To Space & Beyond

Tuesday, May 22, 2018

Orange County Chapter of the
Construction Specifications Institute

Products Show 2018

Marconi Automotive Museum & Foundation for Kids
1302 Industrial Drive
Tustin, California

***********Exhibit hours are 4:00-6:30 p.m.***********
FREE Admission to Exhibits*
Food & Beverages/No Host Bar

Schedule of Events

4:00-6:30 p.m. Construction Products & Services Expo
4:00-6:30 p.m. No Host Bar and Served Hors d’oeuvres
6:45-8:00 p.m. Seminar (AIA credit available)

Parking: Plenty of Free Valet Parking
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The OCCCSI Board of Directors has a fiduciary responsibility to all of its members. Those members and others who choose to purchase events or opportunities by check or cash will receive a discount. Discounted prices will appear in the newsletter and PDF announcements via emails. Those who choose to use their credit cards will be able to purchase at the price printed on our website, occcsi.org. Credit card transactions must be made by the printed deadline in the newsletter or in person at monthly meeting events. Credit card purchase for CPSE trade show registration and exhibit space will NOT be accepted the day of the trade show. This policy is effective on April 8, 2014 by Board approval.

Key aspects of our privacy policy for credit card transactions include:

- We never sell, share, trade, or disclose any of your personal information.
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- We require the entry of only enough information about you to process your transaction.

See our website, occcsi.org, for further disclaimer information.

**SAVE THE DATE**

Our Annual Installation & Awards Banquet

At

The Winery Restaurant

The District

2647 Park Avenue

Tustin, California 92782

On June 12, 2018
WHAT INSPIRES YOU!!!

So here it goes. As my three-year term is coming to a halt, my last message has arrived. I thought about reflecting on my past messages but, I already did that a few months ago. I also thought about reminding everyone that I am the only person inaugurated in the East Room of the White House (it’s true!), but that sounds too much like bragging. Okay I’m bringing it on home and thank you if any of that made any sense.

I was talking the other day on the phone with an industry friend, CSI member and a frequent reader of my columns (get a hobby dude!). We were discussing the terrible mudslides that occurred in the Santa Barbara area and he suggested I write on that. My heart goes out for them, but I can’t think of much to say. Then, another member spoke about another chapter’s president’s message. “what inspires him”? At first, I was going to find it, plagiarize it and go on my way. Then, no, I thought if only one person reads this and is inspired then I have paid it forward so to speak.

The obvious, as a parent, my kids inspire me. All three have had minor bumps in the road. My Daughter eventually found her way and after recently returning from Thailand teaching English for six months, she starts her career teaching autistic children. My middle son after turning away from a life as a stockbroker is finally seeing the results of being an entrepreneur. My youngest Son is still finding his way but he inspires me every day. Okay yes! I’m going to give a shout out to my wife now. Simply, She is my best friend and the love of my life. She also puts up with me too.

I could go on forever discussing my parents, friends, etc. But, we have a product show coming next month so I’m switching gears.

The ORANGE COUNTY CSI PRODUCT SHOW

We have more changes in store for this year’s show including the obvious. Hopefully most of you know, rather than holding our show in October this year’s show is Tuesday May 22. We are starting the product show at 4:00 p.m. This year’s theme is “To Space and Beyond”. We encourage all exhibitors and attendees to dress up in a space theme. Get out your Darth Vader masks and your Mr. Spock ears. I’d dress up as Chewbacca, but I would die from heat exposure.

After a couple of years off, we are bringing back an AIA accredited program, but with a twist. The seminar will start after the Product Show at 6:30 p.m. Other chapters have tried this approach and it has been quite successful. We will have a panel discussion with Colin Gilboy of 4Specs acting as the moderator. The panel will be discussing “Avoid Litigation and Construction Problems with a Well Written Spec” from the points of view of the owner, GC, Subcontractor, manufacturer and specification writer. It should be a great discussion.

One thing is the same. We are back at the Marconi, great food and free valet parking for attendees. I hope to see you all there next month.
Our friend and colleague, the gentle giant, left us after a brief illness. He’ll join those who have preceded us and are now sitting at the specifiers’ table in the sky.

Marvin leaves behind his wife Helen, daughter Juliana, sister Janice and brother Lester, as well as countless friends.

Marvin was a graduate architect who studied at Cal State Los Angeles and got his degree from Cal Poly, San Luis Obispo. He worked in Bakersfield upon graduation and then for Gin Wong in Beverly Hills where I met him and convinced him to join me when we created Specifications, Inc. A wise decision as he was a natural for specifications. That was more than 30 years ago. Although we parted ways, we remained great friends and had one passion, deep sea fishing. He was an accomplished photographer and could have worked as a professional photographer if he had chosen to do so. We will miss him dearly.

A service will take place at 9:00 AM on 28 April, 2018, at the Old North Church at Forest Lawn Hollywood, 6300 Forest Lawn Drive, L.A, 90060. A light snack will follow the service. All are invited to come celebrate Marvin’s life.

Note by Annette:

Marvin Chew passed away on April 9, 2018. Those of us who knew and loved Marvin are heartbroken. Marvin’s huge smile and “teddy bear” hugs will be missed. It is a great loss for our CSI community as well. His funeral service noted above was standing room only – a tribute to Marvin. Personally, there is a tremendous “hole” in my heart created by his sudden departure. All of this does not seem “real”. Others have expressed that his loss has been like a bad dream from which we wish we could awaken. Rest in peace Marvin.

See Marvin’s complete obituary on page 12.
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One of the presentations at the 2017 convention in Providence was a panel discussion titled Hot Topics and Emerging Trends, which included comments about the decline in the quality of construction documents. I found this to be an interesting subject, as I had seen many attacks on document quality over the years. Not only that, but I had made presentations on the subject.

In 1997, Michael Chambers and I presented “Document Coordination” for the Minnesota chapter of AIA. We discussed the roles of drawings and specifications, document quality, coordination techniques, short-form specifications, and MasterFormat 1995. Our handout included reprints of several articles about document quality; some, with scary titles, tried to prove that construction documents were atrocious and getting worse, while others how quality depended on coordination of construction documents.*

The frequency of problems in construction documents makes it easy to accept claims that they are getting worse. In 1997 I believed those claims, but I now believe the opposite. I would argue that overall, construction documents are better than ever before.

Since the presentation Michael and I made in 1997, I have continued to collect articles about the quality of construction documents. Most of the articles address current document quality, but a few discuss a change in quality. The main difference is, the first group of articles describe specific problems, the articles that talk about changes of quality lack specificity. Rather than explain how documents have changed, they rely on vague expressions of individual perception.

For example, the Construction Management Association of America (CMAA) has published several annual reports, often in conjunction with the Facility Management Institute (FMI). These reports frequently refer to a decline in the quality of documents, with conclusions based on comments obtained by surveying facility owners, but they do not include supporting information. I have seen thirteen of these reports, going back to 2000.

The reports consistently claim that quality of construction is a major concern, and sometimes say there has been a decline in the quality of documents. The 2003 survey report was the first to assert that “there is a general decline in document quality,” along with declining skill levels. There is no support for the claim, but the report does include an interesting exploration of reasons for that decline.

The 2004 survey asked, “Have you experienced a decline in the quality of design documents?” More than 70% of responders said yes. Even so, it’s worth noting that about 30% said documents at the beginning of construction were adequate or excellent.

From then until the 2010 survey, survey reports mentioned document quality only tangentially, noting that quality is always a concern, but making no specific reference to a change in quality.

The 2010 report states about 30% of owners report that the

(continued on page 15)
The Orange County Chapter of the Construction Specifications Institute

Announces

Our Annual Installation & Awards Banquet

At

The Winery Restaurant
The District
2647 Park Avenue
Tustin, California 92782

On June 12, 2018

You are cordially invited to attend our Installation & Awards Banquet at The Winery Restaurant & Wine Bar. This restaurant has been focused on successfully pairing contemporary California regional cuisine, with a hip, vibrant, sophisticated setting, to create a cutting-edge dining experience. When Partners JC Clow, William Lewis and Chef Yvon Goetz set out to deliver a culinary experience straight from wine county, little did they know that they would also earn the title of “Restaurateurs of the Year” for their achievements and have their restaurants in Newport Beach and Tustin earn the title of “Restaurant of the Year” multiple times!

JC and William have spent more than two decades together, the past 10 of which have been with Chef Yvon. The three partners strive to deliver the best dining experience in Orange County on a nightly basis.

Dinner Choices are as follows:
- Rotisserie Sonoma Free Range Chicken
- Slow Braised Angus Beef Shortrib
- Organic Seasonal Vegetable Risotto

Time:
- 6:00 – 6:45 PM Social
- 7:00 – 8:00 PM Dinner
- 8:00 – 9:00 PM Installation & Awards

Parking: Plenty of Free Parking

Dinner Cost: $65.00

Mail your check with your entrée choice to

OCCCSI
Post Office Box 8899
Anaheim, CA 92812
The Orange County Chapter of the Construction Specifications Institute wishes to thank the following companies that will be exhibitors (partial list to April 30):

Booths:
Door Components Inc.
Excellent Coatings/TUFFLEX Polymers/Urethane Polymers
Seaman Corporation/FiberTite Roofing Systems
Fortifiber Building Systems Group
Mapei Corporation
Monopole, Inc.
Omega Products International Corporation
Orco Block Company
Parex USA
Partition Specialties, Inc.
Polycoat
PPG Paints
RAY-BAR Engineering Corporation
Sherwin Williams Paint
Siena Tile & Stone Installation Products

Mini-Booths:
C.R. Laurence Company Inc. – U.S. Aluminum
W. R. Meadows of Southern California
C.R. Laurence Company Inc. – U.S.

Tabletops:
A & D Specifications
Angelus Block Company Inc.
Arcadia, Inc.
Architectural Door Consultants, Inc.
Behr Paint
CEMCO
ClarkDietrich Building Systems
Construction Specialties
Custom Building Products
Simpson Strong-Tie
Stego Industries LLC
Tnemec – TPC Consultants, Inc.
U.S. Coatings
US Rubber, Recycling, Inc.
Vista Paint Corporation
Western Wall & Ceiling Contractors Association
Avoid Litigation and Construction Problems with a Well Written Spec

Seminar: May 22, 2018 - 6:45 p.m.

What is a Well Written Spec?

How is a Well Written Spec different from a purchased, prewritten, standardized specification system?

Who controls the product decisions for a Well Written Spec?

How is product research conducted?

Why does the specifier make the early product decisions?

How do substitutions impact the creation and use of specifications?

Seminar Facilitator:
Colin Gilboy: Publisher of 4specs.com - 4specs is a free online architectural library service. Early in 1996, Colin saw a need for an Internet directory covering every manufacturer of “specified” construction products. He wanted to provide a complete “yellow-pages” directory for specified products. He obtained a degree as a Mechanical Engineer from Drexel Institute of Technology and an MS in Construction Engineering Management at Stanford University.

Panel:
Owner/Architect
Robert (Bob) F. Miller: Project Architect, Architecture and Facilities Engineering at Disneyland Resorts. - Graduate of the University of Kentucky, currently at Disneyland Resorts for 15 years. Previously Bob worked on multiple projects at Disney's California Adventure and Tomorrowland attractions for AECOM (Holmes & Narver). Bob has an extensive portfolio of theme park projects including Universal Studios, Lotte World (South Korea), and Canada's Wonderland (Toronto).

Owner/Architect
Justin Kerfoot, CSI, CDT, LEED AP: Senior Campus Planner, Campus Planning and Operations at Chapman University. - Born and raised in Hawaii, Justin received his Bachelors of Architecture from the University of Arizona. He spent 2 years as a Project Coordinator at James Goodman Architecture, working on new storage facility projects; and 17 years as a Project Manager at LPA, Inc. At LPA, Justin's primary focus was on office ground-up, reinvestment, and tenant improvement projects throughout Southern and Northern California. He was LPA Inc.'s 2002 Employee of the Year and a member of the NAIOP YPG Class of 2010.

Specifier
Gregory G. Farinsky, AIA, CSI, CCS, SCIP: Independent Specification Writer - Earned a Bachelor of Arts in Architecture at University of California at Berkeley and a Master of Business Administration at the University of Southern California. In 1986, Greg became a Licensed Architect in California. He was a Project Manager at Dougherty+Dougherty Architects, L.L.P. in Newport Beach before starting his own specifications firm. Previously he was a Buyer and Planner with Autodesk, Inc. in San Rafael. In addition, Greg was a Project Manager with DeRevere Partnership Architects, Newport Beach, and a Job Captain with Frizzell Hill Moorhouse Beaubois Architects, San Francisco.

General Contractor
Chris DeHaven, AIC, CPC, CSI, CDT, DBIA: Quality Director in the Southern California Region for McCarthy Building Companies, Inc. - Based in Newport Beach, Chris works with projects all over Southern California spanning from Santa Barbara to San Diego. He has been with McCarthy for over 10 years and held various roles in Field Operations spanning all of McCarthy’s core market sectors: Healthcare, Education, Commercial, and Parking Structures. Chris works with Project Teams to develop site specific quality plans, to establish on-site quality programs, to work with project teams to resolve issues, to conduct training through the McCarthy internal training program, and to support all warranty and closed projects. Chris earned his Construction Management Degree from Michigan State University.

Manufacturer
Mike Murphy CSI, CCPR, NACE 1: Architectural Sales Director - Western Region at Behr Paint - Mike has 43 years experience in the paint and coatings industry with both national and regional paint companies. He has been a specification consultant on a wide variety of architectural, commercial, and industrial projects. Mike is a long time CSI member belonging to 7 chapters, serving as Mt. Rainier Chapter President in 2015-2016, and is currently Vice President for the San Francisco Chapter. He is Incoming President for the Northwest CSI Region.
PRE-REGISTRATION FORM

NAME: _________________________________________________________________

TITLE:  _________________________________________________________________

COMPANY:  _____________________________________________________________

E-MAIL:  ________________________________________________________________

FAX TO: (714) 221-5535; E-MAIL: bryan@tsib.org; ATTENTION: BRYAN STANLEY

QUESTIONS: FOR QUESTIONS, PLEASE CALL DAVE BROWN (714) 329-8498,
E-MAIL dbrown.dpe@gmail.com OR BRYAN STANLEY (714) 221-5520, E-MAIL: bryan@tsib.org.

DOOR PRIZES ARE FOR DESIGN PROFESSION AND NON-EXHIBITOR ATTENDEES ONLY.
*NON-EXHIBITING INDUSTRY AND MANUFACTURER’S REPRESENTATIVES ENTRY FEE $500.00.
**Event:** Orange County Chapter of the Construction Specifications Institute Products Show
Marconi Automotive Museum & Foundation for Kids
1302 Industrial Drive
Tustin, California 92780

**May 22, 2018, Tuesday**

**Sponsor:** Orange County Chapter Construction Specifications Institute

**Invitation:**
- You are invited to participate as an exhibitor.
- Architectural seminar with a AIA/CES credit prior to exhibits.
- Display your products for local design professionals, owners, contractors, facilities managers and others.
- Exhibit hours are 4:30 p.m. to 7:30 p.m.
- Gourmet hors d’oeuvres passed during exhibit hours.

**Reservation:** Please make your check payable to the Orange County CSI Chapter. Upon our receipt of your check, you will then receive set-up details and location confirmation. No credit card reservations will be accepted after May 18th. For questions, please call Dave Brown (714) 329-8498, E-MAIL dbrown.dpe@gmail.com or Bryan Stanley (714) 221-5520, E-MAIL: bryan@tsib.org.

**Prices of Exhibits:**
- Tabletops (6’ x 2-1/2’ table).................................$700.00 each Discount with cash or check.
- $725.00 each with Credit Card or Website Payment.
- Mini-Booths (8’ x 2-1/2’ table).............................$800.00 each Discount with cash or check.
- $825.00 each with Credit Card or Website Payment.
- Booths (approx. 10’ x 8’).................................$900.00 each Discount with cash or check.
- $925.00 each with Credit Card or Website Payment.

**Mail to:**
Orange County CSI Chapter
Post Office Box 8899
Anaheim, CA 92812

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**RETURN THIS PORTION WITH YOUR CHECK**

**Event:** OCCCSI Products Show 2018
Marconi Automotive Museum & Foundation for Kids

**Amount Paid:** .................................................................$______________________________ 

**Contact Name:** ______________________________________________________________________ 

**Company Name:** _________________________________________________________________________ 

**Address:** __________________________________________________________________________________ 

**City, State, Zip:** ___________________________________________________________________________ 

**Phone Number:** ____________________________________________________________________________ 

**Fax Number:** ______________________________________________________________________________ 

**E-mail Address:** ____________________________________________________________________________
COTE Lunchtime Program

Tire-Derived Product Applications in Building & Construction

Presented By:

CalRecycle

251658240

CalRecycle, the California state agency leading recycling market development efforts, will highlight the wide range of building construction, accessibility and landscaping products made from recycled tires. Tire rubber provides enhanced product performance due to unique material properties. Attendees will learn how tire-derived products provide innovative, compliance solutions for building and accessibility codes, and achieve sustainability certifications. Their many performance benefits and reduced life-cycle costs are competitive with conventional products.

At the end of the Course, attendees will understand:
1. The Beneficial Attributes of Recycled Tire Rubber from a Material Properties Perspective
2. Competitive Advantages and Customer Value
3. The Range of Tire-Derived Products (TDPs)
4. How TDPs Support Sustainability Goals and Certifications
5. Resources to Evaluate and Source TDPs

Date: June 8, 2018

Check-in/Lunch/Meet the Vendors: 11:30 - 12:00PM

Presentation: 12:00 - 1:00PM
1:00 – 1:30PM Q&A/Vendor Wrap Up

Location: Lutron Experience Center
2458 Dupont Dr, Irvine, CA 92612

Learning Units: 1 LU
Cost: AIA Members – Free
Non-members - $20

Registration cap is 20 per group
Marvin Albert Chew, RA, CSI, CCS, SCIP

Marvin Albert Chew, RA, CSI, CCS, SCIP was a member of the Orange County and Los Angeles Chapters of CSI. Marvin passed away on April 9th leaving his wife, Helen of 22 years and his daughter, Juliana aka Pumpkin.

Marvin was born on April 21, 1956 in Los Angeles. He was the oldest of three children and grew up in Baldwin Hills. Marvin attended Baldwin Hills Elementary School, Audubon Jr. High where he played basketball, and then Westchester High. He participated in the aerospace club, school senate, and had his first job—at McDonald’s. Marvin always got A’s in drafting but he struggled a bit with Calculus and Physics. Ironically, both Calculus and Physics are his daughter Juliana’s favorite subjects.

After graduating from high school in 1974, Marvin continued his education at Cal State LA before transferring to Cal Poly San Luis Obispo in 1976, where he graduated with a B.S. in Architecture in 1979. He then moved to Bakersfield, where he worked for Bruce Keith AIA before accepting a position with Warren Pechin & Leonard Schroeder. He also served as Associate Director of the Golden Empire Chapter of American Institute of Architects in 1983. In 1987, Marvin joined Gin Wong Associates in Los Angeles, where he remained until he started his own specification business in the early 1990’s, with his longtime partner/friend Gerard Sanchis’ encouragement.

Marvin met and married Helen in January of 1996. Their daughter Juliana was born in 2000. Marvin nicknamed her “Pumpkin” at birth. He was a dedicated husband and father. He loved the simple things in life. Time with family sharing a good meal made him a happy man. Marvin was extremely patient teaching Juliana driving. Juliana described her dad as “that poor soul!” for what she put him through. He was a devoted father. He never missed any Juliana’s sports and school activities. When he was in the ICU hooked up with IV drips during his illness, he’d tried to get up thinking he needed to go home and prepare Juliana’s school lunch. He loved watching ‘Blazing Saddles’ with Juliana. He’d record science programs on Discovery channel to watch with Juliana. He considered Juliana his greatest achievement!

Marvin had a number of hobbies he enjoyed: deep sea fishing, foodie, photography, framing pictures and paintings, collecting coins, studying history and geography, bowling, and listening to music (especially 70’s). He always played in the background while working.

Marvin had sunny disposition. Marvin loved joking with people and had a way with others that allowed him to tease them without ever offending. He liked to make conversation with people – like the sample staff at Costco – and, of course, he didn’t mind that his sunny disposition earned him a nice portion size of samples as a fringe benefit. Nothing seemed to bother him much. A few years back, he had retinal detachment, had gone through 5 surgeries in one year to no avail, leaving him no sight in his left eye, yet he was never set back by the impediment. He joked that he should wear a patch on his left eye to be a pirate.

Marvin was a consummate professional; he loved his work and took pride in it. Being an architect, Marvin had always dreamed of building a house of his own, to his own liking. He also dreamt of traveling and seeing more buildings.

Our dear Marvin will never be forgotten.
III. Assessing Your Owner Client

In light of the Beacon decision, client selection/evaluation could not be more important for a condominium project. The client that you execute a contract with is looking to transfer ownership to a HOA and individual unit owners as soon as possible. This means that instead of just the client as a likely claimant against the design professional for project delays and/or defects, you now also have the HOA and individual unit owners as potential plaintiffs that can sue the design professional directly. Is the client developer going to be there when the claims of the HOA and/or unit owners arise? Often times, a single purpose entity is formed by the client developer for the particular project. The contract may very well limit your remedy only against this single purpose entity that has little if any assets once the project is complete and units sold.

Will the client developer even be in existence at the time of a claim? You may heavily negotiate an owner indemnity provision for HOA/homeowner claims. However, unless there is some parent company guaranty to such an indemnity obligation, this may be a hollow provision. What is the client developer’s litigation history and/or track record in addressing HOA and unit owners’ claims? Will the client developer entertain making repairs to mitigate the damages, or at least have hired reputable contractors and required such contractors to carry appropriate insurance to cover HOA and unit owner claims? Is the client developer willing to address maintenance obligations of the HOA and unit owners in the drafting of the HOA’s CC&Rs, bylaws and other documents? Reputation of your client developer in this regard should not be overlooked. All of the above should be carefully considered in addition to the specific key protective contract provisions discussed below.

IV. Important Contract Provisions

A. Indemnity, Indemnity, Indemnity!!!

In the real estate business the often-touted phrase is “location, location, location.” In the design and construction industry, the most important contract provision is INDEMNITY. Indemnity is an agreement to assume a specific liability in the event of a loss. It may mean a shifting of risk from one party to another. More often than not, it is the client saddling the design professional with an onerous indemnity provision. Many articles have already been written about addressing the client-drafted indemnity. Avoid an express duty to defend (and in California especially, negate this duty). Tie the indemnity obligation to a determination of negligence. However, in the context of agreeing to perform professional services on a condominium project, you must not only be wary of the indemnity provision imposing a contractual obligation on the design professional, but serious consideration should be given to obtaining express indemnity language from the client developer and/or the client developer’s contractor and subcontractors. Since the design professional may be sued directly by an HOA or individual unit owners, express indemnity running in favor of the design professional is equally important.

B. Waiver of Consequential Damages

These damages are the “indirect damages and expenses” claimed by plaintiff(s) allegedly relating to asserted design and construction defects. Often, consequential damages include damages relating to delays, loss of use, lost profits, etc. It is a balancing provision in that it should recognize, much like a limitation of liability (discussed further below), that there are relative risks and rewards for each party’s participation on the project. As was commonplace during the recent recession, some client developers pursued claims against design professionals and contractors for missed market opportunities to sell their individual units before the housing bubble burst. The design professional has no control over such market factors. A properlyworded, mutual waiver of consequential damages is an appropriate way to address this.

C. Limitation of Liability

Given the increased risk of being sued on a condominium project, a limitation of liability (overall cap) of the design professional from the client developer is essential. A limitation of liability provision can be tied to the amount of available insurance, the architect’s total fee, or some other amount as negotiated between the parties to the contract. The limitation of liability provision should be negotiated at arm’s length such that both parties have the opportunity to accept, reject or modify the provision.

D. No Third-Party Beneficiaries

It has long been a recommendation that design professionals include a “no third party beneficiaries” clause in their contracts to eliminate the possibility of third parties (i.e., parties not in privity of contract with the design professional) to avail themselves of contract rights and claims in litigation. Generally, this is still the case. However, with the Beacon decision, since the HOA and individual unit owners may be deemed third party beneficiaries as a matter of law, attempts should be made to tie them to be bound by the affirmative defense and limitation provisions of the contract that are there to protect the design professional. This necessarily requires the cooperation of the client developer through a contractual obligation.

E. The Certificate of Merit

Many states have a statutory certificate of merit requirement as a condition precedent to suing a design professional. While these statutes vary in effectiveness, it is at least some minimal stumbling block that plaintiffs must navigate. Design professionals should also consider strengthening the certificate of merit requirement and conditions through their contracts. Require that anyone pursuing a claim against a design professional not only obtain a certificate of merit but also support the certificate with a detailed report by the expert upon whom the certificate is based. Expressly require a certificate of merit regardless of the forum (e.g., civil courts, arbitration, judicial reference).

F. Provisions Requiring the Developer and Subsequent Owners to Include Maintenance Requirements and Manuals in CC&Rs and Purchase Agreements

(continued on page 16)
When New York Governor DeWitt Clinton emptied a keg of Lake Erie water into New York Harbor on November 4, 1825, he celebrated the end of construction of the Erie Canal. It was America’s first great public works project and the beginning of a new era in which traffic on the Canal would lead to explosive growth in both population and commerce in western New York State and the area to the west of the Appalachian Mountains. As one speaker at the ceremonies described it, “They have built the longest canal in the world in the least time, with the least expense, for the least money and to the greatest public benefit.” And they surely had.

The Erie Canal was not the first canal to be constructed in the world. Leonardo da Vinci designed gates for canal locks in the 15th Century and the Dutch and Italians had both constructed canals by the 16th Century. The 150 mile long Canal du Midi across southern France was completed in 1681 for the benefit of commerce between the Atlantic Ocean and the Mediterranean Sea. And, several canals had been built in the British Midlands that were crucial to the development of British industry. But the Erie Canal did more than improve commerce and speed travel. It created a physical bond between the Atlantic coastal states and the frontier states to the west that George Washington and others feared would be stolen by the Spanish or the French who were active in this remote region of our new nation. As a result, the Erie Canal should be seen not only as an outstanding engineering achievement but as a strategic one in uniting the infant United States.

Wedding of the Waters describes the engineering triumphs and the political and financial struggles in New York and Washington, DC surrounding the canal. Thomas Jefferson declared the canal “madness” in 1799, perhaps influenced by George Washington’s unsuccessful attempt beginning in 1776 to build a canal in the Potomac River valley through the mountains west of Washington, DC. Backers of the Erie Canal were unsuccessful in convincing the Federal Government to finance even a part of the canal so the State of New York had to sell bonds to cover its cost. The War of 1812 was also a significant setback to progress.

Explorers had been looking for a way to open the west since the Dutch visited the area in the early 17th Century. The only remotely feasible path to the west through the 1,000 mile long Appalachian Mountains was via the Mohawk River Valley that meets the Hudson River below Albany. But the Mohawk Valley, first surveyed in 1724, had its challenges. While nearly half of the 363 mile length the canal would eventually take on its way to Lake Erie was flat enough that no locks would be necessary, the western portion from Lockport to the canal’s terminus at Buffalo, and the eastern third from Utica through Schenectady to Albany, would require 83 locks for a total of 675 ft of vertical travel. Additionally, 18 stone aqueducts were necessary to carry the canal over rivers and valleys, the longest of which was nearly 1,200 ft. and 30 ft. high.

By 1791, following studies, surveys, and negotiations for potential canal routes, the first bill for construction of a canal was passed by the New York state legislature. Short segments of a canal were constructed in the relatively flat Mohawk valley in the center of the state. These demonstrated the benefits to the transport of both freight and passengers. Even though these privately and underfinanced canals failed, engineering lessons were learned and more importantly, by 1805 public momentum was growing for building the entire canal from the Hudson River to Lake Erie. And it would have to be publicly financed to ensure sufficient capital was available. It’s important to keep in mind that there were few alternatives for transport available in the early 19th century. Roads didn’t exist and the few dirt paths available for horse and wagon traffic were often impassible in winter or wet weather. Overland transport of freight was time consuming and very expensive. The railroads wouldn’t arrive for another 30 years.

There were several keys to the success of the canal, but none more important than the support of DeWitt Clinton, the mayor of New York City and eventual Governor of the state by time construction began in July 1817. His advocacy in the New York State legislature in support of the canal was critical to the sale of $6 Million in construction bonds. A huge amount, it was equal to about 20% of the total banking capital available in New York State at the time. He continued as an influential canal commissioner until work was completed in 1825.

The canal was “designed” at a period in America when civil engineering training was limited to land surveying. (The first American school of civil engineering wasn’t established until 1819 at West Point.) The “engineers” working on the Erie Canal were self-taught, on-the-job trained, using knowledge gained from visiting canals previously constructed in England. James Geddes and Ben Wright were responsible for the central and western sections of the canal. Charles Broadhead designed the eastern section and Canvass White, the fourth engineer, was responsible for design of locks and gates. White also developed a “waterproof”, Chittenango mortar used to construct the masonry sides of the canal. This was made from local limestone, crushed and mixed with sand and water.

Construction began in the relatively flat middle section of the canal between Utica and Syracuse. After only six months, at the end of 1817, nearly 1,000 men were at work on this 58 mile section. The canal would be 40 ft. wide at the water line, 28 ft. wide at the bottom, and 4 ft. deep with a 20 ft. wide tow path along its entire length. After the route had been surveyed the enormous task of removing a forest of trees and pulling the stumps had to be completed before hand digging could begin. By the middle of 1818, nearly 4,000 local men and 1,500 horses were at work clearing, scraping, digging, then hauling dirt away, before laying-up the stone side walls. Progress was so good that in 1819 the New York legislature authorized work to begin on the western and eastern sections of the canal where (continued on page 19)
quality of design documents worsened in the previous two years. That sounds bad, but the graph provides additional information.

Even though about 30% of owners said document quality had declined, more than 35% said there had been no change in quality, and 25% said they were better!

While we should know of problems with construction documents, cherry-picking statistics is unnecessary and unjustified.

The most recent CMAA report, published in 2015, states, “as major challenges, the poor quality of documents tops the list.” It goes on to say, “This finding is consistent with ... the 2010 study, i.e., 34 percent said the quality of design documents had declined ... and 33 percent made the same claim about construction documents. ... as long ago as [2005] more than 70 percent of respondents had cited a decline in the quality of design documents.” Again, the report uses only some of the information; it uses its own reports as sources but adds nothing new. The only other reference to document quality appears in a graph that shows poor document quality is an urgent challenge for owners.

One of the articles Michael Chambers and I used as a handout, “Contractor Survey Finds That Specs Don’t Measure Up,” was based on a survey conducted by Engineering News Record (ENR) and the School of Building Construction at the University of Florida.

ENR sent surveys to 500 contractors and received responses from 120 of them. Asked about the quality of specifications, 37% were rated good, 35% were rated fair, and 17% were rated poor. Compared to drawings, 85% of respondents said specifications were “sometimes or even more often” of lower quality. They reported that more than 84% of specifications “sometimes, often or generally have major omissions.” Contractors complained that specifications are boilerplate and contained irrelevant information. As was the case with the CMAA reports, the ENR survey summary expressed only subjective opinions.

How can this be?

In 1997, I accepted both claims about construction documents - that they had many problems and that they were getting worse. I had seen enough of them to know that defects were common, and because all I had heard about the change in quality was negative, I believed what I had read. In the time since then, I have noticed that every few years, the decline in construction document quality again becomes a popular topic. But, if document quality was declining twenty years ago, and has continued to decline since then, how is it that we can build facilities today that are more complex than they were in the ‘90s?

In a sense, this is the opposite of what we often see in advertising. Every time a product is changed - and, I suspect, sometimes when it hasn’t changed - it is promoted as “New! Improved!” If laundry detergent, for example, has been improved many times since it was introduced, it should be perfect by now, but it’s not. And chances are, within the next year or two we’ll see more “improved” versions of many common products.

I contend that the quality of construction documents not only is not declining, but also is, in fact, improving. Some of the improvement can be attributed to our tools. As software evolves, it makes it easier to avoid many types of mistakes. Both graphic and text processing programs now incorporate features that eliminate some problems, reduce the frequency of others, and help the user make correct choices. Also, the basic data used by computers has improved by becoming more standardized, and by being continually revised to incorporate real-world information. Many design firms have libraries of proven details and specifications that can be used as-is in many cases, and that can be easily modified to meet project-specific requirements. Building models now can incorporate complete, actual dimensions of structural elements, mechanical systems, and many products, allowing generation of more accurate dimensions, and software can analyze models to find conflicts.

I’m not saying documents are perfect. I continue to see mistakes in both drawings and specifications, and it’s likely they will never be eliminated. There will always be new employees who need to learn the correct way of creating drawings and specifications, there will always be new contractors and subcontractors who must learn how to use construction documents, and there will always be new products and processes that will challenge designer and contractor alike.

I see the problem as one of perception. Assume a typical project has 10,000 items. If 100 of them present problems, it’s likely that the 9,900 - or 99% - that were not a problem will be forgotten, and the one percent that didn’t work will be the ones that are remembered.

A word about boilerplate

As noted above, contractors and suppliers frequently complain about text that is repeated many times with little or no change. What they don’t seem to understand is that some requirements do not change much from one project to another. Specifications aren’t prose; they’re documents that define products and processes used in construction. If a given window is used in two projects the specifications may well be identical because that particular window is required in both projects. Similarly, the general conditions may be identical in multiple projects, and even the supplementary conditions may vary only slightly from one to another.

Boilerplate isn’t bad; it’s necessary. However, the amount of boilerplate can be minimized by proper use of Division 01 and industry standards, and by elimination of redundancies and nonessential text.

What have you seen? Are contract documents getting worse? If you think so, please post a comment on my blog to explain why, and provide evidence!


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A lack of proper maintenance of common areas, landscaping, drainage, roofs, decks, etc. have long been at the heart of most common interest development/condominium lawsuits. Accordingly, it is important for both the design professional and the client developer to craft maintenance obligations and requirements binding upon the HOA and unit owners. Such provisions not only serve to mitigate the actual damages but work as affirmative defenses if the HOA and/or unit owners fail to abide by them. The following provisions are recommended:

1. General Maintenance. The Owner agrees that the bylaws of any Homeowners’ Association established for the residential portion of this Project will require that the Association will perform, as recommended in the CC&Rs, Bylaws and/or Maintenance Manual, all necessary routine maintenance, maintenance inspections and any other necessary repairs and maintenance called for as a result of these maintenance inspections. The Bylaws shall also contain an appropriate waiver and indemnity in favor of the Owner, the Architect, all Consultants and the Contractor if the maintenance recommendations contained in the CC&Rs, Bylaws and/or Maintenance Manual applicable to the Association are not performed.

2. Homeowner Maintenance Obligations for any Residential Portion of Project. The Owner agrees that the CC&Rs established for the residential portion of this Project will require that the Homeowner will perform, as recommended in the CC&Rs, Bylaws and/or Maintenance Manual, all applicable and necessary routine maintenance, maintenance inspections and any other necessary repairs and maintenance identified. The CC&Rs shall also contain an appropriate waiver and indemnity in favor of the Owner, the Architect, all Consultants and the Contractor if the maintenance recommendations contained in the CC&Rs and Maintenance Manual applicable to the Homeowner(s) are not performed.

3. Maintenance Manual. Owner shall retain and utilize an independent third party consultant to prepare a fully detailed Maintenance Manual to be provided to the Homeowner Association. Such Maintenance Manual will contain all the information necessary for the Homeowner Association to maintain the Project.

The Maintenance Manual will contain specific requirements for:
1. Why the maintenance is required
2. What maintenance tasks are required
3. Where (which locations) the maintenance tasks will be performed
4. When (and how often) the maintenance tasks will be performed
5. How the maintenance tasks will be performed
6. Who is the best entity to perform the maintenance tasks
7. The estimated costs associated with each of the maintenance tasks
8. Logs documenting the status of all maintenance tasks

4. Owner’s Obligation to Retain Third Party Construction Inspection Service. The Owner shall retain and utilize an independent third party construction inspection service to perform a technical review of the final Construction Documents and observe and document construction of the project and report any defects, disparities, errors or omissions to the Owner. The Owner will insure that all recommendations for repairs, corrections or changes are accomplished.

5. Waterproofing Consultant. The Owner shall retain and utilize an independent third party waterproofing consultant to provide advice, oversight, and performance evaluations to ensure that all components of a building’s exterior perform. The waterproofing consultant shall be involved in the preparation of roofing, waterproofing, and exterior wall systems specifications, drawings, and construction inspection of the waterproof installation.

6. Independent Property Inspector. The Owner will assure that the Purchase and Sale Agreements for all units sold will require that each purchaser must retain an independent property inspector to inspect the purchased property for defects prior to closing.

7. Indemnity with respect to claims by HOA or Homeowners. The Owner acknowledges the risks to the Architect inherent in condominium projects and the disparity between the Architect’s fee and the Architect’s potential liability for problems or alleged problems with such condominium projects. Therefore the Owner agrees, to the fullest extent permitted by law, to indemnify and hold harmless the Architect, its officers, directors, employees and subconsultants (collectively, Architect) against all damages, liabilities or costs, including reasonable attorney’s fees and defense costs, arising out of or in any way connected with the services performed under this Agreement, except for the Architect’s sole negligence or willful misconduct. This indemnity obligation shall be binding upon Owner’s successors, assigns, legal representatives and any subsequent owners of the Project and/or Property, and this indemnity obligation shall inure to the benefit of Architect, and its successors, assigns and legal representatives. Owner shall obtain the express written agreement of any subsequent owner and/or purchaser of the Project and/or Property to be bound by this provision, and shall provide Architect with a copy of such agreement. Should the Owner fail to obtain the express written agreement of the successor Owner(s) or Purchaser(s) or such successor Owner(s) or Purchaser(s) fail to perform the obligations herein, then Owner shall remain responsible to indemnify, defend and hold harmless as set forth above.

8. Waiver. In consideration of the substantial risks to the Architect in rendering professional services in connection with this Project, the Owner agrees to make no claim and hereby waives, to the fullest extent permitted by law, any claim or cause of action of any nature against the Architect, its officers, directors, employees and subconsultants (collectively Architect), which may arise out of or in connection with this Project or the performance, by any of the parties above named, of the services under this Agreement.

9. Third Party Beneficiaries. Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the Architect or Owner, except as otherwise imposed by law. The Architect’s services under this Agreement are intended as being performed solely for the Owner’s benefit, and no other party or entity shall have any claim against the Architect because of this Agreement or the performance or nonperformance of services hereunder.

10. WRAP or OCIP (Owner Controlled Insurance Program) policy for Project. Prior to commencement of construction, the Owner agrees to obtain or require that the Contractor obtain a WRAP (or OCIP if the WRAP is unavailable) policy of insurance for the Contractor and its subcontractors for the Project, and provide Architect with proof of such insurance prior to the commencement of construction. Architect and its consultants shall be named as Insureds with the WRAP or OCIP insurance for the Project. The WRAP or OCIP policy shall include coverage for the negligent acts, errors and omissions of Architect and Architect’s consultants in the amount of $5,000,000 per claim and aggregate, subject to $50,000 deductible per claim. The WRAP or OCIP policy and limits (1) shall be primary to any similar insurance carried by Architect and Architect’s consultants and not excess; (2) shall apply as if each Named Insured were the only Named Insured; (3) shall apply separately to each insured against whom claim is made or suit is brought; (4) shall have a fully paid ten (10) year discovery and
extended reporting period. The failure to secure and maintain the WRAP or OCIP shall be considered a material breach of this Agreement and entitle Architect to immediately terminate this Agreement.

11. OPPI (Owner Protective Professional Indemnity) policy for the Project, Project Specific Excess. Prior to commencement of construction, Owner agrees to obtain insurance to secure an OPPI policy to supplement the Architect’s professional liability insurance limits in the amount of at least $__000,000. The policy shall be purchased and fully paid for a discovery and extended reporting period of ten (10) years following substantial completion of the Project. The Owner shall provide Architect with proof of such insurance policies. The Owner and the OPPI Insurer shall waive subrogation, and shall have no claim against the Architect, Architect’s consultants and their employees, owners, officers, directors and insurers. If the Owner decides not to procure an OPPI Policy, then the Owner shall pay/reimburse the Architect the cost of securing and maintaining project specific excess insurance in the amount of $__000,000.00 for a period of ten (10) years following substantial completion of the Project. The project specific excess must also be secured prior to the commencement of construction. The failure to secure and maintain the OPPI or project specific excess policy shall be considered a material breach of this Agreement.

12. Contractor Indemnity. The Owner shall require in its agreement with the Contractor that the Contractor shall indemnify and hold harmless the Owner, Architect, Architect’s consultants, and agents and employees of any of them from and against claims, damages, losses and expenses, including but not limited to attorneys’ fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), arising out of or relating to the wrongful acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder.

13. Specific HOA Obligations. The Owner shall include in the Project’s “Declaration of Covenants, Conditions and Restrictions” the by-laws applicable to individual residential condominium units, individual residential condominium unit purchase agreements, or similar documents, provisions providing that the Project’s Home Owners Association (“HOA”) and individual unit owners (singly, “Unit Owner” and collectively, “Unit Owners”) to the following effect:

a. The HOA shall be responsible for (a) proper and timely maintenance of all portions of the Condominium Portion of the Project not the direct responsibility of a Unit Owner (the “Common Areas”), and the Unit Owners shall be responsible for the proper and timely maintenance of all portions of their individual units, in each case such maintenance to include, at a minimum, the routine maintenance, maintenance inspections and any other necessary repairs and maintenance called for as a result of such maintenance inspections as described in the Maintenance Manual referred to above in this Agreement, and (b) establishing reasonable requirements for adequately funding, on a continuing basis, a maintenance program to satisfy the HOA responsibilities;

b. Neither the Architect nor its consultants nor their respective officers, directors and employees, shall be responsible to the HOA or the Unit Owners for the proper and timely maintenance of the Common Areas or the individual units;

c. The HOA and each affected Unit Owner shall first consult with construction experts knowledgeable and experienced in the matters concerning the HOA and such Unit Owners prior to initiating any dispute resolution proceedings involving any allegations of deficiencies in the performance of or asserting any claims against the Architect or its consultants in connection with the Condominium Portion of the Project;

d. The HOA, in contemplating the pursuit of any claims, must also survey Unit Owners, and send out questionnaires to individual Unit Owners concerning the actual or potential claims of any individual Unit Owners, and evaluate whether the HOA may pursue both the claims of the association as to common areas and the claims of Unit Owners as to the interiors of individual units whether any claims of Unit Owners must, in the interest of judicial economy, be brought by the Unit Owners individually concurrently with any claim brought by the HOA but joined, as required above; and

e. The Unit Owners and the HOA will obtain adequate insurance to protect the Unit Owners’ and HOA’s respective interests in the property.

14. Architect Shall Be Allowed to Review Documents. The Owner shall afford the Architect the opportunity to comment upon draft copies of the various documents referred to in this Section prior to their finalization.

V. Insurance Issues

No discussion regarding protecting yourself from third-party claims is complete without a discussion regarding professional liability insurance policies. The AIA Trust recently published a summary report of the 2014 professional liability insurance carrier interviews.

According to the report, there is a trend amongst owners requesting higher limits for insurance coverage. The insurance carriers which reported on this trend noted: “These requests for higher limits are not necessarily tied to the value of the project or increased exposure from the design professional, but rather are an attempt to increase the overall insurance proceeds available to the owner to respond to claims. As a result, carriers are seeing an increased use of project specific policies to respond to these requests.”

Available at www.theaiatrust.com/filecabinet/PLI-Interview-Summary-2015.pdf

Further, the total claim cost amounts have increased while the total number of claims has reduced.

However, the general expectation amongst carriers is that the frequency of claims will increase over the next year based upon increased in work activity for their insureds.

With respect to claims based upon project type, the insurance carriers reported that claims involving multifamily residential, condominiums, and schools/universities were reported to be approximately 25% of total claims.

As many architects are aware, many developers are making the decision to convert rental apartments to condominiums. By doing so, architects and others involved in the design and construction of multifamily residential projects are increasingly faced with the prospect of a new pool of potential third-party claimants, including individual homeowners and homeowners’ associations. “Add that to the scope and quality variations caused by contractor and owner value engineering substitutions, and the fact that the ultimate third-party condo owners are not always happy with the finished product. The result has been increased claims by the condominium owners against developers, contractors and design professionals.”

For those architects whom regularly or are considering providing design services for condominium projects, consider the following: “Several insurers interviewed indicated that they take a more detailed look at firms that provide condominium design when they quote policy rates. Over 40% of the insurers interviewed reported
that they have policy restrictions on condominium work, and almost 60% interviewed stated that condominiums may lead to higher rate increases in the coming years.”

5 Id. at p. 2.
6 Id.
7 Id.
8 Id.
9 Id. at p. 5.
10 Id. at p. 6.

10 The client developer should be required to obtain WRAP or OCIP insurance to cover general liability claims of the contractor and subcontractors. Such policies should be in place from commencement of construction through completion and be “occurrence based.” It is one thing to require that a WRAP or OCIP be obtained in the contract but it is vitally important to make sure one of these policies is actually obtained. The failure to obtain should be a material breach of the design professional agreement, and grounds for termination. There have been too many cases where the design professional becomes the main target in litigation due to the fact that a WRAP or OCIP – although contractually required – was not obtained and the design professional is the only party with insurance.

You would think that there would be a specific insurance product for design professionals performing condominium projects. There currently is not. The availability of project specific professional liability insurance to cover the design team is rare if non-existent for such projects. Therefore, it is the design professional’s practice policy of professional liability that remains at risk. It is important to ensure that there are no exclusives in your policy regarding condominium projects. Many policies prohibit more than a certain percentage of your annual revenue to be generated from services on such projects. You may also want to look at project specific excess insurance to cover the risks associated with specific condominium projects, and the design professional should seek the cost of the same as a reimbursable cost from the client developer.

Lastly, an OPPI policy should be discussed as offering the client developer some protection as opposed to requiring the design professional to raise its overall practice policy to higher limits at increased premium cost. The OPPI does not directly offer any insurance protection for the design team. It generally sits in an excess or secondary position to the design professional(s’) practice policies. In other words, the OPPI protects the Owner for the design professional errors and omissions once the design professional’s practice policies have been exhausted.

VI. Conclusion and Recommendations
The bottom line is that condominium projects remain high risk. There is no absolute protection that design professional can negotiate with its client to avoid the very real possibility of HOA and/or individual unit owner claims and lawsuits. Some states have adopted statutory pre-litigation schemes to address residential construction and design defects and “right to repair.”

Unfortunately, the statutory language has created rights for HOA and/or homeowners to pursue contractors and design professionals directly, regardless of contractual privity. The Beacon decision has taken it even farther. The best defenses remain a good set of plans and specifications, used by competent general contractors and subcontractors, with appropriate third party observation and inspection (especially of the building envelope/waterproofing). Having a client that will be there at the time of a claim is no guaranty so past performance and litigation history are worth investigating. Both you and your client should
explore all of the various insurance products. Consult your insurance broker. Both you and your client should be united in making sure that HOA and unit owner maintenance requirements are mandated in the project CC&Rs, declarations and manuals. Lastly, if defect and deficiency issues do arise, a welldrafted protocol to address the same may lead to a more efficient and economical resolution of the same. The money may be good and the projects plentiful but the risks are real.

Buch Notes

construction would be much more difficult.

Once the middle section was completed in October 1820, on schedule and on budget, it started earning toll revenue. Attention then turned to the construction of the locks and aqueducts necessary east of Utica and west of Rochester. At the peak in 1823-'24, 9,000 men were at work at both ends of the canal. In one especially steep half-mile section east of Utica, five locks were necessary to travel 40 ft. vertically. Each lock would raise, or lower, a barge 8'-4". In another section, the river valley was so narrow the canal had to traverse back and forth above the Mohawk River on aqueducts to provide space for the canal. In the western section the problems were no less complicated. Near Rochester an earthen embankment nearly one mile long, 40 ft. high, and over 60 ft. wide at its top was necessary so the canal could pass over Irondequoit Creek. Here the soil was so weak they had to drive 900 timber piling along the base on both sides of the embankment. The embankment alone took two years to build with 3,000 Irish immigrants at work. But the most difficult construction in the western section required construction of locks so the canal could ascend a 70 ft. escarpment on its way to the terminus at Buffalo. Two flights of 12' high locks were constructed to enable traffic to pass in both directions at the same time. These were completed in October 1824 and this section of the canal was filled in June 1825.

By the time the eleven day celebrations to commemorate completion of the canal took place in October 1825, it was already a great success. Both freight and passenger traffic exceeded expectations from the beginning and toll revenue was such that the construction bonds were paid off early. This commercial success continued and the canal was enlarged twice, first in 1840 and again in 1905. At its highpoint in 1951 the canal carried 5.1 Million tons of freight annually. Today, the canal is still in service but mostly for pleasure boats.

Wedding of the Waters was written by Peter L. Bernstein and published by W. W. Norton in 2005. It has 448 pages including a very schematic map showing the canal's route and only a couple of drawings. There are a few pages of photos of the principal people important to the project's success. There is almost no attention given to the most important feature of any canal, i.e., where the water to the canal comes from and how it is fed into the canal. And, as is the case with most books written for the general public, there is very little detail on how the construction was actually accomplished. This would have been especially useful in understanding how the locks and the stone aqueducts were built.

Ed Buch, FCSI, CCS, AIA, LEED AP
Los Angeles,
Feb. 19, 2018
### Meeting Schedule and Information

Make reservations by the Friday preceding the meeting.
Call the Chapter Hotline at (714) 434-9909

#### Upcoming Meetings:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
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| May 8  | **OCCCSI Board Meeting (5:30 P.M.)**        | Thompson's Design Center
1716 Case Road
Orange, California |
| May 22 | **Construction Products & Services Expo**  | Marconi Automotive Museum & Foundation for Kids
1302 Industrial Drive
Tustin, California |
| June 1 | **Newsletter Deadline**                    |                                       |
| June 5 | **OCCCSI Board Meeting (5:30 P.M.)**        | Thompson's Design Center
1716 Case Road
Orange, California |
| June 12| **OCCCSI Installation & Banquet**          | The Winery Restaurant
The District
2647 Park Avenue
Tustin, California 92782 |