



Twin Tiers Chapter

American Society of Heating,
Refrigerating, and
Air Conditioning Engineers
Inc.

Special points of interest:

- President Message
- Twin Tier News
- Monthly Meetings
- Society News
- Scholarships
- Business Card Advertisements
- Employment

ASHRAE 2015-2016



Shaping Tomorrow's
Built Environment Today

September Chapter Meeting

September 15, 2015

Tour:

Binghamton University Old Dickinson Dining Hall - New Admissions Center

Presentation:

Jason Gilbert (Binghamton, PE University)
Richard Sanguinito, PE (Delta Engineers)
(See Page #10 for full details)

TWIN TIERS TALK



To register, visit the Chapter website:

<http://twintiers.ashraechapters.org>

and select the "Programs" page.

Please send all newsletter comments to:

Andrew Nice, Editor

c/o Meier Supply Co.

275 Broome Corporate Parkway

Conklin, NY 13748

[Email the Editor](#)

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American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.



Corner

President's

Dear Twin Tiers Chapter Members,

So it begins. Another year where we all come together to share knowledge, food, drink, and a few laughs to balance the workload at your desk with home. Travis Fisher (CTTC Chair) will have a few tours in store for us, as well with some excellent presenters lined up for the year. Please bring any YEA's from your office, or your high school student from home looking at taking the college path. For all past Presidents & Officers, if you have not been in a Chair position or committee and would like to get back into volunteering, listen to that voice in your head saying you have more to give. I look forward to what we will accomplish together in 2015-2016. Always bear in mind that your own resolution to succeed is more important than any other. – Abraham Lincoln.

This year's weather has made its presence known silently and can no longer be ignored. Last Spring was the first time I contended with thermal stress. I talked with my doc who said I had this odd cough due to April being cold, then within 2 to 3 weeks the outdoor temperature increased drastically. I thought better to not bring in the ASHRAE 55 chart with the gray area of human comfort acceptable levels, because I knew he was right. Combined with high pollen and temperature swings I was a victim of the Earth's engine. My cough lasted for 2 months.

This summer, the Earth's weather and poor cooling tower maintenance played a role in the death of 12 people in New York City. August 13, 2015: new statewide regulations require registration and periodic reporting of testing, inspection, and certification of cooling towers due to the worst outbreak of Legionnaires' Disease in New York City history. All NY State building owners with cooling towers/evaporative coolers/fluid condensers must have their equipment registered and tested within 30 days in accordance with current standard industry protocols including, but not limited to ASHRAE 188-2015. A maintenance program and plan shall be implemented by March 1, 2016. All NYC towers were cleaned and disinfected in August. If you have existing clients with these devices, please share with them these new regulations. I'd like to share the data at our first meeting in as far as how many clients did not know about the regulation.

Thank you in advance,
Doug Breese
Twin Tiers Chapter President

Chapter President



Doug Breese
(585) 402-7090
[Email Me!](#)

2014-2015 Chapter Officers

President-Elect

Travis R. Fisher
(607) 255-5608
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Vice President

Petros Papathomopoulos
(607) 723-9421
[Email Me!](#)



Treasurer

Jacob Schatz
(315) 234-1543
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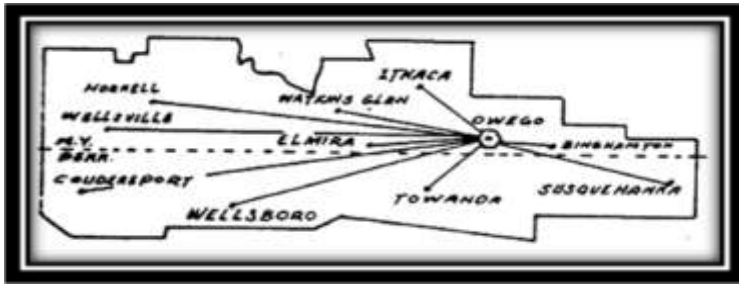


Secretary

Michael McGinnis
607.727.3168
[Email Me!](#)

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Twin Tiers Chapter

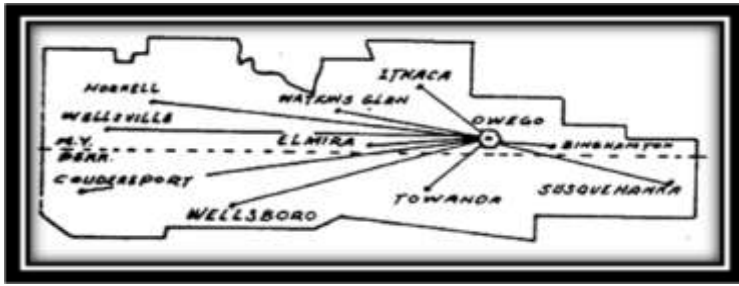
Presidential Award of Excellence (PAOE)

	Membership Promotion	Student Activities	Research Promotion	Historical	Chapter Operations	Chapter Technology Transfer	Grassroots Government Activities
MIN/PAR	500/800	300/500	800/1050	100/300	400/1000	450/1050	500/650
Current	0	50	0	0	50	0	0

100 POINTS CURRENT AS OF 9/10/2015

Chapter Committee Chairs

Technology Transfer Travis Fisher (607) 255-5608 Email Me!	Government Activities Petros Papathomopoulos (607) 723-9421 Email Me!	Refrigeration Rob VanSkiver (585) 591-8168 Email Me!	Golf & Clambake Outing Michael McGinnis (607) 727-3168 Email Me!
Membership Promotion Chris Wolak (484) 350-1954 Email Me!	Nominating Andrew Nice 607-760-5960 Email Me!	Meeting Reception Jacob Schatz (315) 234-1543 Email Me!	H.O. Ward Scholarship Jason Gilbert (607) 777-2240 Email Me!
Research Promotion Andrew Nice 607-760-5960 Email Me!	Student Activities Jason Gilbert (607) 777-2240 Email Me!	Membership Directory Chris Wolak (484) 350-1954 Email Me!	Albern Education Fund Richard Sanguinito (607) 231-6605 Email Me!
Honors & Awards Andrew Nice 607-760-5960 Email Me!	Historian Richard Sanguinito (607) 231-6605 Email Me!	Symposium- Fall/Spring Petros Papathomopoulos (607) 723-9421 Email Me!	Auditing Rick Sanguinito & Jason Gilbert (607) 231-6605 Email Me!
Webmaster Mike Colwell (607) 724-8282 Email Me!	Newsletter Editor Andrew Nice 607-760-5960 Email Me!	YEA: Young Engineers Travis R. Fisher/Devin Shapley (607) 255-5608 Email Me!	Publicity Andrew Nice 607-760-5960 Email Me!



American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

2015-16 Region 1 Officer Contacts



**Regional Director
Regional Chair**
William Walter
[Email Me!](#)



**Members Council REP
Treasurer**
Joseph Furman
[Email Me!](#)



**Membership Promotion
CRC General Chair**
Steven Sill
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Research Promotion
Andrew Manos
[Email Me!](#)



Student Activities
Ralph Draper
[Email Me!](#)



Regional Historian
Stanley Westhoff
[Email Me!](#)



Region YEA
Frank Rivera
[Email Me!](#)



Refrigeration
Mark Cambria
[Email Me!](#)



**Nominating Committee
Member**
Russell Stuber
[Email Me!](#)



**Nominating Committee
Alternate**
Darcy Carbone
[Email Me!](#)



**Electronic
Communication
Webmaster**
Stacie Suh
[Email Me!](#)



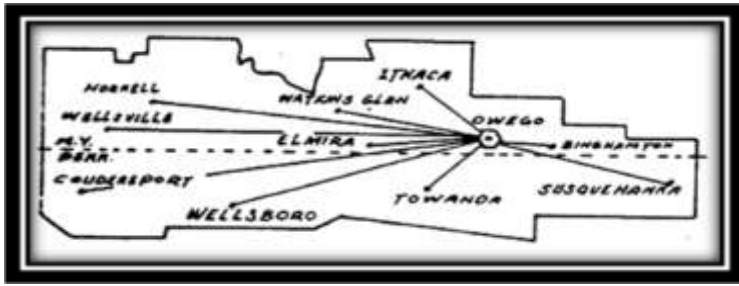
**Chapter Technology
Transfer**
Christopher Phelen
[Email Me!](#)



**Grassroots Government
Advocacy**
Richard Vehlow
[Email Me!](#)



Regional Representative
Gary Myers
[Email Me!](#)



American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

2015-16 Twin Tier ASHRAE Officers

2015-16 Officer Instatements

President – Doug Breese
President-Elect – Travis Fisher
Vice President – Petros Papathomopoulos
Treasurer – Jacob Schatz
Secretary – Michael McGinnis

2015-16 Chair Position Instatements

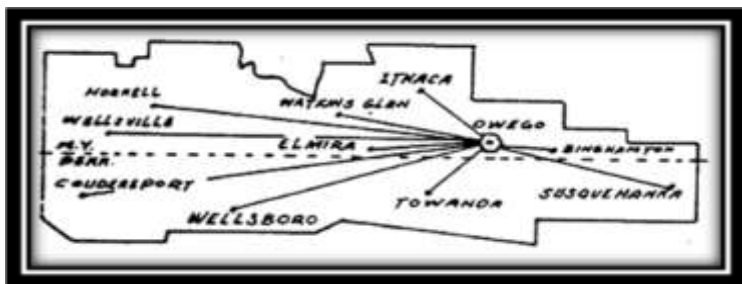
Grassroots Government Activities Chair - Petros Papathomopoulos
Membership Promotion Chair – Chris Wolak
Student Activities Chair – Jason Gilbert
Webmaster – Michael Colwell
Historian – Richard Sanguinito
Newsletter Editor – Andrew Nice
Publicity – Andrew Nice
YEA – Travis Fisher (Co-Chair Devin Shapley)
Golf & Clambake Chair – Michael McGinnis (Co-Chair Matt Hawley)
Audit Committee – Richard Sanguinito & Jason Gilbert
Refrigeration Chair – Rob VanSkiver
Research Promotion Chair - Andrew Nice

2015-16 Board of Governors Instatements

Andrew Nice
Devin Shapley
Chris Wolak
Rob VanSkiver

Thank you to all our volunteers this year!

If you or someone you know is interested in volunteering their time please contact Doug Breese at this [email](#).



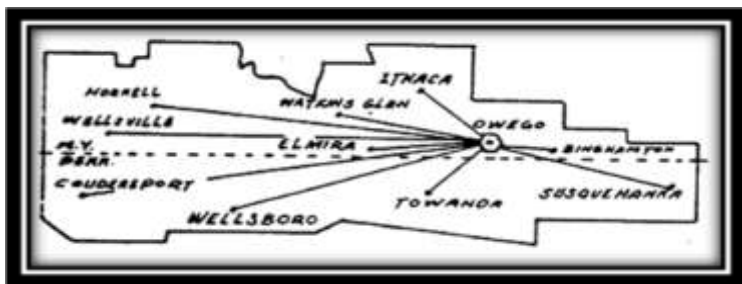
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Twin Tiers Chapter– Monthly Meeting Information

2015-2016 Meeting Dates:

Date:	Speaker	Tech Session Topic, Tour or Meeting Info	Attendance:
15-Sep	Jason Gilbert / Rick Sanguinito	Dickinson Hall VRF HVAC, Plumbing, FP, and Structural Installation Tour & Presentation	
20-Oct	Various / TBD	Fall Engineering Symposium - Daytime	
20-Oct		Brewery Tour	
17-Nov	Art Studer	Huron Campus Chiller Plant Tour	
15-Dec	TBD	TBD	
19-Jan	TBD	Ommegang Brewery Tour	
16-Feb	Lanny Joyce / Mark Howe	Cornell Tour	
15-Mar	Jason Gilbert	Binghamton University Tour	
19-Apr	Multiple/TBD	Spring Engineering Symposium—Daytime	
17-May	Lanny Joyce / Mark Howe	Cornell Tour	
16-Jun	None	Golf Tournament	

NOTE: Speakers and topics are subject to change based on availability.



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2015 CRC Summary



By
Rick Sanguinito Historian 2014-15 & Andrew Nice President 2014-15

AUGUST CRC Summary

Date: August 20-22, 2015

This year's Region 1 Chapter Regional Conference (CRC) was hosted by the Central New York Chapter in Syracuse, NY. The following people attended for our chapter

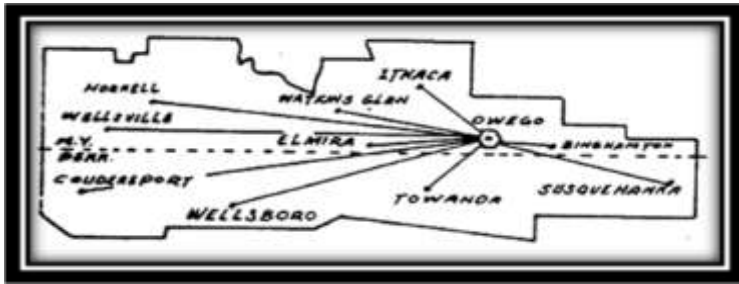
Andrew Nice	Chapter Delegate Newsletter Editor Chapter Research Promotion Chair Chapter Publicity Chair Chapter Nominating Chair Board of Governors
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Doug Breese	Chapter President Chapter Alternate
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Travis Fisher	Chapter YEA Chapter Technology Transfer Chair Chapter President Elect
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Jason Gilbert	Chapter Student Activities Chair Chapter Auditing Committee
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Petros Papathomopoulos	Chapter Grassroots Government Advocacy Chair Chapter Vice President
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American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

2015 CRC Summary

Rick Sanguinito	Chapter Historian Chapter Auditing Committee
Rob VanSkiver	Chapter Refrigeration Chair Board of Governors
Chris Wolak	Chapter Membership Promotion Chair Board of Governors

Summary:

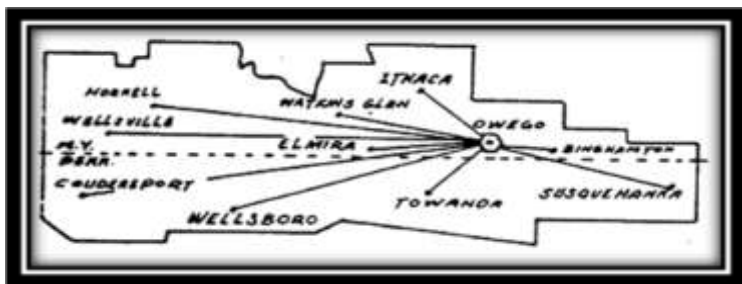
The 2015 CRC was a great success. The Twin Tiers chapter was well represented with the above listed chairs and officers. Everyone attended their specialized training to earn extra PAOE points and to prep themselves for the upcoming year. Much idea sharing and planning was done between our members and other chapters. Doug and I took part in the Regional business meetings at which we voted on several topics as well as new officer positions. Bjarne Olesen, Ph. D gave a very informative yet light hearted speech at the President's Dinner. Much fun was had by all at the dinner events and of course in the hospitality suite. Twin Tiers was awarded with their PAOE Premier patch, PAOE Special Citation, Full Circle RP Chevron, Websitation of Excellence Award, and the Black Ink Award. Overall it was a great CRC, very much fun, and very productive as well



Photo 1: Syracuse Center of Excellence Tour –
Jason Gilbert



Photo 2: Syracuse Center of Excellence Tour –
Chris Wolak



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2015 CRC Summary



Photo 3: Twin Tiers Chapter has maintained its Premier status



Photo 4: Black Ink Award.
Congratulations ANDY!!



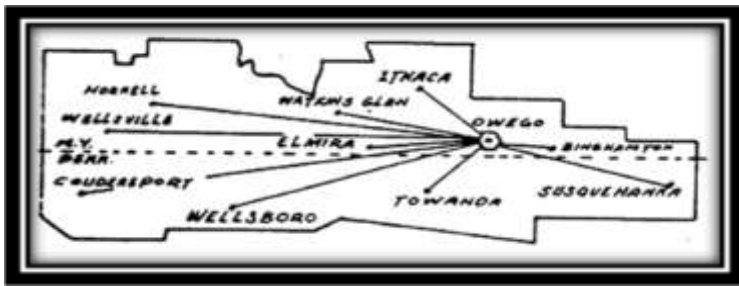
Photo 5: Websitation Award.
Congratulations MIKE!!



Photo 6: Twin Tiers Chapter History display



Photo 7: Doug Breese and Jason Gilbert



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September Meeting Announcement

September 15, 2015

September Chapter Meeting

Tour: Binghamton University – Old Dickinson Dining Hall/New Admissions Center Conversion

It is not always sophisticated equipment and systems which make building mechanical design challenging. In renovation work it is more about understanding what you have to work with and using your engineering skills to make something out of nothing.

Binghamton University's old Dickinson Dining Hall building is a great example of how you convert a dining facility with a dungeon basement mechanical room into a beautiful admissions center.



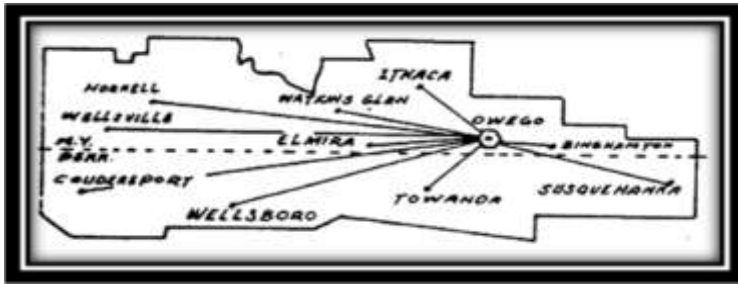
SPEAKERS: Jason Gilbert (Mechanical Engineer - Binghamton University) and Richard Sanguinito (Vice President - Delta Engineering, Architects, and Land Surveyors)

DATE: Tuesday, September 15th, 2015

TIME: 5:00 PM

MEETING LOCATION:

Binghamton University – Admissions Center
Room AM 189
Vestal Parkway East, Binghamton NY



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September Meeting Announcement

AGENDA: 5:00 – 6:30 – (New Admissions Center Room AM 189) Tour of New Admissions Center Room AM 189)
6:00 – 7:00 – (TAU Bearcat Room) Social Hour/Registration
7:00 – 8:30 – (TAU Bearcat Room) Dinner, Presentation, and Brief Chapter Meeting

MENU: Buffet Dinner Provided by Sodexo— Baked Chicken Parmesan, Caramelized Onion Meatloaf, Garlic Mashed Potatoes, Glazed Carrots with Chocolate Mousse and Lemon Meringue Pie for Desert.

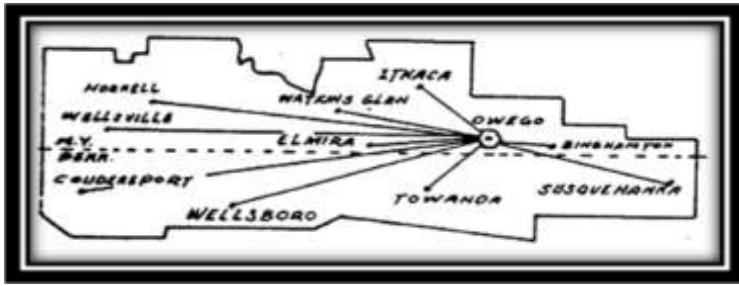
REGISTRATION: \$25.00 Early Registration (By 9/11/2015)
\$30.00 (After 9/11/2015)

GPS: <http://goo.gl/maps/hL8QK>

MAP:



CONTACT: Travis Fisher (Please call, text, or email me at below with any questions or if you get lost)
E: [Email Me!](#)
C: (607) 972-1342



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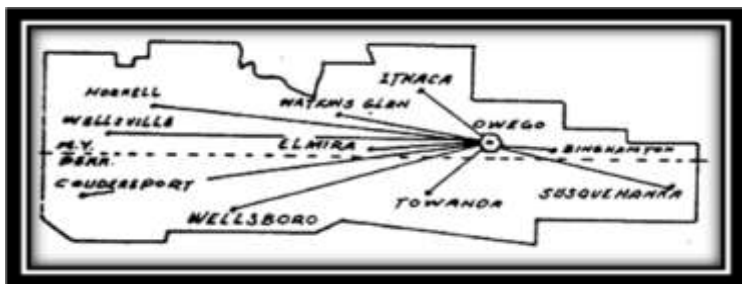
FREE ASHRAE SHIRT

CONGRATULATIONS MEMBERS!

Rick Allabaugh
Richard Sanguinito
Travis Lebrun
Devin Shapley
Petros Papathomopoulos
Andy Nice
Doug Breese
Robert Van Skiver
Matt Hawley
Jacob Schatz
Joe O'Hara
Garry Hilton
Michael McGinnis
Art Monaco
Chis Wolak
Jason Gilbert



As a token of our appreciation for your dedication to this chapter we are giving away free shirts to the members listed above. To qualify for the free shirt you had to attend at least 4 of the chapter meetings this year. You will be receiving your shirts at the first chapter meeting of the 2015-16 year.



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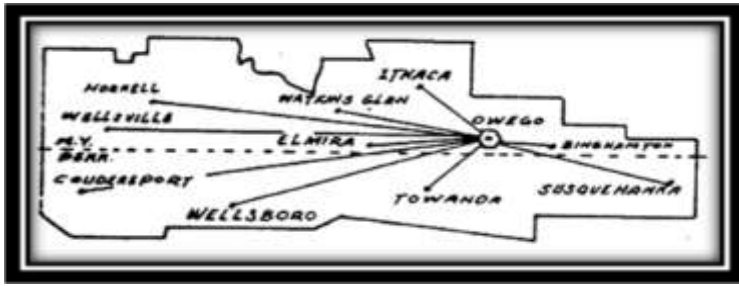
What Were They Thinking???



Dormitories aren't known for their privacy, but this is ridiculous!

**Do you have a funny, "unique", or just plain horrible installation picture?
Please send them to the Editor at anice@meiersupply.com**

***** All names/brands are removed to protect the guilty. *****



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TRAINING



New York State Professional Engineers **Self Study Ethics PDH Available!**

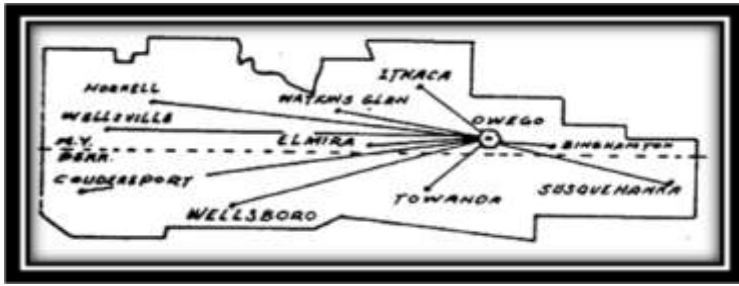
As a licensed professional in New York State, it is your professional responsibility to know the legal and ethical requirements governing the practice of your profession and to be alert to changes in those requirements. The New York State Board for Engineering and Land Surveying, in an effort to help you stay abreast of your professional responsibilities, has developed this short, self-study educational activity in ethics.

This educational activity is based on the New York State Education Law Articles 130 and 145, the Rules of the Board of Regents Parts 1, 3, 17, 18, 28, 29, 31, and the Regulations of the Commissioner of Education Parts 59 and 68. It is strongly recommended that, prior to taking the self test, you review these [foundational materials](http://www.op.nysed.gov/prof/pels/pelaw.htm) (<http://www.op.nysed.gov/prof/pels/pelaw.htm>) on the engineering web site.

Once you have reviewed the foundational materials, proceed to complete the self test below. When you have completed the self test, click the "Get your score" button at the bottom of the page. You should print this screen and save it as evidence of satisfactory completion of this educational activity. A score of 90% or greater will allow you to claim 1 Professional Development Hour (PDH) of educational activity credit in ethics ONCE in each three-year registration period. Retain your printed screen for no less than 6 years from the date of completion.

Take Your PE Ethics Self Test Here!

<http://www.op.nysed.gov/prof/pels/peceselftest.htm>



American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

TRAINING

2015 Fall Online Courses

REGISTRATION

By September 4th:

\$239 (\$179 ASHRAE Member)

Two-part courses: \$439 (\$319 ASHRAE Member)

After September 4th:

\$259 (\$199 ASHRAE Member)

Two-part courses: \$459 (\$339 ASHRAE Member)

Register

DISCOUNTS

Take three or more courses and save 15% on your complete course registration costs.

Receive a 10% discount on the Recommended Reference. (Discount is included in item prices on registration form)

MULTIPLE PARTICIPANTS

Site Licenses are Available when five or more attend. [Learn More >>](#)

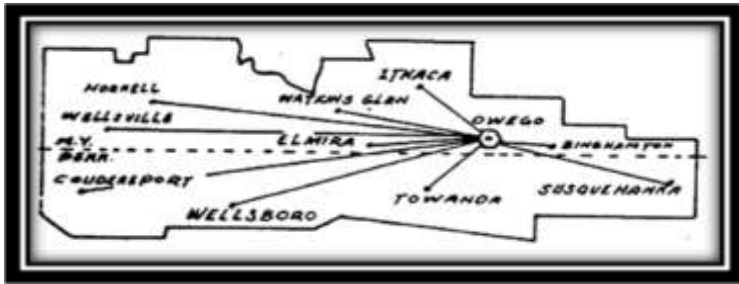
ASHRAE Announces Fall Online Courses

ATLANTA – Ten online professional development seminars focused on commissioning, environmental quality, energy efficiency, HVAC applications, and standards and guidelines are being offered this fall by the ASHRAE Learning Institute (ALI).

Participants can access these instructor-led courses from anywhere with an Internet connection, and earn continuing education units/professional development hours for each course completed.

ALI courses provide professional development through in-depth information that is timely, practical and advanced beyond a fundamental level. Online courses are offered every spring and fall.

For pricing or to register, visit www.ashrae.org/onlinecourses.



American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

EVENTS

2016 Winter Conference & AHR Expo



2016 Winter Conference
Jan. 23-27
Orlando Hilton
Orlando, FL

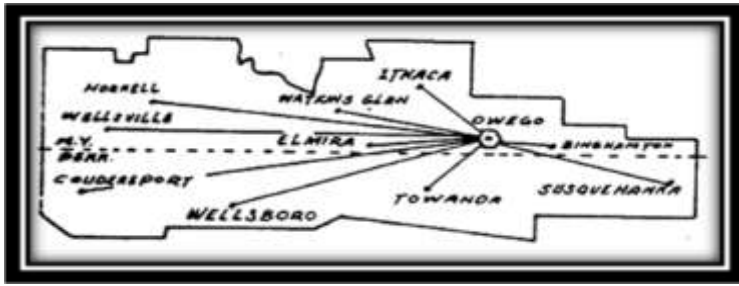
AHR Expo
Jan. 25-27
Orange County Convention Center
Orlando, Fla.

Sun and fun make Florida a global destination! The 2016 ASHRAE Winter Conference and AHR Expo serve as similar attractions, drawing industry professionals from around the world to advance personally and professionally. The Conference will have a fresh feel with new tracks focused on design-build practices and residential systems as well as programs that align well with current trends in HVAC&R engineering. Energy efficiency and sustainability are emphasized along with current engineering and construction practices outside of the U.S. and Canada. Come experience Florida's attractions and ASHRAE's advances in technology.

Highlights!

- ASHRAE Headquarter Hotel is connected to the Orange County Convention Center, site of the AHR Expo. An easy walk to the latest and greatest technology!
- Kick off the Conference with a Welcome Party at SeaWorld!
- Technical Program features fresh feel with new tracks!

[Register](#)



American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

INDUSTRY ARTICLE

Lighting, Climate Zone Changes Proposed for ASHRAE/IES Energy Standard ASHRAE



ATLANTA – Changes regarding lighting and climate zones are being proposed to the energy standard published by ASHRAE and the Illuminating Engineering Society (IES).

Twenty-three addenda to ANSI/ASHRAE/IES Standard 90.1-2013, *Energy Standard for Buildings Except Low-Rise Residential Buildings*, are open for public comment starting Sept. 4, 2015. To comment or learn more, visit www.ashrae.org/publicreviews.

Among the addenda open for public comment is addendum *ch*, which proposes a new set of interior lighting power densities (LPD) limits for both building area and space by space compliance paths. These new LPD limits stems from inclusion of light emitting diode (LED) technology into the space type models that are used to determine appropriate LPD limits for compliance with the standard, according to Eric Richman, chair of the standard's lighting subcommittee.

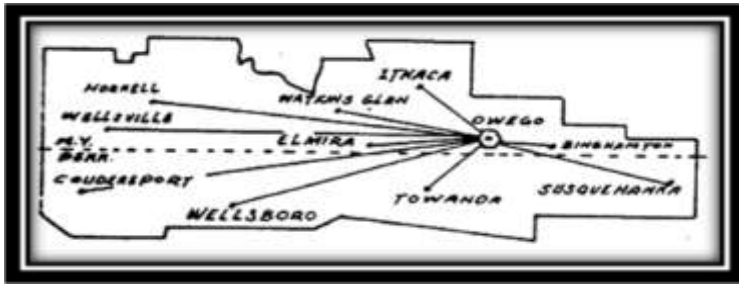
These LPD limits (watts per square foot) are calculated using IES formulas that relate lighting energy use to lighting quantity based on the application of appropriate lighting technologies into individual space models. These models incorporate efficient cost-effective lighting technology, appropriate light loss factors, and current design practice that incorporate quality design elements.

The new LPD values are generally lower by sometimes small to often significant amounts. The magnitude of the change is based primarily on the amount of LED technology incorporated into the model.

"These proposed changes have been under consideration within the 90.1 Lighting Subcommittee for several years," Richman said. "Inclusion of LEDs were seriously considered for the 2013 version of the standard. However, at the time the changes needed to be processed (late 2012), the cost of LEDs was still relatively high and the variety and depth of available products was not deemed sufficient to incorporate into a mandatory code. We understand that LED technology continues to improve and become even more cost-effective such that by the time these new requirements are required for building projects, their effectiveness and viability on code compliance will be even easier."

Also open for public comment is addendum *br*, which was developed in response to the publication of ANSI/ASHRAE Standard 169-2013, *Climatic Data for Building Design Standards*. Standard 169 includes more-recent weather data (resulting in changes in climate zone assignments for some locations, including approximately 10 percent of the 3,000 counties in the United States) and the creation of a new Climate Zone 0. The proposed addendum adds requirements for mechanical provisions.

Under addendum *w*, which is expected to be published in 90.1-2016, Standard 169 is referenced for climatic data (though a new Reference Standard Reproduction Annex in Standard 90.1 includes extracts from Standard 169). Addendum *w* proposed criteria for Climate Zone 0 in Standard 90.1 for envelope provisions. Addendum *br* covers criteria for Climate Zone 0 of Section 6 (HVAC), and for the mechanical systems portions Appendix C and G.



American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

INDUSTRY ARTICLE

Lighting, Climate Zone Changes Proposed for ASHRAE/IES Energy Standard (Cont.)

Generally, the new Climate Zone 0 is the hotter portion of the previous Climate Zone 1, which was the warmest climate zone. Cities in Climate Zone 0 include Mumbai (Bombay), Jakarta and Abu Dhabi. There are no cities in the United States in Climate Zone 0; Miami and the islands of Hawaii are in Climate Zone 1. The separation of Climate Zones 0 and 1 allows separate criteria for Standard 90.1 to be developed that are more specific to the hotter regions of Climate Zone 0.

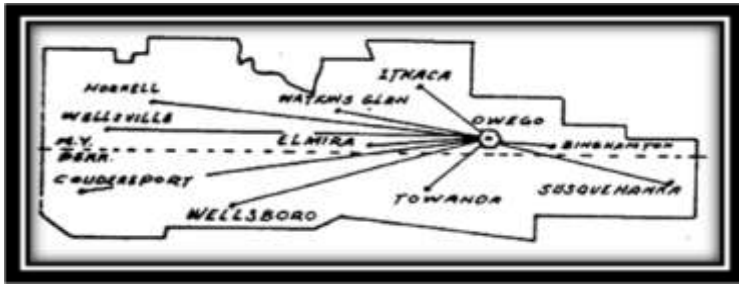
Addenda open for public comment from Sept. 4 until Oct. 4, 2015, are :

- *bt* updates efficiency values for low-voltage dry-type transformers to be consistent with federal law.
- *bx* requires a modeler to use the design set point for multi-zone thermostat systems..
- *bv* exempts baselines with purchased cooling and heat from the reset control requirements in Appendix G.
- *bw* provides a baseline for lighting controls consistent with addendum *bm*.
- *bz* to replaces Table 6.8.1-11 to account for the new rating conditions.
- *by* requires pipe insulation on the first 8 feet of branch piping.
- *cb* updates duct insulation requirements.
- *ca* modifies the fan power criteria by lowering of the motor power threshold for the fan speed control requirement.
- *ce* increases the minimum ERV requirements from zero to a reasonable minimum size for smaller units.
- *cc* replaces the definition of sidelighting effective aperture that was inadvertently deleted in 90.1-2013.
- *cf* to adds additional requirements to section 6.1.1.3.1 for direct replacement HVAC equipment.
- *ci* adjusts the equations for fenestration orientation in Section 5.5.4.5 by requiring a lower solar heat gain coefficient (SHGC) for west and east facing fenestration, and by allowing the use combinations of fenestration area, exterior shading and SHGC to demonstrate compliance.
- *ck* makes a change to control set point for the cooling tower to better scale with its climate, clarifies the operation of the condenser water pump as a constant volume pump, and modifies the exception for pump W/gpm for water side economizer.
- *cj* modifies a footnote in Appendix G for single zone variable air volume systems serving computer rooms.
- *du* requires water-side economizers for non-fan chilled water systems such as radiant cooling or passive chilled beam systems and for active chilled beam systems.

In addition, seven addenda are open for public comment from Sept. 4 until Oct. 19, 2015. They are:

- *ai* includes revisions to the fenestration criteria including U-factors and SHGC in certain climate zones.
- *br* was developed in response to the update of Standard 169-2013, *Climatic Data for Building Design Standards*.
- *bs* updates the EER values for water-source variable refrigerant flow products above 65,000 Btu/h. The proposal also establishes for the first time minimum IEER values for this product class.
- *cd* establishes for the first time a product class for dedicated outdoor air systems.
- *cg* modifies the exterior LPD for building exteriors.
- *ch* modifies the LPD for both space by space and building area methods by including LED technology into the lighting systems.
- *cl* relocates Table 7.8 for minimum efficiency requirements for residential water heaters and pool heaters to an Informative appendix.

Contact: Jodi Scott / Public Relations / 678-539-1140 / [Email](#)



American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

INDUSTRY ARTICLE

Keeping Occupants Comfortable Without Raising Energy Costs

ASHRAE

ATLANTA – Keeping building occupants comfortable while minimizing energy use is a balancing act for engineers who design HVAC&R systems and buildings. One way they can achieve this balance is through requirements in a standard from an international technical association.



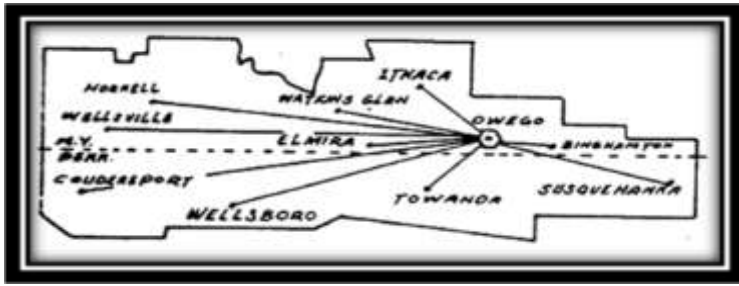
ASHRAE's Standard 55, *Thermal Environmental Conditions for Human Occupancy*, specifies the combinations of indoor thermal environmental factors and personal factors that will produce thermal environmental conditions acceptable to a majority of the occupants within the space.

Earlier this week, research that looks at the method used to determine thermal comfort in Standard 55 was published via an article, "Energy Consumption in Buildings and Female Thermal Demand," in *Nature Climate Change*. The research looks at the method used to determine thermal comfort in ANSI/ASHRAE Standard 55.

"The interpretation of the authors regarding the basis for Standard 55 is not correct," Bjarne Olesen, Ph.D., a member of the ASHRAE Board of Directors, internationally renowned thermal comfort research and former chair of the Standard 55 committee, said. "The part of the standard they are referring to is the use of the PMV/PPD index. This method is taken from an ISO/EN standard 7730, which has existed since 1982. The basic research for establishing comfort criteria for the indoor environment was made with more than 1,000 subjects with equal amount of women and men.

"In the main studies, where they did the same sedentary work and wore the same type of clothing, there were no differences between the preferred temperature for men and women. So the researchers' finding of a lower metabolic rate for females will not influence the recommended temperatures in the existing standards. Also their study is not conclusive. They only studied 16 females at a sedentary activity. They should also have studied 16 men at the same activity to be able to compare. The reason why we, in some field studies, find that women prefer higher room temperature than men is attributed to the level of clothing. Women adapt better their clothing to summer conditions while men are still wearing suit and tie. So if the thermostat is set to satisfy the men, the women will complain about being too cold. In the standard, this adaption of clothing to summer is taken into account so if the standard is followed the women would be satisfied; but maybe not the men."





American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

INDUSTRY ARTICLE

Keeping Occupants Comfortable Without Raising Energy Costs (Cont.)

ASHRAE President David Underwood notes that the standard has been continually refined and updated since it was first published in 1966, reflecting changes in the industry and new research as it becomes available. Standard 55 is based on an earlier document developed in 1938 by two predecessor societies of ASHRAE, titled *Code for Minimum Requirements for Comfort Air Conditioning*.



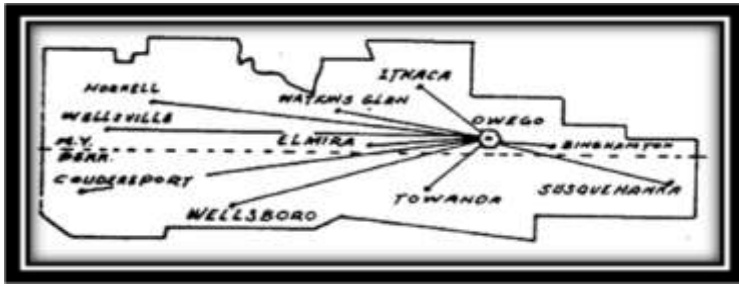
“The standard continues to focus on defining the range of indoor thermal environmental conditions acceptable to a majority of occupants, while also accommodating an ever increasing variety of design solutions intended to provide comfort and to respect today’s imperative for sustainable buildings,” Underwood said.

Olesen notes the researchers should have consulted other studies and technical guidance.

“They should also have looked at the ASHRAE Handbook, Fundamentals, which explains the background for the standard and addresses differences between men and women, young and elderly, etc. with literature references,” he said.

In their paper, researchers Boris Kingma and Wouter van Marken Lichtenbelt state, “Energy consumption of residential buildings and offices adds up to about 30 percent of total carbon dioxide emissions; and occupant behavior contributes to 80 percent of the variation in energy consumption. Indoor climate regulations are based on an empirical thermal comfort model that was developed in the 1960s. Standard values for one of its primary variables—metabolic rate—are based on an average male, and may overestimate female metabolic rate by up to 35 percent. This may cause buildings to be intrinsically non energy-efficient in providing comfort to females. Therefore, we make a case to use actual metabolic rates. Moreover, with a biophysical analysis we illustrate the effect of miscalculating metabolic rate on female thermal demand. The approach is fundamentally different from current empirical thermal comfort models and builds up predictions from the physical and physiological constraints, rather than statistical association to thermal comfort. It provides a substantiation of the thermal comfort standard on the population level and adds flexibility to predict thermal demand of subpopulations and individuals. Ultimately, an accurate representation of thermal demand of all occupants leads to actual energy consumption predictions and real energy savings of buildings that are designed and operated by the buildings services community.”

Contact: Jodi Scott / Public Relations / 678-539-1140 / [Email](#)



American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

Twin Tiers Chapter– Employment Opportunities

If your company has any Employment Opportunities that you would like to advertise in the Newsletter please send to ASHRAE



Outside Sales Engineer

Outside Sales Engineer Wanted – H&V Equipment Sales, Inc.

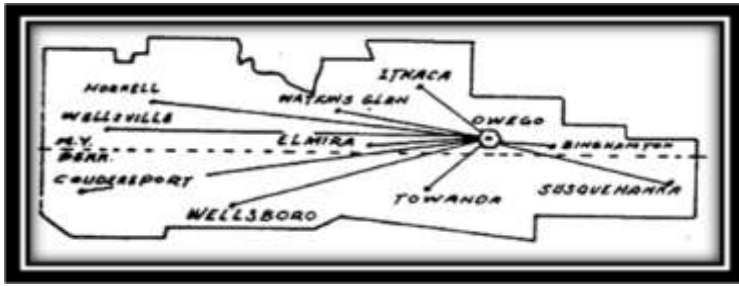
H&V Equipment Sales, Inc. a manufactures representative for applied HVAC equipment is seeking a motivated salesperson to help expand its market presence in Western and Central NY.

Responsibilities will be working with local mechanical contractors in the plan/spec and design/build markets, providing quotations for equipment, generating submittals and sales orders.

Candidates should poses a thorough knowledge of Mechanical HVAC systems, have good communication , sales and computer skills, and be willing to travel within the sales territory.

Other skills considered favorable to the applicant are actual HVAC field installation, service, HVAC design experience and/or HVAC sales experience.

Please email resume to Thomas Snyder at tsnyder@hvgroup.us
H&V Equipment Sales, Inc. is a division of H&V Group.



American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

Twin Tiers Chapter– Employment Opportunities



Open Position - Building Energy Modeling Analyst

Job Summary

The Building Energy Modeling Analyst will use his or her knowledge of engineering and building performance to provide modeling support for Energy Efficiency Analysis, Building Conditions Assessments; LEED Services; Asset Score and ENERGY STAR Services and Green Building Design. Typical projects will include energy and water related building performance analysis, including application of the OpenStudio software tools. Additional duties will include delivering trainings.

Key Tasks & Responsibilities

- Perform whole building energy modeling and analysis, M&V and building re-tuning services.
- Perform engineering studies for a variety of facilities (including but not limited to Commercial, Retail, Manufacturing and Multi-family) and develop energy reduction plans for submission to state/utility incentive programs. Develop energy efficiency recommendations related to lighting, HVAC, building envelope, process equipment, etc.
- Deliver various trainings related to software and auditing tools and techniques, in person and via interactive on-line sessions.
- Provide team members with technical analysis for ongoing projects. Submit timely reports for review by senior engineering staff. Manage time effectively and within project budget constraints.
- Customer support activities (customer mentoring and model / tool development)

Candidate Requirements

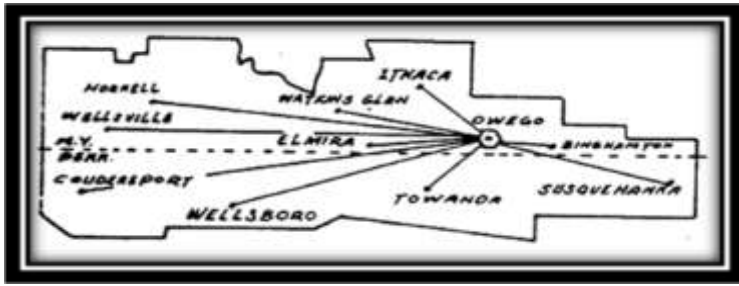
Required

- Bachelor's Degree in Mechanical Engineering or related field.
- Minimum 3 years of relevant experience with energy systems commonly found in buildings, including a working knowledge of building HVAC systems and controls.
- Demonstrable experience with energy analysis/benchmarking and energy modeling software (Trace 700, eQUEST, OpenStudio, etc.)
- Demonstrable familiarity with relevant building/energy codes and standards (IECC / ASHRAE, etc.) and conducting energy audits.
- Knowledge of the basic physics underlying building science and the basic engineering equations underlying energy efficiency calculations.



For complete information go to:

http://psdconsulting.com/th_gallery/building-energy-modeling-analyst/



American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

Twin Tiers Chapter– Employment Opportunities



MECHANICAL ENGINEER

Delta Engineers, Architects, & Land Surveyors, P.C., a growing upstate NY design firm, is currently seeking a Mechanical Engineer in our Endwell, NY office. Experience in HVAC, Plumbing and Fire Protection is highly preferred.

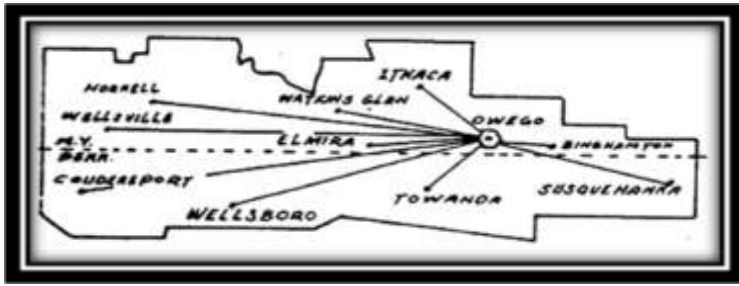
Primary Duties Include:

- Using methods recommended by senior project team members, perform work which involves conventional and/or complex types of plans, investigations, surveys, structures, or equipment
- Is expected to solve engineering problems using thermodynamics, fluid mechanics, and heat transfer to design water, waste water, hydronic, and gaseous piping and ductwork. Design and selection of HVAC equipment associated with the building environment.
- Prepare, or assist in the preparation of, engineering documents, details, schedules or reports as assigned
- Attend and/or lead client meetings/presentations – daytime or evenings
- Communicate with client representatives, contractors, suppliers, etc.
- Serve and/or lead field inspection teams to obtain and document existing conditions using field notes, sketches, and photography
- Develop quantity take offs and construction cost estimates
- Develop project specifications and bidding documents
- Participate and/or lead site visits/inspections/documentation during construction

The preferred candidate should have a minimum 2 year degree with at least 5 years relevant experience, or 4 year degree with at least 2 years of relevant experience. Compensation for this position depends on experience. This position provides a competitive benefits package.

Delta Engineers, Architects, & Land Surveyors, PC is an Equal Opportunity Employer of Protected Veterans and Individuals with Disabilities.

To apply, visit our website career page at: http://deltaengineers.com/current_careers.php



American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

Twin Tiers Chapter– Employment Opportunities



PROJECT ENGINEER – ELECTRICAL

Delta Engineers, Architects, & Land Surveyors, P.C., a growing upstate NY design firm, is currently seeking a Electrical Project Engineer in our Endwell, NY office. Project Engineers work with the Project Manager to develop design solutions of a specific discipline which are incorporated into contract documents by the design team. While these positions are primarily technical, assistance with some project management duties is likely.

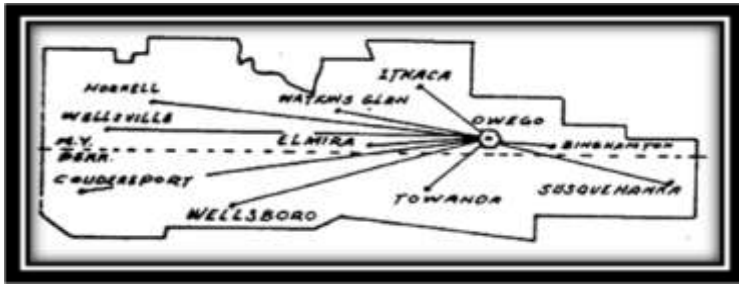
Primary Duties Include:

- Assist the Project Manager in developing design parameters, scopes of service and person-hour estimates during the proposal stage
- Assign individual work tasks and provide guidance to subordinate team members of that design discipline. Discuss the desired expectations of the delegated work including the amount of time estimated to complete the work
- Responsible for the quality control of work products (e.g., reports, studies, drawings, letters, calculations, memos, etc.)
- Responsible for adherence to applicable codes
- Responsible for the preparation of technical specifications
- Responsible for the processing of shop drawings and submittals
- Monitor performance of project team members and provide feedback to the Project Manager.
- Attend and/or lead client meetings/presentations – daytime or evenings
- Communicate with client representatives, contractors, suppliers, etc.
- Participate and or lead site visits/inspections/documentation during construction

The preferred candidate should have an Associate's degree with a minimum of 7 years experience or a Bachelor's degree with a minimum of 4 years relevant experience; a PE License is preferred. Compensation for this position depends on experience. This position provides a competitive benefits package.

Delta Engineers, Architects, & Land Surveyors, PC is an Equal Opportunity Employer of Protected Veterans and Individuals with Disabilities.

To apply, visit our website career page at: http://deltaengineers.com/current_careers.php



American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc.

Twin Tiers Chapter– Business Cards Advertisement for Newsletter

ADVERTISE your business card:

- Current business card adds will expire at the end of this year, December 31, 2015.

- New subscription will run the calendar year 2016.
- Cost to advertise for the 2016 year is \$50.
- Sign up now for the 2016 year On Pay Pal <http://twintiers.ashraechapters.org>

Or Send Check and copy of business card to Twin Tier News Letter Editor:

Meier Supply Co.
Attn: Andrew Nice
275 Broome Corporate Parkway
Conklin, NY 13748

- Email a copy of your business card to anice@meiersupply.com.

From Web site please visit: <http://twintiers.ashraechapters.org>

Go to the News Letter tab, and place your order to advertise your business card.

Business Card Advertising 2016

The Twin Tiers Chapter of ASHRAE can accept business card advertising with the following provisions:

- The company must be associated with HVAC&R technology.
- The company must be a local service provider, a local manufacturer, or a manufacturer's representative serving the area.

If you aren't sure, just ask.

We are now accepting business card advertisements for the newsletters that will be published in 2016. This is a great opportunity to get your name and business in front of the over 200 subscribers to our chapter newsletter. The price for the newsletter only is \$50 for the entire 2016 year.

Business card ads can be placed using a scanned electronic copy of your business card, or you can mail your card to me (please no staples or paper clips).

Questions? Call or email
Thank you for your support!
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Comments? Suggestions?

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We welcome your feedback!



ASHRAE Mission Statement

ASHRAE will advance the arts and sciences of heating, ventilation, air conditioning, refrigerating and related human factors to serve the evolving needs of the public and ASHRAE members.

Ethics Requirement for PE

PE's in NYS will be required to have one hour of Ethics within their 36 hours of continuing education for registration periods beginning August 1, 2011 and after.

ASHRAE Vision Statement

ASHRAE will be the global leader in the arts and sciences of heating, ventilation, and air conditioning.

ASHRAE will be foremost authoritative, timely, and responsive source of technical and education information, standards and guidelines.

ASHRAE will be the primary provider of opportunity for professional growth, recognizing and adapting to changing demographics, and embracing diversity.

***Advancing HVAC&R to
serve humanity and pro-
mote a sustainable world"***