

President's Page

Holiday Party Photos



Pat Wallace – Wallace Sales
Dick Bauer – B & B Contracting & Consulting



Neil Davison – Davison Associates Inc
Stephen Sedor – Stephen E Sedor, Architect, LLC
Bonnie Glueckert – Seneca Architectural Products



Teri Hand – Tnemec/Southwest Coating Consultants
BJ Katz – Meltdown Glass Art



Angie France – Sherwin Williams
Tracy Hillman – SASC Southwest



Tina Lockwood – All Sign Systems Inc
Husband, Brent Stewart
Larry Gill, Gill Consulting LLC
Wife, Sharron Gill



Ron Hand – E/FECT. Sustainable Design Solutions

Sufficiently Vague
A Series of Perspectives on Shop Drawings

1) Why are Shop Drawings so important for a project?

Shop Drawings give us a clear understanding of the scope of work to be done and how it is to go together. Specifics like color, size, thickness, make and manufacture, warranty, etc.

They also give us Notification and Awareness of the level of involvement and coordination with other Trades. Through the Shop Drawings, the Contractor becomes aware of importance in scheduling other work and the Sub-contractor is alerted to coordination issues and has an opportunity to discuss scheduling and material lead times.

It's also a "last chance" opportunity to value engineer the project if material or availability is an issue. There are a lot of times when a supplier or product is no longer available or has changed in some way.

2) Architect

We will discuss how the Shop Drawing process assists the Architect in achieving their vision for the Project.

3) Contractor

We will discuss why writing a specific and detailed specification is important and how a poorly written specification affects the Contractor's ability to perform/bid/estimate. Shop Drawings are a chance to correct problems before they occur. They are also a chance to Change Order items or labor that was not specified but required.

4) Sub-contractor

We will discuss why proper response to shop submittals and questions are important from a Supplier or Sub-contractor perspective.

5) Owner

We will discuss why Shop Drawings are important to an Owner. The Shop Drawings are the last chance to "get it right". They tell us if the information flowed correctly between Owner and Architect during design phases. They also bring to light new information about certain products may not have been available at design time or bid time.

We will discuss all this and more about the value of good shop drawings and submittals. We look forward to seeing you at the meeting.

Date January 11, 2006

Place Holiday Inn, Tempe / ASU
915 E. Apache Blvd.
Tempe, Arizona

Time 5:30 p.m.
Social Hour

6:30 p.m.
Dinner

7:30 p.m.
Presentation



Reservations are required by Noon, Monday, January 9, 2006. Call 602-266-2006.

Mr. Wolfe Goes to Washington - 2 Installments

Sheldon Wolfe, RA, FCSI, CCS, CCCA
Institute Director, North Central Region, CSI

Mr. Wolfe goes to Washington

15 June 2005, Alexandria, VA

Along with the rest of the rookie directors, I arrive in Alexandria the Wednesday before the June board meeting. Incoming directors, who do not take office until July, attend the June board meeting so they can learn how board meetings work before being required to participate.

Our preparation for this meeting began well before we arrived. For each meeting, board members are required to read an amazing number of reports submitted by Institute directors, officers, committees, and task teams. Other mandatory reading includes the board operating guide, Institute policies, staff lists, committee appointments, expense forms, teleconference instructions, and other odds and ends; altogether, there are about fifty documents to read. Whew!

The orientation for incoming directors and officers is long as there is a lot to learn. For many of us, this is the first time we see what goes into budgets, schedules, and planning for the many events we enjoy each year. Thursday morning starts with introductions, followed by explanations of bylaws, board policies, and our responsibilities as members of the board. We end the morning with a game of "Board Guide Jeopardy. "

After lunch, Executive Director Karl Borgstrom discusses our strategic plan; treasurer Gene Valentine explains our budget, with countless graphs to illustrate where we have been and where we are going; and we end the day with discussions of board meeting structure and schedules, parliamentary procedure, reports, and committee appointments. And then, after a few extracurricular evening conversations, it's off to bed, with visions of financial reports dancing in my head...

Friday morning's feature event is a trip to CSI offices. Here we meet the staff, learn about their part of the operation, and are entertained by a silly string sneak attack. This is a hard-working group that doesn't get much credit for the work they do. (We'll revisit this in a later column.)



Immediately after entering the Institute office, I take a few moments to meditate before the picture of Lord Betts, Institute President, Protector of the MasterFormat, and Defender of the PRM

My first board meeting

After Friday lunch, I attend my first real, live, honest-to-gosh meeting of CSI's Board of Directors. Incoming officers also attend, but they have served previously, so for them, it's no big deal. Some Institute directors also have previous service. But for me, it's my first time, and I enter with great expectations.

The current directors and officers take their places in the center of the room, while the rookies take seats in the rear - in the Peanut Gallery (also known by other less dignified names). Incoming directors and officers are free to take part in discussions, but do not vote.

Having attended numerous chapter board and committee meetings, I have often felt we could do a better job. Despite the best intentions of the president or committee chair, the meetings quickly degenerate into random conversations and multiple simultaneous discussions. They also tend to run longer than scheduled, or are adjourned before all agenda items have been addressed.

The meeting of the Institute board of directors was a pleasant surprise and, to me, an impressive display of an orderly meeting. Afterward, I think we should be able to do the same thing at our chapter meetings, but on reflection I realize there is a trick - there isn't just one meeting, but three!

The first of these meetings, the Recommendations/Issues Workshop, takes place Wednesday afternoon. This meeting is not a formal meeting of the board of directors. There is an agenda, and some rules of order are observed, but the discussion is free flowing. Even so, the meeting is orderly and, despite straying a few times, we stick to the agenda, cover everything, and finish on time. In a sense, this meeting allows everyone to speak their minds without worrying about motions, votes, and other formalities.

Another result of this first meeting is completion of a consent agenda. This is a great device that speeds up the formal board meeting by deciding in advance what will be discussed. For example, one of the items on the board meeting agenda might be a report from the Director of Extraplanetary Chapters. Board members, having read the report before coming to the meeting, may decide there is nothing to discuss, and agree to put it on the consent agenda. When the board of directors meets in formal session, everything on the consent agenda is accepted by a single motion, rather than bringing up each item separately. Anyone is free to keep items off the consent agenda, and this right is exercised several times in the Wednesday meeting.

Next month: The real thing. Thanks to Joy Davis, Institute Communications Manager, for this month's picture.

Mr. Wolfe goes to Washington

18 June 2005, Alexandria, VA

After lunch, we finally get to the real meeting of the board of directors. The Executive Committee (president, vice presidents, president-elect, past president, secretary, and treasurer) has been meeting since Wednesday, and we rookies have had our own meetings. This is the first time the entire group gets together at one time, and it's a big group - nine officers, twenty Institute directors, eight incoming board members, and eight CSI staff.

Vpresident Gary Betts calls the meeting to order, and the first item of business is the consent agenda we talked about last month. Again, this is a great device to take care of a lot of business in short order. Of the sixty-four items on the agenda, only seven were retained for formal discussion today.

Although "real" business takes place in the regular meeting, a committee of the whole is used to allow more expeditious discussion without all the formalities of Robert's Rules of Order. After approving the consent agenda, we enter into a meeting of the whole, which lasts the rest of the afternoon. The board meeting is recessed until the next morning.

When we reconvene, we receive reports and take formal action on a number of items. Perhaps the most important subject is CSI's financial status, and Treasurer Eugene Valentine spends a lot of time explaining it, using a variety of reports and graphic formats. The Institute's health is displayed in terms of income, expenses, committee activities, reports from the annual convention, and membership. The financial reports and projections are a strong dose of reality, and the responsibilities that go with being on the board of directors begin to hit home.

If you haven't read the statistics provided in CSI's various publications, you may not be aware that our membership has declined over the last few years. From a high of 18,500 in 2000, our numbers have fallen to just over 16,000. I have been told that this problem is not unique to CSI, and that other organizations have lost members since 2000. It seems obvious that the slow economy in 2001 would affect membership, as annual dues are an unnecessary expense to many of those who are laid off. Other factors may include increased family activities, raising chapter dues to include meals, and a perceived lack of value in being a member of any organization.

Fortunately, it looks like things have stabilized. The decline in membership appears to have stopped, and this year every region has a net gain in members. Booth sales for the 2006 convention are up dramatically, reversing a steady downward trend the last few years.

In addition to approving the next year's budget, we approve a number of other actions. Some require little discussion, and may not be of much interest to anyone not directly involved. For example, Institute committee appointments are approved, and an audit committee is appointed.

Other actions have a more obvious affect on members. We approve the bylaws of the Pennsylvania Railroad Chapter, CSI's 145th chapter. In light of the general decline in membership, this is welcome news.

A new plan for the Specifications Competition, which has been on hold the last couple of years, is presented and approved. The new program will have two major categories; Projects will include six types of project manuals or specifications, and Tools will include product binders, websites, and guide specifications. More information is online at www.CSINet.org/speccomp.

Another interesting proposal is a change in Institute policy that would "recognize documents, publications, information sources, and products that correctly apply CSI standards, formats and principles" and "specifically excludes such recognition being given to manufacturer's product specifications, binders, product information, and websites." Under current policy, CSI may not endorse any documents unless CSI participated in their development. Other than our own documents, only a few are endorsed by CSI, including the EJCDC general conditions, and the Uniform Location of Subject Matter.

Endorsement of documents may seem like a small matter, but making it available would provide incentive for organizations to make their products comply with CSI standards. It would also increase CSI's visibility, and result in greater conformance to CSI formats and principles.

Update on the Member Roster

Pamela Bir, CSI, CDT

Editor

We're making progress with the online Member Roster. You can now go in and look up contact information about other members. We're still trying to fix the database so you can update your own information. If you have a change that needs to be made now, please email the info to Pamela@YourComputerLady.com I 'll make the change for you.

Password Protection

Pamela Bir, CSI, CDT, Editor

Length Counts

Working with a client last week, I advised her to make some changes in her Internet Explorer settings to improve the performance on her online database. She irately, adamantly refused! She said there was no way she was going to delete cookies and lose all of her passwords. She had no clue what any of them were. "All I can see is the asterisks!"

Another client called to see if I remembered the password for their missing employee. I'm not sure which was scarier. Them asking me or me having it!

These two examples point out a growing problem in our daily lives. Password overload!

The increase of Internet shopping and business transactions. Everyone from Amazon to Zions Bank wants you to register with them. The increase in identity theft. Wasn't that advertisement of the old man speaking in the young girl's voice about the bustier she had purchased with his credit card was hilarious? But... the reality of that happening is definitely not a laughing matter. The increase in the number of electronic gadgets we own. Every cell phone, each PDA (personal digital assistant e.g. Palm), every laptop, each PC has its own load of confidential information. Not to mention your wallet!

The first and easiest step you can take to protect yourself is using good passwords. What is a good password? Actually there isn't A good password. It is critical to use multiple passwords.

- Recycling old passwords using the same one for several different applications helps the ID thief break into your accounts more quickly.
- When creating a password, don't use any part of your user name, full name, address, birth date or any piece of information already related to the account. If the bank, credit card company, etc. is hacked, that data is accessible to them.
- Don't use English or even foreign words; cracker software can try millions of word combinations per second. PC Magazine reported in an article on password cracking software that one software broke the password "larry" in three seconds!
- Use different kinds of characters in your password. At the very least, your password should contain uppercase letters, lowercase letters and numbers. Using non-alphanumeric symbols (such as #@!&) or ASCII characters (which you can access by holding down Alt and typing on the number pad) improves your passwords. Most password cracking software does not look for special characters.
- Change your password every month to six weeks.

Yes, there is software easily available (and really cheap too!) that recovers lost passwords. The legitimate use of the software is for an IT administrator to find a password an employee has forgotten. But the not legitimate uses are abundant.

Microsoft – both Windows and the Office programs - are infamous for their security flaws. That's pretty logical since they are the most frequently used software. They're the biggest target to hit. But they aren't the only one by any means. Intuit's QuickBooks and Quicken have weak password security also though it has improved in recent versions.

It really is up to you to protect yourself.

When asked about password security issues, Scott Culp of the Microsoft Security Response Center pointed out that 'Weak passwords trump strong security.'

Culp recommended creating strong passwords. "The best passwords contain mixed case, symbols, numbers, and punctuation marks." "One way to pick a good password is to use a passphrase—the first letter of a phrase that you can easily remember." For example, Culp says you can select a phrase like "The Gettysburg Address begins: 'Four score and seven year ago'" and generate a password such as TGA b:4s&7ya. The phrase makes the password easy to remember but increases the difficulty in cracking it.

The next recommendation is "the longer your password the better". Windows supports passwords up to 129 characters! The more characters in the password, the longer it will take a cracker software to figure it out. And the length will definitely frustrate the two-legged password cracker.

The Federal government has established a web site with information about protecting yourself from identity theft.
http://www.consumer.gov/idtheft/protect_againstidt.html

Three of their recommendations related to passwords are:

- Avoid using easily available information like your mother's maiden name, your birth date, the last four digits of your SSN or your phone number or a series of consecutive numbers.
- When opening new accounts, you may find that many businesses still have a line on their applications for your mother's maiden name. Use a password instead.
- Give your SSN only when absolutely necessary. Ask to use other types of identifiers when possible. If your state uses your SSN as your driver's license number, ask to substitute another number. Do the same if your health insurance company uses your SSN as your account number.

OK. I've convinced you that passwords are important. Can I improve your memory to keep all of the passwords straight? No, sorry. But I have a good alternative.

Password protection software. You can purchase a software that will work with your PC and, if you wish, your PDA to keep a list of your passwords, PIN numbers and other confidential information at your fingertips. Common features include:

- A search tool to find the appropriate password quickly.
- The ability to generate passwords for you!
- Synchronization software to keep info up to date on multiple computers or electronics.
- The means to import, export and back up the information. Many programs even let you print the list. (No! Not to carry with you. To lock in a safe deposit box.)
- A master password that grants access to the entire list. This would definitely be the place for the 129 character password!
- Access for multiple users. So the entire family can store confidential information.
- The ability to tie a password to a specific web site. The software remembers the Amazon password when you go to www.amazon.com

Recommendations

- DataViz's Passwords Plus (\$29.99) DataViz has some great software that is reasonably priced and user-friendly.
- Norton Password Manager (\$39.95) They are security specialists so the software will be good. It is at the high end of the price range.
- Password Saver (\$19.95)
- Password Commander (\$24.95)
- Password Protection (freeware)

You Need to Know...

Mobile phone numbers are becoming available to telemarketers for sales calls. Yes, now they can interrupt dinner and you have to pay for it! Call 1-888-382-1222 **from your mobile phone** to get on the **DO NOT CALL** list.

East Anglican Ambulance NHS Trust <http://www.eastanglianambulance.com> has launched a national "In case of Emergency (ICE)" campaign. The idea is to store the word ICE in your cell phone address book with the name and number of the person you want contacted in case of an emergency. You can add ICE 1, ICE 2, ICE 3 if you need to. Emergency personnel and hospital staff can then check the cell if you aren't able to give them the information.

Member Bio's

Jill Rehse, CSI

Denise Bowser, CSI

Frazee Industries, Inc.
602-725-2163
dbowser@frazee.com

Frazee is a company with over 100 years of tradition. Frazee and sister companies Kwal, Parker, Spohr Morris and General Paint form Professional Paint Inc. (PPI) based in Denver, Colorado. The companies of PPI cover the Western United States and Canada, manufacturing geographically-formulated paints and coatings at five regional facilities.

Frazee's San Diego plant produces over 12 million gallons annually, all to rigorous ISO 9001:2000 standards. Architectural products are engineered for the harsh demands of commercial applications.

Frazee offers a complete line of architectural, electrometric, high-performance, metallic, and anti-graffiti coatings.

Denise is the architectural representative assisting the design and construction community with product and color specifications. She covers the state of Arizona. Some recent projects that Denise has been involved in are: Forth Avenue Jail, James Hotel, Collier Center, Orpheum Lofts, Optima Biltmore, Phoenix Convention Center, ASU McCallister Village, and the Arizona State Hospital.

As an active member of CSI, along with many other organizations, Denise currently is working on the membership committee. Anyone that has attended a meeting will see Denise helping with check-in. What Denise hopes to gain from CSI is knowledge, relationships, and personal growth.

Denise currently resides in Scottsdale, AZ—a big change from the “big apple” where she was born. A recent trip to Rocky Point was Denise's favorite vacation spot.



The Phoenix Chapter of CSI is happy to have Denise Bowser, CSI a member of our chapter.

Bob Sears, CSI, CCS

SASC Southwest LLC
480-967-0088
bsears@sascsouthwest.com

Bob Sears has been a member of CSI since the late 1960's. He first joined the Puget Sound Chapter in 1966 through 1988 (taking off ten years from 1972-1982 when he was not a member), and joined the Phoenix Chapter in 1988 and has been here ever since.

With many years of CSI experience, Bob has served on many committees both locally and nationally. Some committees include: Publications, Education, Publications for the SW Region, and Specification Competition on the institute level. Through the years, Bob has gained many



lasting friendships through CSI and has gained and hopes to continue to gain professional exchange with others in the industry.

Currently Bob works at SASC Southwest as a specification consultant. He is currently working on many projects that include office buildings, shopping centers, resorts and casinos, institutional and government work.

Bob was born in Eureka, Kansas and graduated from Kansas State University. His favorite vacation was cruising on his yacht in Puget Sound and the San Juan Islands in Washington State 25 years ago—must have been a great trip!!

The Phoenix Chapter is proud to have Mr. Bob Sears a member of our chapter. Bob believes he is “still kicking, just not as vigorously as in earlier years...” (some might disagree).

Jill Rehse is Louise's right hand at The Reference Library. She can be reached at Jill@TheReferenceLibrary.com

Membership Report

Larry Gill, CSI
Chair

201 and Growing!!

As of today, our membership is rebounding and now stands at 201. While our goal of 235 is still a formidable challenge, we know it is a mountain that we can climb. Our retention is now at 89.1%. This is the highest we have seen in some years. The goal we are working to achieve is 95%.

The success of our guest dinner program is proving it is a worthwhile endeavor. Four new members have joined to date. Why don't you bring a guest? Remember all I need is a business card and a chance to give them a five minute pitch.

Thank You for renewing!

Barry Barcus
Barry Barcus, Architect, Inc.

Louis Borelli, CSI
Partitions & Accessories

Joan Borter, CSI
Arizona Masonry Guild

Jonathan Donegall, CSI

Howard Droz, CSI
Howard Droz Consulting

Michael Haake, CSI, CCS, AIA
DWL Architects & Planners

John Hamilton, CSI, CCPR, AHC
J Hamilton Associates, Inc.

Teri Hand, CSI, CDT, LEED
Tnemec/Southwest Coatings Consultants

Jim Hayes, CSI
Western Block

Brian McClure
FM Solutions

Jennifer Rehse, CSI
Superlite Block

Richard Schick, CSI
Ellerman, Schick & Bruno, Inc.

Kyle Straub, CSI CCPR
Wiremold

Transfer:

Ken Dunn
Moved to Sacramento

Haven't renewed yet:

Give them some encouragement!

Robert Cummings
Commercial Door and Hardware

Anita Herrick
Herrick Consulting Architects, PC

John Bennett
Eco Safety Products

Daniel Withers
DL Withers Construction

Tech Notes

Tips for Painting Concrete Tilt-Ups

Tim Garver, CSI, CDT

Solid concrete walls are common in construction. They are most likely found in commercial construction of warehouses and offices. The most common cause of paint failure is insufficient surface preparation.

Potential Problems:

- Smooth, highly glazed surfaces can cause adhesion problems.
- Forms used for casting concrete are often coated with oily release agents, commonly referred to as bond breakers. These agents can cause adhesion failure if not removed.
- Highly alkaline patching compounds are often applied to make repairs and smooth imperfections.
- Cracks wider than hairline can allow water to penetrate the surface causing moisture-related paint failures.

Helpful Tips for A Quality Job:

- Inspect the surface to make sure it is sound, clean and dry.
- Ideally, pressure wash the surface to remove bond breakers.
- Allow new concrete to cure for at least 30 days (can be longer depending on weather conditions) before painting. If this is not possible, make sure to use an alkali-resistant primer.
- Test the surface for alkalinity using a pH pencil (pH should be 10 or less) before applying any coating system.
- Use flexible patching and caulking compounds to fill small cracks and holes.

Happy painting...

THE CODE CORNER

Ronald L. Geren, RA, CSI, CCS, CCA

They're almost everywhere in today's corporate and government construction. You can't enter most of today's large shopping malls without being in one, and even smaller business centers have used them. If you haven't figured out already by reading the title, I'm talking about atriums (also called atria).

These large, open, interior spaces allow two or more stories to open into them. Atriums were originally used in Roman residential design as a large open space in the center of the house with an opening at the top, but didn't necessarily connect multiple floors. They were used to receive guests and as places for family events. The term has since been applied to multistory open spaces within a building, usually in public sector design, which are enclosed at the top, typically with a skylight. An open atrium is defined as a "court" in the building codes.

Some architects and mechanical engineers will cringe when they hear the term "atrium" used on a project, since atria has connotations of fire barriers, sprinklers, and worse...smoke control. Although any large opening could be labeled an atrium, all the building codes in the past have attached very specific criteria to the definition of an atrium. As we'll see later in the article, the definition of an atrium in the 2003 International Building Code (IBC) has been relaxed a little, but those pesky enclosure, sprinkler and smoke control requirements still remain, which I'll address first.

Remains the Same

Automatic Sprinkler Protection. Buildings having an atrium must be sprinklered throughout. The only exceptions are spaces above and adjacent to the atrium that are separated by a 2-hour fire-resistive barrier, and within the atrium itself if the ceiling is greater than 55 feet above the floor.

Fire Resistive Enclosure. Atriums, regardless of the number of floors involved, must be separated by a 1-hour fire barrier. This isn't as restrictive as it first appears, since it is much better than the 2-hour enclosure required of vertical shafts connecting 4 or more stories. The code permits the use of sprinklers at 6-feet on center along glazed openings in lieu of the 1-hour rating. The sprinklers need only be on the room side if no walkway is provided on the atrium side of the separation. For those wanting glass openings into the atrium, this would be a cost-effective alternative to fire-rated glazing since a sprinkler system is already mandatory.

Other exceptions to the enclosure requirement include the use of glass block, having a 3/4-hour fire protection rating, installed per the code, and up to three floors of the atrium need not be separated provided that the volume of those spaces is included in the smoke control system. Speaking of smoke control...

Smoke Control System. Smoke control, or the removal of smoke from a space, will always remain a significant component of atrium design for a very valid reason. During fires, smoke will eventually fill up the space denying people within the space the necessary visibility and breathable air to quickly exit the building. Smoke control, installed in accordance with IBC Section 909, will hold the smoke to a suitable level.

The Changes

Significant changes have occurred regarding atriums since the publication of the 1997 Uniform Building Code (UBC). The most notable change is in the definition itself. The UBC defined an atrium as "an opening through two or more floor levels." The UBC definition, depending on its interpretation, could apply to floor openings connecting three stories by its reference to openings through floor levels. The UBC didn't define what a floor level was, so it was logically determined that a floor level was the physical separation between floors. Thus, "through" meant penetrating a floor separation thereby leading to the interpretation of connecting three or more stories. This interpretation was further reinforced by UBC Table 4-A, Atrium Opening and Area, which begins at three stories and goes up.

However, in developing the IBC, the code officials strived to clarify the application of atriums. The IBC defines an atrium as "an opening connecting two or more stories." This definition refines the UBC definition by changing "floor levels" to "stories," and calling it a "connection" rather than an "opening through" a floor level. Now, if you haven't used the IBC for floor openings or atriums yet, then this may come as a shock. But be patient, it does get better as I explain later in the article.

Another notable change affected the minimum opening area and dimensions formally established by UBC Table 4-A, mentioned above. This table set the minimum dimension at 20 feet in any direction, and the minimum area at 400 square feet. Those minimums are for atriums 3 and 4 stories in height. As the number of floors within an atrium increased, so did the minimum dimension and area. But in the IBC, there are no minimum dimensions or opening area; any opening of any size can be treated as an atrium.

I emphasized the words "can be" because I've been hearing complaints about all interior, multi-story, open spaces now having to comply with the requirements of atriums under the 2003 IBC; even spaces connecting only two stories. Fortunately, this is not the case.

Clarifying the Confusion...Hopefully

In the UBC, if the opening didn't meet the dimension and area requirements for atriums, then the space had to be treated as a shaft per UBC Section 711 (although there was no specific reference to this section). It is within this section that an exception allowing unprotected openings connecting two stories is provided. But, when one looks at the IBC, especially after using the UBC for a long time, going straight to Section 404 for atrium requirements would be a logical process to follow. If this route is taken, then it would be understandable for code users to get alarmed since the section doesn't establish any requirements for dimensions,

area, or number of stories, nor does it direct the user to Chapter 7 for requirements (and more importantly, the exceptions to the requirements) for shaft enclosures.

For an IBC user looking for floor opening requirements, they should start in Section 707 for shaft enclosures. In this section, it essentially states that all "openings through a floor/ceiling assembly shall be protected by a shaft enclosure." However, that basic requirement is followed by 12 possible exceptions, and it is here where the code user should look closely.

One of the exceptions (specifically Exception No. 5) allows the user to comply with the requirements for atriums and malls in lieu of providing a shaft enclosure. So, here is where the connection to Section 404 is made. But, before taking that major step, we'll take a look at one other important exception.

For those who were extremely upset with the thought that all 2-story openings now had to comply with the requirements for atriums, Exception No. 7 will come to their rescue. As long as the building occupancy isn't classified as I-2 (hospitals, etc.) or I-3 (prisons, etc.), then Exception No. 7, which eliminates the requirement for an enclosure, may apply. Within this exception, there are six additional provisions that must be met in order to take advantage of the exception:

1. The opening cannot connect more than two stories.
2. The opening is not part of a required means of egress system unless permitted by Section 1019.1, which, to paraphrase, allows one half of the required exits to be unenclosed between any two adjacent floors (provided there's no connection to other floors), or between the first and second stories of a building equipped with a sprinkler system. In either case, a minimum of two exits are required.
3. The opening is not concealed within the building construction (i.e. concealed within is a wall).
4. The opening is does not connect to a corridor in occupancies consisting of either I or R.
5. The opening is not exposed to corridors on nonsprinklered floors.
6. The opening is separated from openings to other floors by fire-rated construction for shaft enclosures.

Is this confusing? – Yes.

Does it prohibit the use of two-story open atriums? – Definitely not.

Understanding how building codes are organized is a big step it understanding its specific content. Focusing on one section doesn't necessarily give you the full picture of what is required, or even what is not required. Like construction documents, building codes use the same principle of "say it once, and say it in the right place." You can't look at a single specification section or a sheet of details and expect to go out and construct a building. The same concept applies here...you need the other elements of the code to comprehend the full application of the building code. And, the provisions for atriums are good examples that illustrate this distinctly.

To comment on this article, suggest other topics, or submit a question regarding codes, contact the author at ron.geren@gouldevans.com.

About the Author: Ronald L. Geren, RA, CSI, CCS, CCCA is the specification writer and code reviewer for the Phoenix Office of Gould Evans, and is an ICC Certified Building Plans Examiner. He is a 1984 graduate of the University of Arizona, and has held various technical and managerial positions for military, state, and private agencies

Frank Gehry, James Glymph and Dennis Shelden Discuss Building Information Models At The 50th Annual CSI Show™ & Convention

ALEXANDRIA, Va. (Oct. 26, 2005) – Architect Frank Gehry, FAIA, and two of his colleagues will discuss Building Information Models (BIM) during the opening general session of The 50th Annual CSI Show™ & Convention. Gehry will be joined by his partner James Glymph, FAIA, who has directed the development of many of the firm Gehry Partners' most significant projects in the United

States and Europe, and Dennis R. Shelden, founder and Chief Technology Officer of Gehry Technologies, a building industry technology company.

Gehry's appearance is part of CSI's education program for the Show & Convention, which is focusing on BIMs as a solution more and more owners, designers, contractors and specifiers will be turning to in the future. CSI plans to offer several education sessions on the topic.

BIMs are computerized 3D and 2D models linked to databases that house the specifications, schedules, and other documents related to a project. They give designers a faster, richer design process, owners more budget control through predictions about the project's construction process, and contractors projects with fewer surprises. BIMs can generate schedules, coordinate documents, and automatically update drawings as new data is added. They are a natural step for anyone dedicated to construction documents that meet the "4 Cs" of CSI—clear, concise, complete and correct.

About Gehry

Frank Gehry is one of the most inventive and pioneering architects working today, and is also among the leaders in the development of building information modeling. His work includes the Experience Music Project (Seattle), the Guggenheim Museum Bilbao (Spain), and the Walt Disney Concert Hall (Los Angeles).

Among his many achievements, Gehry is a recipient of the Arnold W. Brunner Memorial Prize in Architecture from the American Academy of Arts and Letters, the National Medal of Arts, and the AIA's Gold Medal. He also holds the Pritzker Architecture Prize, perhaps the premiere accolade of the field, honoring "significant contributions to humanity and the built environment through the art of architecture."

About Glymph

James Glymph has directed the development of many of Gehry Partners' most significant projects. He has contributed significantly to the growth and success of the firm, primarily by introducing the use of advanced CAD technology to the office and by guiding the integration of this technology into the firm's design process. Glymph brings to the firm many years of experience in the management, design and execution of a broad range of project types, and his special interest in the design and technical development of complex architectural projects. His work with Gehry includes the Experience Music Project and Walt Disney Concert Hall, as well as the Jerusalem Museum of Tolerance.

About Shelden

Shelden is a founder and Chief Technology Officer of Gehry Technologies, a building industry technology company formed in 2001 by the research and development team of Gehry Partners. Shelden joined Gehry Partners in 1997 and became director of the firm's computation efforts in 2000, where he was responsible for the management and strategic direction of the firm's technology infrastructure, project applications, process and software development initiatives, and research and development. Shelden spoke on BIMs and the value of MasterFormat 2004 Edition and OmniClass™ to the development of BIMs during an education session at the Show & Convention in 2005.

About The Annual CSI Show & Convention

The 50th Annual CSI Show & Convention and pre-convention events will take place March 28–April 1 in the Las Vegas Convention Center. In addition to more than 120 education sessions, CSI will present tours, exhibits, and other events so participants can network, explore new products, celebrate the Show & Convention's 50th anniversary, and see first-hand the unique architecture that has made Vegas world-famous. The Annual CSI Show & Convention is the only event covering the entire facility life cycle, and it attracts designers, engineers, specifiers, contractors, suppliers, facility managers, owners, and people who work with them. Access to all education programs is \$245 for CSI members (\$365 for non-members) who register before Jan. 17. Entrance to the Exhibit Hall only is free-of-charge. For more information or to register, visit www.theCSIShow.com or call 800-689-2900.

About CSI

CSI is a national association of specifiers, architects, engineers, contractors, building materials suppliers and others involved in commercial and institutional building design and construction. The organization has 145 chapters and more than 16,000 members. CSI provides technical information and products, continuing education, professional conferences, and product shows to enhance communication among all disciplines of building design and construction, and to meet the industry's need for a common system of organizing and presenting construction information. For more information, visit www.csinet.org or call 800-689-2900.

Green Stuff

Stephen J. Andros AIA/FCSI/CCS/LEED-AP

A moving target... or... a rolling stone gathers no moss

LEED is changing... again. By the time that you receive this newsletter, only those projects that were registered prior to the end of 2005 will be able to certify under the "old" LEED-NC Version 2.1. The new and improved LEED-NC Version 2.2 has been voted on and accepted by the USGBC membership. In addition, it is now possible to submit for certification electronically. USGBC has promoted these changes as ways to make LEED more "user-friendly" in response to complaints that the system is cumbersome. What is overlooked by these changes is that the same old design and construction requirements are still necessary and the submittal process isn't the major effort in a LEED project. What IS time consuming is making sure that all of the BACKUP information is collected and sorted and stored in order to verify that the prerequisites and credits have been achieved.

There are some individuals that believe that LEED isn't changing fast enough. Unfortunately, these are not the people who are in the midst of a MAJOR project that takes 4 or 5 years from beginning of design to final occupancy. Several projects that are just now being submitted for certification were being designed when LEED was just beginning. For the owners, designers and builders of major projects, the constantly sifting sands of LEED are cause for concern.

For example, a current project being designed under LEED-NC Version 2.1 using the ASHRAE 90.1-1999 standard could lose several points under LEED NC Version 2.2 using the ASHRAE 90.1-2004 standard due to changes in requirements in that standard. Anyone looking simply at the LEED scorecard wouldn't realize this impact.

These kind of "hidden" changes are going to come back and bite the USGBC where it hurts... in the credibility of the program. Owners and builders, who are already somewhat skeptical of the green building certification process, are going to chose not to certify their projects if they find the certification process is too difficult. This is not to advocate making the system easier... but, to slow down and let the market catch up with the transformation that is occurring.

The proverb, "a rolling stone gathers no moss" means that people pay a price for being always on the move, in that they have no roots in a specific place. LEED doesn't appear to have roots right now. USGBC needs to let LEED "take root" in the construction market so that it can have a chance to grow and flourish.

Steve Andros is the Principal for GrEn A/E Consultants and is currently working on numerous LEED projects in Arizona and Nevada as the specifications and LEED consultant. Steve can be reached at steve@grenspecc.com