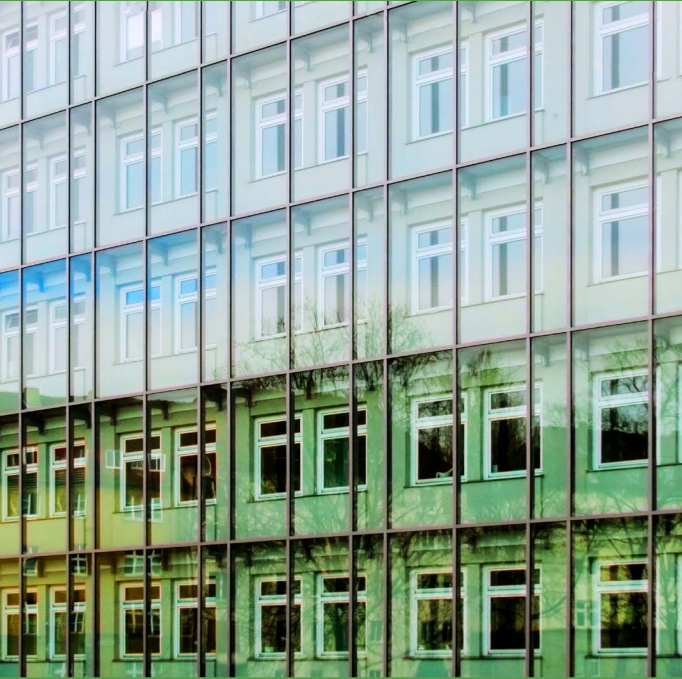




CLEVELAND ASHRAE NEWSLETTER

April 2014



APRIL MEETING

Thermally Active Structures for Green Buildings

Monday, April 21, 2014

Speaker: Daniel H. Nall – Thornton Tomasetti, Inc.

Times:	4:15 PM - 5:30 PM	Board Meeting
	5:30 PM - 6:15 PM	Attitude Adjustment Hour!
	6:15 PM - 7:15 PM	Dinner
	7:15 PM - 8:15 PM	Presentation

Location: Harry's Steakhouse
5664 Brecksville Road
Independence, OH 44131

R.S.V.P. via your Constant Contact invitation.
Guests are welcome for a \$25 meal charge.

THERMALLY ACTIVE STRUCTURES FOR GREEN BUILDINGS | **GBCI Approved** | 1 CE Hour | 0090008181 **AIA Approved** | 1 LU | TASGB2012

Thermally active structure is an evolving strategy that has become a popular system in green buildings. Originally implemented for heating only, as radiant heating floors, this strategy has, over the past 20 years been implemented also as a cooling strategy. The addition of cooling capability adds a number of design constraints and potential operational problems to the successful implementation of the system. This presentation explores the many design, construction and operational issues of thermally active heating and cooling structures. Issues addressed include:

- Most effective applications of the technology
- Design issues
- Design tools
- Construction issues
- Constraints and limitations
- How-to tips

Case studies of successful implementations

This Month's Sponsor



Carrier

A United Technologies Company

If you are interested in sponsoring the newsletter,
please contact Jack Malone at 216-391-3700.



THE PRESIDENT'S CORNER

BY SCOTT DUSENBURY



OFFICERS & COMMITTEE CHAIRMEN

2013-2014

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Treasurer	James Dudit
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Research Promotion	Shariq Ali
Newsletter	Jack Malone
Student Activities	Matt Nelson
Honors & Awards	Fred H. Hollman
Historian	Dave Deschler
Science Fair	Steven R. Armstrong
Meeting Hosts	Gina Anselmo
Scholarship Fund (Sal Triana & Gardiner)	Ken Borah Billy Kodosky Shawn Beres Gary Gardiner
Golf Outing	Louis A. Bentzen Ken Borah
Engineer's Week	James G. MacMillan
Special Events	Brian McFearn
Budget & IRS Compliance	Fred H. Hollman
Sunshine Fund	James W. Wickert
Website	James Dudit

With the change in the seasons seemingly around the corner¹, it is that time again for yet another edition of the 'President's Corner'. At this month's meeting we will be exploring thermally active structures and the use in green buildings. I am going to go out on a limb here and say that while probably many of us have heard of thermally active structures, very few of us have much experience with them in application². So I hope that you will join us this month for what should be a very interesting presentation.

Thermally active structures are nothing new; the modern definition began in central Europe in the 1990s³ and has spread from there. However, the underlying concept of a thermally active structure is thermal storage which is a much older technology⁴. Early man was very inventive in his ways to heat and cool his living space⁵. Look and you will see remnants ancient houses being built into the sides of hills to take advantage of the ground's nearly constant temperature⁶; or Roman bath houses⁷ where the floor was heated via fires and a tunnel system which sounds a lot like a radiant floor system. Fast forward a few years and you would have seen thermal storage in this country in the form of ice storage. So as we go down this rabbit hole⁸ of green and sustainable buildings, it truly is 'what was once old is new again'. With the advancements in technology, what was once a good idea can now be made into a great idea.



Finally, I just wanted to remind everyone about the upcoming ASHRAE webcast on the April 17th. It is an excellent opportunity to learn from some of the brightest in the industry. So if you can, please come to our official Cleveland Chapter broadcast of the webcast⁹ at the offices of Karpinski Engineering. If you can't, think about hosting a meeting at your own office for your co-workers. Also next month is our final meeting of this ASHRAE year and it is also past president's month. So if you work with a past president of our chapter, please encourage them to attend the meeting. I would really like to see as many past presidents as possible at the meeting and be able to publicly thank them for their commitment.

-Scott

¹ Now that I've typed that, we will get a freak snowstorm; most likely right after a sunny and 70 degree day.
² I am including myself in this one.
³ Doesn't everything seem to start in Europe?
⁴ Much, much older...say a couple thousand years older (take that Europe).
⁵ Seriously, go pick-up a book on just about any ancient civilization and their buildings and you will find many things that we think are "new and cutting edge" are actually old ideas.
⁶ Now that is true geothermal!
⁷ I am talking the ancient Romans^{7a} here, so don't get it confused.
^{7a} Gallia est omnis divisa in partes tres, quarum unam incolunt Belgae, aliam Aquitani, tertiam qui ipsorum lingua Celtae, nostra Galli appellantur.
⁸ Just stay away from Cheshire Cats and keep painting the roses red.
⁹ Say that ten times fast.



SPEAKER INFO



DANIEL H. NALL, FAIA, P.E., BEMP, HBDP
Senior Vice President

Thornton Tomasetti, Inc. | New York, New York

Mr. Nall is a Senior Vice President of Thornton Tomasetti in New York. A graduate of Princeton University and Cornell University, he is a Registered Architect, a Professional Engineer, a LEED Accredited Professional, a certified Building Energy Modeling Professional and a High Performance Building Design Professional. ASHRAE activities include the ASHRAE Sustainability Oversight Committee, TC 4.7, the Building Energy Quotient Ad-Hoc and Oversight Committees, and the ASHRAE Advanced Energy Design Guide Steering Committee. He helped author the 30% AEDG's for Small Office Buildings, Small Retail Buildings, Roadside Lodging and Small Warehouses, and the 50% AEDG's for Medium Office Buildings and Medium and Big Box Retail Buildings. He received the ASHRAE New York Chapter Distinguished Service Award in 2011 and the ASHRAE Distinguished Service Award in 2012. He is a Fellow of the AIA, and a USGBC LEED Fellow. He has been a member of the Board of Directors of the NY Chapter, USGBC, the vice-chairman of the USGBC Energy and Atmosphere Technical Advisory Group and a member of the AIA National Committee on the Environment.

Mr. Nall was named one of the "25 Newsmakers of 2007" by Engineering News Record magazine. He was named "Outstanding Practitioner, 2004", by the US Chapter of the International Building Performance Simulation Association. Notable projects include the BASF U.S. Headquarters, the Newseum in Washington, DC, the Hearst Corporate Headquarters, the U.S. Embassies in Sofia, Bulgaria and Cape Town, South Africa, the Clinton Presidential Library, the New York Times Headquarters and the Alcoa Corporate Headquarters. He is the author of over 30 papers in technical and professional journals. He has been a Visiting Lecturer at the University of Pennsylvania, Cornell University and Princeton University Schools of Architecture and an Adjunct Associate Professor of Architecture at Columbia University.

ASHRAE Scholarship Application



If you know of someone who is actively attending college to earn a mechanical or architectural engineering degree at a Northeast Ohio University or out of the area but is from the Northeast Ohio area, please point them in a direction of a Sal Triana Scholarship possibility. The intent of this scholarship is to help those engineering students seeking to someday make a career in the HVAC consulting/engineering/sales businesses get through the financial struggles of a higher education.

Applications can be found on the Cleveland ASHRAE Website and e-mailed to kborah@karpinskieng.com. If you have any questions please feel free to contact Ken Borah at **216-391-3700**.



IN THE NEWS...



Brought to you by the ASHRAE Chapter Technology Transfer Committee



Buildings in Balance: *IEQ and Energy Efficiency*

April 17, 2014 | 1:00PM–4:00PM EDT

Presenters



2013–14 ASHRAE President
William P. "Bill" Bahnfleth, Ph.D.,
P.E., Fellow ASHRAE, ASME Fellow



James W. Bochat, LEED-AP, NEBB Cx,
NEBB TAB



Tim McGinn, PEng., LEED



Jerry M. Sipes, Ph.D, PE.

This webcast will feature industry experts who will identify the link between energy efficiency and Indoor Environmental Quality (IEQ) through the integrated design process. Viewers will be able to recognize the importance of the four cornerstones of IEQ and how system selection can benefit both energy efficiency and IEQ.

EARN PDHs!

Attend this FREE webcast program and you may be awarded three Professional Development Hours (PDHs) or three AIA Learning Units (LUs).

Register to view the webcast with the local chapter and have lunch on us!

Viewing held at:

Karpinski Engineering
3135 Euclid Avenue
Cleveland, Ohio 44115

www.ashrae.org/ieqwebcast



IN THE NEWS...



NEO
NORTHEAST OHIO CHAPTER OF THE
USGBC



CLEVELAND
2030
DISTRICT

 [CLICK HERE TO REGISTER](#) 

The **2014 Green Building Challenge** is a program of the Northeast Ohio Chapter of the United States Green Building Council presented in collaboration with the Cleveland 2030 District. Through a series of four events throughout 2014, the Green Building Challenge will educate building owners and operators on the benefits of green building practices, walk them through the process of how to assess, finance, implement and measure energy efficiency measures, and celebrate reductions in energy use related to past energy retrofit projects completed in Northeast Ohio.

Property owners, property managers and developers will be asked to submit past projects for measurement and verification of energy savings against performance baselines, and awards will be given out in several categories to those who have achieved significant savings.

The entire series is structured on the overall process of optimizing building energy performance:

- Evaluating facility performance (**ASSESS**)
- Setting goals and deciding on energy efficiency measures (**TARGET**)
- Implementation of operational efficiencies and building retrofit projects (**DELIVER**)
- Measurement/verification of savings (**MEASURE**).

Each event will be focused on a different phase of the process and will be held from 8:00 AM-10:00 AM on the following dates [click the date for event details]:

April 29 – ASSESS

June 24 – TARGET

August 19 – DELIVER

October 21 – MEASURE

The first event is focused on **Facility Assessment**, and will be held from 7:30 AM-10:00 AM at the Sustainable Cleveland Center at Tower City (across from the Hard Rock Cafe).



ASHRAE CONFERENCES 2013-2014



ASHRAE Conferences 2013-2014

Attend to See What's New, Learn New Skills, Earn PDHs, Network with Peers

ASHRAE IAQ 2013: Environmental Health in Low Energy Buildings

Oct. 15-18, 2013 | Vancouver, BC, Canada
www.ashrae.org/IAQ2013

Comprehensive overview presented via papers.

Co-organizer:



ASHRAE 2014 Winter Conference

Jan. 18-22, 2014 | New York, NY
Jan. 21-23, 2014 | AHR Expo
www.ashrae.org/newyork

Bookstore Sponsor:



First International Conference on Energy and Indoor Environment for Hot Climates

Feb. 24-26, 2014 | Doha, Qatar
www.ashrae.org/hotclimates

Papers focused on arid and humid hot climates.

Organized by:



Qatar Environment & Energy
Research Institute

Member of Qatar Foundation

ASHRAE Qatar Oryx Chapter

Co-sponsor:



Gold sponsor:



Endorsed by:



High Performance Buildings Conference

April 7-8, 2014 | San Francisco, Calif.
www.hpbmagazine.org/hpb2014
State-of-the-industry presentations



Efficient, High Performance Buildings for Developing Economies

April 24-25, 2014 | Manila, Philippines
www.ashrae.org/Developing2014
First ASHRAE conference on this topic.

Organized by:



Philippines
Chapter

Co-sponsor:



Endorsed by:



ASHRAE 2014 Annual Conference

June 28-July 2, 2014 | Seattle, Wash.
www.ashrae.org/seattle
2nd Annual Research Summit presented.

2014 ASHRAE/IBPSA-USA Building Simulation Conference

Sept. 10-12, 2014 | Atlanta, Ga.
www.ashrae.org/Simulation2014
*Single collaboration of Energy Modeling and
SimBuild Conferences.*

Organized by:



Get Updated on Current Trends and Make Industry Connections at an ASHRAE Conference!

www.ashrae.org/conferences





ASHRAE MEMBERSHIP PROMOTION GOLF OUTING INFO/DIRECTIONS



Tuesday, June 3, 2014

Sugar Bush Golf Club

11186 SR 88 · Garrettsville, OH 44231

P 330.527.4202

TOURNAMENT GOLF WILL BE PLAYED
Limited to 120 golfers

We are
playing for the
prestigious
**GARDINER
TROPHY**

9:00am

Registration Begins

10:00am

Shotgun Start

3:30pm

Cocktails

4:00pm

Steak Dinner/Prizes

Lunch will be provided at your turn between holes 9 & 10, or 18 & 1

*New members golf & dine for FREE with receipt of new membership registration within two weeks prior to event.
Non-members are welcome.*

**This event proudly
supports the
scholarship fund so
graciously started by
Mr. Sal Triana.**

Thanks to all, in
advance, for your
continued support of
ASHRAE Cleveland.

Directions from Akron:

Take I-76 E to SR 5/44 N toward Ravenna.

Take 14 W/44 N.

Take right at second traffic light (which is SR 88 N).

Travel on SR 88 N for about 15 miles.

Golf course will be on the right hand side.

Directions from Cleveland:

Take 480 E/271 Interchange to 422 E toward Solon.

Travel 422 E to Mumford Rd.

Turn right onto Mumford Rd.

Continue on Mumford until it dead-ends into SR 88 S.

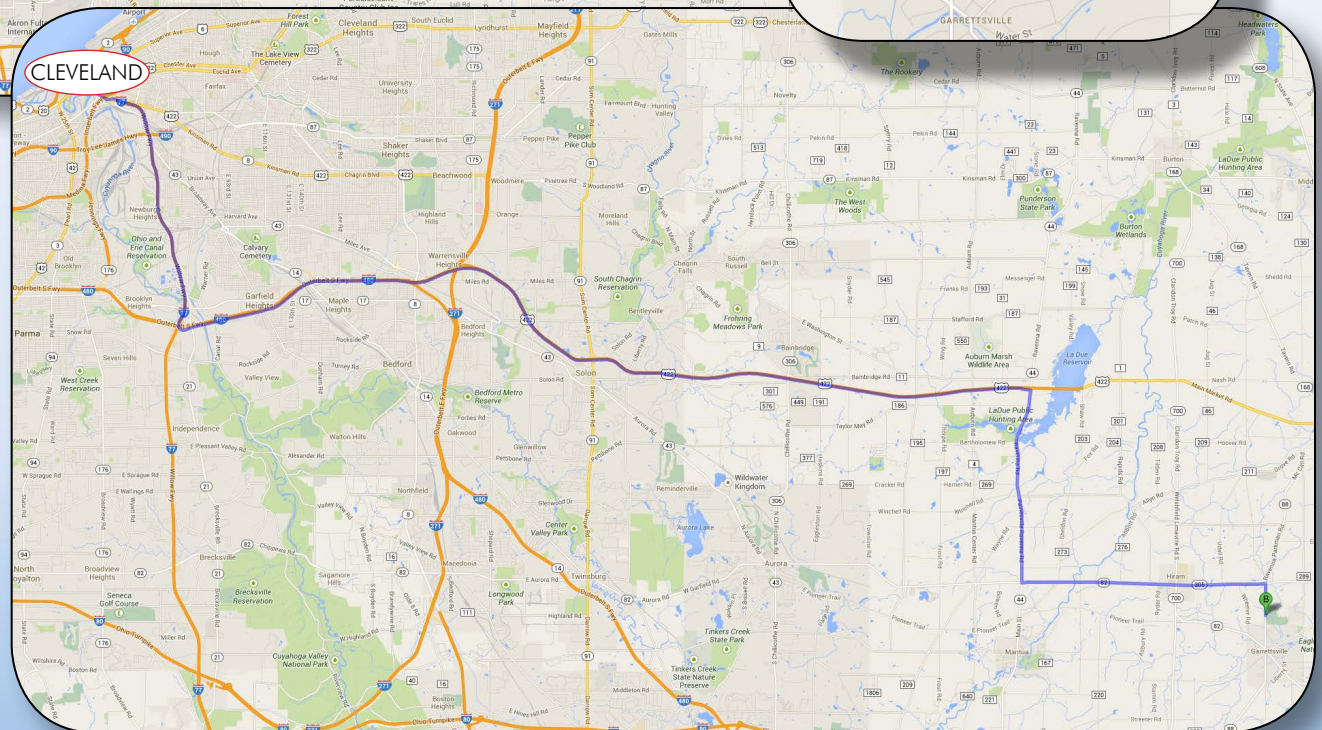
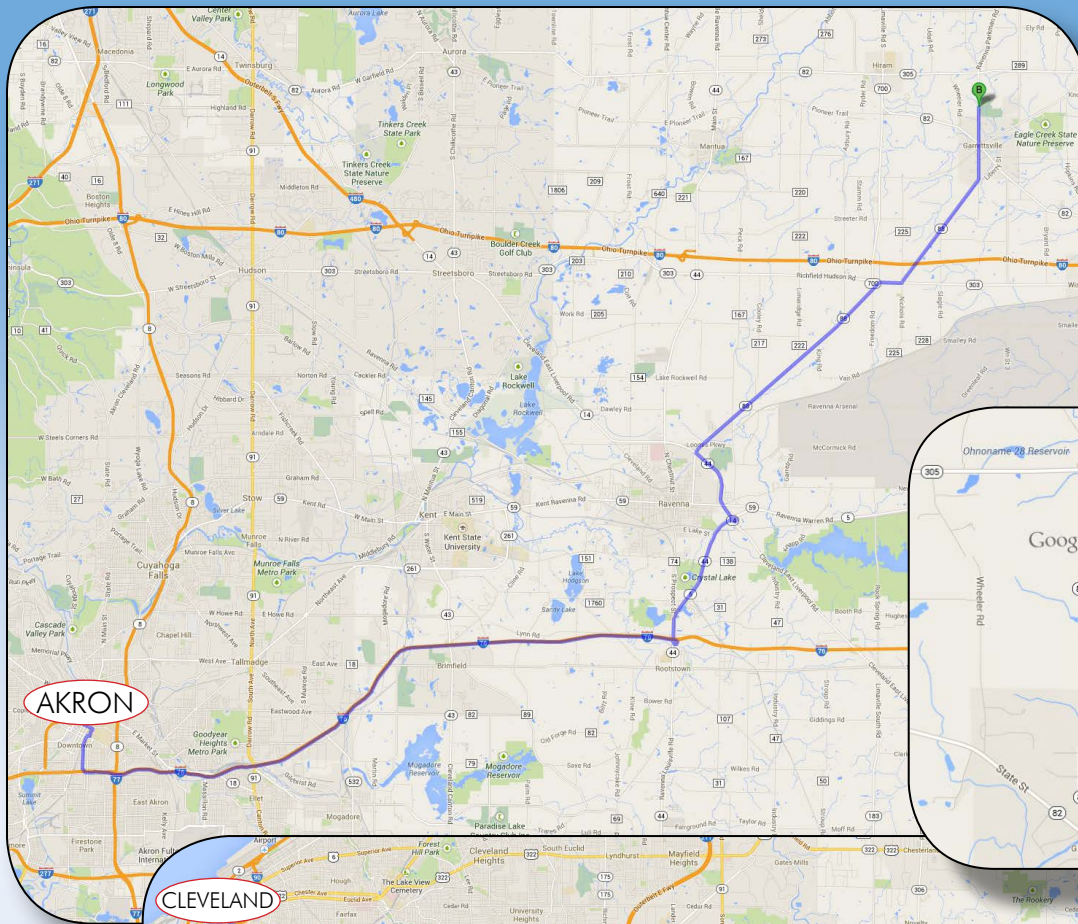
Turn right onto SR 88 S.

Travel 1.5 miles and the golf course
will be on the left hand side.

Please see maps on following page →



ASHRAE MEMBERSHIP PROMOTION GOLF OUTING MAPS





ASHRAE MEMBERSHIP PROMOTION GOLF OUTING SIGN-UP



**TUESDAY, JUNE 3, 2014
SUGAR BUSH GOLF CLUB**

	<u>Name</u>	<u>Company</u>	<u>Member (y/n)</u>
Team Captain (Sponsor)	_____	_____	_____
Player No. 2	_____	_____	_____
Player No. 3	_____	_____	_____
Player No. 4	_____	_____	_____

For each additional foursome please complete an additional registration

Golf & Dinner _____ x \$90/person = _____

Dinner Only _____ x \$25/person = _____

Sponsor a Hole _____ x \$75 = _____

(All signs will be provided by the Cleveland Chapter)

Name on Sign _____

Beverage Donation = _____

Cash donation to the Sal Triana Scholarship Fund = _____

Advanced 50/50 Raffle Tickets (7 for \$5) _____ x \$5 = _____

(tickets will be 5 for \$5 on the day of event) (7 tickets)

TOTAL = _____

**Make Checks Payable To: CLEVELAND ASHRAE CHAPTER
Mail Payment To: CLEVELAND ASHRAE GOLF OUTING
c/o Karpinski Engineering
Attn: Matt Morgan
3135 Euclid Avenue
Cleveland, Ohio 44115**

If you bring a non-member and they join the Society and the Cleveland chapter of ASHRAE within two weeks of the event, then that individual's golf and dinner is free. A receipt of new membership registration must be received on or by the day of the event. Potential members can sign up at www.ashrae.com.



CHAPTER CALENDAR



2013

August 26, 2013

ASHRAE Research Promotion Golf Outing

September 16, 2013

Fan Powered Boxes/Type/When & Where to Use

Speaker: Dennis Sikkema
Location: *Harry's Steakhouse*

October 21, 2013

Social Media/Marketing
Speaker: Matthew DeWees
Location: *Harry's Steakhouse*

November 18, 2013

State of Ohio Procurement Options
Speaker: Craig Weise
Location: *Harry's Steakhouse*

December, 2013

No Meeting

2014

January 15, 2014

LUNCH MEETING:
*Update on Refrigerants:
Past, Present, and Future*
Speaker: Dr. Eckhard A. Groll
Location: *Harry's Steakhouse*

February 19, 2014

LUNCH MEETING:
Controls Sequence of Operation
Speaker: Automated Logic Corporation
Location: *Harry's Steakhouse*

March 19, 2014

LUNCH MEETING:
*Demand Controlled Ventilation
and ASHRAE 62.1*
Location: *Harry's Steakhouse*

April 17, 2014

Satellite Broadcast (DOAS)
Location: *Karpinski Engineering*

April 21, 2014

*Distinguished Lecturers Program:
Thermally Active Structures
for Green Buildings*
Speakers: Daniel Nall and Thornton Tomasetti
Location: *Harry's Steakhouse*

May 19, 2014

RTU Sound Attenuation
Speaker: Kris Kollevoll from BRD Nonoise
Location: *Harry's Steakhouse*

June 2014

Membership Promotion Golf Outing

August 2014

Regional CRC
Location: *Detroit, Michigan*