THE MEMPHIS

PERSPECTIVE

SEPTEMBER 2015 Edition

WHY ATTEND CONSTRUCT?

CONSTRUCT offers a relevant, accredited education program, an expansive exhibit hall floor filled with the latest services, products and technologies, as well as a myriad of networking opportunities. In conjunction with the CSI Annual Convention, the event is coupled with technical tours, activities and special events. CONSTRUCT is the only dedicated national event specifically designed to provide the commercial building team real-world, practical product and education solutions.

Find hundreds of exhibitors with the newest trends and practices on the show floor and, with non-conflicting hours, attend the relevant accredited courses. The education program sessions, taught by experts, offer AIA LUs and HSWs and GBCI CE. Unparalleled networking opportunities include the Welcome Reception, the CSI Night Out, CSI Chapter Host events, a day filled with education and activities specifically for Students and Young Professionals and many other social events.

"CONSTRUCT is the one show that brings the entire design and construction team together to learn from each other and understand each point of view. It's an invaluable learning experience." –David Stutzman, AIA, CSI, CCS, SCIP, LEED AP Principal

THE GATEWAY CITY HAS PLENTY TO OFFER ITS VISITORS

George Everding, CSI, CCS, CCCA, AIA
CSI Member since 2000

Peter Russell, RA, CSI, CCS
CSI Member since 2005

ARCHITECTURE: Louis Sullivan's Wainwright Building (Seventh and Chestnut downtown) can legitimately be called the world's first skyscraper. No, it wasn't the first steel framed tall building, nor was it even the tallest building of its era, but it epitomizes Sullivan's "form follows function" approach to design. Frank Lloyd Wright called it the "... first human expression of a tall steel office-building as Architecture."

CULTURE: Founded in 1880, the St. Louis Symphony is the country's second oldest symphony orchestra (1880). Concerts at Powell Hall, a converted movie theater in the city's Midtown Area, are always a treat, especially if you are able to catch one that includes the symphony's outstanding chorus.

NEIGHBORHOOD: St. Louis is a city of solid neighborhoods, but for us the Central West End is home. Bordering Forest Park on the east, the CWE is an eclectic mix of the area's best restaurants and bistros, bars, pubs, shopping and entertainment.

THE MISSOURI BOTANICAL GARDEN (4344 Shaw Avenue, located about 5 miles from downtown) is a gem in the heart of the city. Site of Henry Shaw's gardens started in 1859. www.mobot.org

THE DUBLINER, 1025 Washington Avenue is just at the east edge of the Washington Avenue Entertainment District. Good pub fare and burgers plus a variety of Irish beer and whiskey. www.dublinerstl.com

BB'S JAZZ, BLUES, AND SOUPS, 700 South Broadway, just south of Busch Stadium. The menu ranges from standard appetizers to red beans and rice, from burgers and fried chicken to steak. Live music. www.bbsjazzbluessoups.com

BLUEBERRY HILL is a landmark restaurant and music club filled with pop culture memorabilia. 6504 Delmar in the Loop Entertainment District. www.blueberryhill.com

INSIDE THIS ISSUE:

CSI

www.csinet.org

Founded in 1948, the Construction Specifications Institute is a not-for-profit technical organization dedicated to the advancement of construction technology through communication, research, education and service. CSI serves the interests of architects, engineers, specifiers, interior designers, contractors, product manufacturers and others in the construction industry.

Membership

Architects, engineers, contractors, and manufacturers—14,000 members strong—are in touch with one another through their Construction Specifications Institute membership. CSI provides contacts in the construction industry as well as provides you up-to-date information to help you do your job efficiently and effectively. Yearly Institute membership fee is $250 plus $40 Memphis Chapter fee = $290; Institute membership fee for an Emerging Professional is $125 plus $40 Memphis Chapter fee = $165.00; and Institute membership fee for students is $30 plus $10 Memphis Chapter = $40.

Contact: Richard Hill **richard.hill@basf.com**

662-420-9563

Tabletop Displays at Monthly Meetings

At each monthly meeting, the Chapter encourages all members to provide a table display of their product and/or services for inspection and education of those attending the meeting. After the meal and prior to the program, the displayer will be given five minutes to address the group. The table display is also encouraged to be represented during the social hour and after the program for any questions by the attendees.
The presentation fee for this time is $25.00.

Table Top Info. - Mike Zielinski
mzielinski@lrk.com
901-652-5612

The Memphis PerSPECtive Information

The Memphis PerSPECtive is published ten times a year by the Memphis Chapter of the Construction Specifications Institute. Appearance of products or services, name or editorial copy does not constitute an endorsement by the Memphis Chapter of CSI nor any of its members.
Circulation of *The Memphis PerSPECtive* includes over 500 people consisting of members of the Memphis Chapter of CSI, members of the Memphis AIA Chapter, CSI Regional editors, the CSI Institute and other interested persons nationwide. To be included on future mailings, forward your name, mailing address, and e-mail address to the following address:

The Memphis PerSPECtive
P.O. Box 172349
Memphis, TN 38187-2349

You may also access a complimentary copy of *The Memphis PerSPECtive* online at www.csimemphis.org.

SUBMITTING ARTICLES

Readers are encouraged to submit articles of interest within the construction industry for publishing. Articles on individual projects whether currently in design, under construction, or recently completed are encouraged.

Any printed articles, photos or program inserts should be forwarded to:

The Memphis Perspective
Attn: Danny Clark
danny62clark@gmail.com
Or hansfaulhaber@hotmail.com

Articles and images should be submitted in electronic format via digital media or email. Microsoft Word documents are strongly preferred for articles, minus tabs and any other formatting . All images must include a date and caption. If printed photographs are submitted, please include SASE

MAGAZINE ADVERTISING

The advertising rates for 10 issues of *The Memphis PerSPECtive* in printed version and as published in the CSI Memphis Chapter website (www.csimemphis.org) are as follows:

	5 Issues	10 Issues
One-Eighth Page	$100	$ 200
One-Fourth Page	$200	$ 400
One-Half Page	$400	$ 800
Full Page	$ 800	$1,600

Get your company's name in front of a variety of industry professionals—check out our magazine's circulation.

Advertising Info. Contact - Jay Sweeney (901) 260-9670
Email: jsweeney@brg3s.com

Schedule at a Glance:

Sept 29—Oct 3 **CONSTRUCT2015** St. Louis, MO
Oct 5 Board Meeting 5:30 pm Allen + Hoshall office
Oct 8 Chapter Meeting "Contemporary Fire Ratings in Gypsum Construction" Eric Marsal, CSI
Nov 9 Board Meeting 5:30 pm Allen + Hoshall office
Nov 12 Chapter Meeting "Contemporary Lighting Controls" Michael LaMountain, PE
Dec 7 Board Meeting 5:30 pm Allen + Hoshall office
December Annual Christmas Social Date TBD
Jan 11 Board Meeting 5:30 pm Allen + Hoshall office
Jan 14 Chapter Meeting "What is Quality?" Hans Dietrich Faulhaber, Architect
Feb 8 Board Meeting 5:30 pm Allen + Hoshall office
Feb 11 Chapter Meeting Panel Discussion, Topic: The State of Contract Document Quality.
March 7 Board Meeting 5:30 pm Allen + Hoshall office
March 10 Chapter Meeting Program TBD
April 11 Board Meeting 5:30 pm Allen + Hoshall office
April CSI Build/IT 2016 Date TBD
May 9 Board Meeting 5:30 pm Allen + Hoshall office
May 12 Chapter Meeting Program TBD
June 6 Board Meeting 5:30 pm Allen + Hoshall office
June Annual Awards Banquet Date TBD

OCTOBER 2015 CHAPTER MEETING

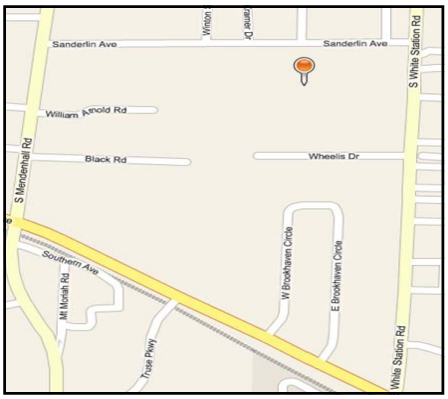
"Contemporary Fire Ratings in Gypsum Construction"

Eric Marsal, CSI

THURSDAY October 8, 2015

5:30 Social Hour, 6:00 Dinner, 7:00 Program

The Racquet Club; 5111 Sanderlin Ave. Memphis, TN 38117



$25.00 for members and non-members; $12.50 for students

(non-shows will be billed).

For reservations, contact Pam Davidson at 901-261-4671

or email at pdavidson@allenhoshall.com

Or reservations may also be made on-line at www.csimemphis.org using PayPal.

GO TO

csimemphis.org

Everything you need to know about CSI Memphis and more.

CSI Memphis Chapter President's Message

Hans Dietrich Faulhaber,
Architect
CSI Memphis
Chapter President

Greetings Memphis Chapter CSI!!

Our program this month featured **Dudley Dolinger** who presented his excellent program on Contemporary Concrete finishes. Read an excellent report from **Ken Hudson** in this issue. Next month we will feature **Eric Marsal**, who will present his program on Fire Rated Gypsum Assemblies- a title that may change. This program will be a relatively technically oriented presentation that will provide information for the design professional, material supplier, general contractor and sub-contractor alike. Please plan to attend and ***bring along a friend*****.**

This month is the ***second in a series of articles***, some previously published and recently revised, on the management of projects. This article defines *Construction Administration* and asks the question what is it and why is it necessary? This article will provide insight on what it is that construction administrators do and why they do it. Next month we will explore *Contract Documents what they are and why we need them*. In December we will publish *What is Quality?* As I stated last month, this is an article published for the first time addressing documentation issues, not always flattering or informative, found contract documents. We plan to follow that up with a chapter presentation of the quality article and then a panel discussion on the current state of construction documentation featuring an architect, engineer, contractor and code official. ***I predict lively discussions indeed.*** I hope you can join us and even participate in the dialog.

What is CSI to you? Is it networking with other professionals? Is it meeting different players in the construction industry? Are you making connections that you heretofore haven't? CSI is all of these things and more. CSI has more or less shaped the way we do business by creating MasterFormat, an organizing system that is now internationally accepted as the standard way of compiling our written documentation for our projects. The more you talk and interact with the membership the more you will learn how to do your job better, more efficiently and more accurately. Get involved: ***volunteer to become a leader*** in our organization. The benefits will far outweigh any time you will need to spend.

I also want to encourage you to ***make a donation*** to our Dempsey B. Morrison Scholarship Fund. CSI Memphis in partnership with the University of Memphis provides two scholarships that fully fund the tuition for the two selected students for one year. This can eliminate a financial hardship that might exist and in turn provide peace of mind to the student allowing them to focus on their studies and not fund raising activities. Please consider a donation to this very worthy endeavor.

Once again *I thank you for the opportunity to serve the chapter* in this honorable position. I am humbled by the history of this chapter and its membership, past and present and hope to have an effective, productive and meaningful term. My phone is always open so if you have questions, comments, recommendations or simply suggestions give me a call. I'll see you at our next meeting!

Hans Dietrich Faulhaber, Architect
University of Tennessee

MEMBERSHIP REPORT

Architects, engineers, contractors, and manufacturers can be in touch with one another through their Construction Specifications Institute membership. CSI provides contacts in the construction industry as well as provides you current information to help you do your job efficiently and effectively. Annual Institute membership fee is $250 plus $40 Memphis Chapter fee = $290; Institute membership fee for an Emerging Professional is $125 plus $40 Memphis Chapter fee = $165.00; and Institute membership fee for students is $30 plus $10 Memphis Chapter = $40. The Memphis chapter serves 107 members, with Britton Herring and Marie Hayes joining CSI in August.

Contact: Richard Hill
richard.hill@basf.com
662-420-9563

For many years, CSI-S has taken the motto of the parent chapter, "Building Knowledge and Improving Project Delivery" and each year applies it in both a conceptual and literal sense, to everything the student chapter sets out to achieve. At the dawn of a new academic year, the new officers take this initiative and push it further to improve on collaboration, experience, networking and leadership.

As with any organization, a strong relationship is key to growth and success. With the mentorship of the CSI parent chapter, the students at the University of Memphis have received a generous amount of guidance, experience and knowledge. Thanks to the recurring support from the CSI community and chapter members, CSI-S is determined to further develop and improve not only themselves, but the larger community.

Already, at the beginning of the semester, CSI-S has a great number of events brewing: firm visits, guest lecturers, the annual bonfire, and bowling night. In the past, these events yield a strong turn out, and are a great way of forming a great bond with students and professionals.

New to CSI-S this year is the addition of the faculty advisor Time Michael. In the past, Tim has strongly been involved with organizational events, especially the model building workshops and numerous site visits. Tim's years of experience and expertise will greatly shape and influence CSI-S.

Thank you for supporting CSI- S, we look forward to sharing another year of learning, collaboration and fun.

Nestor Lobos, CSI-S
President CSI Student Affiliate
University of Memphis Chapter

President
Nestor Lobos
Fourth Year BFA Architecture

Treasurer
Jordan Jafar
Fourth Year BFA Architecture /
BFA Interior Design Student

Secretary
Brandon Vineyard
Third Year BFA Architecture Student

Vice President of Community
Jules Byers
Second Year BFA Architecture /
BFA Interior Design Student

Vice President of Industry
Lorenzo Rodriguez
Second Year BFA Architecture /
BFA Interior Design Student

Faculty Advisor
Tim Michael

Graduate Liaison
Jeremy Dollar
Second Year Masters Architecture

Volunteer to mentor a student in our CSI Memphis Student Chapter. Contact Scott Guidry
scott@designshop-arc.com

During the September CSI Memphis chapter meeting, **Dudley Dolinger**, president of Dolinger & Associates of Nashville, gave a presentation on polished concrete. Polished concrete floors are used in grocery and retail stores, restaurants, manufacturing facilities, arenas, and schools. Polish concrete floors have been a qualifying LEED credit since the 2009 standards.

Polished concrete can be a new installation or, in many cases, retrofitted to existing slabs. The process involves mechanically grinding with progressively finer grits of industrial diamonds while treating with a chemical densifier. The grind can be a light polishing depth or a deeper cut may be used to expose and polish the aggregates. The application leaves a durable, non-dusting concrete slab that does not need repeated reapplication of coatings or wax to retain its sheen. Color is often added to enhance the appearance, or in the case of older or poorly installed slabs, to conceal blemishes. Dolinger noted that another benefit of polished concrete that is often overlooked is slip coefficient. Polished concrete, when properly installed, will meet or exceed the requirements for slip coefficient.

Dolinger stressed the importance of effective specifications and field quality control. Specifiers should avoid amending or condensing the requirements for products or procedures and installers should all be certified and experienced. A test area to determine the desired appearance was recommended for both new and retrofit applications. Care should also be made to avoid the use of acrylic cures or bond breakers on slabs as chemicals are required to remove these products before the densifier can be applied. These chemicals typically are considered hazardous and would negate any LEED-type benefits of the polished concrete installation.

Submitted by Ken B. Hudson
Hnedak Bobo Group

For Membership, Fellowship and Leadership
Call a CSI Leader Today and Volunteer

CSI Memphis Mission Statement

In order to enhance the process of creating and sustaining the built environment,

Memphis Chapter CSI:

Provides opportunities for persons in the design and construction industry to receive cutting edge information regarding construction documents and practices; promotes members career advancement and enhancement of leadership and communication skills; and supports students aspiring to design and construction careers.

CONSTRUCTION ADMINISTRATION *what is it and why is it necessary?*

By Hans Dietrich Faulhaber, Architect, CSI, CDT ©2015

This article is related to the activities, duties and responsibilities of the construction contract administrator. This is not intended to be a comprehensive guide to construction administration but an overview of the activities, duties and responsibilities required to effectively manage the construction administration phase of an architectural project.

Introduction

Construction Administration is the management of the construction process by the architect or staff assigned to the project and defined in the project specific contract (typically an AIA contract) between the architect and project owner. To define the phase more precisely, Construction Administration is the process of overseeing the construction necessary to ensure conformance with the contract documents and standards. Construction Administration should begin when the contract documents are in the design development stage and conclude one year after Substantial Completion. Most activities for the Construction Administration phase decrease substantially after the building is occupied and final payment has been made by the owner.

Construction Administration occurs in either the field or home office...

Construction Administration occurs in either the field or home office with tangible files such as payment applications, change requests, change orders, constructive change directives, field reports, RFP, RFI logs, bidding information, owner correspondence, contractor correspondence, job meeting notes, and shop drawings along with submittals, samples and other components. All reviewed submittals should adhere to the contract requirements for submission typically found in either the General Conditions or in the appropriate specification section in the Project Manual. Construction Administration includes on site construction progress monitoring which is to be performed at appropriate intervals of the construction process for the given project.

The Construction Administrator needs to be a diligent record keeper and maintain a vigilant perspective on the projects in their purview. As stated in articles later, the Construction Administrator needs to be able to determine which project team member is the best person to respond to the contractor's needs or questions and do so in an efficient manner, or in other words be an efficient and knowledgeable delegator. The demeanor of the Construction Administrator needs to be such that they can maintain their composure in very difficult situations, be firm when rendering decisions and above all be fair in rendering those decisions.

Finally the Construction Administrator should have copies of all the relevant project contracts either in his possession or readily available for reference. The contracts are essentially a roadmap to what the duties and responsibilities are for the given project and without it the Construction Administrator will not know where he is going or what is expected in terms of performance.

Contract Forms and Construction Contract Administration

Industry standard and accepted construction contract forms have been developed by the American Institute of Architects (AIA) and are available for purchase from them either online or at selected AIA designated points of sale. The advantage of using these documents over custom made is they are vertically and horizontally integrated and related to one another thereby eliminating the possibility of contractual responsibility gaps. As with any contract they outline the responsibility of each party to the contract and relate to other contracts in the "family" by reference. The AIA offers other related forms, such as pay applications and lien waivers in the same format. To ensure effective contract administration, owners, architects and contractors (and subcontractors) are advised to utilize these forms in their everyday course of business.

The procedures outlined in this guide generally if not specifically follow the principles of construction management outlined by the AIA family of contracts. Typical AIA forms that will be used for the administration of the construction contract are as follows:

- AIA B 141 Owner Architect Agreement (CM not a contractor)
- AIA B 132 Owner Architect Agreement (CM as adviser)
- AIA B 201 General Conditions of the Contract for Construction

There are other forms that the AIA produces for construction administration purposes such as the Field Report form, Document G711. However, I have found that custom in house forms not specifically referenced in the contracts are often used and are just as effective as the AIA versions.

CONTINUED ON PAGE 9

The Construction Administration Process

Construction Administration processes and duties as required by typical general practice contracts are listed below:

- Construction Phase File maintenance
- Document Quality Management Reviews
- Review and recommendation of contractor bids or review of Construction Manager proposals and bids.
- Attend Prebid Meeting
- Attend Bid Opening
- Attend Scope Review Meetings
- Provide Recommendations to Award Contracts
- Review and monitoring of the construction schedule as prepared by General Contractor or the Construction Manager.
- Interaction with the Project Consultants
- Attendance at Project Meetings
- Management and Disposition of RFIs (Request for Interpretation)
- Management and Disposition of RFPs (Request for Proposal)
- Management of Project Modifications (Change Orders & Addenda) to the contract requirements
- On site construction Observation and Field Reporting
- Issuance of Construction Change Directives (or other like instrument.)
- Review of Pay Applications
- Review of Proposed Change Orders
- Submittal Review and Disposition
- Generating project Punch Lists (a listing of defects requiring correction)
- Generating the Certificate of Substantial Completion
- Contract Closeout and closeout document review
- One Year Warranty Inspection

A brief discussion of each of these items follows.

Construction File Maintenance

Construction files at most architectural offices are typically found in the Project Specific Folders, with a sub folder being titled Construction Administration. New file titles are added to this folder periodically or, in some cases on a project basis. At a minimum, the current folder includes the following files:

- Contractor Bids
- Schedules
- Shop Drawings-Submittals-Log
- Bulletins-RFIs-ASIs
- Punch Lists
- Field Reports
- Change Order
- Pay Applications
- Closeout

Other files such as correspondence, reports, project requirements, and budgets are filed in other Divisions of a given firm's filing system. In order to keep track of the enormous paper and electronic paper flow both the paper in house files and the computer files should share the same titles. This will also enable faster retrieval of files not having to sort through on electronic file or a couple of folders that are not name related. This method will also simplify the process should other personnel require access to you electronic files. This is not to say there can not be other sub project files: there can be and should be in order to not comingle subjects and to be able to access files quickly when needed.

Review and Recommendation of General Contractor Bids

There are basically two ways to convey pricing to an owner: bid or negotiated price. There are a number of ways to bid a project: open bid, invited or closed bid. An open bid is open to any contractor who can meet the project qualifications. This is typical for a publicly funded project.

An invited or closed bid is open only to those contractor's who the owner has invited to submit pricing. This is sometimes used by owners when they have a high comfort level with certain select contractors and may be based upon work the contractor has previously accomplished for the owner. For example, in the New England states, bids are mostly filed subcontractor bids. This means any qualified subcontractor gets to bid the project. These bids are then collected by the public agency PRIOR to the General Contractor bids. When the low General Contractor is determined by the Public Agency the selected GC then is required to use the low filed subcontractor bids for each category. The Architect has little or no input in this process.

At bid opening the administrator (or other personnel in the firm such as the Project Manager, Project Architect or Principal in Charge) will list the bids on a bid form, sometimes with a specific order for a specific reason. If this is a Construction Manager project the bids are usually listed by specification division. There will be a Schedule of Values attached to the bid if specified. The Schedule of Values conveys specific costs for specific components and allows the administrator to compare the bids received from all contractors for any monetary anomalies. The submitted schedule is compared to the Estimate of Probable Cost prepared by or for the architect (if required by the Owner Architect agreement). Any large variance of value(s) may cause a rejection of a given bid or questions to the contractor to explain the variations.

CONTINUED ON PAGE 10

A recommendation to the owner based on the reviewed bids occurs once the review process has been accomplished. The owner will then consider the bids, the recommendation and then make a selection based on this information.

Review and Recommendation of Construction Manager Bids

Construction Management (CM) differs from traditional Contracting in that the CM is in an advisory capacity acting as the owner's impartial agent rendering technical advice on the various aspects of the project. Depending on the particular state licensing law, CMs are typically required to be licensed just as a general contractor having basically the same license. The reason being is they are essentially acting as a general contractor: they sign subcontracts for work to be accomplished, they produce the same construction related instruments for document clarification, they process pay applications and most supply the general project staff: the project manager, the field engineer and the project superintendent.

...the CM is in an advisory capacity acting as the owner's impartial agent...

While this may appear to be general contracting, the primary difference is in the project budgeting. A CM will receive and present bids to an owner where as a general contractor will not. The CM will or should keep the owner aware of all financial issues during the course of the project. CM projects will work with budgets that are known by all parties and fixed, leading the CM to sign a contract of a guaranteed maximum price or GMP.

Any changes to the work will require the architect or engineer to document the change and the CM to obtain competitive pricing for the change. Once there is agreement on the cost, the change is integrated into the work just as any traditional change would be either by the issuance of a revised document.

The architect's role in this project delivery method is as project designer and also a project adviser. However, the advising role of the design professional relates more to the quality of the work than simply the cost of the work.

Review and Monitoring of the Construction Schedule

Typically the contractor is required to submit a preliminary construction schedule along with the bid to the owner. This timeframe for construction has likely been discussed between the owner and contractor prior to pricing the project. When the project bid or final negotiation has been submitted, a revised and more detailed project schedule of construction is submitted to the owner and architect for review and comment.

After the contract has been signed, a preliminary schedule is typically required to be submitted within the first ten days. This schedule will focus on construction activities planned for the first 60 days of work with a general outline for the remainder of the work. Within 20 days after the contract is signed the formal schedule is to be submitted and reviewed. The agreed upon schedule is to be modified and published within 10 days after review and agreement.

Review of the schedule is important because the value of the project while under construction is directly related to the time it takes to complete. In general, less time and the project costs will decrease; more time and the project costs will increase. This statement does not account for any extraordinary conditions such as an accelerated schedule, or atypical weather conditions, labor disputes, accidents or subcontractor default or other unforeseen issues.

By contract obligation, the contractor will submit a construction schedule with each application for payment. This updated schedule will be reviewed by all parties reviewing the application for payment. Comments on the schedule, if required, will be made in writing to the Owner and Contractor if the schedule change adversely effects the payment application.

Interaction with the Project Consultants

Typically building projects require a team of people to compile the necessary information to construct the building. A structural engineer for the frame, a mechanical engineer for the HVAC and plumbing, and electrical engineer for the power, lighting and communication needs, a civil engineer for the site and environmental needs such as site grading and drainage and other consultants for various needs the project may have. Typically the construction administrator is the individual assigned to the project who has been exposed to each of these disciplines and understands what the interaction and coordination issues are related to the engineering processes, and has the knowledge of who would be best to address an issue or concern and has the ability to provide timely responses to the contractor when issues arise. The construction administrator involved must have read the Consultant contract. The CA must have a firm understanding of who the responsible party is for the coordination and scope of the work to administer the contract. The assigned CA must also have a copy of the architect's contract with the owner and have a firm understanding of that document requires.

CONTINUED ON PAGE 11

Examples of when this interaction would take place are when documentation conflicts or questions concerning the documents are conveyed to the administrator via RFI. It is the administrator's job to ascertain what the issue is and how best to expedite a response to the contractor. Efficiency in response time is paramount to avoid any perception or actual delay to the project which leads to additional time and money to be spent on the project by the owner. Finally, prompt and accurate responses are required to protect the architect from any liability for delay of the project. The construction administrator can not exceed contract allotted time for RFI and submittal review and response during the construction of the project.

Attend Project Meetings

Construction projects typically have project status meetings occurring at regular intervals. These meetings are attended by the owner's representative, the contractor, and the architect and are typically noted in the contract with the owner. The frequency of project status meetings is usually dependent upon the size of the project.

...projects typically have project status meetings...

Under no circumstances should the CA be attending meetings with the subcontractors without the General Contractor present. There is no contractual basis for this type of interaction as the contracts relate activities of the primary contractual entities and not the subcontract entities to the prime. All communication from the subcontractor to the architect should be through the General Contractor. Typically insurance underwriters and general practice contracts do not allow this sort of communication.

Meetings

The purpose of this type of meeting is to inform all parties to the project of the status of the work. There are generally three areas of importance to any construction project and are contained in the various topics on the ***agenda*** for project meetings. Those three areas are:

1. Schedule
2. Budget
3. Critical Issues

A sampling of typical construction project meetings would be:

- Preconstruction Meeting (prior to commencing construction)
- Site Mobilization Meeting (prior to contractor mobilizing on site)
- Progress Meetings (regular meetings as noted above)
- State Inspections (for medical facilities)
- Other meetings called for specific reasons

Preconstruction Meeting

The project Preconstruction Meeting takes place prior to the contractor commencing with construction activities and taking possession of the site. At this meeting the contract requirements are discussed in more detail than any previous meeting. Topics for this meeting might include:

- Questions the contractor has regarding the documents
- The Contractor's use of the site
- Site security
- Noise control
- Dust control
- Contractor's use of owner's utilities including water, power, communications and toilet facilities
- Hours of operation
- Receipt of any property data from the owner
- Architect's clarification of the dimensioning convention
- Contract documents
- Design intent
- Substitutions
- Long lead items
- Progress schedule
- Submittal schedule
- Shop drawings and other submittals
- Delays
- Jobsite record keeping and logs
- Chain of communications
- Architect's job visits
- Pay requests
- Testing and inspections
- Liquidated damages, if any
- Conveying the Notice to Proceed (to the contractor)

Essentially this meeting marks the beginning of the construction schedule leading to the commencement of construction activities. The formal conveyance of the Notice to Proceed denotes the formal and contractual start date of construction activities.

CONTINUED ON PAGE 12

Project Site Mobilization Meeting

The project Site Mobilization Meeting occurs just prior to the contractor taking possession of the site in preparation to commence construction activities. Typically this meeting will occur shortly after the preconstruction meeting. The topics for this meeting may be a partial repeat of the preconstruction meeting but those topics will nevertheless be amplified and clarified and will specifically relate to the project and project site. The agenda for this meeting may include the following topics:

- The Contractor's use of the site
- Site security
- Noise control
- Dust control
- Contractor's use of owner's utilities including water, power, communications and toilet facilities
- Traffic control
- Crane placement
- Staging area or areas
- Deliveries
- Hours of operation

Other project specific topics are added as necessary and appropriate.

Construction Progress Meetings

Construction progress meetings occur at an appropriate time interval to the size of the project. Larger projects might require more frequent meetings; smaller projects might require fewer meetings. Typical industry meeting frequency is a two week interval. Other meetings resulting from the progress meeting to address specific issues can be and often are scheduled during the progress meeting.

Most often the general contractor is responsible for scheduling and running these meetings. In addition the contractor is responsible for record keeping and distribution of those records in a timely manner after the meetings conclusion. A typical agenda for a meeting of this nature may include:

- Work activities in progress
- Schedule updates
- Look ahead schedule
- Submittal status
- RFI status
- Change Request or Bulletin status
- Notification of the next meeting particulars
- Discussion of pending changes
- Execution of change orders
- Discussion of potential delays/claims

Additional specific subjects may be added to the agenda based on their impact to the schedule, budget or quality of the project. Healthcare projects might have additional meetings related to inspections by the state or local health departments. These meetings will typically have site specific issues to discuss and areas to inspect and occur at 50%, 80% and 100% stages of project completion. Project specific documentation is also required for healthcare projects.

It should be noted that this meeting can be the architect's or the contractor's to schedule and hold. If it is the architect's then he is responsible for documenting the meeting, publishing minutes and distributing the minutes. Regardless of who generates the minutes, they should be carefully reviewed and comments provided to the author on any exceptions taken to their contents.

Other Meetings

There are other meetings required in the construction documents such as pre-installation meetings and still others that are not specifically listed but may be required in order to coordinate the work of the contract. For example meetings such as utility shut down coordination meetings are required in some instances. This type of meeting is where the contractor will work in concert with the owner or facilities manager to ensure other campus buildings are not directly affected by the shut down or if they are the occupants are aware of the process. This way other owner operations are not affected adversely by the work of the contract. Another example would be a coordination meeting for a specific item that may be supplied by the owner and installed by the contractor. Having an understanding of when the item is to be delivered and what its specific parameters are will enable the contractor to schedule the proper personnel and equipment and determine a more definitive schedule for installation. Finally there are instances where the owner will hire another contractor to perform a part of the work. As an example, an artist who is supplying stained glass in a church, chapel or hospital would require time and possibly personnel or equipment to accomplish the work of their independent contract with the owner. This work requires close coordination between the contractor, owner and specialty contractor.

Meeting Record Keeping

Typically the contractor or CM is responsible for taking and issuing minutes of each meeting although this can vary between offices. Agendas for future meetings are typically issued a given number of days prior to the meeting. This allows the participants to add to or subtract from the agenda as appropriate to the meeting's focus.

CONTINUED ON PAGE 13

The minutes will be formatted similar to the agenda with reports on all of the agenda topics being listed. All attending parties should be copied on the distribution of the meeting minutes. Those in attendance will then review the minutes checking for accuracy and request corrections where appropriate. The contractor will issue revised minutes when appropriate.

Project diaries are often kept to have a written record of events annotated on a daily basis, including meetings. This is an invaluable tool that will allow the construction administrator immediate access to the events of a particular day. Often it is not what event happens, but what happens after the event has happened that is most important and often critical. A diary will assist the construction administrator in piecing together those events that occurred prior to, during and after a critical event. The diary will also serve as a cross check to the contractor's meeting minutes.

RFIs (Request for Interpretation)

RFIs were formerly known as Requests for Information. The nomenclature was changed when it was realized that a "request for information" implied a lack of information on the drawings. Unscrupulous Contractors have used RFI's to deride the A/E even though many of them were not valid and only written to portray the A/E documents in a negative manner. This practice has been changing lately with the advent of partnering. If an RFI causes a material change to the contract it will then turn into a Change Order Request (COR) and will ultimately require drawing revisions to the project scope and, if applicable alter the project cost and completion time by a formal Change Order.

RFIs were formerly known as Requests for Information...

To effectively track and respond to the RFI in a timely manner, it is recommended that a log be kept noting when the RFI was received, who it was forwarded to on which to act and when it was returned to the contractor for information and / or implementation. Typically a contractor will list the time the response is required on the RFI form. Because the flow of information for a construction project can have a direct impact on the construction schedule, close attention should be paid to responding to RFIs as quickly as possible.

AIA form Document G716 is typically used by contractors for issuing RFIs to architects, although custom forms are also commonly used.

RFPs (Request for Proposal)

An RFP is a Request for Proposal. This instrument is typically generated by the owner, administrating architect or a consultant issued by the administrator to the contractor to have a given component, assembly or material priced for consideration of it being integrated into the work.

RFPs typically contain a front sheet that numbers and describes the changes; a data sheet that lists the drawings included in the RFP and what actual contract documents are affected and the documents themselves. These documents are integrated into the contract document set as revised drawings replacing the previously issued sheet(s). The format for these modifications can be either 8.5" x 11" as a "sketch" or the full size sheet be reissued. RFPS are tracked in the RFP log kept by the administrator and or contractor.

Simply because an RFP was issued does not necessarily mean it will be ultimately accepted by the owner or even garner a positive recommendation from the architect. The RFP instrument does not instruct the contractor to do more than price a contemplated change.

Addenda

Addenda are changes made to the documents prior to the execution of a construction contract between the owner and contractor. This is the instrument the architect uses to convey changes in the work prior to the consummation of a construction contract.

Addenda issues are typically released in specification format, Section 009XX; the number of the addenda issue is noted in the "XX" section and are typically sequential. The addenda will list the date of issue, the project, the project number, the owner and a listing of changes included in the addenda. The architect and will give notification to the bidders to include the addenda in their bid price as well as list receipt of the addenda in the appropriate place on the bid form. The addenda will then list changes to the Project Manual by specification section and then changes to the drawings by sheet. There will also be differentiation of revised sheets and first issue sheets.

Changes to the Documents During Construction

A "supplemental sheet" is the instrument some firms use to graphically modify the work of the contract after the contract between the owner and contractor has been signed. The modification could be owner, agency, contractor or designer driven. Generally speaking a supplemental sheet could result from an RFI or RFP to modify, amplify or clarify the work of the contract and may or may not include additional cost. Supplemental sheets indicate changes are "contemplated", and is usually accompanied by an RFP.

CONTINUED ON PAGE 14

In very general terms the addenda instrument and RFPs contain similar content. They do vary in the timeframe in which they are issued in the construction process and how these changes are integrated into the documents. The major difference is addenda are part of the contract from contract consummation where the RFP becomes part of the contract upon execution of a change order and can potentially alter the contract time, sum or both.

Construction Observation

Architect's do not "inspect", they observe. The difference, though subtle and often mistakenly interchanged, is inspection implies a very thorough and exhaustive observation, detailed in scope and complete in all aspects of the activity. Observation implies a cursory review of the item, component, assembly or project and does not imply a thorough and exhaustive inspection. The main reason for this difference is contractual responsibility. It is the contractor's contractual responsibility to construct the building and be aware of all detailed aspects of each and every component as is the nature of the construction business. The contractor is responsible for the means and methods and safety of the construction process. Architects do not and can not be expected to know all of the very detailed intricacies or other detailed aspects of construction. Consequently when an administrator goes to the field, he or she is observing and not inspecting.

Architect's do not "inspect", they observe...

This is not to say the quality of the project shall suffer due to the cursory nature of the on site visit. On the contrary, the administrator endeavors to ensure the owner's interests and the architect's design is constructed as required by the project plans and specifications! All components have industry standard levels of quality. Those levels are expected to be met at the lowest level of any construction project.

Field Reports

Once the observation is complete, a Field Observation Report is issued delineating all aspects of the observation. The Field Observation Report notes the estimated project percentage of completion either as a whole or by component. The Field Observation Report also notes if the components, assemblies or project components that have been observed are in general compliance with the contract documents and if not will list deficiencies. Generally, though not always, the contractor will annotate the report as a response indicating what measures have been taken to eliminate deficiencies. The AIA documents have a standard Construction Site Visit form.

Construction Change Directive

This is an architectural instrument designed to order changes in the work when the owner and contractor have not fully agreed upon the proposed change in terms of contract time or price.

Once the contractor receives a Construction Change Directive, the contractor is then required to perform the work in dispute. The contractor will then advise the owner and architect of agreement with the proposed method of adjusting the contract time and price. Once there is agreement and the contractor executes the Construction Change Directive, the modifications then become a Change Order. Should the contractor disagree, the work is still performed with the architect determining the method and amount of the change based on actual costs with adjustments for overhead and profit. Should the contractor disagree further, the option is some form of dispute resolution as outlined in the contract between the owner and contractor. This instrument is used on a typical contractor bid project. CM projects do not use this instrument.

The Construction Change Directive can be a proprietary in-house office form or an AIA Document G714.

Architect's Supplementary Instructions

This is an architectural instrument designed to order changes in the work when the owner and contractor have agreed there will be no change in construction cost or schedule. The ASI is typically a minor change in the work with the issuance of this instrument as the formal integration into the contract for informational purposes**.** The ASI can be a proprietary in-house office form or an AIA Document G710.

Pay Applications

Contractors are typically paid once a month, although there are variations. Payment is accomplished when the contractor submits an Application for Payment to the architect for that previous month's work. The schedule of values established when the price was submitted to the owner is used as a measure of work completed as a percentage. The percentage of completed work is translated to the scheduled value of the particular component, assembly or project, the sum of which establishes the value of the payment for that particular month.

CONTINUED ON PAGE 15

The administrator reviews the application for payment, verifying the contractor has not exceeded the scheduled value or the pertinent percentage of completion. In a Construction Manager Guaranteed Maximum Price contract the line items may in fact exceed 100%. It is the bottom line number that has to be watched in this type of contract. Generally the contractor will know if they are behind and have not drawn against a given component, assembly or project for a specific reason. However, if the contractor gets ahead on billing, that is if the drawn funds requested exceed the scheduled value, the contractor's incentive then becomes diminished and the quality of work could potentially suffer. As a consequence a contractor should never be allowed to draw ahead of the scheduled value of the work based on the percentage of completion.

The contractor is typically required to attach certain documentation to the Application for Payment. One is a waiver of liens from major subcontractors. This is to protect the owner from claims at a later date due to monetary inaction on the part of the General Contractor. Another attachment is an updated construction schedule. This allows the evaluation of the progress of construction and is a valuable planning tool. Finally the Contractor may be required to attach progress photos of the project or various aspects of the project.

...processing of the Pay Application is critical to the contractor's on going project cash flow...

The architect typically attaches a letter outlining the architect's observations relative to the approval of a Pay Application. It is advised that the architect's counsel review this letter before it becomes standard practice to issue it. Once the letter and accompanying Pay Application are sent to the owner, the application is funded, i.e. the contractor is paid for the work of that particular Application for Payment. The aforementioned certification letter must be sent with every pay application.

Typically there are very specific requirements prescribed by the architect's insurance carrier where the pay application has to be submitted as described in the General Conditions of each project specifications. For example, the Contractor can NOT submit payment on an application that is not specified. It is recommended the contractor use the industry standard AIA Application for Payment and Schedule of Values. All of the contractually related requirements will be listed and there will be no time wasted in the review and approval of the familiar document.

The timing of the review and processing of the Pay Application is critical to the contractor's on going project cash flow. Therefore it is critical that the CA carefully review and process the Pay Application in a timely manner, preferably in shorter time frame that is allowed by the Contract Documents. Under no circumstances should the Pay Application be allowed to linger in the office.

Standard AIA Applications for Payment are typically used for projects unless the Owner has custom forms that are required to be used for the project. The standard AIA Application for Payment form is Document G702.

Proposed Change Orders

A Proposed Change Order (PCO) is a contemplated modification to the contract, submitted by the contractor. Typically this instrument will include a description of the modification and back up from all of the affected subcontractors with a recap sheet delineating all of the proposed costs including complete labor and material costs and contractually agreed upon mark ups. The PCO is submitted with the proposed pricing that once approved by the owner and CA is then turned into a Change Order.

Proposed change orders can be precipitated by RFIs, RFPs, or other means. Typically architects will generate Project Manuals including the forms to be used by the contractor and their subcontractors for PCOs. The owner, contractor and architect sign this instrument to integrate the modifications into the contract. Typically for a Construction Manager or General Contractor contract the Change Orders are prepared by the CM or GC.

Change Orders

A Change Order (CO) is an owner accepted modification to the contract submitted by the contractor increasing or decreasing the contract sum and /or time, for a particular component, assembly or project. Typically this instrument will include a description of the modification and back up from all of the affected subcontractors with a recap sheet delineating all of the accepted costs.

In order to effectively tract the monetary status of a given project, it is recommended a log be kept of the executed change orders against the original contract value. This will allow an instant understanding of where the project stands financially and can be of assistance to the owner in determining future actions to be taken for or against contemplated changes versus budget.

Standard AIA Change Order forms are typically used for projects unless the Owner has custom forms that are required to be used for the project. The standard AIA Change Order form is Document G701.

CONTINUED ON PAGE 16

Submittal Review

The construction administrator will either perform the submittal review or direct it to the proper entity to perform the review and provide a disposition.

Submittal review typically consists of comparing the submission to the pertinent contract documentation related to it. If there are no issues the submission is marked as reviewed and returned to the contractor. If there are issues those are noted on the submittal and returned to the contractor for corrections and often resubmittal for record. If the submission is not acceptable it is rejected and returned to the contractor for revision and resubmittal.

Contractors sometimes propose substitutions within the submittal thus circumventing the substation process. This action is not acceptable as the time for substitutions should be noted in the contract documents and be followed by the contractor. When substitutions are proposed within a construction submittal the proper action is to reject it and have the contractor submit the proper documentation for the substitution.

Punch Lists

A punch list is a listing of the defects found in the construction and transmitted to the contractor for repair, rework or replacement. Before the construction administrator performs punch listing, the contractor is obligated to perform their own inspection and create their own punch list which is submitted to the construction administrator along with a formal request for the punch listing activity to commence. A punch list will list all visual defects observed during the punch listing activity and will typically list the following types of defects:

- primarily finish defects,
- defective painting or
- defective wallpaper installation
- defective flooring installation
- defective ceiling installation
- Incomplete items or systems or items remaining to be installed
- Other items as appropriate to the level of completion or incompletion
- Engineering observations and lists noting defects related to their scope

If the project areas are not ready for punch listing as scheduled, the CA will notify the owner and contractor in writing. If too many outstanding items appear on the listing, the punch list activity may be deferred until the project has reached a more acceptable level of completion for the punch list activity to commence. The list will then be formally processed and distributed to the pertinent parties for action. Once the punch list items have been corrected or eliminated the contractor will notify the architect of this disposition and request a final walk through.

Certificate of Substantial Completion

A project achieves Substantial Completion when it reaches the point to where it can be used or otherwise occupied for the intended purpose or for which it was created. At this time a Certificate of Substantial Completion, AIA Document G-704, is executed by the architect, owner and contractor. In most municipalities, this document is a requirement by local and state authorities having jurisdiction over the project, before they will sign off on the project and execute a permanent Use and Occupancy Permit.

Project Close Out

Project Close Out begins when the project has reached Substantial Completion and occupancy has occurred or is imminent. The construction administrative activities that occur during this phase of the project are generally reviewing close out documentation required by the contract documents. This will take the form of Operation and Maintenance manuals for the various components of the project and technical reports required of various systems to ascertain if the given system is performing to specification or not. This will also include the review and verification of product warranties to confirm the warranties meet the requirements of the contract documents. Other issues relating to the project start up are also addressed such as assisting the contractor in trouble shooting systems with which the contractor might be having trouble or other difficulties. If there are extra stock requirements in the contract, those components or materials will be verified as having been delivered to the owner for their use. Most architectural firms have a typical project closeout form to use for this purpose.

One Year Warranty Inspection

Once the project has been occupied for one year following the date of Substantial Completion, the architect returns to the project, meets with the owner and contractor in order to develop a final listing of defects requiring contractor correction. This is a “final punch list” of sorts. This list is formally conveyed to the contractor and owner and the contract is formally closed at that point. If at this time, there are still outstanding punch list items that are not closed, the owner may elect to have the work done by their own forces. If so, then the items will have a dollar value assigned agreeable to all parties. The CA will assist in this process.

CONTINUED ON PAGE 17

Conclusion

Construction contract administration is a vital part of architectural project delivery. The construction administrator has many records to keep up with and maintain; many meetings to attend; and many duties to fulfill. The construction administrator has to have a more than fundamental knowledge of construction in order to be effective in his or her position. Finally, the construction administrator requires a temperament that will allow him to get along with all of the various parties involved in the project in good times and not so good times as well as to promote a successful conclusion to the project of which all can be proud.

Hans Dietrich Faulhaber, Architect, CSI, CDT ©2015

GULF STATES REGION

"Gulf States Leader"

Go csimemphis.org for link to GSR.

RENEW TODAY

CSI members may renew their membership up to 3 months before their renewal date. To renew: **login to your My CSI Page** and click "Renew." Renew today!

Why Renew?

Reach Outside Your Network: Meet commercial-level owners, facility managers, architects, specifiers, engineers, manufacturers and product reps at local chapter meetings, CONSTRUCT & The CSI Annual Convention and other special events.

Do Your Job Better & Faster with clear, concise documentation using CSI's standards and formats:

EDUCATION PROGRAM

GENERAL SESSION & KEYNOTE SPEAKER: TOM KOULOPOULOS

Title: Building the Future
Thursday, October 1 | 9:00 AM – 10:30 AM

One of the most profound changes in business and society is the emergence of the post millennial generation, Gen Z.

While every new generation has faced its share of disruption in technology, economics, politics and society, no other generation in the history of humanity has had the ability to make sure that every human being (and every "thing") on the planet is connected to each other, that every person is fully educated, and economically engaged. What might this mean for the way in which we build the future?

In this revolutionary keynote, drawing from his recent book, The Gen Z Effect, Tom delves into a vision of the future that will not only disrupt but also reinvent almost every aspect of how we work, live and play. He'll look at how companies will stem the "brain-drain" that is looming over the construction industry; the challenge of staying at the leading edge of technology, from the role of BIM and the advent of virtual and augmented reality, to intelligent buildings and The Internet of Things will create radical new behaviors that will impact tomorrow's buildings, the construction industry, and the very nature of work. It's a mind-bending view of why we will need to embrace Gen Z as the last best hope for taking on the world's biggest challenges and opportunities, and how you can prepare yourself and your business for the greatest era of prosperity and advance the world has ever experienced.

NEW PECHA KUCHA EVENT - BOXED LUNCH SESSIONS

Wednesday, September 30 | 12:00 PM – 1:30 PM
Two different events will be available for you to choose from.

Pecha Kucha is a presentation format that uses a rapid-fire series of speakers, each offering a compact, 10-minute-or-less, presentation that relates the central theme. These lunch-time sessions will offer 7-8 brief presentations to help you find new ways to either start or complete your next project.

Event 1: Practice Makes Perfect: Planning
Every one of us has stared at a blank screen or sheet or paper and wondered "Where do I start?" In most cases a project begins with the owner, but rarely do we talk about how the many players in the design team plan for their involvement on a project. Learn from professionals working in design, engineering, information management, consulting, product representation and property management as they present ways in which they (or their firm) organize their work flows, paperwork, and communication throughout the planning phase.

Event 2: Practice Makes Perfect: Execution
"Just take it one brick at a time." While that may work for smaller projects, what do you do when you have five different trades waiting to install their items in that brick wall you are still building? Learn from professionals working in contract administration, construction management, construction and trades, facility maintenance and inspection as they present ways in which they (or their firm/ company) improve the construction process through technology and communication. See how they address a project's close-out and maintenance.

GAME CHANGER SESSION

Robotic Construction by Contour Crafting | Speaker: Berok Khoshnevis
Thursday, October 1 | 4:30 PM – 5:30 PM | 1 LU/HSW

The nature of construction has remained intensely manual throughout recorded history. Unlike in manufacturing, the growth of automation in construction has been slow. A promising new automation approach is Contour Crafting (CC). Invented by the speaker, Contour Crafting is a mega-scale 3D fabrication process aiming at automated on-site construction of whole structures as well as subcomponents. The potential of CC has become evident from experiments with various materials, geometries and scales. Using this process, a single building or a colony of buildings may be constructed automatically with all plumbing and electrical utilities imbedded in each; yet each building could have a different design which can include complex curved features. The technology also has astounding environmental and energy impacts. The entry level implication is especially profound for emergency shelter construction and low income housing. NASA is exploring possible applications of CC in building on other planets. This new mode of

EDUCATION PROGRAM, (cont.)

GAME CHANGER SESSION (cont.)

construction will be one of the very few feasible approaches for building using in-situ material on planets such as Moon and Mars, which are being targeted for human colonization before the end of the century. CC has received international attention and could soon revolutionize the construction industry.

TECHNICAL TOURS

The St. Louis Public Library Restoration: Blending of the Old and the New
Wednesday, September 30: 1:45 PM - 3:30 PM & 3:00 PM - 5:00 PM
Ticketed Event: $65

It took ten years of planning and two-and-a-half years of construction to complete the $70 million restoration and renewal of The St. Louis Central Public Library. Not only has the library lived up to its mission of providing St. Louisans with a great 21st century library, it also earned a host of the world's most prestigious design awards, including:

- 2014 AIA Institute Honor Award for Architecture
- 2013 AIA/ALA National Library Building Award
- American Best Buildings of the Year Awards – Buildings Magazine
- Architizer International Popular Choice A+ Award for Architecture – the definitive global architectural award program with submissions from over 100 countries
- Best Renovation/Restoration Project – Engineering News Record
- Illumination Award of Merit (Interior Lighting) – Illuminating Engineering Society

A representative from Cannon Design and St. Louis Antique Lighting Company will accompany St. Louis Public Library's docent and architect, Sue Pruchnicki, on this tour. They will walk you through the planning, challenges and magnificent outcomes of this renewal. The blending of the old and the new is simply masterful.

LEARNING OBJECTIVES: Upon completion of this tour, participants will be able to:

1. Discuss the challenges of renovating an historic building to meet current accessibility standards and needs, and contribute to the sustainable and visual elements of the building
2. Identify how the sustainability components of the renovation contributed to the design of a public library
3. Discover how the lighting and HVAC systems were integrated into the renovation for a more sustainable operation and more efficient building performance
4. Explore the design elements of the Cass Gilbert designed historic building that were integrated into the sustainability elements

EDUCATION PROGRAM, (cont.)

Old Courthouse/Cathedral/Arch Grounds Tour: Historic Rehab from a Preservationist's Perspective

Wednesday, September 30
1:45 PM - 3:30 PM
& 3:00 PM - 4:45 PM
Ticketed Event: $50

Take advantage of visiting three St. Louis landmarks – the Old Courthouse, the Old Cathedral and the Gateway Arch – while learning about the history and architecture of these important American structures.

The Old Courthouse dominated St. Louis' early skyline. It exemplifies 19th-century public architecture in America. Tour the impressive iron-framed dome, the winding stairway with no middle vertical support, the ornate columns and balconies and many other interesting areas of the courthouse. Discuss the renovation that has taken place and the challenges contractors face with future renovations. The courthouse is full of history, including the famous Dred Scott case.

Next stop is the Old Cathedral. Built in 1834, the stone on the outside was in dire need of repair. A renovation project to help restore the stone to its original beauty has recently been completed. The project manager on this work will conduct this part of the tour.

A visit to the Arch grounds is a must for anyone who travels to St. Louis. The Gateway Arch is a world-renowned masterpiece of modern architecture, designed by Eero Saarinen. Built between 1963 and 1965 it is a sandwich made of stainless steel on the outside, carbon steel on the inside and concrete in the middle. The tour will include details of the construction and some of the recent findings regarding mysterious stains on the stainless steel surfaces. This is a one of a kind memorial structure with unique maintenance problems. (Note: this tour will not include a trip to the top of the arch in the elevator tram.)

LEARNING OBJECTIVES: Upon completion of this tour, participants will be able to:

1. Identify three different classes of historic structure and legal restrictions on alterations that can or cannot be made to them
2. Discuss several different sorts of problems connected with exposed stainless steel on the exterior of structures
3. Recognize the steps necessary to provide accurate and delicate stone repairs to a historic structure
4. Discover the threats to historic structures posed by "bringing a building up to code"

FREE SHOW FLOOR EDUCATION

LEARNING PAVILION

Thursday, October 1 & Friday, October 2	11:00 AM - 12:00 PM
	12:30 PM - 1:30 PM
	2:00 PM - 3:00 PM
	3:30 PM - 4:30 PM

HUBER ENGINEERED WOOD'S LEARNING LOUNGE BOOTH 607

MASONRY INSTITUTE COALITION OF ST. LOUIS DEMO BOOTH 125

Dempsie B. Morrison Scholarship Fund

2015-2016 Campaign

The CSI Memphis Chapter honors the memory of Dempsie B. Morrison, Jr., FCSI by awarding the Morrison Scholarship to talented Architectural students at the University of Memphis.

The University of Memphis matches the contributions collected by the CSI Memphis Chapter, allowing two students to benefit from this valuable scholarship (well over $100,000.00 in scholarship monies have been awarded over the years).

By contributing to the Morrison Scholarship, you can make a difference in the life of two students who will one day be making an impression on the world of design and construction.

This scholarship makes a difference…..

> "By awarding me the Dempsie B. Morrison Scholarship, all of my financial burdens have been lightened, which allows me to focus on the most important aspects of school: learning and gaining experience. The Construction Specification Institute's generosity has inspired me to help others and give back to the community. I plan to work very hard this academic year and eventually make a difference in the world through design."
>
> *-Sarah Hawkins, 2014-2015 Recipient*

> "As a non-traditional student at the age of 46, you are providing a special kind of financial help for me and my family. It has been my life-long dream to complete my architectural education and become a licensed registered architect."
>
> *-George Burns, 2014-2015 Recipient*

The 2015-2016 Contribution Form is enclosed, or you can donate online at csimemphis.org.
The Dempsie B. Morrison Scholarship Fund is recognized as a public charity by the IRS and your contribution is fully tax deductible.

Thank you for your support of the Morrison Scholarship Fund!!

Julie Varnado
Scholarship Chair

Dempsie B. Morrison Scholarship Fund
2015-2016 Contribution Form

"On behalf of the staff, students and faculty at University of Memphis, I would like to express my sincere appreciation for your generous gift to the Dempsie B. Morrison, Jr. Memorial Scholarship. With the rising costs of tuition and living expenses, your gift will make a significant difference in the life of two architecture students.

We take Pride in this valuable memorial to Mr. Morrison and we are very fortunate to have caring alumni and friends like you and the Memphis Chapter of CSI to help the University of Memphis and its surrounding community. The benefits of generous gifts like yours are innumerable, and we are thankful for the opportunities you are providing in memory of Mr. Morrison."

Shirley Raines
Univ of Memphis Past-President

Levels of Participation:
___$500+ Diamond
___$400 Platinum
___$200 Gold
___$100 Silver
___Other

Your contact Information:

Name:
_____

Address:
_____

Email:
_____

Is your contribution a Memorial?

In memory of_____
Send acknowledgement to:
_____

Make check payable to:
Dempsie B. Morrison Scholarship Fund, Inc.

Mail this form with payment to:
Farrell-Calhoun Paint Attn: Julie Varnado
221 E. Carolina Ave. Memphis, TN 38126

President:	Hans Dietrich Faulhaber, Architect
President Elect:	**Open NEED VOLUNTEER!!!**
Vice President:	Richard Hill, PE
Secretary:	Wendy Cooper
Treasurer:	John Bigham, RA
Past President:	Mike Zielinski, CCCA
UM Student President:	Nestor Lobos
Board of Directors:	Charles Cooper, CCCA
	Tommy Smith, RA
	Jim Snyder
	Pam Davidson
	Julie Varnado
	Jeffrey Parnell
Academic Affairs:	Scott Guidry / Wally Bostelmann
Awards:	Dennis Elrod / Jeffrey Parnell
Banquet/Christmas:	Susan Evans
Certification:	**Open NEED VOLUNTEER!!**
Chapter Operations:	Jim Neison / Carl Drennon
Conference/Conventions:	Mike Zielinski
Database:	Pamela Davidson / Tommy Smith
Education:	Mike Zielinski
Fellowship:	Wally Bostelmann
Finance:	Jim Neison / Carl Drennon
Golf Tournament:	**Open NEED VOLUNTEER!!**
Historian:	Carl Drennon
Magazine Ads:	Jay Sweeney
Magazine Editor:	Danny Clark
Membership:	Richard Hill
Nominations:	Hans Faulhaber
Planning:	Charles Cooper / John Bigham
Products Display Show:	Scott Guidry / Wendy Cooper
Programs:	Mike Zielinski / Hans Faulhaber
Publicity:	Randall Haynes / Hans Faulhaber
Scholarship:	Julie Varnado / Chris Byrd
Table Top:	Mike Zielinski
Technical:	Hans Faulhaber
Bylaws & Operating Guide:	**Open NEED VOLUNTEER!!**
Web Management:	Scott Guidry

CSI-MEMPHIS CHAPTER 1959—2015

The Memphis PerSPECtive
PO Box 172349
Memphis, TN 38187-2349