amy Peevey, Amy Salmeron, Betsy Finch, Bill Fairbanks, Bob Cook, Chuck Vojtech, Don Smith, Don Ude, Doug Frank, Holly Jordan, J. Peter Jordan, Mark Koehler, Neil Byrne, Robert Byrne, Tim Wilson, Tom Atwell, Institute President-elect Casey Robb

President Holly Jordan called the meeting to order at 4:02 p.m.

The November 2012 Board Meeting Minutes were approved as amended.

### **REPORTS**

#### **Member Services: Mark Koehler**

Programs: J. Peter Jordan  
Holly reported the program for the February meeting would be a panel discussion on energy conservation and glazing. J. Peter is working on arranging a tour with the Program Committee.

Membership: Joey Penna  
No report.

Awards: Amy Salmeron  
No report.

Personal/Professional Development: Doug Frank/Di Ann Reid  
Doug reported he has not received the Member Biography Data form from every member.

#### **Finance/Administration: Neil Byrne**

Neil reported the chapter tax exempt status has been reinstated.

Treasurers Report: Chuck Vojtech  
Chuck reported the chapter finances are the healthiest they have been in awhile and table top revenue is up.

Table Top Display: Amy Peevey  
Amy reported several individuals are interested in the table top displays but want to know who is speaking before they sign up for a table top.

#### **Publications and Public Services: Don Smith**

Golf Tournament: Tom Atwell

Tom Atwell is working on a date for the tournament, which will be held at Falcon Point.

Quarterly Happy Hour: Amy Salmeron/Amanda Carrington

Amanda reported she checked with Top Golf about the chapter using the facility in March. She will get additional details and report back to the Board.

Spec.tectonics: Don Smith

Don reported the January issue has been posted. The Board discussed forming a committee to review and proof the monthly newsletter before it is posted to the website. The suggested committee consists of the chapter President-elect and one other.

Electronic Communications:

Doug Frank reviewed the chapter website. A committee will be formed to review the website and make suggestions and changes.

Public Relations: Don Vernon

No report.

#### **Professional Development: Logan Vits**

No report.

Continuing Education:

No report.

Academic Affairs:

No report.

Certification: Tim Wilson

Tim reported the study classes have been arranged and will be held at the Building Exterior Solutions office. He also reported there will be nine presenters conducting the classes.

Technical Committee:

No report.

Meeting adjourned at 5:03 p.m.

***Betsy Finch, CSI  
Chapter Secretary***

**THEY SAY YOU CAN'T PICK YOUR FAMILY.  
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**Joey Penna**  
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## “Strictly SMITH-ly”

### CSI MasterFormat 1995 versus CSI MasterFormat 2004 and 2010

By Donald F. Smith, Jr., CSI CCS RA LEED AP

This article supplements recent newsletter articles on specification writing that were posted over the last few months.

I still see architects using the old CSI MasterFormat 1995 five-digit numbering system for project Manuals. I am wondering what would motivate them to do this. While projects using MasterFormat 1995 were built, several problems that using 18 year old technology do come to mind.

I think the first reason to reuse old specifications is probably a false sense of economy. My building is made up of the same or similar materials. It worked well before; why wouldn't it work just as well again? To answer this, I would point out that the world has changed. I can remember paying 19.9 cents a gallon for Super Shell in January of 1970 here in Houston. We have had multiple Building Code changes, changes in ASHRAE 90.1, adoption of the IECC 2009, and energy is as cheap today as it is ever going to be again. Green building influences nearly all construction, even if not LEED certified. Our current buildings must be stronger to resist increased wind load requirements, must be more energy efficient, must be tighter to resist air and humidity leakage, and the materials that may look the same as similar products used in past years have evolved to meet new market needs, or are no longer available. Specification writing is difficult enough without having to rewrite history along with making current decisions on construction materials and systems to conform to modern Codes.

MasterFormat 2004 and 2010 use a six digit numbering system and new titles to more accurately give an exact address and section name to locate work results. These numbers and titles have migrated into the construction industry and are now second hand to manufacturers, contracts, and construction cost estimating software. MasterFormat 2004 and 2010 are virtually the same, having a few corrections and additions. MasterFormat 1995 cannot be mixed with MasterFormat 2004 and 2010 as they are incompatible.

We now have green building, and while your project may not require LEED certification, your client and certainly the occupants of your project want a workplace that is healthy and productive. Your building Owner wants a project that lasts longer, is efficient and has value in the market place. After all, the real value of a project is found when sold in the current market place.

Quite a few materials have had their section numbers and titles changed or relocated in MasterFormat 2004 and 2010. If you reuse old specifications based on MasterFormat 1995 you are, in effect, hiding some information that is need to properly construct your project. If this does not get your attention, it certainly may raise the eyebrows of your E&O insurance provider. Why take the risk?

Lastly and most importantly, the Project Manual is a set of instructions to the team of construction professionals for your project. During the short period of bid time, a lot is going on. Decisions have to be made on who is available with the right manpower and expertise for fifty, more or less, subcontracts for the project. Each of these subcontracts may require three or more sub-bidders to develop competitive bids. Each of these sub-bidders must get appropriate drawings and specifications, do take-offs, contact factory and material suppliers for pricing, and assemble bids within tight time constraints in an economic environment of uncertainty. If you as an Architect are using Project Manuals based upon MasterFormat 1995, you cannot be certain that everything that you specified was actually taken off and bid. It's what is known as fugitive information; you have it, but you don't.

Professional relationships are built upon trust; why take the risk?

**"If you don't know where you're going,  
you might wind up someplace else."**

Yogi Berra

... Just my opinion,

Donald F. Smith, Jr., CSI, CCS, RA, LEED™  
AP



## **CSI BOARD MEETING FEB. 23-24, 2013 NEW ORLEANS, LOUISIANA**

**By Dorothy Gumm Denison, CSI, CCS, HUB,  
WBE, CSI Institute Director**

The CSI Institute Board had a face to face meeting in New Orleans on February 23-24, 2013, with about 25 attendees meeting from 8-5 on Saturday and 8-noon on Sunday.

CSI President Greg Markling led the meeting with discussions on many subjects including Brand Revitalization and its progress and success, update from Executive Director Marlowe, financial review by Treasurer Beauduy.

We had over 20 committee reports presented on Sunday; issues and recommendations for changes and improvements were discussed; open discussion times are always encouraged.

All these meetings are held in strict adherence to Roberts Rules of Orders. These meetings are essential for running CSI and of course the specific information discussed are to be kept confidential between the Board Members themselves.

But this was a very productive meeting. Our next board meeting which will be a webinar is scheduled for March 21. Our next face to face meeting is scheduled to be in June at Atlanta.

We will be looking forward to Mitchell Miller, CSI, CCS, Institute Vice President, and his wife Debby attending our South Central Region Conference in San Antonio.

## **SPECIFYING ABUSE OR IMPACT RESISTANT GYPSUM BOARD? HOW TO KNOW THE DIFFERENCE** By Scott Hughes

Remember when it was easy to write a gypsum specification? All you needed to worry about was what thickness and core type to specify. In a relatively short time, that has changed. There are so many products to choose from, it's difficult to know when to specify what product. Just as important, you need to understand what performance features are compromised if a lower cost product is substituted for the higher performing product.

One of the biggest concerns is determining when to specify an abuse resistant "AR" or impact resistant "IR" product. There are real performance differences between these two product categories that need to be defined. Let's see if we can get a better understanding of when you need to specify abuse resistant or impact resistant gypsum board.

Abuse resistant gypsum boards are designed for use in wall assembly areas where surface abrasion is a concern. Abuse resistant products are excellent at preventing surface damage due to abrasion or scuffing in high traffic areas during standard use, and indentation of the wall surface from low impact accidental or occasional impact. Impact resistant gypsum boards do all of this with the added feature of reducing penetration damage due to intentional or continual force that would break through standard gypsum board into the stud cavity. Manufacturers add fiberglass mesh reinforcement to the gypsum core to help reduce penetration damage. Abuse resistant products do not have additional reinforcement.

When the impact resistant gypsum board specification is not clear or a contractor tries to substitute abuse resistant gypsum board for impact resistant gypsum board, it is important to understand that you are giving up significant performance. The dollars saved may be spent making repairs for years to come.





ASTM C 1629 is the standard used to qualify abuse and impact resistant gypsum boards. ASTM C 1629 has four specialized tests. Each Classification Level is based on specific minimum or maximum results depending on the test. A product may meet Level 1 on one test and Level 3 on another test, which means that each performance characteristic should be specified based upon the desired Classification Level. Gypsum manufacturers report these values in both product literature and website product pages. Here are the tests and Classification Levels for ASTM C 1629:

continued on page 10

Continued from page 9

Chart A

**ASTM C 1629**  
Classifications and Performance Requirements

	ASTM D 4977 Surface Abrasion	ASTM D 5420 Surface Indentation Resistance	ASTM E 695 Soft Body Impact	Annex A1 Hard Body Impact
				
Classification Level	Abraded Depth Maximum	Indentation Maximum	Impact Minimum	Impact Minimum
<b>1</b>	0.126"	0.150"	90 ft.-lbs	50 ft.-lbs
<b>2</b>	0.059"	0.100"	195 ft.-lbs	100 ft.-lbs
<b>3</b>	0.010"	0.050"	300 ft.-lbs	150 ft.-lbs

Looking over Chart A, you can see that in some tests, like the Hard Body Impact test, the differences between Classification Levels are significant. Did you know that the result of Annex A1 testing for standard gypsum board is 35 ft.-lbs.? That means that a Classification Level of 1 for this test only improves performance by 15 ft.-lbs. Abuse resistant gypsum boards do not test in this category because they are not designated as impact resistant. When tested, abuse resistant products usually score a Level 1. If you are concerned about penetration into the stud cavity, impact resistant gypsum products must be specified and installed.

There are choices when it comes to abuse resistant and impact resistant products including the facing material and additional attributes such as mold and moisture resistance and GREEN-GUARD certification. The current abuse and impact product offerings include paper-faced, non-faced and fiberglass-faced products. The fiberglass-faced products offer an extended exposure warranty that enables the products to be installed prior to the building being dried in.

The chart below illustrates the abuse and impact products available. The biggest difference in abuse and impact resistant products is the fiberglass mess reinforcement embedded in the core of impact resistant gypsum.

Abuse Resistant	Impact Resistant
Enhanced mold and moisture resistant gypsum core with abrasion, mold and moisture resistant facings.	Enhanced mold and moisture resistant gypsum core with abrasion resistant face paper and fiberglass mess reinforcement embedded in the core.
Enhanced mold and moisture resistant gypsum core with abrasion resistant fiberglass faced mats.	Enhanced mold and moisture resistant gypsum core core with abrasion resistant fiberglass faced mats and fiberglass mess reinforcement embedded in the core.

Call your local rep below or 1-800-NATIONAL for the information you need to choose the right product and write an accurate specification.

Joey Penna  
CSI, CDT, LEED Green Associate

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## “Strictly SMITH-ly”

### The Concept of CSI MasterFormat and the Development of the Project Manual

By Donald F. Smith, Jr., CSI CCS RA LEED AP

Division 00 is the place where information available to bidders is located. Procurement forms, contact forms and instructions to bidders are also located here. None of these subjects should be included anywhere else in the Project Manual.

Division 01 is the place within the Project Manual where the summary of work to be accomplished and requirements for the administration of the contract are laid out in more detail than the General conditions but not repeating technical sections. For example, in the Section 01 45 29 - Testing Laboratory Services, anticipated testing laboratory services are outlined in one place so you don't have to read the entire Project Manual to sift out the post-construction “*quality control*” testing from the pre-construction “*quality assurance*” testing. Along with the ability to specify all quality control testing in one place, you also have the ability to specify all of the testing laboratory administrative requirement for testing in one place, rather than repeating these requirements throughout the Project Manual, thus conforming to one of CSI's specifier's rules: “Say it once, say it correctly, and say it in the right place.” But consultants don't want to review or contribute to Division 01, so you frequently see a lot of redundancy here. The specifier has an opportunity here by writing and distributing the Division 01 sections early in the CD project phase so that the Project Architect can distribute to other team members to hopefully avoid duplication and conflict.

The big concept change from the 1995 to 2004 MasterFormat is the concept of “*products*” vs. “*work results*.” Some might ask “what's the difference?” To understand why this change was necessary, you must consider products that have multiple uses. A piece of steel pipe could conceivably be used for structural support, a barrier or guard rail, a conductor of various fluids, air, gases, wastes, fire protection, etc. It therefore might conceivably show up many plac-

es within the Project Manual as different “*work results*.” A 20-foot length of pipe is a “*product*,” a hand rail made of the same pipe is a “*work result*.”

As such, the old 5-digit section numbers could not give a specific address to each item that might be specified because the first two numbers give the Division number and the last three give the address. The change from five digit to six digit section numbers raise the possible addresses within the Project Manual from 999 to 9999. Again you might ask why this was necessary? The answer is that we have entered the electronic age and every item must have its own unique address, so when a computer search is done, hopefully only correct responses will be returned.

The other part of work results that changed, is that the work results specified in each Division is not related to any one architectural, structural, interior design, fire protection, MEP, security, landscaping or civil engineering discipline. The Project Manual describes what the project will become, when completed; i.e. the “*work results*.” This is a very hard concept for some disciplines to understand. But on more than one occasion I have had a really hard time explaining why there cannot be an architectural, structural, interior design, fire protection, MEP, security, landscaping or civil engineering Earth Moving section. Every thing in the Project Manual speaks to the general contractor with one voice.

All disciplines that make up the project team contribute to the description of the “*work results*” given in the Project Manual. It takes teamwork to produce good results, and as a team, confusion is unacceptable. Every member of the team is responsible to make sure his or her assignment is properly defined and unambiguous. It's not that you have to do your teammate's work; it is that the work assignments are clear and primary and secondary responsibilities are also clear.

Most importantly, the Project Manual must be well organized and concisely written so that all requirements are clear and easy to find. The current CSI MasterFormat helps achieve this goal.

**“Begin with the end in mind.”**

Stephen Covey

... Just my opinion,

Donald F. Smith, Jr., CSI, CCS, RA, LEED™ AP

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## March 2013 Through April 2013

Sun	Mon	Tue	Wed	Thu	Fri	Sat
<i>Mar 3</i>	4	5	6	7	8	9
10	11	12	13	14	15 Planning Mtg; Jackie's Kitchen 7 am	16
17	18	19	20	21	22	23
24	25 CSI Houston Board / Chapter Meeting—HESS	26	27	28	29	30
31	<i>Apr 1</i>	2	3	4	5	6
7	8	9	10	11	12 Planning Mtg; Jackie's Kitchen 7 am	13
14	15	16	17	18	19	20
21	22 CSI Houston Board / Chapter Meeting - HESS	23	24	25	26	27
28	29	30	<i>May 1</i>	2	3	4