FEBRUARY NEWSLETTER
DATE: 2/13/2024

CURRENT BOG

Interim President:
Nathan Roelofs
Ph: 901.283.2892

Interim President Elect:
Lionel Davis II
Ph: 901.713.1894

Technology Transfer/Programs:
Max Graham
Ph: 901.653.9955

Membership Promotion:
Amanda Kraus — Ph: 901.495.4599
Casper Briggs — Ph: 901.765.0013

Treasurer:
Tom Bird
Ph: 901.547.2500

Research/Promotion:
Robert Smith — Ph: 225.620.5088
Lionel Davis II — Ph: 901.713.1894

Secretary:
Stephanie Cianciola
Ph: 901.345.6100

Refrigeration:
Ashley Shipley
Ph: 901.337.6831

Honors & Awards:
Abby Stutz — Ph: 901.726.0810
Jack Griffith — Ph: 901.379.0500

Historian & Memorials:
Evans Jack
Ph: 901.324.6610

Digital Communications:
Patrick Silva
Ph: 901.482.1382

Young Engineer Activities Chair:
Jacob White
Ph: 901.571.0857

Student Activities:
Mariel Meegan
Ph: 901.384.8400

K12/STEM:
Stephanie Cianciola
Ph: 901.345.6100

Government Affairs Chair:
Mike Bilderbeck
Ph: 901.734.5502

Nominating Committee:
Casper Briggs
Ph: 901.765.0013

Mariel Meegan
Ph: 901.384.8400

Lionel Davis
Ph: 901.713.1894

Nathan Roelofs
Ph: 901.283.2892

Community Outreach:
Lionel Davis II
Ph: 901.713.1894

Meeting Location:

The Learning Center
Lichterman Nature Center
5992 Quince (between Lynnfield and Ridgeway, east of I-240)

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2023-2024 MEMPHIS ASHRAE CALENDAR AND ANNOUNCEMENTS

Chapter Meetings/Events
Tuesday, February 13th – DEI & Workforce Development by Kurt Kraiger
Tuesday, March 27th – Joint Chapter Meeting @ Ole Miss
Tuesday, April 9th – TBD
Friday, April 5th – Golf Tournament
Tuesday, May 14th - TBD

CRC Update

As you may remember, the Memphis Chapter is hosting the Chapters Regional Conference July 25-27 at the historic Peabody Hotel. We will host chapter members from Tenn., Miss., Ala., Kent., West Va., Louis., and northwest Fla., as well as ASHRAE Society dignitaries.

One effort that's starting now is the drive to obtain sponsorships to help reduce costs of the events (our Sponsorship flyer is below). This is being chaired by Ricky Bursi and David George. Don't be surprised if you hear from them soon.

We held our organizational meeting a few weeks ago, and have volunteers to chair our 17 subcommittees. But don't worry, there are still MANY opportunities for the rest of you to help in meaningful ways. Our subcommittee list is attached; reach out to the chair if you see an area of effort that interests you.

So, mark your calendars and bring your special person to the Peabody for a night or two, and see how ASHRAE works (as well as attend the GREAT Thursday night Welcome Party and Friday Night Event

Reach out to us if you have input.

Mike Bilderbeck, Casper Briggs
Co-Chairs

2024 Region 7 CRC

Memphis, TN

July 25-27

Peabody Hotel

Sponsorship Opportunities

Platinum Level—$20,000 Exclusive Signage at Event and 10 Tickets to the Event (2 Available)

- Thursday Night Welcome Party at the Rock & Soul Museum / Rum Boogie Café
- Friday Night Event at the National Civil Rights Museum & Central BBQ

Gold Level—$5,000 Exclusive Signage at Event and 6 Tickets to the Welcome Party or the Friday Night Event (3 Available)

- Friday Lunch at the Peabody
- Saturday Lunch at the Peabody
- Hospitality Suite

Silver Level—$1,500 and 4 Tickets to the Welcome Party (3 Available)

- Technical Sessions (This opportunity is reserved for Engineering Firms only)

Bronze Level—$1,000 Recognition in the Program and 4 Tickets to the Welcome Party

All Sponsors will be recognized in Email publications to all ASHRAE Members in the seven state Region 7 area covering Tennessee, Mississippi, Alabama, Kentucky, West Virginia, Louisiana, & NW Florida. All Sponsors will also be recognized in printed programs given to all attendees.

Contact: David George - davidg@etairoshvac.com / 901-828-2995

Ricky Bursi - rbursi@ogcbinc.com / 901-488-9295

2024 Region VII CRC Schedule (Memphis)

(February 6, 2024)

Wednesday – July 24, 2024

Golf Outing
Hospitality Suite – 5:00 pm – 11:00 pm

Thursday – July 25, 2024

Registration Desk – 7:00 am – 6:00 pm
Hospitality Suite – 7:00 am – 11:30 pm (closed during Welcome Party)
Business Session #1 Lunch – 12:00 pm
(Boxed lunches for Society Rep, Regional Officers, and Chapter Delegates & Alternates)
Business Session #1 – 12:30 pm – 4:00 pm
Caucus #1 – 4:15 pm – 5:15 pm
Welcome Party: (walk to Rock-N-Soul Museum, then Rum Boogie) – 6:30 pm – 11:30 pm

Friday – July 26, 2024

Registration Desk – 7:00 am – 6:00 pm
Hospitality Suite – 7:00 am – 11:30 pm (closed during President's Lunch and Dinner Event)
Business Session #2 – 8:00 am – 11:30 pm
"Platinum/Gold/Bronze Sponsor Showcase" – 10:30am – 5:00pm
President's Lunch – 11:45 am – 1:15 pm
Tech Sessions – 1:30 pm – 4:30 pm
Companion Activities– 8:30 am – 2:30 PM
Caucus #2 – 4:45 pm – 5:45 pm
Dinner Event: National Civil Rights Museum and Central BBQ – 6:15 pm – 10 pm
YEA Event – 10:00 pm – Midnight

Saturday – July 27, 2024

Registration Desk – 7:00 am – 11:00 am
Hospitality Suite – 7:00 am – 3:00 pm
Chapter Operations/Treasurer Workshop - 8:00 am – 10:00 am
GAC Workshop – 8:00 am – 11:00 am
RP Workshop – 8:00 am – 10:00 am
MP/YEA Workshop – 8:00 am – 10:00 am
CTTC Workshop – 7:30 am – 10:00 am
ECC Workshop – 10:00 am – 11:00 am
Historian Workshop – 10:00 am – 11:00 am
Student Activities Workshop – 8:00 am – 10:00 am
Awards Luncheon – 11:30 am – 1:00 pm
Business Session #3 - 1:30 pm – 3:30 pm
CRC Adjourns – 3:30 pm

CRC Recap Meeting – 4:00 pm – 5:00 pm
Optional Dinner outing – 6:00 pm – 9:00 pm

2024 Region VII CRC Subcommittees

(January 12, 2024)

1. **Steering committee – Mike Bilderbeck, Casper Briggs, Jeff Gatlin, Evans Jack, Patrick Silva, Ashley Shipley**

2. **Hotel – Mike Bilderbeck and Casper Briggs**

3. **Financial – Max Graham**
   a. Handle the checkbook

4. **Transportation – Robert Smith (chair)**
   a. Thursday night's activities are 1/3 mile from the Peabody door, so most folks will walk. Set up a carpool for those who don't want to walk
   b. getting us to and from Friday night's party
   c. getting ASHRAE officers and staff person to hotel from airport (Mike, Jeff, and Casper will assist)

5. **Attendance – Stephanie Cianciola (chair)**
   a. Responsible to distribute/collect attendance sheets at every session/meeting. Prepare PDH certificates for the tech sessions

6. **Hospitality room – Ryan Hertter (chair)**
   a. Wednesday afternoon until 3 PM Saturday
   b. See schedule for closures

7. **Tech sessions – Lionel Davis (chair)**
   a. Gotta be at the hotel, no available time for travel
   b. Three 1-hour sessions

8. **Money raising - David George and Ricky Bursi (co-chairs)**
   a. Exhibitor tables and streetside trailers

9. **Registration desk – Mariel Megan (chair)**
   a. Wednesday afternoon until noon Saturday, except
   b. at least 2 at all times
   c. would be nice to have at least 1 floater during peak times

10. **Swag bags, women – Libby Bilderbeck (chair)**

11. **Swag bags, men - Stephanie Cianciola (chair)**

12. **A/V – Patrick Silva (chair)**
    a. day-to-day liaison
    b. Mike and Casper will negotiate pricing

13. **Companion events – London Davis (chair)**
    a. During the day Friday, and Saturday morning

14. **Banners/signs – Mariel Megan (chair)**
    a. Promoting contributors

15. **Golf Wednesday - Ricky Bursi and David George (co-chairs)**
    a. 5-10 folks will want to play

16. **PR – Lionel Davis (chair)**
    a. Promote Society officer to TV/newspaper
    b. Get a mayor to attend Thursday afternoon or Friday morning business session

17. **Meeting secretary to take minutes – Mariel/Stephanie will find a student**
    a. Paid position, college student?

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President's Corner:

We had a great turnout for our January chapter meeting, where Brian Hafendorfer educated us on ASHRAE Standard 62.1. He had an engaging presentation, and there were quite a few questions from the audience. Thank you to all who came and participated.

This upcoming chapter meeting will be on DE&I and Workforce Development by Kurt Kraiger, it should be a good discussion. I look forward to seeing you there!

I want to take a moment to look into the near future, at the end of next month, and promote the joint meeting between the Memphis and Jackson ASHRAE Chapters that will be hosted at Ole Miss. This will be a great time to get multiple PDH credits and network with our Mississippi compadres. Please mark your calendars for March 27th.

February is Black History Month!
There are a number of reasons to be thankful for the many contributions, sacrifices, and societal advancements of many Black Americans. Black History is American History.

Reminder, Valentine's Day is quickly approaching, make your reservations now!

Sincerely,

Nate Roelofs
Interim President, ASHRAE Memphis 2024

Chapter Meeting Topics: **“DEI & Workforce Development”**

As workplaces and job demands change more rapidly than ever, it important for leaders and managers to effectively guide the development of their workers and for all leaders, managers, and individual contributors to become better learners. In this presentation we’ll review how organizations can facilitate more effective learning, how managers can become better mentors, and how we all can become better learners.

Speaker Bio:

Presented by: Dr. Kurt Kraiger

Dr. Kurt Kraiger is a Professor and Chair of the Department of Management, at the University of Memphis. He is the Executive Director of an undergraduate program in the College of Business and Economics linking ambitious undergraduates to business mentors. He received his Ph.D. in Industrial-Organizational Psychology from The Ohio State University in 1983.

For over 30 years, Dr. Kraiger has conducted research on learning in the workplace and best practices in training and mentoring. His most recent professional contribution was a published paper on *The Science of Workplace Instruction*. He has edited three books on training, published over 70 scholarly papers, given over 40 invited talks, and made over 110 scientific presentations. Dr. Kraiger is a Fellow and former President of Society of Industrial-Organizational Psychology and a fellow of the Association for Psychological Sciences. An expert in the science of workplace, his research and presentations offer empirically-supported recommendations for improving workplace training and developing more effective mentors.

ASHRAE Memphis Chapter

FEBRUARY NEWSLETTER
DATE: 2/13/2024

March 27, 2024
11am – 4pm

JOINT MISSISSIPPI / MEMPHIS ASHRAE MEETING @ OLE MISS

Vaught Hemingway Stadium – Club Level Concourse

- Tech Session by ASHRAE Society President – Ginger Scoggins, PE
- Additional Distinguished Lecturer Tech Session
- Plant Tour
- Round Table Discussion with Consultant / Owners and Industry Leaders
- Optional YEA Happy Hour to Follow

ASHRAE

Cost: $50
($20 for Students)

Group Transportation from Memphis and Jackson to Oxford Provided

Lunch, Drinks, and Range Balls Provided
Tons of Great Raffle Prizes

4th Annual JR Anderson Memorial Golf Tournament
Sponsor your local Memphis Chapter by signing up today!
4 Person Team: $550
4 Person Team + Hole Sponsor: $650

Sponsorships

Platinum: $4,000
Gold: $3,500
Silver: $2,500
Clubhouse: $1,500
Drink Cart: $1,000 (Front 9)
Drink Cart: $1,000 (Back 9)

Putting Contest: $1000
Longest Drive: $600
Closest to the Pin: $600
Accurate Drive: $600
Hole Sponsor: $250

RESERVE YOUR SPOT TODAY!
CONTACT:
CHARLIE REIFENBERGER
901-548-8440
charlie.reifenberger@walkerjwalker.com

4th Annual - JR Anderson Memorial Golf Tournament

Timber Truss Golf Course

Sponsorship Details:

- **Platinum Sponsorship Level**
  - Includes (2) Teams
  - Includes (1) Oasis Hole (Set up tent, can serve food / alcoholic beverages)
  - Company Logo Displayed on Tournament Banner – Platinum Slot
  - Company Logo on All Advertisements
  - Short Speech by Sponsor Representative at beginning of Tournament
  - Special Recognition by ASHRAE President at Tournament
  - Company Promotional Items in Gift Bags (Provided by Sponsor)
  - Company Table Setup Allowed at Sign-in Area

- **Gold Sponsorship Level** (Multiple Sponsors Allowed)
  - Includes (2) Teams
  - Includes (1) Oasis Hole
  - Company Logo Displayed on Tournament Banner – Gold Slots
  - Recognition by ASHRAE Board Member at Tournament
  - Company Promotional Items in Gift Bags (Provided by Sponsor)

- **Silver Sponsorship Level** (Multiple Sponsors Allowed)
  - Includes (1) Teams
  - Includes (1) Oasis Hole (As Available, Maximum of 6, Gold Sponsors get Priority)
  - Company Logo Displayed on Tournament Banner – Silver Slots
  - Recognition by ASHRAE Board Member at Tournament
  - Company Promotional Items in Gift Bags (Provided by Sponsor)

- **Clubhouse Sponsorship**
  - Company Logo Displayed on Tournament Banner – Clubhouse Slot
  - Table in Clubhouse to serve food / alcoholic beverages
  - Recognition by ASHRAE Board Member at Tournament
  - Company Promotional Items available to giveaway (provided by sponsor)

- **Drink Cart Sponsorship - Front 9/ Back 9** (One sponsor per side, First Come, First Serve)
  - Company Logo Displayed on Tournament Banner – Drink Cart Slots
  - Recognition by ASHRAE Board Member at Tournament
  - Company Promotional Items available to giveaway (provided by sponsor)

- **Closest to the Pin, Long Drive, Accurate Drive, Putting Contest**
  - Recognition by ASHRAE Board Member at Tournament
  - Company Promotional Items available to giveaway (provided by sponsor)
  - Setup Required at Each location by sponsor representative.

JR Anderson was a well-known member of ASHRAE, particularly for the Memphis Chapter. He gave of himself tirelessly to colleagues and students, to ASHRAE and other organizations. JR loved helping young people, whether in school or early in their careers. The travel award would not only get the student to ASHRAE's annual conference, but the recipient would also be paired up with a mentor for the duration of the conference, to provide additional assistance and knowledge. Through the Certification Award, a YEA (Young Engineer in ASHRAE) Member could earn their Building Commissioning (BCxP) certification which validates critical job knowledge, skills and abilities and enhances their reputation.

Did Ya Know?

You may remember from last fall when I told you about Tennessee's Quality in Construction (QIC) Committee. This is an organization under the Office of the State Architect that monitors state construction. They meet quarterly to evaluate market trends and costs. Starting on the next page are the minutes from their August meeting.

Mike Bilderbeck
Government Affairs Chair

Quality in Construction (QIC)

In-Person and Microsoft Teams Meeting

August 16, 2023

9:00 am - 12:00 pm

Attendees: ***Attended in-person***

- Ann McGauran, OSA*
- Chris Byerly, OSA*
- Alan Robertson, OSA
- Paul Marshall, THEC*
- Patti Miller, THEC
- Rich McNeil, AIATN*
- Trey Wheeler, AIATN*
- Ashley Cates, AIATN*
- Jeffery Holmes, TBR
- Greg Campbell, AIA TN
- Jim Cobb, TTU
- Bill Waits, MTSU
- Mark Longfellow, UM
- Michelle Crowder, UT
- Austin Oakes, UT*
- Laura Bailey, ETSU
- Chuck Milan, ETSU
- Marc Brunner, APSU
- Jennifer Murphy, STREAM
- Brian Wilson, STREAM
- Tara Pedraza, TDEC*
- Kasey Anderson, ACEC*
- Kurt Boyd, ACEC
- Jason Madeiros, AGC
- Bob Pitts, ABC
- Tom Lampe, AGC*
- Andrew Moore, AGC*
- Grace Rogers, AGC

Discussion:

I. A role call was conducted, and each attendee identified themselves by name and the organization that they represent.

II. **TDEC Presentation – *TDEC Environmental Permitting Overview* – Tara Pedraza (TDEC)**

1. Tara Pedraza provided a presentation titled TDEC Environmental Permitting Overview. (Presentation and handouts are attached).
   a. Alan Robertson asked if there are region contacts that can be provided for project teams to be sure they are addressing TDEC permitting requirements early in the project.
      i. Tara responded that it is best for individuals to work with Tara's team and External Affairs to help assess who the appropriate TDEC contact would be.
   b. Chris Byerly asked if there were any pre-meeting templates or check lists provided for project team members to prepare for permitting meeting.
      i. Tara stated that she would provide a link to any TDEC process forms for Chris Byerly to distribute to the QIC team members.
   c. Ann McGauran noted that Nashville combines storm and wastewater and asked if other municipalities combine these and if so how TDEC handles that.
      i. Tara noted that there are not many municipalities that combine these but that a few do exist adding and that TDEC advocates working to minimize these conditions where possible.
      ii. Ann noted that this condition created challenges on the Library and Archives building.
   d. Ann noted that it may be helpful for the various industry groups to have a contact for TDEC permitting that might be distributed for publication in the industry newsletters.
      i. Tara stated that she would be happy to provide that information to OSA for the industry groups.

2. Alan Robertson asked if there were TDEC initiatives to address environmental challenges citing current recent flood events in the State.
    i. Tara stated that TDEC typically responds to Federal initiatives such as air quality particulate standards for example but was not aware of current active legislation at the State level.
    ii. Tara added that the State has responded to a federal greenhouse gas emission measurement grant which evaluates existing greenhouse gases and that a future mitigation grant will follow based on preliminary assessments.

III. CM/GC Self-Performed Work Update – Alan Robertson and Ann McGauran (OSA)

1. Alan Robertson provided a status update on CM/GC self-performed work. Alan noted that 4 states had provided information relating to self-performed work. Alan stated that Idaho reported that they do not set thresholds on self-performed work. Alan stated that Louisiana is considering a 20% threshold on self-performed work with the majority of that being trade-related work, specifically concrete work. Alan indicated that Kentucky has set their threshold at 20% and that Oregon does allow self-performed work but has not set a threshold. Finally, Alan stated that Virginia has set a threshold of 10% for self-performed work. Alan noted that there will be a task force meeting set for a future date following SPA's consideration of the current status. Alan noted that the labor burden issue will follow further discussion with the SPA's and that an update for the QIC members will follow.
2. Ann McGauran made the distinction that the current consideration for self-performed work includes potentially establishing an appropriate percentage for both General Conditions and trade work bidding.
3. Tom Lampe added that while it is understood that the State would like to establish a labor burden percentage threshold, he questioned if it was necessary as opposed to allowing the market to competitively set this rate.
4. Austin Oakes noted that that it is important to consider the difference between STREAM and Higher Education contracts as it relates to flexibility.

IV. Construction Industry Market Update – Tom Lampe (AGC) and Bryan Hay (ABC),

1. Tom Lampe provided a detailed construction market update. (See Attached)
2. Ann McGauran noted the there are multiple large firm joint venture projects occurring throughout the State.
    a. Tom Lampe stated that large joint venture projects are currently common in the industry in part as a means to minimize risk.
    b. Ann McGauran noted that SPA's should consider broad-based resource planning with regard to large projects involving joint ventures.
3. Austin Oakes asked if Tom Lampe could elaborate on electrical equipment.
    a. Tom Lampe noted that 45-65 weeks for electrical equipment is still to be expected due to limitations on material availability.
4. Trey Wheeler noted that creative solutions to construction delivery methods is important consideration for the State specifically as alternatives to the design bid build delivery method.
    a. Ann McGauran asked if Trey could elaborate on creative solutions in the P3 delivery method.
    b. Trey Wheeler cited CM/GC self-performed work as an example.
    c. Austin Oakes added that the traditional CM process offers better flexibility with early procurements as compared to P3.
    d. Jeff Holmes stated that he agreed that flexibility is important with regard to transparency, long lead time items and early procurement.

e. Ann McGauran thanked Jeff for his thoughts and requested that Alan Robertson add Jeff to the CM/GC self-performed work task force.
f. Alan Robertson confirmed that he would add Jeff Holmes to the task force roster.

5. Rich McNeil asked if the market update would be distributed to the members.
   a. Chris Byerly stated the industry update would be distributed and attached to the meeting minutes.

V. HPBr Team Evaluation and BIM Update – Chris Byerly (OSA)

1. Chris Byerly stated that 90% of HBPr documents were on file with OSA and that a tracking sheet will be updated and provided to SPA's to request any outstanding documents or comments from SPA's. Chris noted that 65% of team evaluations were on file with OSA and that OSA will continue to work with SPA's to be sure the remaining evaluation documents are tracked and filed.
2. Chris Byerly noted that the BIM manual has been updated and that version 2.1 has been updated to reflect the recent legislative changes impacting BIMs georeferencing.

VI. SPA Projects Update – Marc Brunner (APSU)

1. Marc Brunner stated that the Health Professions Building is currently under construction and that an early release package has been released for the electrical needs. Marc noted that the Kimbro project phase one is complete and that remaining work will continue until Fall 2024.
   Marc stated that the locally funded Welcome Center will require an increase in budget due to escalation and an upgrade in site work.

SPA Projects Update – Laura Bailey (ETSU)

1. Laura Bailey stated that construction of the Academic Building is slated to begin January 2024. Laura noted that CM/GC proposals are currently out for the Integrated Health Services Building. Laura noted that the Brown Hall Renovation project is transitioning from program verification to schematic design. Laura stated that approval for designer selection has occurred for 2 ETSU maintenance projects.

SPA Projects Update – Jim Cobb (TTU)

1. Jim Cobb noted that TTU has 3 large projects currently in design including the Engineering Building which is completing the programming phase. Jim stated that the Johnson Hall renovation is completing the schematic design phase. Jim noted that the stadium project is nearing completion of schematic design. Jim stated that TTU is currently addressing some budget issues on these projects. Jim stated that there are 4 maintenance projects currently proceeding.

SPA Projects Update – Brian Wilson (STREAM)

1. Brian Wilson stated that numerous State Park projects are underway or forthcoming including Henry Horton and Natchez Trace State Parks. Brian added that the phase two of the Western Mental Health Institute will be coming forward to complete an earlier phase 1 of the project. Brian stated that there are several projects coming forward for the Department of Children Services including 1 in Middle Tennessee and 2 in West Tennessee.

SPA Projects Update – Austin Oakes (UT)

1. Austin noted that 2 planning projects will be coming forward which are in the budget planning process including for a new chemistry building and a new business building addition in Chattanooga. Austin added that designer selections and the RFP's for these CM/GC projects is expected this Fall. Austin stated that the P3 processes is proceeding

including design, and legal documentation and that more information will be shared as the process develops.

a. Trey Wheeler asked if Austin could provide a status of the mixed use P3 project.
b. Austin stated that UT issued an RFI on the Neyland Entertainment District. UT is reviewing the RFI's and that the next steps will include issuing the RFP.

SPA Projects Update – Jeff Holmes (TBR)

1. Jeff Holmes noted that for FY23-24 budget TBR has 29 projects totaling about $1 billion dollars. Jeff stated that 28 of these projects have designers selected. Jeff noted that TBR expects 90% of these projects should begin in the Fall of 2023. Jeff noted that these projects will be CM/GC projects and include multiple phases.
    a. Tom Lampe asked if the CM/GC RFP's will be out in the Fall.
    b. Jeff confirmed the expectation of this time frame.
    c. Ann McGauran asked that a discussion involving the proposed bundling of these projects occur between TBR and OSA.
    d. Jeff confirmed that TBR would plan to discuss this with OSA.

SPA Projects Update – Bill Waits (MTSU)

1. Bill Waits stated that the RFP for the MTSU Aerospace Campus project will be advertised soon and that TMP has been selected as the designer. Bill noted that the RFP has been advertised for the P3 hotel project. The P3 student housing project is currently in the programming phase and a feasibility analysis is being conducted by the consultant. Bill stated that the RFP advertisement is expect in Summer 2024. Bill stated that capital maintenance projects include the central plant and campus utility updates including centralized heating and cooling systems. Bill noted that the Rutledge Hall and Kirksey Ole Main projects are in the design development phase. Bill stated that the Applied Engineering Building is under construction with a planned May 2025 estimated substantial completion. Bill added that the Student Athletic Performance Center is under construction and is estimating a June 2025 estimated completion date.

SPA Projects Update – Mark Longfellow (UM)

1. Mark stated that UM has two major projects including the STEM building which is about 60% complete. Mark added that the Minder's Hall renovation has recently been approved by the SBC and that designer selection recommendation has been provided. Mark stated that the CM/GC advertisement is expected in the Fall of 2024. Mark noted that the Athletic Housing project solicitations are being evaluated currently.

THEC Update – Paul Marshall, Patti Miller (THEC)

1. Paul Marshall thanked the contractor group for their assistance in evaluating current market escalation as it relates to THEC's use codes.
2. Patti Miller noted that THEC will be making minor policy updates to be consistent with recent legislative changes regarding the disclosure policy. Patti also noted that definitions for master plan updates will be eliminated.

VII. Closing Remarks

1. Alan Robertson asked if Paul Marshall had any updates relating to campus security assessments.
    a. Paul noted that the Best Practices for Higher Education Design Guide was created and published in 2022. Paul noted that a similar document for K-12 was published in 2023. Paul noted that both documents are available at the THEC website. Paul

stated that this was a collaborative effort between THEC, TEMA and the TN Department of Homeland Security.

b. Ann McGauran noted that these are guidelines, but that statue does define some requirements specifically for K-12. Ann McGauran noted that a governing authority should be established if specification-level requirements are going to be required by statue in order to minimize potential liability.

2. Chris Byerly thanked the attendees for their past input regarding meeting topics and welcomed continued input for future meeting agendas.
3. Chris Byerly adjourned the meeting.

Action Items:

- Alan Robertson to add Jeff Holmes to the CM/GC Self Performed Work Task Force
- ABC and AGC representatives are requested to provide a Construction Market Update at the next QIC meeting in February 2024.
- QIC members are encouraged to continue to provide input regarding topics of interest for future QIC meetings which can be submitted to Alan Robertson, Chris Byerly or Ann McGauran.

Next Meeting: February 14, 2024
Ed Jones Auditorium at Ellington Ag Campus / Virtual - MS Teams

AGC/ABC Insights: QIC Construction Market Update – 8/16/2023

Contributors: Associated General Contractors – Turner, Messer, JE Dunn, Christman

Associated Builders & Contractors – Skanska, Brasfield & Gorrie, Bell Construction, T.W. Frierson

Overview: Market Conditions 3Q 2023

Material Pricing and Availability, PPI

According to an analysis by the Associated General Contractors of America August update. The producer price index for new nonresidential construction—a measure of what contractors report they would charge to put up a specific set of buildings—fell 1.4 percent in July. That decrease followed no change the month prior and a slight decline in May. Association officials said contractors are finally seeing some relief from recent supply chain problems and price escalations, but the competitive market means key materials are still very hard to find.

Prices for most major construction inputs were stable or declined in July. Some of the greatest declines included diesel fuel, falling 8.4 percent for the month, steel mill products dropping 7.6 percent, and fabricated structural metal, down 6.4 percent.

Labor

Construction employment increased in 221, or 62 percent, of 358 metro areas between June 2022 and June 2023, according to an analysis by the Associated General Contractors of America of new government employment data. Association officials said the job gains in many parts of the country would have been higher if firms could find more workers to hire. The State of TN employment in the construction industry increased by 5% overall with Clarksville, TN experiencing 15% growth.

"Demand remains strong for many types of construction projects in much of the country," said Stephen E. Sandherr, the association's chief executive officer. "But it remains difficult for many firms to find enough workers to hire to keep pace with that strong demand."

We can expect continued pressure on wages, as there is still a shortage of skilled workers and contractors are offering additional incentives to attract and retain workers. Electricians remain at the top of the concern list (due to industrial and data mega projects being electrical-heavy scopes).

Subcontractor availability and competitiveness continue to drive project costs. This is a result of the limited labor pool and that subcontractors remain busy. Subcontractors are forced to be more selective about the projects that they choose to pursue and in-addition they are carrying higher fees. As evidence of this, where CM/GCs typically expect a minimum of 3 bidders in every section, there are select trades where the industry is only seeing 1 or 2 bidders.

Architectural Billing Index, ABI

The Architectural Billing Index (ABI), in the South region declined December to April has now trended upward, measuring 52.3 May and 50.5 June. Greater than 50 signals increased construction activity in the future.

Miscellaneous Factors

Mega projects (industrial, EV plants and data centers) continue contributing to the electrical and mechanical equipment issues. TN Titans is seen as the next mega project that will contribute to supply chain issues.

AGC officials said that new Buy America requirements that are part of the Bipartisan Infrastructure Law will severely limit the supply of materials contractors can use and increase the costs of those products as the guidance goes into effect. They noted that the new requirements are so strict that many products currently made in the U.S. would not be compliant due to containing small components that are sourced from abroad.

*Note: The Buy America law only applies to federal projects that are funded by the Infrastructure law.

Escalation Recommendation:

Industry recommends a 2% per quarter escalation for commercial construction projects. In addition, projects may need to take into consideration the subcontracting market and participation relative to each individual project. Industry will be in a better position towards the end of the Calendar Year to issue recommendations for future escalation forecasts.

Market Conditions Detail - 3Q 2023

Supply Chain Trends and Insights

Over the past three months, the construction supply chain has continued to improve—most notably around raw material prices for PVC resins, steel, copper and lumber—due to reduced residential demand and increased capacity as the supply chain normalizes back to pre-pandemic conditions. Roofing, structural steel, architectural interior, plumbing, electrical commodity and wood-based products all see lead times coming back to normal levels and prices stabilizing, albeit at escalated levels. Barring any disruptions, price and lead times are forecasted to remain stable in these categories over the next 6-12 months.

As reported at our last QIC meeting, HVAC and electrical gear supply chain challenges continue due to component, labor, and equipment capacity shortfalls. However, several major HVAC equipment manufacturers have reported significant improvement in backlog based on investment in new facilities, new equipment and the hiring of additional workers to increase factory capacity. With these improvements and lower raw material costs, HVAC equipment lead times have likely peaked and will decrease for the remainder of 2023. Prices are on track to increase 10-15 percent for 2023 but may return to a more normal annual increase of 3-5 percent starting in 2024.

From an electrical equipment perspective, the electrification trend and continued data center investment we reported during our prior QIC market update will likely last for several more years. Even though most manufacturers are investing hundreds of millions of dollars in capacity, the persistent strong demand will only moderately reduce lead times over the next 12 months.

6-12 Month Lead Time and Price Forecast

- **Roofing products** - Roofing supply chains have fully recovered. Lead times for most items are in the 1-3 week range depending on quantities needed. Manufacturers have produced inventory and the seasonally strong roofing market should be on solid footing.
- **Asphalt** - We anticipate pricing increases in the upcoming quarter based on infrastructure work and increases in the cost of petroleum products.
- **Concrete -** Cement and concrete markets have stabilized and availability has greatly improved compared to the last couple of years. However, supply challenges persist in local markets, where construction activity remains elevated. Concrete suppliers have announced a $10/cu.yd increase in concrete for January 2024 in Nashville.
- **Structural steel –** After a slight uptick in March and April, steel input pricing has receded from the previous quarter. Fabricated Wide flange shapes have flattened in price, while hollow shapes and plate are down slightly for the year (5-8 percent).
- **Architectural Interiors** - As a result of the cooling housing market, availability of interior products has improved and is generally within historical lead times. However, with

housing starts jumping 22 percent from April to May of this year, we will closely monitor housing starts and the materials markets for any resultant changes. Additionally, the rising rolled steel costs reported last quarter have reversed course and should provide relief to pricing of metal studs. Drywall pricing has moderated and is up 2-3% YTD.

- **Exterior Glazing Systems** – aluminum curtain wall and window wall systems are currently running 14-16 weeks lead times
- **Doors and Hardware** - Door hardware and hollow metal door lead times continue to hold in the 7-10 week range. We continue to recommend close monitoring of electronic access control materials as some semiconductor supply issues linger.
- **Appliances** – Appliance supply chains have improved and some distributors are even sitting on inventory, but this varies by manufacturer and appliance type. For planning purposes, lead times should be assumed in the two to three-month range.
- **Elevators, Escalators. Moving Walks** - Average lead times remained unchanged over the last quarter but will likely improve over the next 6-12 months as commercial projects ease. General pricing is on track to rise 3-5 percent this year as a result of material and labor cost increases. Lead times for elevators vary depending on the category and manufacturer:
    - Low-rise elevators range from 14-24 weeks
    - Mid-rise elevators range from 20-27 weeks
    - High-rise elevators range from 40-48 weeks
    - Escalators range from 12-20 weeks
- **Plumbing and Fixtures** - Inventory continues to be healthy for most materials, allowing orders to be filled within a few days. However, lead times for certain larger diameter ductile iron pipe are still running 16-20 weeks. In the past three months, we've seen significantly fewer manufacturer price increases and have even noted a few select price decreases. The average sales price of PVC and copper pipe has been flat over the past 6 months. Steel pipe has steadily declined over the past three months and is down 5-7 percent compared to Q1 2023 as commodity prices and freight costs have also decreased. Over the next 12 months, fixture prices are expected to increase by 7-10 percent with an announcement likely in Q1 2024.
- **HVAC Equipment** - While HVAC demand continues to be strong, there is evidence that lead times have already peaked, or will, in the next 3-6 months. Some categories—RTUs, AHUs, DOAS, and WSHP—are already seeing a reduction in lead times as manufacturers work through backlogs. **However, chillers are the one exception as lead times are still 45-65 weeks due to continued supply chain challenges and high demand from data center projects.** Price increases remain at 10-15 percent for 2023, but we believe there is a chance for more normal 3-5 percent annual increases as early as 2024.
- **Electrical Gear** - Electrical gear lead times continued to increase over the past three months and are not expected to decrease in the next 12 months. Even with investment in additional capacity through 2023, manufacturers have pushed out delivery commitments for some products, citing high demand and supply chain issues as primary causes.

- **Electrical Commodity Materials (includes lighting fixtures)** – Lead times for most commodity electrical items are down as manufacturers have stabilized their supply chains. Contractors and stocking distributors are actively reducing inventory levels as a result of high interest rates and lower demand, both current and forecasted. Lead times may temporarily increase in the future if manufacturers reduce capacity. Prices are still expected to increase 3-5 percent due to inflation of material cost and labor.
- **Generators** - Lead times for generators of all sizes are running 45-75 weeks as manufacturers are still experiencing high demand for all genset sizes. Long lead times are primarily due to component supply chain constraints, such as wire harnesses and semiconductor chips for controls. Data center demand shows no sign of slowing for the next few years as clients are ordering for 2025 delivery and beyond. Price increases are expected in the range of 5-10 percent in 2024.
- **Lab Casework and Fume Hoods** - Lab casework lead times are holding steady at the standard range of 8-12 weeks. After some notable escalation in sheet steel pricing during the first quarter, pricing has fallen as underlying demand no longer supports continued escalation.
- **Wood Products** – Lumber pricing continues to hold steady at pre-COVID levels. However, with the unexpected housing starts jumping 22 percent from April to May, we will closely monitor housing starts as they are the primary driver of lumber pricing.
- **Transportation** - Based on slowing consumer demand and resolution of congestion at U.S. ports, shipping container activity will fully recover to "normal" levels in 2023 and container costs are now at pre-pandemic levels.

Remedies/Solutions

- Every team needs to get deeper into the supply chain. It is not enough to depend on subcontractor and supplier input.
- Contractors should be leveraging relationships with the manufacturers to access delayed materials and equipment – can push to get partial, critical orders on critical path.
- It is not enough to look at overall escalation %, you need to look closer and account for escalation material by material because of the variation between materials.
- A robust procurement strategy is essential – leads times are emphasis.
- Example item in a procurement strategy: Buying large air handlers early and designing around it.
- Cost benefit of escalation clauses – leverage allowances – talk with trade partners about allowances in lieu of trade partner taking all the risk to keep from paying worse-case scenario all the time.
- You can drive escalation into a project by buying too early.
  - Understand when materials need to be on site.
  - Make acquisitions just in time where possible.
- Early release packages for long-lead items continues to be a good strategy…consider warehousing strategies (costs associated with this) to ensure schedule.