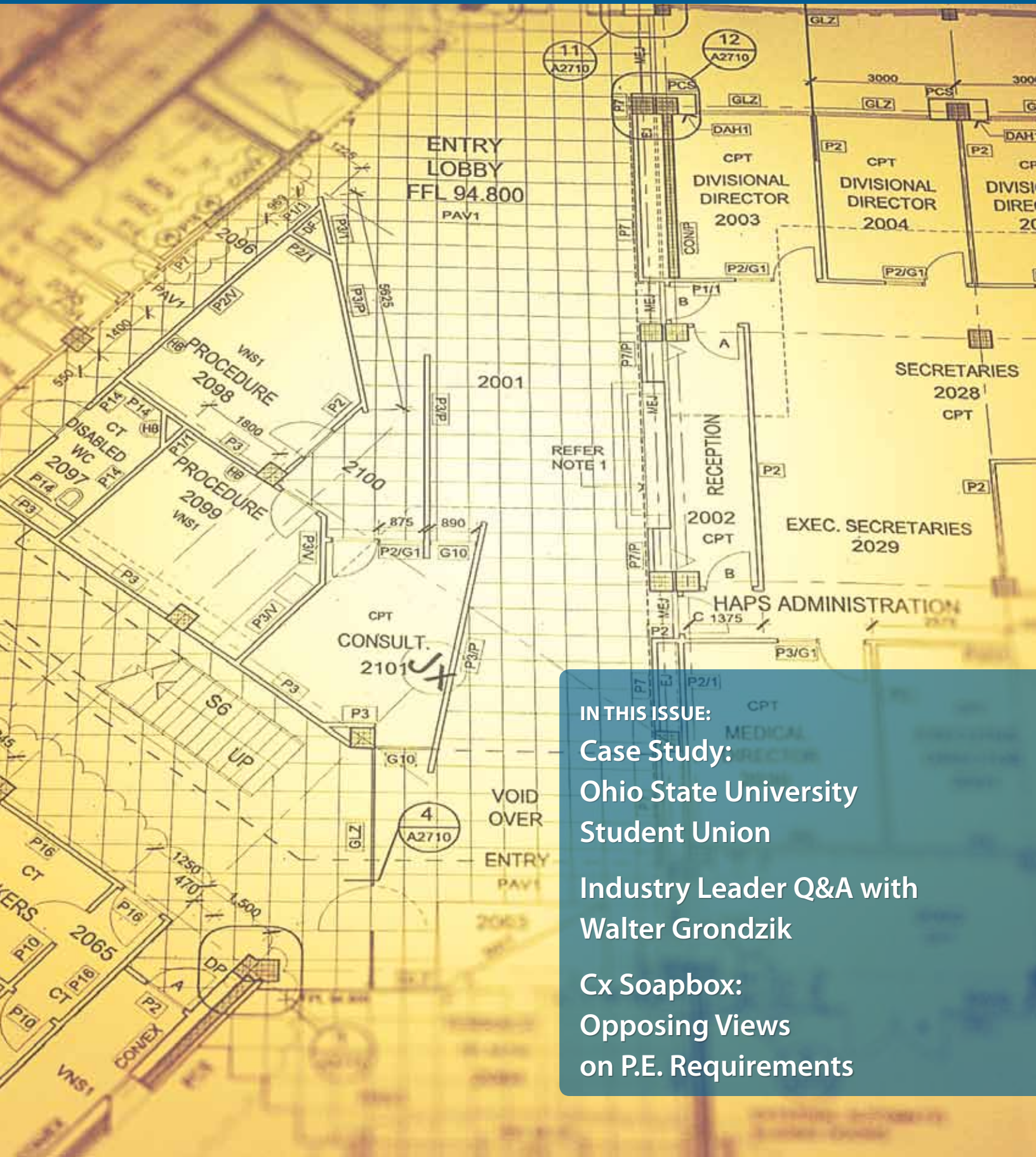


# The Checklist

The quarterly newsletter of the Building Commissioning Association



IN THIS ISSUE:  
Case Study:  
Ohio State University  
Student Union  
Industry Leader Q&A with  
Walter Grondzik  
Cx Soapbox:  
Opposing Views  
on P.E. Requirements

## In This Issue

Letter from the President .....	2	Industry Leader Q&A.....	6
GovEnergy Update.....	3	Back to School with BCA.....	7
CCP™ Updates.....	3	Member Spotlight.....	7
BCA Bulletin Board.....	4	Case Study: Ohio State University Student Union.....	8
BCA Elections Coming Soon.....	5	Cx Soapbox Pro .....	10
New Interactive BCA Website Debuts this Fall.....	5	Cx Soapbox Con.....	11

# Letter from the President



BCA Members,

It has been a long hot summer for many of us, and now we can all look forward to the fall season (mild, I hope). This summer has been a busy one for the BCA, and the remainder of the year looks to be busy as well.

We started the summer with a trade show booth and educational offering at the American Institute of Architects (AIA) National Convention held in Miami in June. Things got hotter (literally) last month as we participated in the GovEnergy Conference in Dallas, Texas. This was the first time in years the BCA had an exhibition booth at GovEnergy, and it was very busy! Folks from the federal government's many different agencies stopped by to learn more about commissioning and the BCA. We look forward to increasing our membership as a result.

This fall we're a supporting sponsor for the AIA/COTE Commissioning Symposium that's happening in Washington,

D.C. on October 21. This symposium has a great speaker line-up — including two BCA members — and a Q&A with opening speaker Walter Gronzdzik is featured on page 6. We are also attending the upcoming Greenbuild Conference in Chicago November 17–19 and look forward to seeing many of you there. Please to stop by booth 1828 and say hello. Or if you see me walking the floor, please take time to tell me about the commissioning world in your part of the country.

In the spirit of the BCA's mission to educate, I'll be continuing work with several community colleges in Texas to help set up a training curriculum for building maintenance technicians. Once this is complete, we'll create a training curriculum for commissioning technicians. While there are numerous commissioning professionals in our organization, we can all agree that in the near future we will need more trained staff to go out into the field and gather/record the data to verify that the intent of the owner is being fulfilled. With energy management now getting even more attention by owners and facility managers, our commissioning requirements are becoming ever more stringent and important to the overall success of the projects.

The BCA is being contacted by various like-minded organizations and associations to collaborate and spread the commissioning message out to the overall construction and building

operations industries. If you'd like to be part of these presentations and collaborations, be sure to let us know via email at [info@bcxa.org](mailto:info@bcxa.org) or fill out a Speaker's Bureau application (see page 4 for details).

Just as a reminder, while the current economic climate remains uncertain, one thing has stayed firm and committed — your continued membership with the BCA. For that I am very proud to be part of such a focused and loyal association. With this in mind, would you consider running for election to the National Board? Your Chapter Board? Or perhaps join a BCA Committee?

While we are now up to 1,200 members internationally, it would only take a small amount of your time to become an influence on the future of the BCA and the commissioning industry at large.

Please take time to consider this as an opportunity to excel. Keep up the good work, and I hope to see you in Chicago!

Sincerely,

A handwritten signature in black ink that reads "Ed Faircloth". The signature is written in a cursive, flowing style.

Ed Faircloth, LEED AP  
BCA President

# GovEnergy Update

More than 3,000 government professionals converged on the Dallas Convention Center last month for GovEnergy 2010. This popular conference educates those involved in building government structures, with an emphasis on incorporating green building practices. The BCA was part of the sold-out trade show, and our booth volunteers stayed busy providing information and answering questions about the commissioning process. Many of the attendees were familiar with the term "commissioning," but unclear about the process and the best ways to secure quality commissioning authorities. The BCA offered a handy postcard that outlines the phases of the commissioning process and lists the ways the Association can



(L to R) Catherine Craglow, Kyle Lambert and Ed Faircloth represent BCA at GovEnergy.

help identify Cx authorities, including RFP and RFQ postings, owner specific presentations and sample templates.

Don't forget to offer these valuable services to your owners and owners' representatives! The postcard mentioned above is available to members and nonmembers alike. Simply email your name and address to Sheri Adams at [sadams@bcxa.org](mailto:sadams@bcxa.org).

The BCA would like to thank Kyle Lambert, Gerald J. Kettler and Ed Faircloth for their time and dedication to the BCA booth at this important event. If you're interested in volunteering at the BCA booth during a future event, please contact Catherine Craglow at [ccraglow@bcxa.org](mailto:ccraglow@bcxa.org). ■

## CCP™ Updates

The BCA congratulates the following individuals on achieving the Certified Commissioning Professional (CCP) designation:

Steve T. Alschuler, PE, CCP, LEED AP  
Bath Commissioning Group  
Albuquerque, N.M.

R. Kirk Maxey, CCP  
WorkingBuildings, LLC  
New Orleans, La.

Myra Ferriols, CCP, LEED AP  
Keithly Barber Associates  
Burien, Wash.

Kenneth Von Bank, PE, CCP, LEED AP  
Sustainable Engineering Group  
Madison, Wis.

They join the ranks of some of the most qualified commissioning providers in the industry. Way to go!

The CCP exam is now online and available at more than 200 testing sites. To apply, review the Candidate Bulletin and download the application at [www.bcxa.org/certification](http://www.bcxa.org/certification).

Not sure if you are qualified? Send us your questions at [certification@bcxa.org](mailto:certification@bcxa.org) or call the BCA Hotline at (877) 666-2292. ■



Certified Commissioning Professional

## Building Better Commissioning Providers

Raising the bar in professional standards, the CCP designation is the mark of a dedicated and goal-oriented professional. It offers employers and building owners tangible evidence of an individual's desire to excel in the building commissioning industry.

### Competitive Advantage

Staying abreast of the ever-changing commissioning industry is a responsibility that cannot be ignored.

### Professional Recognition

The CCP designation will set you apart as someone with the commitment, dedication and knowledge to succeed.

Visit the BCA website to check your eligibility.



# BCA Bulletin Board

## Sign Up Now!

Hone your Cx skills with the BCA-sponsored University of Wisconsin course: Leading the Commissioning Process: Step-by-Step Strategies for New Construction Projects.

**October 4-8, 2010**

Course Fee: \$2,195 (group discount available)

BCA Members: \$2,085

The course delves into the daily activities of the Cx process. Class completion counts as a project on the CCP exam application. See full course description and registration info here: <http://epdweb.engr.wisc.edu/Courses/Course.lasso?myCourseChoice=L256>.

## See Us at Greenbuild November 16-18, 2010

BCA members represent! Join us at Greenbuild Nov. 16-18 in Chicago to connect with fellow BCA members, meet industry peers and get up to speed on the latest developments in commissioning and the building industry at large. Volunteers are welcome! Two and four hour shifts are available; contact Catherine Craglow at [ccraglow@bcxa.org](mailto:ccraglow@bcxa.org) if interested. Visit us at booth #1828.

## Welcome, Western Canada Chapter!

In August the International Board granted provisional chapter status to the Western Canada Chapter, home chapter to approximately 30 BCA members in British Columbia, Alberta and Saskatchewan. Chapter contact is Josh Watts, [josh.watts@stantec.com](mailto:josh.watts@stantec.com).

## In the News

BCA member Wayne Robertson PE, LEED AP, wrote an article titled, "LEED Experience is the Best Teacher; 5 Lessons Learned," published by Environmental Design and Construction. Read it at <http://bit.ly/avcLFq>.

## RCx Summit November 4, 2010

The Northeast Chapter will host its annual RCx Summit Nov. 4, 2010 at the New Jersey Performing Arts Center in Newark. Topics include The Dynamics of New Building Commissioning at Princeton University; Retrocommissioning for Pharmaceutical Systems; Retrocommissioning for Refrigeration Systems; and Building Envelope Commissioning.

## Calling All Speakers

**Applications are being accepted for the BCA Speaker's Bureau through December 31.**

The BCA receives regular invitations to speak at industry conferences, corporate meetings, trainings and outreach events. If you are interested in sharing your knowledge through teaching and would like to increase your speaking opportunities, please apply to join the bureau at <http://www.bcxa.org/downloads/bca-speaker-form.doc>. We are specifically looking for members in the Southwest, Northwest and Central regions. Applications will be accepted until December 31, 2010.



Tony Di Leonardo, LEED AP, CxA, of the BCA National Capital Chapter, speaks at the High Performance Building Congressional Caucus Coalition in Washington, D.C.

# BCA Elections Coming Soon

It's not too late to apply for a chapter or international board position. Deadline for board applications is September 30, and elections begin November 4. Current openings include:

### Chapter/Number of Board Positions

- International: (2)  
*plus two regional representatives*  
*(Northwest and Mid-Atlantic regions)*
- Central: (4)
- National Capital: (4)
- Northeast: (3)
- Northwest: (5)
- Southeast: (4)

Chapter board terms last two years, and international directors-at-large and regional representative terms last three years. Visit [www.bcx.org/members](http://www.bcx.org/members) to download an application.

Look for the special elections-themed Newsflash in your email on November 4. This kicks-off electronic voting, which continues through November 12. To vote, simply click on the link in the email, enter your member number and password, and cast your ballot. It's that easy!

Please remember, this is YOUR association, and the candidates you elect will lead the BCA into the future. They are the face of the Association and are instrumental in BCA's involvement in the commissioning and green building industries. Voting takes only a few minutes. Questions? Email [info@bcx.org](mailto:info@bcx.org) or call the hot-line at (877) 666-2292. ■

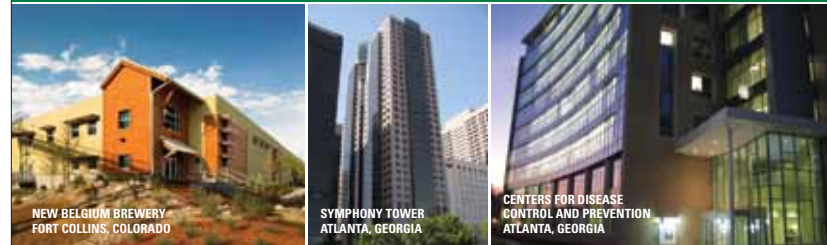
# New Interactive BCA Website Debuts this Fall

Connecting with fellow BCA members is about to get even easier. Later this year the Association will unveil an upgraded, interactive website designed to keep you in the know and make the most of your connections. Expanded member profiles will offer greater visibility, allow you to search by demographics and view member history. Updates are easier too, with simple steps to change your member information, renew your dues and register for events, all in real time.

BCA members will also be able to network online through interactive chapter web pages. Chapters can post documents, announcements, videos and more, for instant accessibility, any time. Chapter-specific events will integrate with a master events calendar so you can easily see BCA's many offerings. On a committee? You'll have the same features on committee web pages, with the added bonus of being able to comment on works-in-progress without long email threads or frequent conference calls.

Watch for additional details on this latest BCA development. ■

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# Industry Leader Q&A

with *Walter Grondzik, PE*

**W**alter Grondzik, PE, an architectural engineer, is a Professor of Architecture at Ball State University. He is author of “Principles of Building Commissioning” and co-author of “Mechanical and Electrical Equipment for Buildings” (11th ed.), and “The Green Studio Handbook.” Grondzik’s interests include building commissioning, sustainability and high-performance building initiatives, and all areas of environmental control systems and their effects on buildings and occupants. He is an ASHRAE Fellow and a Fellow of the American Solar Energy Society.

**Q:** Tell us about your experience with building commissioning (Cx).

**A:** My first exposure to building commissioning was in 1993 when I was associated with the Florida Design Initiative (FDI). FDI was attempting to promote high-performance buildings, and commissioning seemed like a logical tool to improve the quality of our buildings. FDI hosted the 2nd National Conference on Building Commissioning—and I was hooked (along with FDI, which also hosted the 4th NCBC). I have been involved with commissioning ever since, primarily on the information dissemination side of things. I was an active member of ASHRAE GPC-0, which developed Guideline 0, am currently on ASHRAE SGPC-0, and am chair of ASHRAE GPC-1.3 (addressing the training aspects of the commissioning process). I also developed and present the ASHRAE Learning Institute’s short course on the commissioning process (BCA is a co-sponsor of that course). Commissioning makes even more sense to me today than it did in 1993.

**Q:** How have you seen the Cx industry change during the past decade?

**A:** For the better, but with concerns for the present and future. The quality of the commissioning product has been benchmarked with numerous

guidelines and the exchange of information through conferences and web sites. BCA and other organizations have done a great job in promoting commissioning as a professional service with a shared body of knowledge. Various certifications announce commissioning competency to prospective clients. Design professionals and owners should have a clear understanding of what the commissioning process should generally entail and provide. Green building certifications have done a lot to promote the idea of commissioning. Unfortunately, commissioning for green projects is also presenting problems for the Cx industry.

**Q:** What do you see as the greatest challenge facing the Cx industry today?

**A:** Two challenges appear to take center stage. The first is the commoditization of commissioning services in response to the need for commissioning for green building certifications. In theory the demand for green building services should be a positive; but in practice the demand is often for a credit (not for quality assurance)—and this type of credit can easily become a commodity that is let to the lowest bidder. This can have a debilitating effect on the commissioning industry. The second challenge is the develop-



ment of a cadre of qualified commissioning providers who can provide top-notch services at fair professional fees.

**Q:** What should be the top priorities for the Cx industry going forward?

**A:** Work with green building certifiers to ensure that one of the more powerful drivers for commissioning services does not become the industry’s albatross. The commissioning prerequisite should not be allowed to become another “bike rack.” Encourage the completion of the NIBS Total Building Commissioning guideline array. NIBS Guideline 3 forcefully proved that commissioning involves more than just HVAC and electrical—but there are many system types not yet represented in the NIBS series. Assist ASHRAE (and other organizations) with the development and maintenance of commissioning guidelines (and now standards, with ASHRAE 202 on the horizon). Too often there are too few people at the table when the heavy lifting is being done. Continue to freely share experiences and best practices.

**Q:** What are your recommendations for training the next generation of Cx authorities?

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*continued on p. 12*

# Back to School with BCA

Don't miss out on BCA's Fall Webinar Series, kicking off October 13, 2010. Three webinars are offered in as many months, providing a low cost, no-travel way to update your entire office on

important facets of building commissioning.

- October 13, 2010  
Integrated Systems Testing
- November 3, 2010  
GeoExchange Systems:  
What CxAs Need to Know
- December 8, 2010  
Drive to Results—The RCx  
Process

All webinars occur from 10–11:30 a.m. PT (1–2:30 p.m. ET), and the cost per webinar connection is \$100 for BCA members or \$125 for non-members.

For details on each webinar, visit the BCA website at <http://www.bcx.org/events/webinars.htm>.

**Ready to register?** Go to <http://www.regonline.com/2010bcfallwebinars>. ■

## Member Spotlight

*with Kyle M. Lambert*

**Home city & state:** Lantana, Texas

**Employer:**  
Henneman Engineering, Inc.

**Position:**  
Director of Commissioning—Dallas

**BCA Member Since:** 2007

**Years in the building commissioning industry:** 5

**Volunteer Positions Held with BCA:**  
Vice President, SW Chapter Board of Directors; Member-At-Large, SW Chapter Board of Directors; President-Elect, Texas Chapter (Provisional Status) Formation Board

**Major BCA Accomplishments:**  
Helping to start the Texas Chapter of the BCA.

**Being the President-Elect of the Provisional Texas Chapter, what advice do you have for others looking to start a chapter in their own state?** The administrative and legal aspects surrounding the formation of

a new chapter may seem daunting at first, but there are plenty of resources available through the BCA to assist during the process. Be proactive, and do not be afraid to ask for help. Most of the time there is someone within the BCA organization who has the background and experience to provide specific guidance at critical junctures.

For our chapter, it has been important to focus heavily on getting the legal and administrative tasks done before trying to tackle the greater challenge of supporting and facilitating growth within our chapter. However, once we are official, it will be exciting to see the positive effects of localized organizational meetings, member participation, and educational outreach on the overall quality of commissioning services in Texas.

In the grand scheme of things, the Texas BCA chapter will strive to be a leader among the many volunteer professional organizations making a positive impact upon the building design and construction industry for

years to come. This is only the beginning, but maintaining a long term objective even during the early stages is very important.

Finally, be realistic about the time frame involved in completing the process. For the Texas Chapter, it will likely take a full 10-12 months to complete the entire process from chapter inception to permanent status.

**Favorite Hobbies:** Golf, classic cars, camping, home improvement projects

**Favorite vacation spot:** Any one of a variety of locations my wife I haven't been able to visit yet.

**Anything else to add?**

I have a wonderful wife and three amazing children that keep me busy when I am not "on the job." I love being a family man, and I look forward to the dinner table each night. I am proud to be a Texan! ■





## CASE STUDY:

# Ohio State University Student Union

By Frank A. Mauro

## PROJECT DESCRIPTION

In October 2002, Ohio State University (OSU) began its journey to construct a new Ohio Student Union for its main campus in Columbus, Ohio. The existing facility was showing wear, and OSU wanted to construct a building that could provide for the modern needs of the growing, changing student population.

Students, faculty, staff and consultants were involved in the planning and support of the new building. Students participated with their input in each phase of the project and continue to be involved in the planning of events that take place in the Union. The planning teams visited student unions throughout the country to gather ideas for this project. Students provided input for spaces including lounges, student areas and organization offices, meeting rooms, and of course, restaurants and a food court. Design highlights include an impressive three-story, open atrium as the centerpiece of either of two main entrances, and a Grand Ballroom provides a visual marvel as well as a useful, functioning showpiece for both the University and City of Columbus.

OSU used the design expertise of experienced staff to create a unique and pleasing atmosphere throughout the building, with the school colors of scarlet and grey featured throughout. Wood flooring from the original Union was saved and became a part of the new structure in the floor of one of the new restaurants in the building. The Union also pays tribute to the University's many outstanding alumni and highlights those who have served the United States Armed Forces.

The new Union is located in the same area as the previous one, and a temporary Union was set up elsewhere on campus for use during the construction phase of the project.

A building raising ceremony took place on November 30, 2007, and a grand opening of the new building occurred March 29, 2010.

## COMMISSIONING

The project was certified by the USGBC as a LEED Silver project, under LEED version 2.1.

In addition to the Prerequisite for Commissioning, the Enhanced Commissioning credit was also chosen for implementation. As with the entire project, the OSU planning team performed its due diligence in investigating and understanding the nuances of commissioning. After being selected as the commissioning authority, Heapy Engineering was involved in several meetings with the Planning and Design team in reviewing the requirements of commissioning—with regards to both the Prerequisite and Enhanced credits for LEED.

Prior to commissioning involvement, Heapy Engineering asked for and attended several meetings whereby the commissioning process was reviewed, and the entire Design and Construction Commissioning Team was introduced to the commissioning discipline. The intent of these meetings was to make the construction team more comfortable with commissioning. As with all commissioning projects, the more understanding of the involvement requirements of each company, the easier the commissioning process will be as part of the project, and the better the value will be for the owner. Heapy Engineering wanted to be sure that all the parties involved understood what the commissioning authority was expected to do for the LEED process, how important the documentation would be, and how commissioning would fit into the overall construction process for the project. A commissioning process that



included the Building Commissioning Association Essential Attributes in combination with the ASHRAE Guideline 0 and Guideline 1 was used to complete the project.

OSU requested that the TAB contractors bid through Heapy Engineering, a different approach for the University. KAHOE Air Balance Co. was brought on with Heapy overseeing the process. This new approach was not accounted for in the original contractual arrangement for construction, so the mechanical specifications were adjusted to allow for this. The two companies combined their expertise in both managing the air and water balance, and in the coordination of the final functional testing of the systems.

Another “out of the box” requirement for the project was the heavy involvement of commissioning with the refrigeration systems — a LEED requirement for the project. Because of the large number of food services involved, there were many pieces of equipment with refrigeration requirements. Due to the equipment layout, the physical runs of refrigeration lines were longer than usual. This combination of circumstances could cause issues with the refrigeration systems and the required pressure relationships if not installed properly. Heapy Engineering used its commissioning staff experienced in refrigeration construction to review the layout, spot-check the operation of the equipment, and assure the owner that the testing and paperwork for the equipment was completed per the manufacturer’s recommendation and submitted to the owner for future use.

The largest involvement of any commissioning project is with the functional testing of the automatic temperature control (ATC) system. The ATC system used for this project was one of two systems that are acceptable on the OSU campus. The system provided by BCI met OSU standards. The experience, professionalism and cooperation demonstrated by the BCI staff assured a successful project. As with any construction project, the delicate completion and proper operation of the environmental systems were a race to the finish line with the construction deadline for the project. It was a photo finish — but successful.

The cooperation of the entire construction team was key in making this project successful. There were bumps, hiccups and issues, as with any construction project. However, the understanding of the construction team and the leadership of the owner’s team of owner’s representation, architect, engineer, construction manager and commissioning authority brought the commissioning of this campus centerpiece to a successful conclusion.

Visit the Union at [http://ohiounion.osu.edu/dine\\_and\\_shop/union\\_market](http://ohiounion.osu.edu/dine_and_shop/union_market) to see pictures and read more about this new addition to the Ohio State Campus. ■

*Frank A. Mauro, PE, CCP, LEED AP is a senior commissioning project manager for Heapy Engineering in Dayton, Ohio and was the overall commissioning project manager for Heapy on the Ohio State University, Ohio Union project.*

#### FAST FACTS

<b>OWNER:</b> Ohio State University	<b>PME ENGINEER:</b> HAWA Inc.
<b>LOCATION:</b> Columbus, Ohio	<b>CONSTRUCTION MANAGER:</b> Smoot Construction Company
<b>PROJECT TYPE:</b> Student Union	<b>PLUMBING CONTRACTOR:</b> Vaughn Industries
<b>SQUARE FOOTAGE:</b> 285,000 square feet	<b>MECHANICAL CONTRACTOR:</b> Vaughn Industries
<b>NUMBER OF STORIES:</b> Three with a lower/ underground area	<b>ELECTRICAL CONTRACTOR:</b> Vaughn Industries
<b>OVERALL BUDGET:</b> Approximately \$120 million	<b>ATC CONTRACTOR:</b> BCI
<b>PROJECT COMPLETION:</b> March 29, 2010	<b>TAB:</b> KAHOE Air Balance Co.
<b>ARCHITECT:</b> Moody-Nolan Inc.	<b>COMMISSIONING AUTHORITY:</b> Heapy Engineering



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## CX SOAPBOX

# Cx Projects Require a Licensed Professional Engineer to be in Responsible Charge

By David G. Venters, PE

When selecting a commissioning authority it is important to recognize the key elements (risk management, performance validation, technology transfer) that comprise the commissioning process meet legal and state definitions of engineering. Therefore, in most jurisdictions those activities require a licensed professional engineer to be in responsible charge.

Statutes safeguard life, health and property by defining engineering and establishing strict education, experience and testing levels required to achieve professional licensure. Laws derived from statutes regulate persons and companies providing professional engineering services by assigning responsibility, establishing rules of conduct and holding engineers accountable through fines and loss of licensure.

Any tasks in the commissioning process that meet legal definitions of engineering or professional service are required to be executed under the responsible charge of a licensed professional engineer. Most definitions are similar and generally match the following:

*Florida statute 471.005-(7): "Engineering" includes the term "professional engineering" and means any service or creative work, the adequate performance of which requires engineering education, training, and experience in the application of special knowledge of the mathematical, physical, and engineering sciences to such services or creative work as consultation, investigation, evaluation, planning, and design of engineering works and systems... and the inspection of construction for the purpose of determining in general if the work is proceeding in compliance with drawings and specifications, any of which embraces such services or work, either public or private, in connection with any utilities, structures, buildings, machines, equipment, processes, work systems, projects, and industrial or consumer products or equipment of a mechanical, electrical, hydraulic, pneumatic, or thermal nature, insofar as they involve safeguarding life, health, or property; and includes such other professional services as may be necessary to the planning, progress, and completion of any engineering services.*

Commissioning process tasks such as developing owner project requirements; review design; produce test specifications; inspection and verification of installation, operation and performance; all meet the definition of engineering. In particular, they meet sections such as "... the inspection of construction for the purpose of determining in general if the work is proceeding in compliance with drawings and specifications" and "... includes such other professional services as may be necessary to the planning, progress, and completion of any engineering services." While not every project includes all of the recommended tasks of the standard commissioning process, any combination of tasks meeting the definition constitutes an engineering service and is to be regulated as such.

Risk management to safeguard life, health and property is the intent of this statute, and all commissioning tasks serve to reduce risk for this purpose.

Laws also require licensed engineers practice within their "area of expertise." While this phrase is vague, it is clear that a mechanical engineer in responsible charge of a structural design without the proper technical background will be subject to the full penalties of the law including fines and loss of licensure. Regulating the profession provides a significant level of protection to the public and incentive for engineers to practice only within their technical competence and experience.

Certifications, such as those for commissioning, help identify persons with some level of related technical background. For engineers, they supplement continuing education, experience, and knowledge. They also identify to the public the engineers operating within their area of expertise. However, certifications do not eliminate the need for the individual in responsible charge of commissioning to have a professional engineering license.

For example, the American Society of Heating Refrigeration and Air Conditioning Engineers (ASHRAE) issues a Healthcare Facility Design Professionals (HFDP) certification. Similar to commissioning certifications, the HFDP does not

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*continued on p. 12*

## CX SOAPBOX

# Requiring a P.E. License to Practice Cx: An Opposing View

By Peter Keithly

Over the past few years, the professional engineering boards for several states have adopted rules requiring that commissioning procedures must be completed under the supervision of a licensed professional engineer (P.E.). Proponents of this requirement are actively lobbying state engineering boards across the country in an effort to make this a standard for all states. Following are the arguments I have heard most often presented by the advocates of this requirement and my associated rebuttals.

1. *Commissioning is inherently an engineering process, and therefore the practice should be supervised by licensed professional engineers.*

**Rebuttal:** The goal of the commissioning process is to verify that the owner's project requirements have been satisfied for a potentially wide variety of building systems. The ability to develop and complete effective commissioning procedures requires a multitude of skills in addition to a strong design and operational understanding of the specific systems being commissioned. While it is certainly important to understand the engineering principals related to these systems, this is really only one aspect of what is required to develop and complete effective commissioning procedures.

2. *Commissioning procedures often include design reviews, and these should only be performed by professional engineers.*

**Rebuttal:** The design reviews performed by commissioning authorities

are specifically aimed at identifying potential issues related to commissioning and to satisfying the owner's project requirements. They are not meant to be technical (peer) design reviews and should not be represented as such.

3. *Only professional engineers can qualify for errors and omissions (professional liability) insurance on commissioning projects.*

**Rebuttal:** This is simply not true. Errors and omissions insurance is available for a wide variety of professionals who may or may not have a P.E. license. And because independent commissioning firms are not contracted for design or construction, their exposure to potential liability is reduced.

4. *The education, experience and testing required for a professional engineering license provides assurance to the client that the commissioning authority is qualified.*

**Rebuttal:** While state P.E. board license requirements and exams are meant to verify experience and expertise in specific design disciplines, they do not verify experience or competency in the commissioning process. In addition, most states allow the P.E. licensed in any discipline to practice in other disciplines, so long as the engineers themselves feel they are competent to do so. Therefore, in those states where a P.E. license is now required for commissioning, any engineer with a license can legally supervise the commissioning of any building system, even though he or

she may have no verified training, expertise or experience in either the commissioning process or the specific system(s) being commissioned. Yet a non-licensed individual with extensive training, experience and expertise in commissioning can't provide commissioning authority services without the "supervision" of an engineer licensed in that state. Does that make any sense?

5. *The client has more protection because the P.E. risks losing their license if they are found to be incompetent as a commissioning authority.*

**Rebuttal:** Ask yourself this: how does the state professional engineering board pass judgment on the competency of a commissioning authority when they don't even have an exam that tests for knowledge of the subject? And if they someday do, will all existing licensed engineers be grandfathered in as qualified?

In summary, I believe this action by several states to require a P.E. license for the practice of commissioning is both unfair (a baseless restriction of free trade) and counterproductive to the growth of our commissioning industry. I expect that someone will eventually challenge the legitimacy of these laws in court. In the meantime, firms who want to compete for commissioning work in these restricted states may simply hire or partner with a "token" P.E. licensed in that state, who may or may not have any actual experience or expertise related to

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*continued on p. 12*

*“Industry Leader Q&A: Grondzik”  
continued from p. 6*

**A:** Be sure to address all aspects of best practices: personal communications, process basics, testing and verification procedures, operator training, and project documentation. Try to more proactively address the huge potential for commissioning services represented by the existing building stock, by training professionals to make the case for such services.

**Q:** Anything else you'd like to add?

**A:** It is truly fun to see several people who attended the 2nd National Conference on Building Commissioning to try and figure out what commissioning was about now playing leadership roles in the commissioning industry. Apparently commissioning made as much sense to them as it did to me. Some of the nicest design professionals I have met are commissioning providers. There must be something about the field that attracts exceptional people. ■

*Walter Grondzik will speak at AIA/COTE Commissioning Symposium, a BCA-sponsored event, October 21 in Washington, D.C.*

*“Commissioning Projects Require a Licensed Professional Engineer to be in Responsible Charge”  
continued from p. 10*

require the applicant to be a licensed professional engineer. However, with only a certification, under no circumstances can the applicant act as the engineer in responsible charge of a health care design project.

In summary, states and other jurisdictions license engineers to set minimum qualifications and hold them accountable in order to safeguard life, health and property. Many, if not all, of the tasks in the commissioning process meet legal and state definitions for engineering and therefore require a licensed engineer to be in responsible charge. Certifications cannot replace the licensing required to perform professional services – including commissioning. ■

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*“Requiring a P.E. License to Practice Commissioning: An Opposing View”  
continued from p. 11*

commissioning. I suppose that means a few more professional engineers may be employed, but it may also put a few existing commissioning firms out of business, and it does little to improve the legitimacy of the commissioning industry.

And finally, I think it is worth noting that of the entities currently offering training and certifications in the practice of commissioning (BCA, NEBB, ACG, AEE, and the University of Wisconsin), none require that you must hold a P.E. license to be certified. I know from personal experience that this question was raised in regards to the BCA program, and I believe the appropriate decision was made. ■

*Peter Keithly is a facilities engineering professional with more than 30 years of experience as a licensed building operating engineer, facilities manager and commissioning services provider. Keithly served for five years on the BCA founding board of directors which consisted of five licensed professional engineers and two otherwise qualified individuals.*

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