

ASHRAE BLUEPRINT

September 2014

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PRESIDENT'S MESSAGE Mike Thompson

**Chapter Meeting: Thursday, September 11, 2014 @ Westward Ho
Social 11:45 AM, Lunch 12:00 PM, Program 12:30 – 1:00 PM**

Please note the meeting is not on the normal first Wednesday for this month only.

RSVP at the link below on later than Friday, September 5th.
<https://www.surveymonkey.com/s/KZWN3DX>

Chapter Members and Guests,

Welcome to another year of ASHRAE! As in the past years our goal is to continue building on our Chapter's strong history. We are working on scheduling our programs for the year and will be providing a variety of topics that will be educational and related to our industry. As in past years we are providing a mix of lunch and evening meetings to try fit with everyone's hectic schedules.

Ryan O'Connor and I attended the annual CRC in Wichita, Kansas in early August. Once again it was an excellent and rewarding conference. Our Chapter received Premier, High Honor Roll and Star Chapter Awards along with a Special Citation. The Premier Chapter Award is one that sets us apart from the other chapters in the region as we are one of only two chapters that have received the award since the inception of the PAOE system and the chapter. Once again this year's challenge is to generate more involvement from young engineers in our community. We hope all members will encourage new employees, co-workers and even clients to get involved with ASHRAE.

We will have one Member at Large position to will on the year's BOG. One goal this year in addition to filling the BOG position is to expand involvement on the committees. We would like to have co-chairs for the Membership, YEA, Student Activities, CTTC, Research Promotion, Publicity, Special Events, Government Affairs and Refrigeration Committees. This is an excellent way to get involved with the chapter and see how things work with a minimum amount of time investment. If you are interested in any of these positions please contact me or any BOG member.

ASHRAE BLUEPRINT

Our website is in the process of undergoing a major overhaul and the official roll-out should occur within the next week or so. The new website is going to be a great resource for our chapter and its members.

We are very fortunate to have a Distinguished Lecturer (DL) as our guest speaker this month. Chris Mathis will be speaking to our Chapter as well as presenting at the Plain Green Conference. We are only allotted one DL each year, so let's show our support for Chris and have a great turn out for our September meeting. I look forward to seeing you at Westward Ho!

CTTC
Mike Fellows

Guest Speaker: Chris Mathis from MC2 Mathis Consulting Company
Presentation Title: Why Buildings Matter and the Role of ASHRAE 90.1
Website: www.mathisconsulting.com
Email: Chris@mathisconsulting.com

R. Christopher "Chris" Mathis has spent the past 30 years focusing on how buildings and building products perform – from energy efficiency to code compliance to sustainability and long-term performance durability.

Chris received his undergraduate degree in Physics from the University of North Carolina at Asheville. He received a Master of Science in Architecture Studies from MIT where his graduate work focused on energy use in buildings. He has served as a Scientist in the Insulation Technology Laboratory at the Owens-Corning Fiberglas Technical Center, was the Director of the Thermal Testing Laboratory for the National Association of Home Builders Research Center, and Director of Marketing for Architectural Testing, Inc., a private laboratory specializing in the performance of buildings and building products, particularly fenestration performance testing.

Chris is an active participant in Standards and Code development at ASHRAE, NFRC, ASTM and the ICC. He was a founding member and served for four years as the first Director of the National Fenestration Rating Council, the non-profit organization that developed the nation's energy performance rating and labeling system for windows, doors and skylights.

Chris has been a member and active participant in ASTM committee E06 on Performance of Buildings since 1984. He currently chairs E06.51.11 addressing window installation standards. He is also a member of committee C16 on Insulation and E60 on Sustainability. Chris currently chairs the Built Environment Advisory Committee at ASTM.

Chris is a 30-year member of the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE). In ASHRAE he has worked on window thermal test standards, national model codes for commercial buildings (ASHRAE 90.1), model codes for residential buildings (ASHRAE 90.2) and is the energy consultant to Standard 189.1 – ASHRAE's model code for sustainable commercial buildings. He is also the energy consultant to the Chapter Technology Transfer Committee. Chris has been recognized as an ASHRAE Distinguished Lecturer, conducting seminars on a variety of building science, energy efficiency and sustainability topics across the US and worldwide. Chris has published numerous technical papers at ASHRAE and presented his work at a variety of national and international conferences. He is the author of *Insulating Guide* - a book for home builders providing insulating best practices for many of the most common home building details. He is the co-author of *Is Your Home Protected from Water Damage? A Homeowner's Guide to Water Damage Prevention* published by the Insurance Institute for Business and Home Safety.

Chris has been involved in state and national code development since 1988. He was selected four times to serve on the International Energy Conservation Code Committee of the ICC, working to refine and improve the IECC – our national model energy code. He was also selected to be a member of ICC's Sustainable Building Technology Committee helping to draft a national model code for sustainable buildings. He served on the ICC's first Code Development Committee for the International Green Construction Code.

Chris is a member of the Board of Directors of BETEC – the Building Enclosure Technology and Environment Council, a council of the National Institute of Building Sciences. He also served six years on the Board of Directors of the Energy and Environmental Building Association (EEBA).

September 2014 South Dakota Chapter ASHRAE Blueprint

Chris provides a number of accredited training seminars for architects, engineers, builders, manufacturers, code officials, utility program developers and others addressing these myriad building science and building performance issues – from improved building energy efficiency and comfort to energy and power planning to improved building and energy codes to the challenges of sustainability and green building. He is a frequent keynote speaker at various national conferences and events.

Chris is also an on-going student of about 90 million years of sustainability and building science through his activities as a beekeeper. He lives and works near the farm he grew up on in the beautiful mountains of Western North Carolina.

PRESENTATION: Why Buildings Matter and the Role of ASHRAE 90.1

As our flagship standard for the minimum energy efficiency for buildings (except low-rise residential) ASHRAE 90.1 represents the Standard of Care for all certifying professionals serving the building industry. The latest version of that standard, 2013, contains dramatic changes that all certifying professionals should know. In this lecture, attendees will be provided a renewed perspective on the importance of our buildings. Attendees will learn about the connections between buildings and their energy use and other social and environmental objectives. We will discuss peak power, water consumption, carbon emissions and other connected issues. Attendees will learn about some of the latest changes to 90.1, especially in those critical areas often overlooked by HVAC professionals – the revised building envelope provisions – as well as other changes, and will be challenged to update their knowledge and understanding of the Standard and its role in delivering better buildings. The presenter served 10 years on the 90.1 development committee and remains an active participant in its development.

**Membership
Nathan Larson**

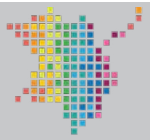
If you know of anyone that may be interested in joining ASHRAE, be sure to tell them about ASHRAE and invite them to a meeting. Membership information can be found at www.ashrae.org/members/ or call Nathan at 605-996-7548 with questions.

The 2014-2015 South Dakota Chapter ASHRAE Line-up:

Sept 11	Noon	Chris Mathis, MC2 Mathis Consulting Company <i>“Why Buildings Matter and the Role of ASHRAE 90.1” ASHRAE Distinguished Lecturer</i>
Oct 8	Evening	To be determined
Nov 5	Evening	To be determined <i>Past Presidents and Student Night</i>
Dec 3	Noon	To be determined
Jan 7	Noon	To be determined
Feb	Valentines Event	
Mar 4	Evening	To be determined
April 1	Evening	To be determined <i>Student Night</i>
May		<i>Fishing</i>
May		<i>Golf</i>

PARTY PLAINER.

PLAIN GREEN CONFERENCE
Friday, September 12, 2014
Hilton Garden Inn Downtown



Thursday September 11 5-8 p.m.	Opening Party Hilton Garden Inn Downtown Sponsored by: Johnson Controls & Associated Consulting Engineers, Inc.			
Friday September 12 7 a.m.	Registration & Continental Breakfast Sponsored by: Stockwell Engineers		VIP Breakfast Sponsored by: SDSU Foundation & SDSU President's Office	
8-9:15 a.m.	Holistic Management Allan Savory, Savory Institute Sponsored by: SDSU College of Agriculture & Biological Sciences			
9:30-10:30 a.m.	Brian Rex & Charles MacBride, SDSU DoArch <i>Small City Works: Teaching Community Design</i> Sponsored by: South Dakota Architecture Foundation DESIGN TRACK #1	Dan & Jill O'Brien, Wild Idea Buffalo Company <i>Wild Husbandry and Responsible Food: A New Paradigm for American Agriculture</i> Sponsored by: South Dakota Discovery Center ENVIRONMENTAL TRACK #1	Chris Mathis, Mathis Consulting Company <i>Priorities on the Road to Sustainability: Why Buildings Matter</i> Sponsored by: ASHRAE TECHNOLOGY TRACK #1	Lana Thomas, Pomegranate Market <i>Strengthening Community by Supporting Local Producers</i> Sponsored by: Avera McKennan Hospital & University Health Center LIFESTYLE TRACK #1
10:30-11 a.m.	Networking Break Sponsored by: Mt Pleasant Cemetery			
11-12 p.m.	Z Smith Eskew+Dumez+Ripple APC <i>High Performance Meets High Design on a Budget</i> Sponsored by: Fiegen Construction & SDSU DoArch DESIGN TRACK #2	Jim Wike, Nature Explore <i>Designing Nature Explore Classrooms to Connect Children and Families to the Outdoor Environment</i> Sponsored by: First Dakota National Bank & Billion Automotive ENVIRONMENTAL TRACK #2	John Chapman, University of Minnesota <i>Use of a Minimal Impact Design Standard for Stormwater Management</i> Sponsored by: South Dakota Discovery Center TECHNOLOGY TRACK #2	Erik Ritter, DeJunked Art <i>DeJunked: Reclaimed Objects Upcycled into Art</i> Sponsored by: Fresh Produce & SDSU Department of Visual Arts LIFESTYLE TRACK #2
12-1 p.m.	The Walkability Mandate Jeff Speck Sponsored by: City of Sioux Falls Public Works Environmental Division & Sioux Falls Health Department			
1:1-1:45 p.m.	Lunch/Networking Break Sponsored by: Koch Hazard Architects			
1:45-2:45 p.m.	Michele Gerus, Dwell Insight Group <i>Designing for Today's Affluent Consumer</i> Sponsored by: Interstate Office Products & Showplace Kitchens DESIGN TRACK #3	Jeff Speck <i>Towards a More Walkable South Dakota</i> Sponsored by: ASLA Great Plains Chapter ENVIRONMENTAL TRACK #3	Charles Kibert, University of Florida <i>The Net Zero Built Environment: Living within Natural System Constraints</i> Sponsored by: Swift Construction & Sioux Falls Green Project TECHNOLOGY TRACK #3	The Good Earth <i>Title Coming Soon</i> Sponsored by: Howalt McDowell Insurance & Woods Fuller Shultz & Smith P.C. LIFESTYLE TRACK #3
3-4:15 p.m.	If You Build It: Stories of Youth, Love, and Audacity Emily Pilloton, Project H Sponsored by: SDSU College of Education and Human Sciences Helen Van Zante Endowment			

Hilton Garden Inn
127
Board Room
Track 1 - 127
Track 2 - 128
Track 3 - 129
Track 4 - Board Room

..... A SPECIAL THANK YOU TO OUR FOUNDERS:

Koch Hazard Architects | South Dakota State University

..... AND THANKS TO OUR PARTNERS & FRIENDS:

AIA South Dakota | Brookings Sustainability Council | Canfield Business Interiors | SDID | South Dakota Public Broadcast

ASHRAE Learning Institute

2014 Fall Online Course Series

2 WAYS TO REGISTER

Take 3 or more courses and save 15% off registration!

Internet: www.ashrae.org/onlinecourses

Phone: Call toll-free at 1-800-527-4723 (US and Canada) or 404-636-8400 (worldwide)

Note: You may register up to 24 hours prior to an online course. Courses are in US Eastern Time.

High-Performance Building Design: Applications and Future Trends

Mon, September 8, 2014 – 1:00 pm to 4:00 pm EDT

Air-to-Air Energy Recovery Applications: Best Practices

Wed, September 10, 2014 – 1:00 pm to 4:00 pm EDT

Evaluation Methods for High-Performance Green Buildings

Mon, September 22, 2014 – 1:00 pm to 4:00 pm EDT

Fundamental Requirements of Standard 62.1-2013

Wed, September 24, 2014 – 1:00 pm to 4:00 pm EDT

NEW! Building Demand Response & the Coming Smart Grid

Mon, September 29, 2014 – 1:00 pm to 4:00 pm EDT

District Cooling & Heating Systems: Central Plants

Mon, October 6, 2014 – 1:00 pm to 4:00 pm EDT

Maximizing Customer Benefits Using Key Electric Utility Products

Mon, October 13, 2014 – 1:00 pm to 4:00 pm EDT

Combined Heat & Power: Creating Efficiency through Design & Operations

Mon, October 20, 2014 – 1:00 pm to 4:00 pm EDT

Design of Commercial Ground Source Heat Pumps

Wed, October 22, 2014 – 1:00 pm to 4:00 pm EDT

Energy Efficiency in Data Centers

Mon, November 3, 2014 – 1:00 pm to 4:00 pm EST

Commissioning for High-Performance Buildings

Wed, November 5, 2014 – 1:00 pm to 4:00 pm EST

Exceeding Standard 90.1-2013 to Meet LEED® Requirements

Wed, November 12, 2014 – 1:00 pm to 4:00 pm EST

The following courses are comprised of two parts. Registrants must attend both parts in order to receive CEU/PDH credits.

Complying with Standard 90.1-2013

Part 1 - Mon, September 15, 2014 – 1:00 pm to 4:00 pm EDT

Part 2 - Wed, September 17, 2014 – 1:00 pm to 4:00 pm EDT

Healthcare Facilities: Best Practices for Design & Applications

Part 1 - Wed, October 8, 2014 – 1:00 pm to 4:00 pm EDT

Part 2 - Wed, October 15, 2014 – 1:00 pm to 4:00 pm EDT

HVAC Design Training

2 Courses, 5 Days of Intense Instruction

November 2014 – Atlanta, GA

HVAC Design: Level I - Essentials

ASHRAE's *HVAC Design: Level I - Essentials* provides intensive, practical training for HVAC designers and others involved in delivery of HVAC services. Gain practical skills and knowledge in designing, installing and maintaining HVAC systems that can be put to immediate use. The training provides real-world examples of HVAC systems, including calculations of heating and cooling loads, ventilation and diffuser selection using the newly renovated ASHRAE Headquarters building as a living lab.

HVAC Design: Level II - Applications

ASHRAE's *HVAC Design: Level II – Applications* provides advanced instruction on HVAC system design for experienced HVAC designers and those who complete the *HVAC Design: Level I – Essentials* training. In two days, gain an in-depth look into *Standards 55, 62.1, 90.1, and 189.1* and the *Advanced Energy Design Guides*. Training will focus on a range of topics including: HVAC equipment and systems; energy modeling; designing mechanical spaces; designing a chiller plant; and BAS controls.

Visit www.ashrae.org/hvacdesign to register

ASHRAE Certification Programs

BEMP Practice Exam Now Available

ASHRAE has launched a practice exam for the Building Energy Modeling Professional (BEMP) certification. The practice exam is designed to be similar in content and difficulty to the actual certification exam. It is a low-cost, online tool for limited self-assessment with a score report overview of performance at the end of the exam. Practice exams are already in place for the BEAP, CPMP and HFDP certifications. Practice exams for the HBDP and OPMP certifications are under development and should be launched later this year.

Visit www.ashrae.org/BEMP to learn more about the BEMP practice exam.

Visit www.ashrae.org/certification to learn more about ASHRAE certifications.

New Publications from ASHRAE

ASHRAE, a leader in building information technology, develops publications that impact every facet of the environment, both indoors and out.

Data Center Design and Operation – ASHRAE Datacom Series CD 4th Ed.



This CD-ROM presents the full text of all eleven ASHRAE Datacom Series publications and Standard 127-2012 in fully searchable and printable PDF format. Authored by ASHRAE Technical Committee 9.9, the Datacom Series provides comprehensive treatment of data center cooling, energy efficiency, and related subjects.

\$289 (\$246 ASHRAE Member) / CD / 2014

ASHRAE Reference Offers Design Guidance on Healthcare HVAC Systems



The second edition of *HVAC Design Manual for Hospitals and Clinics* provides in-depth design recommendations based on best practices from consulting and hospital engineers, with a focus on presenting what's different about healthcare HVAC systems.

\$129 (\$109 ASHRAE Member) / 312 pages / 2013

Visit www.ashrae.org/bookstore to learn more about these and other outstanding ASHRAE publications!