



Cactus Comments

MAY PROGRAM CONSTRUCTION INSURANCE AND BONDS

We're all familiar with insurance in some form: auto, home, life, and health. And, some of us have had firsthand experience with bonds such as securities bonds, bearer bonds, and, in some unfortunate cases, bail bonds.

However, few people in the construction industry really understand the roles that insurance and bonds play in the many construction projects that are initiated. In the *Project Resource Manual - CSI Manual of Practice*, one would find extensive information on the types of insurance and bonds used in construction. In Chapter 5, construction bonds are covered in section 5.19 and construction insurance in section 5.20, including a glossary of insurance terms in section 5.20.6.

- For architects/engineers, it is important to know that advising owners on insurance matters is a role that should be left to the owner's legal counsel and insurance advisors. In most cases, A/E insurance policies exclude coverage for providing insurance advice.
- For contractors, it is a part of business, a part that can significantly impact the type and quantity of work you can undertake.
- For owners, your exposure to risk and liability significantly increases with a construction project, which needs to be considered.
- For subcontractors, suppliers, and distributors, you need to know how much you're covered by the project, and what you need to provide yourself.

This month's program will help to expand upon that information and provide a forum that will allow you to ask your questions regarding insurance and bonds and they affect you and your role in a construction project.

INSURANCE, A NEW SOURCE OF ALPHABET SOUP

Wink Ames
Minard-Ames Insurance Group

Wink generates excitement in his audiences with his straightforward, dynamic style. He shares with participants what he has learned in more than 40 years in the insurance and bonding industries.

Throughout his career, Wink has always been active in a wide variety of construction industry associations and attends more construction functions than anyone else in Arizona.

John Yoder, Secretary/Treasurer
Star Roofing, Inc.

Graduate of Univ. of Northern Colorado 1971, Worked in the insurance industry as a loss control rep, commercial lines underwriter and as a licensed agent in commercial insurance. Worked for Bryant Universal Roofers from 1986 to 1996 as Risk Manager. Owned a consulting company from 1996 to 1999 serving the construction industry. Worked on major projects as a part owner of a Mexican Construction company from 1998 to 2000, in Mexico. Currently working for Star Roofing from 2000 to Present as Risk Manager / Sec. Treas. Married with two stepsons and 4 grand kids.

FROM THE PRESIDENT

George Wadding
Star Roofing

INSTITUTE CONVENTION

The Preliminary Program for the 2007 CSI show in Baltimore is now available. If you would like either a magazine or brochure-style copy there is a limited supply at The Reference Library.

The Host Golf Event, Certification Exams, and a Workshop “Specifications in BIM” will take place on Tuesday June 19, the day before the opening of the Show. The Workshop is a must for those manufacturers who want to be prepared for the future.

Starting Wednesday, June 20 there are TEN different Education tracks for unique opportunities to advance your knowledge. Thursday and Friday will continue these varied presentations and opportunities for networking and catching up with folks you may not have seen since last year. It will also be a great chance to earn CSI CEU and AIA LU hours.

There are special events for spouses and several technical tours throughout the five days of the convention. Regional caucuses and the Annual meeting will be on Saturday.

It is very satisfying to be able to inform those of you who were not at the March meeting that Phoenix Chapter has again been awarded CSI’s Outstanding Chapter Commendation, our seventh consecutive win. It will be a great personal pleasure for me to accept this award on behalf of all of you at the Annual Meeting on Saturday the 23.

CSI ON THE RIO GRANDE

The Southwest Regional Conference will be July 26-29 in El Paso. Headquartered in the Airport Radisson, this will provide Team Workshop sessions which will be helpful for those who will be taking leadership positions in Phoenix Chapter in coming years.

Certification Exams will also be available for those who wish to combine accomplishment with enjoyment. Friday will include Trolley Tour Shopping at Juarez Mercado for spouses.

You can contact either Danny Partida danny.partida@sbcglobal.net or Robert Borunda borundainc@sbcglobal.net with any questions.

MARCH BIM MEETING

Sorry. You missed that boat. Dan Russell of Sundt Corp. presented his thorough Powerpoint presentation which gave everyone who had never seen the capabilities of BIM an eye-opening look at the future. BIM (or as Ken prefers to identify it as VDC (Virtual Design and Construction; perhaps a more apt description) will drastically affect the way we conduct the design and construction industry in the near future. I have already seen an RFP in which the owner said (my paraphrase): This project will be designed and constructed using BIM. Any company not able to provide such services should not respond to this Invitation.

Although some feel that there will be no specifications in BIM, I disagree. The specifications will be one of the trade “reports” generated from the database. In the real world, a textual description of the requirements, products and execution of the application or installation of the systems and subsystems will continue to be an important and indispensable part of the contract documents. A database simply will not provide what is needed.

Much work will need to be done in the near future to assure that the software and user techniques provide for this need and CSI must play a role in that work. There is no organization better suited to see that this new collection of tools (software & hardware) lives up to its potential. For those Industry members who wonder about their place in this new environment, only the method by which you deliver your knowledge and consulting skills will change.

When? My prediction is that in the next five to ten years BIM will become the norm. If you are not prepared and equipped to play, the (construction) world will pass you by.

ALTERNATIVE PROJECT DELIVERY METHODS

I imagine that I am going to get jumped on something fierce for this one. I suggest that preparing project conceptual drawings with a fully complete specification manual is not an effective use of time and resources. After seeing way too many fully developed trade sections with everything that might ever be used in a particular system and therefore includes a lot of inappropriate language, I submit that UniFormat would be a more useful and helpful tool to express the designer’s intent.

Since APDM, by its nature provides, indeed encourages, suggestions and consideration of the most appropriate systems by involving those who actually build the systems and subsystems, the effort and expense in providing a complete specification section is both wasteful and confusing.

Because of the inapplicable items, the proposals many subs now provide are seldom “plans and specs”. To avoid unintended expenses or demands for a credit for items not included in the first place, it is now typical for a proposal to contain several lines of clarifications or exclusions.

Since Phoenix is something of a hotbed for APDM, it is my opinion that this chapter should begin to offer educational seminars on and encourage the use of UniFormat as a useful tool and better alternative for preliminary design.

A FEW WORDS ABOUT VALUE ENGINEERING IN THE CM/R ENVIRONMENT

All too often the first inquiry from the CM/R to responding subcontractors is whether another manufacturer would be cheaper or for another type of system which they think, in their limited knowledge, is cheaper. Whether it is less appropriate or a poorer choice than the specified system is irrelevant. Some times the “cheaper” had to do with the design or end use of the previous project and the project under consideration has significant differences which requires other solutions.

While it is characterized as Value Engineering, the inquiring party often has no real grasp of what was specified and the inconsistencies contained in the all-encompassing specification. A lot of effort and time is used in simply explaining inconsistencies and ambiguities. Additionally, too often the only consideration is to cut original costs with no consideration being given to the sustainability or maintenance of the building.

Value Engineering should not be a cost-cutting exercise. The overriding consideration should be providing VALUE to the owner. Admittedly, sometimes this will necessitate educating the owner to the realities of, to borrow a couple well-known advertising lines: “pay me now or pay me later” and “you only get what you pay for”.

For those who would contend that cost is the all and end-all, consider this: when the owner has to start spending significant, probably unbudgeted funds, just to keep the building in shape and its systems operating, will the contractor who built it be still be a hero or will he turn into a goat. It's still about REPEAT business and integrity.

FROM THE EDITOR

Fifty Years - Going Strong

Robert E. Sears, CSI, CCS, CCCA, RA

One day in 1966, when I was a fledgling specifications writer, my supervisor walked into my work space and said, “You need to join CSI.” I didn't know what CSI was, but I was informed that at the place where I worked membership was a job requisite for anyone in the specifications department. So, wishing to keep my job, I dutifully attended the next meeting of the local chapter, where I was handed a membership application to fill out and send to the Institute along with some money for dues. That was the beginning.

In 1968 I attended my first national convention, which was held in Denver. It was quite exciting, and by the standards of the day, a large one. I had, by then, become involved in the organization and knew a little of what it was about. It was about some different things then than it is today. We were fighting over MasterFormat, which was then still a relatively new concept. There was a

lengthy and loud argument on the floor during the business meeting at that convention about what should and/or should not be in the MasterFormat and how it should be arranged.

I am certainly glad that discussion has been put behind us.

In the next few years I became involved in the activities of the chapter, holding several offices, the most challenging, but also the most fun, being editor of the chapter newsletter. It was a decent little newsletter. I inherited the editorship from the local godfather of specifications, so failure was not an option, though I was very nearly strung up for “modernizing” the masthead. Putting the newsletter together was a very different process than it is today. Except – it was as difficult then as it is today to get contributors. That part has not changed. Perhaps, unfortunately, it never will.

In those early days certification was also relatively new. There was only CCS. I didn’t have enough years of experience to be “grandfathered” in as did my department head, and at that point it was new enough that there was not the pressure to become certified. Most people had no idea what it was. Then my job description changed and I dropped out of the organization for several years. When I returned to specifications as department head I needed to re-join, and I have been a member for the nearly 25 years since.

In the mid-eighties, my company asked me to move to Phoenix, where I soon became active in one of the strongest, most energetic chapters in the Institute. I worked on several committees, eventually drifting again into the newsletter editorship. Not much had changed. It was still a tough job, consisting largely of trying to get people to contribute material. But once again I found it rewarding, and we managed to continue a tradition of some years of producing an award winning publication.

I became involved in the chapter operation during the 1990’s, eventually serving as chapter president. During that period of activity, I also was interested and involved at Region and Institute level, serving on several Region and Institute committees. There was some work involved in it, but I found it interesting, and I met a number of wonderful, bright people, some of whom I still occasionally have contact with. The trips to Alexandria for the committee meetings were terrifically energizing and I came back each time on a personal high from the experience.

So, why should anyone be interested in all this not particularly stellar personal history? No particular reason, I suppose, except to suggest that CSI, for all its ups and downs is an organization where one can become involved, can have an impact if one wishes, on the direction of the industry we all work in, and can have a considerable amount of satisfaction and fun doing it.

This year the Phoenix Chapter celebrates its fiftieth anniversary this year. But more important than all those years of activity is the fact that the people in this chapter and, for that matter the Southwest Region, have had a substantial impact on the organization as a whole. We have given the Institute a number of committee members, committee chairs and directors. We have won numerous awards and recognitions in a variety of areas. This coming year the Institute

president is a member of the Phoenix chapter. Not many chapters in the organization can claim all that. It is something to be justifiably proud of, to feel good about.

But in the end, it is the people who work in the chapter, who week after week, month after month, put the effort, the energy and the ambition into keeping the chapter strong, making it have a meaningful impact on the Institute and, more importantly, on the construction industry locally and beyond. I am not as active or energetic as I once was. But there are younger people coming along. To those younger people I would say this – become involved in the organization at every level. Not only will you be doing a service for your industry, you will find considerable satisfaction in it and you will find yourself among others with similar aspirations and energy. I won't be present at the 100th anniversary, but perhaps some who read this will. I hope they will have found it as satisfying as I have.

As a famous entertainer used to say, thanks for the memories.

About the author: Robert E. Sears, CSI, CCS, CCCA, AIA is a consulting architect and specifier, currently employed with SASC Southwest LLC, a firm specializing in preparation of project specifications and technical consulting. He graduated in 1963 from Kansas State University, and has spent most of intervening years in various capacities as a quality control and project manager, technical architect and specifier. He has been a member of the Phoenix Chapter, CSI since 1988 and is a past president of the chapter.



By The Numbers

Election analysis has become an enormous industry in recent years. When the President makes a speech, the opposition follows immediately with its own view of things, and tag-team TV analysts go over every word and phrase, looking for hidden meaning and applying their own spin.

It's natural to try to see where things are going. At chapter, region, and Institute board meetings I have watched the members making notes and counting votes - while doing the same myself. It is now common to have multiple polls of various types for anything beyond a local election, and in the past several weeks some CSI members were keeping their own score cards.

Even though it's common, it's an odd thing to do, as the main effect seems to be encouragement of each side to restate its position with greater frequency and volume. On the other hand, post-election analysis is more leisurely and peaceful, and occasionally useful. As Mark Twain noted, "There are three kinds of numbers: lies, damned lies, and statistics," but let's look at the numbers and see if there are any hidden messages.

I was able to find the Teller's Committee reports for the last few years, so we'll be able to look at this year's results in a larger context. Starting with the voter turnout, we have:

Year	Ballots mailed	Ballots returned	Online votes
2003	16,528	3,482 (21%)	876 (25%)
2004	16,039	3,412 (21%)	
2005	14,972	3,139 (21%)	
2006	14,998	3,182 (21%)	889 (28%)
2007	14,146	4,042 (29%)	1,725 (43%)

A few things are obvious from just these few numbers. First is the decline in membership, which has been noted in a previous MWGTW. Next is a scarily consistent 21 percent voter turnout for the past four years, followed by what may be a record 29 percent. Hotly contested issues are known to bring lackadaisical voters to the polls in public elections, and I do not doubt that is what caused the sudden increase in our own election this year.

About a year ago I looked at similar numbers, wondering if races for Institute Directors or Board offices had any effect. I thought there might be some effect, but it's hard to tell, as the number of positions open each year generally ensures that most regions will have at least one favorite running. This year, for example, there were officer candidates from six regions, and five regions voted on Institute Directors.

Another interesting, though not unexpected result is the increase in online voting. (I'm not sure why we had that option in 2003, but not in 2004 or 2005.) I see this as a trend that will continue, though it may be some time before we see the end of paper ballots. There were a few unfortunate suggestions that we should fear someone would tamper with the votes, but in this respect we have a distinct advantage over public elections. It is difficult, perhaps impossible, to find a committee to review the results of national elections, as no one is truly outside the system. An organization such as ours, however, can easily find an independent agency to verify accuracy of our elections.

Let's move on to election of the rest of the Board. Although I have the results for each of the officer and Institute Director races for the last few years, I'm going to speak only in general terms. In the past four years, the person running for President-elect ran unopposed, and each received over ninety percent of the vote. This year, in the first contested race in some time, the number was a little lower, but not much. This indicates a couple of things.

First, it is difficult to run a successful independent campaign for the highest office, especially under the current procedures, which do not allow enough time after announcement of the slate of nominees to get another name on the ballot. The only option this leaves is a write-in campaign, which is rarely successful. Beyond that, it seems that the nominating committee has done a reasonable job in selecting candidates who are qualified and acceptable to the members. Each year there are a number of write-in votes for nearly every office, and each year, a number of voters choose to not vote for the president-elect, which suggests that members do not feel an obligation to vote for the only nominee simply because there is no one else to vote for.

Speaking of write-ins, I would like to know which of our members are believed to be sufficiently qualified that they get votes even when they are not running. There may be good reason to keep those names secret, but I'm sure the nominating committees would like to know who they are. In the past five elections, races for vice president or secretary have been fairly close, about 60/40 or less. With a couple of exceptions, Institute Director races also have been won with a maximum of about sixty percent of the vote, and there have been several that were decided by one or two votes. The oddball is the office of treasurer, which has been uncontested in this period. Almost sixty percent of the Institute Director candidates have run unopposed. Finally, the governance recommendation lost by a narrow margin. What that means depends entirely on your viewpoint. While some argued that it wouldn't be right for only a small fraction of the total membership - for round numbers, say 2,680 of 14,000 members - to change the bylaws, it is equally valid to argue that is isn't right for an even smaller number - 1,340 - to prevent a change.

The question that always comes up at this point is, "Why don't more members vote?" In public elections, a common excuse is that it's too inconvenient, but that doesn't apply when you get the ballot in your own mailbox. Many members simply may not care, but I suspect many don't vote because they don't know the candidates or they don't understand the items on the ballot. Despite the sometimes nasty rhetoric of the last few months, which I hope was ignored in favor of those who made reasonable arguments on either side, I believe the net effect will be positive. My experience indicates that simply asking for input gets little response; it isn't until we are forced to think about an issue that we take the time from our busy lives to consider the consequences and make a decision. We have a system, and it worked.

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

TECHNICAL PAGE

Metal Stud Framing

R. BRIAN MCCLURE, CSI, CDT
FM SOLUTIONS

I was visited by Jon Cook, a fellow CSI member who represents Dietrich Industries (metal stud framing). He wanted to show me a new development (to Phoenix) of a dimpled stud that Dietrich is manufacturing.

After our short discussion, I went into research mode to confirm, validate and most importantly, update your drawing standards. FM Solutions does a fair share of commercial TI's, and as such, we have a standard sheet that lists the different stud depths. We also show two separate stud span columns; one for a single layer of gypsum board, the other for the increased span for two layers.

My research soon showed that this criterion was outdated. Through this brief article, I would like to address the fundamentals of wall framing by understanding ASTM C 645 and ASTM C 754.

It appears as though when the IBC came into existence, the allowable spans were reduced by several feet. Chapter 25 of the IBC indicates that the standards of non-load bearing steel studs shall be in conformance with ASTM C 645.

ASTM C 645 is basically a specification for the manufacturing of non-load bearing steel studs. It provides the detail of the dimensions, configuration, tolerances and gage. The latest (2007) edition added paragraph 9.2, which states;

“9.2 Members that can show independently verified test performance that meets the limiting height values listed in Specification C 754, need not meet the minimum thickness limitation set forth in 4.3 or the minimum section properties set forth in 8.1”

Taking the latter comments first, paragraph 4.3 in ASTM C 645 indicates a minimum gage of 0.0179 inches (18 mils, or 0.455 mm) before application of the protective coating. Paragraph 8.1 requires the sectional properties of the studs be computed in conformance with AISI Specifications for the Design of Cold-Formed Steel Structural Members. This allows the manufacturers to test and develop framing members with lighter gage materials than would previously have been permitted by the older version of ASTM C 645.

ASTM C 754 is titled, Standard Specification for Installation for Steel Framing Members to Receive Screw-Attached Gypsum Panel Products. This specification lists the detailed requirements for installing all framing members; furring, studs, ceilings (suspended and furred), and soffits. It also lists the requirements for wire ties and cold rolled channels.

I'm embarrassed to admit it, but I had never read ASTM C 754 until I started looking into this issue. Sure, I've thumbed through the Gypsum Handbook and perused the USG manual, but I had never read ASTM C754. I have since read it several times, and would encourage anyone and everyone who has anything to do with studs, framing or gypsum board to do the same. This document is probably one of the first things EVERYONE in construction should know.

ASTM C 754 starts with Table 1, detailing the minimum framing spans required based on the gypsum board thickness, number of layers, location (wall or ceiling), how it's applied to the framing (parallel or perpendicular) and how it's attached (screws or glue). It then continues by providing stud span tables (Tables 3, 4 and 5), based on the gage, framing size, spacing and lateral force. There is no increased span allowed for extra layers of gypsum board. These are the maximum spans allowed under all circumstances. The tables list the stud sizes in a manner that is unconventional to us in the design side, but it is really not too difficult to decipher.

Stud sizes are listed as an “Industry Designator”, defining the cold-rolled framing member. For example, “350S125-18” specifies four separate components. The “350” refers to member web depth in hundredths of an inch. Therefore, 350 refers to a 3 1/2 inch stud. The “S” refers to a stud section, where a “T” would refer to a track or runner. The “125” refers to the flange width in hundredths of an inch, calling out a 1 1/4 inch flange, where “200” would be a 2 inch flange.

“18” refers to the base metal thickness in mils, thus 18 mils. A member listed as 600T200-30 refers to a 20 gage, 6 inch track with 2 inch flanges.

To demystify the framing members even further, 18 mils is 25 gage and both 30 and 33 mils are listed as 20 gage. A 30 mil stud is the standard thickness for 20 gage studs. Attempting to read the numbers printed on the studs when doing field observations can be difficult at best. ASTM C 645 provides a very simple way of checking stud gages. The label text is colored to match the mil designation; 18 mils has no labels, 27 mils has black labels, 30 mils has pink labels and 33 mils has white labels.

Returning to ASTM C 754, there are several sections related to walls that are important to note.

- Paragraph 5.3.1.4 still requires the Architect or Engineer to design the head wall detail to allow for vertical movement of the building.
- Intersecting wall framing is constructed to provide a gap between the perpendicular runner (Figure 1) and the continuous wall, allowing one layer of a gypsum panel to slide continuously along the continuous wall framing. The perpendicular wall framing shall have a stud within 2” of the finish face of the adjacent wall.
- Partition corners are constructed similar to intersections (Figure 2) or with a traditional 3-stud type intersection (Figure 3).

ASTM C 754 also provides information related to chase wall framing, soffits, suspended and furred ceilings, proper hanger connections, and allowable spans for cold-rolled channel, main runners which I have not listed in this article. Please read ASTM C 754 and give me some feedback as to wrong assumptions or knowledge that you were not aware of before. I look forward to comments and feedback on this article, please feel free to email me at bmclure@facilitize.com ..

R. Brian McClure, CSI, CDT is an Associate at FM Solutions, and has been in the Phoenix design industry for 20 years.



Tempe, AZ 85281

When: June 13, 2007
6 PM – 9 PM

Where: Arizona Historical
Society Museum at Papago Park.
The Museum's exhibits will be open
for us!
1300 N College Avenue

RSVP REQUIRED: Tickets must be purchased by June 1, 2007. You may call 480-902-2244 or online at www.CSIphoenix.org.

Who: All current chapter members. All past members especially charter members and past officers.

Cost: Members \$10 per person; Guests \$20 per person Buy your ticket now from any member of the 50th Anniversary committee or online at www.CSIphoenix.org

WHO TO INVITE: Gene Trust is building a list of charter members and past officers that we want to invite to the party. If you know the phone number or address of any of these VIPs, please get the details to Gene immediately.

PHOTOS: We want to collect all of the photos of previous CSI events that we can. The photos will be used during the event. You can have your photos back! We will scan them and return them. If you wish, we will keep them in the chapter storage unit with other historical items. Contact Pamela Bir.

BUTTONS OR PINS: If you have buttons or pins from previous CSI conventions, we would like to collect them for a display at the party. They can be returned to you!

MEMORABILIA DEADLINE: All items must be received by the May 9th chapter meeting. Call Gene Trust if you need assistance.

COMMITTEE: We could use more volunteers on this committee to spread out the workload. Decorate the Museum area. Send invitations. Create the program. ... Call Gene Trust (480-373-6052) to volunteer.

Your Opportunity to Rock!

Be a Sponsor

When: June 13, 2007

Where: Arizona Historical Society Museum in Papago Park
The Museum's exhibits will be open for us!

Who: All current chapter members
All past members especially charter members and past officers.

Rock n Roll	\$100	Sign at the event, Recognition on the Event page
Disco	\$250	Sign at the event, Recognition on the Event page, Logo on back of the program, Business card ad for 3 months in Cactus Comments (\$35 value)
Hip Hop	\$500	Sign at the event, Recognition on the Event page, Logo on front of the program, Business card at for 6 months in Cactus Comments with Event logo (\$70 value)

Sponsors! Take Note!! As soon as you pay for your sponsorship, you start getting recognition on the web site Event page. So it's better to sign up in April instead of delaying until June. Send your check to:

CSI Phoenix Chapter
Attn: Treasurer
P O Box 16212
Phoenix AZ 85011-6212

COMMITTEE: We could use more volunteers on this committee to spread out the workload. Decorate the Museum area. Contact invitees... .. Call Gene Trust to volunteer.