

## American Institute of Architects Middle Pennsylvania Chapter Newsletter

# June / July 2008

# **Tour of New PSU Landmark**

Dee Columbus, Editor

As you approach the Penn State campus from Park Avenue, you are greeted by a curved edifice that seems to be moving though firmly anchored to the ground. This is the new Lewis Katz Law School Building currently under construction. Along with the CSI Pennsylvania Railroad Chapter, the AIA Middle Pennsylvania Chapter organized a special tour of the construction site on June 18, 2008.

The tour was lead by Construction Manager, Jerry Shaheen of Gilbane Construction. Since he had been involved with the project since the beginning of the design phase, Mr. Shaheen shared a great deal of knowledge about the project. He explained that a new law school building is also being built at the Penn State Carlisle Campus, and that this is the first and only law school from which students at either campus will be certified by the American Bar Association and receiving degrees as one law school operating at two locations.

The building is 113,000 square feet with a basement and three stories designed for 500 students and future expansion. The undulating glass tube contains the Law Library, courtrooms and classrooms while the brick portion houses offices and support areas. The mechanical systems are housed in the basement. Upon entering the large library area on the Third Floor, one is immediately exposed to a breathtaking view of Beaver Stadium and the Bryce Jordan Center.

Because of the intricate design, curves, and angles, a Building Information Model (BIM) was imperative. The BIM cost \$150,000, but saved the University \$500,000 by keeping the project on schedule with classes beginning in January 2009. With all trades confident of the BIM it facilitated some work to be done out of sequence in order to keep the construction moving forward with all the pieces eventually fitting together perfectly.



# **Chapter Looking for Passionate Authors**

J. Richard Fruth, AIA

Are you passionate about architecture? Do you have opinions on what is happening or not happening in our profession? Do you have some skill at writing? If so, you could channel your passion, opinions and writing skill into a fun activity about five times per year.

The Mid Points Newsletter Committee is looking to expand the content of Mid Points with several new columns. We want to add columns on design, green architecture, and the codes/code enforcement and a column featuring our members [see companion article in this issue of Mid Points]. Design columns could be a critique of a local building, your take on national trends or commentary on projects that we visit. Green architecture would feature

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Undulating curtain wall of the Lewis Katz Law School Building. Study carrels will line the base of the windows.

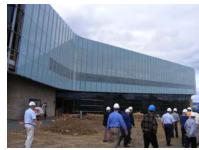
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**Old Soldiers** 



AIA and CSI members follow a special tour of the Lewis Katz Law School Building.

#### **NEXT MID POINTS**

Deadline for articles and information for the next newsletter is:

#### August 22, 2008

Please contact Dee Columbus, Editor, tdta2000@comcast.net

#### STAY CONNECTED

Please send new member information and any changes and/or additions in your contact information including email addresses to:

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#### WWW.AIAMIDDLEPA.ORG

Please be sure to visit the AIA Middle PA Chapter website to view the following:

- Chapter Officers
- Calendars
- Newsletter Archive
- Executive Committee Minutes
- Membership Information
- AIA Links
- Sponsorship and Advertising
- Mission Statement
- Project Photos

# Message From the President

Brian W. Hayes, AIA

The Chapter website and newsletter committee is focusing on the information we provide to our members, recognizing that we are bombarded otherwise with industry publications, journals, and endless e-mails. Contributing to the newsletter is your chance to get involved and this issue gives you that chance. We are also trying to keep our website as current as possible. We appreciate your patience while we work on it.

Events are taking place as planned. July holds the Annual AIA Middle PA Chapter Picnic with special thanks to the Kimball's for use of their home. Also in July, our Chapter will be participating in the "Lunch with a Professional" during the PSU Architecture High School Summer Camp. Thank you to Lisa Iulo for the invitation. Coming up in September our Chapter will host a seminar on fasteners at the Carpenter's Union Center in Gallitzin. More information will follow.

Recently our Chapter had the opportunity to tour the new law school building on the University Park campus of Penn State. We very much appreciate the coordination effort between Dave Reasinger and Jerry Shaheen, the Project Manager with Gilbane Building Company. Both of these individuals had much excitement and enthusiasm for the project. Jerry Shaheen remarked that he and other construction workers might be lucky enough to work on one or two of these types of high design buildings in their lifetime. He credited architects for coming up with the ideas—like skewing the plane of the curtain wall and tilting the vertical mullions 3 degrees. Thanks to BIM the project kept on schedule.

Interestingly, the CM, not the Architect, provided the BIM for this project and got paid for it as part of their fee. For future articles, we may want to look at architects use of BIM.

# **Upcoming Event:**

# **Annual AIA Middle PA Chapter Picnic**

Friday, July 25, 2008



Mark your calendars now for the Annual AIA Middle PA Chapter Picnic. We will once again be able to enjoy the hospitality of the Kimball family and enjoy the very special ambiance of Klein Immergrun. Each year we are dazzled with the colorful flowers, beautiful countryside, and amazing home and patios. This is a great time to come together and enjoy great food, great drink, and great conversation.

Come early and stay late. We'll see you at poolside!

# AIA Associates Corner — 2008 Links

Denise E. Thompson, Assoc. AIA

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# **Business Cents**

Occasional comments on the business of design by J. Richard Fruth, AIA

What is happening here? The architect makes a fantastic presentation and everyone is enthusiastic about the plan. 'The architect is so smart!' is heard at the committee meeting and you are hired. Then almost the next thing is 'what is the architect doing?' 'I think we are paying them too much.' 'We need to be going in a different direction.' Or the dreaded "I am not paying you one cent."

Between the sale, the study or the design and the start/end of construction something has gone badly. We all know that our craft is marked by countless potholes that at the least will jar our teeth and at the worst can cause financial/professional harm. It might be an innocent mistake, a bad contractor, an unreasonable customer or a bad estimate that brings the house down. And it is easy for us to place the blame elsewhere on the assistant who wasn't careful, that dreadful contractor, the unfair customer or the bad economic situation.

But, I believe that some, if not most, of the problem lies elsewhere in an area that we do control, if we apply self discipline and reasonable time management. It is communication or more specifically the lack of communication. Did we answer that letter? Did we return that telephone call? Did we follow thru like we said we would?

Some ways to get this done include: scheduling our work week with time to take care of those follow up calls and letters, having a co-worker place a call when we can't, and most importantly giving our customer early follow ups even if it is to report that 'I don't have the answer yet, but I am working on it.'

Communication is important but how we deliver the message is essential. We need to be sincere, honest and straightforward. After all that's why we were hired in the first place. And when meeting in person we need to make sure that we have confident friendly eye contact that transmits the professional authority that we all have.

You may be surprised when the person who was on the other side of some conflict ends up coming back to you later with a prospect, new work or a thank you. Long standing friendships are made from these encounters.

BUSINESS CENTS: The best chance of achieving a successful and happy conclusion is when there is good communication throughout the project.

## For the Good of the Order

Comments on the Profession of Architecture by Tom Columbus, AIA

Are architects using their skills in reverse? It seems like demolition projects are now on the increase in urban areas. Not only are architects being called upon to participate in construction projects, but also in de-construction projects. With population swings in full gear, the so called "rust-belt' urban areas have found themselves with an overabundance of abandoned buildings. These buildings eventually become eyesores, hangouts for criminals, homes for rodents, and dangerous to the public due to possible collapse.

Our skills in putting together new buildings are now being used to take apart buildings in order to protect the health, safety, and welfare of the public. Although this work may not end up on an awards list, keep in mind it is for the benefit of the public and architects should not turn this type of work down.

# SPECIAL ADVERTISMENT

The next newsletter will contain seminar information, speaker bios, and schedule.



save the date

9.23.2008



# Lights of Philadelphia 2008

You are invited to "Lighting for a Green World" the region's premier lighting educational conference sponsored by the IES Philadelphia Section.

This one day event will feature more than 15 seminars with AIA, ASID, IIDA, and IESNA accreditation. Date:

Tuesday, September 23, 2008 Location:

The Crowne Plaza,
Philadelphia Main Line
4100 Presidential Blvd,
Philadelphia PA 19131

Kindly Save the Date.

For more information: visit us at www.iesphl.org



# A Stepped-Back Masonry Wall Reveals More at the Right Time

Forensic Architecture by Albert S. "Toby" Roberts, Jr. AIA CCS

Recently a question about the existence of through-wall flashing and properly installed weep holes arose on a completed project. The completed project showed fairly serious water infiltration of the masonry veneer units and mortar. Enough water was trapped inside the veneer units to produce severe mortar joint and CMU efflorescence. In addition there were cracked CMU faces due to the frost heaving power of trapped water. The infiltration of the veneer is expected and must be dealt with properly to prevent trapped water inside the wall construction. Trapped moisture can frost heave the masonry off the face of the building causing danger to the life of persons anywhere near the veneer when it falls off. Not all of the water that got through the veneer construction was properly routed back outside the face of the veneer wall.

Unfortunately masonry work these days involves masonry materials purchased by the general trades contractor who has the larger advantage of buying at a discount. No general contractor will pay \$85.00 for a hammer (brick) as the U.S. Air Force did a while back. They get the brick for the lowest available price based on their bill-paying record and repeat business. The masonry contractor is left with the speed-of-laying-up-the-units as fast as they can as the only way to make money on a construction site. To make matters worse the masonry superintendent probably shares in the profit their owners make.

This, "means and methods" way of material provision and the laying up of a masonry wall is most times not in the best interest of the weather resistance and overall life of the wall.

Architects need to be more aware of the masonry work going on at their project construction sites at every possible opportunity. The masonry, "Quality Assurance Program" written in ACI 530-05/ASCE 5-05/TMS 402-05, "Building Code Requirements for Masonry Structures" states on page CC-21, "Commentary on Building Code Requirements for Masonry Structures, Article 1.15,"

"The allowable values for masonry design permitted by this Code are valid when the quality meets or exceeds that described in the Specification. Therefore in order to design masonry by this Code, verification of good quality construction is required. The means by which the quality of construction is monitored is the quality assurance program.

A quality assurance program must be defined in the contract documents to answer questions such as, "how to," "what method," "how often," and who determines acceptance.

The contract documents must indicate the testing, inspection and other measures that are required to assure that the Work is in conformance with the project requirements."

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# Old soldiers never die, they just fade away

J. Richard Fruth, AIA

Douglas MacArthur apparently used this and variations on a number of occasions. It speaks to an observation that Tom Columbus, AIA made at our recent Newsletter Committee meeting. Tom asked why do we only write about our members after they have died? We reprint an obituary or remembrance when they died.

He suggested that perhaps there is someone in the AIA Middle PA Chapter who would be interested in interviewing and writing about our members and others who have contributed to architecture in our region. This could include older and young architects, educators and consultants.

If you are someone who likes to hear stories and can report these stories in short articles, then you are the person that we are looking for. Or maybe you know the perfect people person who could be asked to provide this service. It is the type of activity that will reward the right person much more than the cost to gather the information and write a story.

Give us your suggestions for a Personality Reporter. See the list of contacts in the companion article 'Passionate Authors.'

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# **Passionate Authors**

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new developments and lessons learned in using green building components. The architect's perspective on codes and code enforcement, new developments and national trends would be the subject of the codes column.

We have regular columns provided by our current president and two of our past presidents: component news by Brian Hayes, architectural details and specifications by Toby Roberts and business management by Dick Fruth. We are also expecting to have Tony Potter of Powell Trachtman contributing a legal column.

These regular columns are typically +/- 300 words. (This article is 305 words.). The newsletter is published six times per year and we would like to receive at least four articles each year on each of these subjects (providing an article for each of our six issues is also welcomed). If you are interested in being considered or if you know someone who should be considered for one of these assignments please contact Dick Fruth, Chairman of the Newsletter Committee, <code>jrfruth2@msn.com</code>, Dee Columbus, Mid Points Editor, <code>tdta2000@comcast.net</code>, or Brian Hayes AIA Middle PA President, <code>brian.hayes@kimballcorp.com</code>.

# **Forensic Architecture**

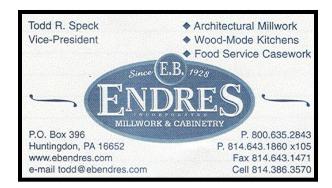
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#### Recommendations:

- 1. Revise your masonry specification so that it will provide more control over the construction process. A canned "for sale" specification does not go far enough to protect you and your client. Referencing a code or industry standard in the specifications never guarantees a trouble-free installation. Unfortunately the referenced code or standard are only looked up after there is a problem, while you are beginning an unpaid investigation prior to defending a lawsuit you could have prevented.
- 2. Require a mock-up that is stepped back at both ends to reveal the veneer, cavity, back-up wall construction, and that also shows:
  - a. Foundation construction type,
  - b. Leave a multi-brick opening tall enough to show:
    - i. The at-grade through-wall flashing construction,
    - ii. Flashing laid into the back-up block joint,
    - iii. The dampproofing sprayed on the back-up block over the top of the flashing shoulder, shingle-style,
    - iv. The vapor barrier laid over the top of and sealed to the flashing shoulder, the sheathing, and cold-formed metal framing.
  - c. Weep hole construction beside a omitted stretcher unit above the flashing,
  - d. The mock up should include a 2" by 6" wood window frame mock-up built into the masonry with flashing, a lintel, and the air barrier sealed to the window frame in a stepped-back view of the sill, jamb and head. The head and sill flashing and sill extender shall also be mocked-up in a stepped-back fashion. Show end dams at the head and sill flashing
  - e. Control joint construction stepped back to show sealant, backer rod neoprene mortar excluder, and shear connector in the sash block as well as damproofing sprayed on the mesh bulged over the CMU back-up joint.
- 3. In addition, once the mock-up is approved in writing require masonry units to be left out of the veneer at 30 of the above crucial wall opening areas and other specified locations as directed by the Architect in the field. Once viewed and noted in the Architect's Field Review as being in compliance the openings may be filled with masonry units.
  - a. Require dated digital photos to show work that has not been required to be left open at 50 randomly located opening flashing areas on the project.
- 4. A usual mock-up these days is done for the looks of the masonry units and the mortar. The look of a masonry wall mock-up has never prevented efflorescence, frost heaved masonry, and cracked brick at missing or improperly constructed control joints.
- 5. Make sure that the cleaning method is also stepped back on the mock-up so you can see the weather-resistant closed-pore "shine" on the tooled concave mortar joint and how it hasn't been pitted by the timely soaking application of a no-acid spray cleaner and the rinsing off of the cleaner with a low pressure water spray.

The AIA Middle PA Chapter welcomes comments and questions regarding this and future "Forensic Architecture" articles. Please direct your thoughts to Toby at L. Robert Kimball and Associates, 814.472.7700 Ext.1342 or toby.roberts@kimballcorp.com.

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