



Georgia Chapter of APPA
Leadership in Educational Facilities

GAPPA News

March 2013

“Leading Through; Education, Innovation, Dedication”

Jekyll Island is waiting on you! 2013 convention is around the corner.

Come and bring your experience and achievement to share with others.

The 2013 Trade Show will have 100 exhibitors and numerous other sponsors business partners who are bringing solutions, services and equipment that will help you get the most for your campus dollars.

There will be stipends provided for up to \$800 per individual, with a maximum of two stipends awarded per institution, to support travel and/or lodging for members. Registration deadline is May 1, 2013. Find the Institutional Registration form at www.gappa.org.

Please check GAPPA web site and select annual meeting: www.gaapa.org



Check online for previous copies of “GAPPA News”, newsletter or photos of annual meetings.

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Valdosta State University

CONSTRUCTION BEGINS ON HEALTH SCIENCES AND BUSINESS



VALDOSTA -- Valdosta State University recognized the beginning of construction on the Health Sciences and Business Administration building with a ceremonial groundbreaking on Oct. 4. The 140,000-square-foot, \$32 million facility is scheduled to be completed by Jan. 2014.

The event took place at the Rea and Lillian Steele North Campus, with President William J. McKinney presiding over the ceremony.

“The Health Sciences and Business Administration building will serve as an advanced academic facility to educate Georgia’s future health care professionals,” McKinney said. “It will also provide continuing education for existing practitioners—it really becomes the cornerstone of Valdosta State’s focus on comprehensive health professions programs.”

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Valdosta State University

The vision for the HSBA building began under the leadership of Dr. Ronald M. Zaccari, Valdosta State president from 2002-2008, and it became part of the university's 2004 and 2007 master plans. In the early stages, Zaccari began discussions with South Georgia Medical Center (SGMC), to develop a plan that would increase academic health care opportunities for the citizens of South Georgia and the state.

The HSBA building, located on the Rea and Lillian Steele North Campus, will house six health sciences programs: Nursing (including Dental Hygiene Program with Wiregrass Georgia Technical College), Communication Sciences and Disorders, Athletic Training, Exercise Physiology, Social Work, and Health Care Administration. The new facility will allow VSU to expand existing programs and develop new degrees to produce more health care professionals.

Randy Sauls, SGMC chief executive officer, presented Valdosta State with a check for \$200,000, as part of a \$1 million pledge from the Hospital Authority of Valdosta and Lowndes County.

Sauls stated that in 2008, the Hospital Authority designated funds to the HSBA, as part of a partnership between the university and hospital to expand programs in nursing and allied health sciences.

The HSBA will be constructed by KBR Building Group and architectural design provided by Heery International and Ellis, Rickett and Associates.



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1st Annual GAPPA Tennis Round Robin Tournament
Sunday Morning May 26, 2013
At the Jekyll Island Tennis Center

No matter what your skill level is, come out and participate in a fun filled day of tennis at the beautiful Jekyll Island Tennis Center. This tournament will be open to all GAPPA members, vendors, spouses and teenagers.

We will offer an opportunity to pre-register for this event, but you can also sign up the day of the tournament at the Tennis Center.

Round Robin Tournament Style – doubles

- Players sign up individually and will get paired up for each match based on skill level and the tournament bracket as drawn by the local tennis pro.
- Each player will play 4 rounds of doubles, 6 games, no add-scoring
- After each round the players report their score to tournament desk and receive instructions for their next match.
- Each round is expected to take 20-30 minutes with small breaks in between for refreshments and reporting scores. Total time of tournament play is approximately 2 hours
- Winner is determined by most games won out of a possible 24.
- Depending on scores, tie-breaker and championship matches determined by tennis pro/ tournament official.



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GAPPA's new approach to train your staff

In the coming 5- 10 years, a crisis of sorts will be created by the retirement of most baby boomers. As a result, vacancies will be created in The Professional trades. Interest in making a career of the crafts associated with the trade field is not as great as it was with prior generations.

What does this mean for us? Must we hire and train for these openings? These are but two of the questions with which GAPPA is struggling that have no clear-cut answers.

Continuing Education and Training of staff is the cornerstone to the success of facilities management. Thus, it is imperative to build a STRONG training program to assist in this endeavor. This will ultimately allow us to both retain valued employees as well as attract new ones.

The GAPPA Board of Directors has undertaken the responsibility of establishing a training program that will assist Facilities Management within the University System of Georgia with this monumental task. Todd Bermann has been elected to head this committee.

Exciting moments will be waiting for you!!

Grape Vine will be there to get the dust away and refreshing you.



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Caterpillar Corporation & The Gordian Group

As the number of ezIQC projects across the country grows, so does the size of the projects. Not just viewed as a solution to small renovation projects any longer, ezIQC is now taking on capital projects.

When The Caterpillar Corporation – the world's leading manufacturer of construction and mining equipment, diesel and natural gas engines, industrial gas turbines and diesel-electric locomotives – chose to build its new manufacturing plant about 60 miles east of downtown Atlanta, with offices and training space that would eventually employ 1,400 people, the state committed to provide an Employee Training Center in time to meet the very aggressive construction schedule. The Governor's office contact Mr. Rob Alden, Executive Director of Facilities Management at the Technical College System of Georgia, who in turn called Jon Held, the local ezIQC project manager to ask if this was a good fit for Georgia's statewide ezIQC contract.

They needed a solution to efficiently renovate an empty facility at Athens Technical College for Caterpillar workforce training for

every function from secretary to welder while the Caterpillar plant was under construction. Linked with Quick Start, the Technical College System of Georgia program that had used ezIQC to complete projects at many other Georgia technical college campuses across the state, ezIQC was brought to the planning table to address the \$1.5 million capital project.

“Due to the time constraints, ezIQC was the perfect choice. If they had gone through traditional procurement methods, the project could still be out for bid because of the red tape involved in state approvals,” said Doug Parrish, local ezIQC project manager. The Joint Scope Meeting was held at the end of May with local ezIQC representatives, department heads from the Technical College System of Georgia, Economic Development, the President of Athens Technical College, the architect, contractor, and Facilities Directors all present. LESCO Construction went to the Construction Task Catalog[®] and was able to provide a price and construction



The solution for projects large and small – ezIQC. A capital idea.

schedule to the client less than one month later, and construction began within the next two weeks.

The swiftness and ease in getting the project underway is one of the benefits of the ezIQC process and would not have been accomplished so rapidly with traditional procurement methods. A qualified contractor who is familiar with the ezIQC process, LESCO Construction was a key component in quickly starting and completing the project in a compressed timeframe.

With any construction or renovation projects come revisions and additions as the project progresses. With a fast track, complex capital project changes are multiplied. The ezIQC process uses the same time and cost saving benefits no matter the size of the project, and each change is easily and quickly priced from the CTC, so the project could be completed quickly. Construction on this large project finished and furniture was moved into the building at the end of October so that training could begin in November.

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Debunking the Hype: Expert talking

Understanding Why Lighting Upgrades Do Not Always Meet Payback Expectations

Performance contractors, energy efficiency auditors, and lighting manufacturers have been touting the benefits of lighting upgrades for years, often boasting that their products will yield 1-2 year payback periods. What is surprising is that this is not always the case at Georgia Institute of Technology. Although lighting upgrades yield significant energy savings, upgrading to the latest lighting technology may not always result in the best payback period and total savings.

In the past, Georgia Institute of Technology has completed several lighting upgrade projects with low payback periods. One such project replaced 53, 90-watt incandescent lamps with 53, 12.5-watt LED lamps at the College of Computing. This saved Georgia Tech 8,000 kWh/year, had a payback period of one year, and produced the same light output.

On the other hand, when Georgia Tech (GT) received funding through the American Recovery and Reinvestment Act, the Institute installed motion sensors on lighting systems and upgraded lights from T-12 fixtures to T-8 fixtures. Half of the retrofits replaced four T-12 bulbs and with two T-8 bulbs in each light fixture using retrofit kits. This allowed us to decrease our energy use while maintaining lighting levels. We also converted three T-12 bulbs to three T-8 bulbs. The payback period for these retrofits was 10 years which is much longer than the estimated 2-3 years calculated by manufacturers.

The lighting industry usually claims a 10-15% improvement in energy efficiency with each new lighting product. The industry claims that with upgrades, one should expect a 2 to 4 year payback. Georgia Tech's experience with lighting upgrade payback periods has been more than double those estimates. Before calculating our specific energy savings and payback periods, we expected to see a short payback period from the conversion of T-12 fixtures to T-5 fixtures. But due to the high costs of new lighting technologies and the Institute's low electric rates, the projects have been unjustifiable.

Cost of Energy in the South

Most industry lighting analyses assume an energy rate of \$0.10/kWh. Although average electricity rates have risen 75% over the last 14 years, Georgia Tech's rates are relatively low compared to many other Universities across the country. Georgia Tech's average electricity rate is roughly \$0.06/kWh for most of campus. This reduced rate has a significant impact when calculating payback periods and total savings for upgrade projects. In addition, GT uses simple payback calculations instead of return on investment or rate of return calculations. Therefore our calculations do not take into account the future increase in the price of electricity due to inflation.

True Operating Hours

Most calculations for commercial lighting payback periods assume that lights are left on 24 hours a day, 7 days a week, and 52 weeks a year. On Georgia Tech's campus, the majority of the buildings are occupied 12 hours a day, 5 days a week. Even research buildings on GT's campus are only occupied 18 hours a day, from 6am to midnight. Sometimes researchers work on the weekends but we have found at much reduced hours. Administrative buildings on campus are usually occupied from 7am to 6pm, five days a week. This does not mean there are not exceptions to the rule. A few of our buildings are heavily utilized 24 hours a day, 7 days a week but this does not justify leaving every light in every hallway on all night. We found that by installing auto shutoff sensors in the hallway and bathroom fixtures, we could reduce the energy consumption of those lights by 25 percent. In classrooms and offices, where lights are typically turned off at the end of the day, the benefit of these sensors was significantly reduced.

Cost of New Technology

In the past, lighting retrofits have focused on the "lowest hanging fruit," such as switching from incandescent bulbs to compact fluorescent bulbs, which reduced overall energy consumption by 60 to 70 percent. Although the cost of the new technology was more expensive than the old, the lighting upgrades had such quick payback periods there were deemed beneficial.

Nowadays, upgrading from a T-8 to a T-5 fixture requires the replacement of the entire fixture to keep the aesthetics and obtain the 10-15% energy savings claimed by manufacturers. The cost of upgrading the entire fixture to a T-5 can cost up to 50 times more than the cost of replacing a T-8 bulb. Thus the cost of lighting upgrades has increased as well as the estimated payback periods.

Conclusion

Lighting improvements which once guaranteed four year payback periods or better may be much harder to achieve than was once the case. At Georgia Tech, the low cost of electricity, reduced operating hours, and increasing cost of new technology has resulted in greater payback periods that are harder to justify. This does not mean that lighting upgrades should not be pursued or that they do not result in significant energy savings. Only that such projects are under greater scrutiny and may require more creativity. We may need to take into account inflation, maintenance costs, accessibility, safety, and other such factors in our payback calculations. The true challenge in the future will be justifying lighting upgrades as the technology strives to become even more energy efficient.

By Michael Leasure, Associate Director- Energy
Georgia Institute of Technology

RMF Engineering leverages 3D modeling for designing new infrastructure to fit complex pipe networks.

Duke University is home to two, 1920s-era steam plants that have been central to the growth of the university, which is renowned for its academic and medical excellence.

Campus growth has far outpaced the estimates of early campus planners and, subsequently, outpaced the capacity of the two existing coal burning steam plants and their associated infrastructure. The East Campus Steam Plant (ECSP) originally was completed in 1926 and later decommissioned in 1978. Its sister plant, the West Campus Steam Plant (WCSP), was completed in 1929. However, since its original construction, the WCSP has undergone several significant renovations. Upgrades included boiler additions in 1966, 1977, 1988, and 1994 designed to meet growing campus demands.

Since the 1920s, Duke's main source of energy has been coal. In 2007, the university's president and the Campus Sustainability Committee adopted a Climate Action Plan (CAP), pledging to make the university carbon neutral by 2024. Within that plan, a recommendation was made to eliminate coal use completely on all of its campuses by convert-

ing both the ECSP and the WCSP to natural gas.

In 2007, RMF Engineering was tasked with replacing the old decommissioned coal-fed boilers in the ECSP with 15 new natural gas boilers and upgrading the badly aged infrastructure that once served the plant. The project presented unique challenges that often surface when designing new infrastructure for older and high-density college and university campuses. For instance, most of the existing utilities serving the ECSP were completed in the 1920s and little was known about their size, location, or condition.

Template styles were created to match company drafting standards, allowing for an easy transition from the 2D drafting environment to 3D modeling. The early effort and experience proved to be vital in 2007 when the ECSP project was awarded to RMF Engineering. The challenging site, the constantly evolving design, and later the efficiency with which the ECSP was constructed would demonstrate the value and capability of Civil 3D as a design tool.

The model was used throughout the entire design process to

A close-up 3D rendering shows the complex pipe network surrounding the Duke University West Campus Steam Plant.



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make intelligent decisions regarding the preliminary layout of all the new utilities needed on site. Since this was a steam plant project, there was an extensive amount of new utilities in the surrounding area. Pipe networks were built for all of the infrastructure systems surrounding the plant, including new steam and condensate piping, electrical and telecommunication duct bank, domestic water, propane and natural gas piping, storm sewer, and sanitary sewer piping.

All utility crossings were analyzed to ensure that proper cover and clearances were provided for the new infrastructure system. During the design process, the design team could tell at a glance if a utility was designed without proper cover or if there was a conflict with another utility by viewing the 3D model within the software.

“The project also has benefited from RMF's investment in robust computer hardware and software, including Autodesk's visualization software Navisworks.

“Navisworks allows designers to show the client changes in the design file immediately. For Duke, this feature gave the university the ability to see video renderings throughout the stages of design, as opposed to when the design was complete.

A 3D rendering shows the Duke University East Campus Steam Plant and the new infrastructure created by RMF Engineering.

There wasn't a pipe network included in the standard Civil 3D template that could accurately model the realistic behavior of the duct bank system's design. RMF Engineering manipulated tools from the Civil 3D program in an unconventional way to allow for the electrical and telecommunication duct bank systems to be designed in 3D. The program's corridor modeling capabilities were used to create a custom layout that met the design criteria. The coordinated utility systems created a cohesive and complex underground jungle of new and existing infrastructure.

Beyond utilities, the site required significant grading and surface improvements, including retaining walls, stairs, parking lots, and sidewalks. One of the unique site improvements was the restoration of the abandoned railroad trestle bridge that was once used to deliver coal to a hopper at the roof of the plant.

The revised site and grading design was incorporated into the 3D model using Civil 3D's grading and surface creation tools, which allowed for the new utility profiles to be designed accurately based on the proposed grade. To assist the team's ability to visualize the system, RMF created a video fly-through of the site after the model was completed. The video showed the plant, infrastructure, and site improvements. It allowed the final design to be reviewed by team members that did not have access to Civil 3D.

Kyle Bowker, EI, and Vance Nall, P.E.



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The Historic Academy of Medicine at Georgia Tech

The Academy of Medicine in midtown Atlanta, Georgia was built in 1941 and housed the Medical Association of Atlanta until the 1970s.

The Academy was designed by the Atlanta architecture firm of Hentz, Adler and Shutze, with R. Kennon Perry the project architect and Philip Trammell Shutze the supervising principal. The building was intended as a meeting place for Atlanta physicians. Shutze's austere classical design is reminiscent of the work of John Soane and Benjamin Latrobe.^[2]

Renovation work, May 2011

By the 1970s, the building had fallen into disrepair. The building was renovated in 1983 and is used by the public as well as the medical profession.^[3]

In 2008, Atlanta Medical Heritage, Inc. donated the Academy of Medicine to The Georgia Tech Foundation, Inc. due to lack of resources to maintain the facility.^[4] The Georgia Tech Foundation accepted the gift on behalf of the Georgia Institute of Technology, and the building's name, "Academy of Medicine", must be retained. Additionally, the properties' designation on the National Register of Historic Places, prevents the university from redeveloping the site or undergoing any improvements inconsistent with the Academy's historical significance.

The property is undergoing restoration for community and campus use, and has been retrofitted to serve the larger community as an event facility. The spacious auditorium provides seating for 250, ideal for ceremonies, seminars, musical performances or lectures.



Historic Academy of Medicine has a spacious central rotunda with a gorgeous domed ceiling from which the chandelier from "Gone With the Wind" hangs, which host weddings.



1. [^] ["National Register Information System"](#). National Register of Historic Places. National Park Service. 2008-04-15. http://nrhp.focus.nps.gov/natreg/docs/All_Data.html.

2. [^] Sams, Gerald W. (ed): "AIA Guide to the Architecture of Atlanta", page 107. University of Georgia Press, 1993.

3. [^] ["Atlanta: A National Register of Historic Places Travel Itinerary"](#). Academy of Medicine. National Park Service. 2008-07-03. <http://www.nps.gov/nr/travel/atlanta/aca.htm>.

4. [^] ["Georgia Tech Foundation, Inc."](#). Atlanta Medical Heritage Transfers Ownership of Academy of Medicine. Georgia Tech Foundation, Inc.. 2008-07-28. <http://www.gtf.gatech.edu/acadmed.html>.

2013 GAPPA Annual Meeting and Trade Show 2013 GAPPA Stipend

Travel Stipend Directions

GAPPA is offering travel stipends for up to \$800 per individual and up to \$1600 per institution to support travel and/or lodging for members who attend the 2013 GAPPA Annual Meeting and Trade Show.

Application Guidelines

- Travel Stipend application deadline is **April 26, 2013**
- E-mail application to gappareg@gmail.com, or fax to 706-583-0900

Brief Description of Need (e.g. Member institution has no money budgeted for travel expenses due to current financial situation, or will enable additional attendee from institution)

Expenses the Travel Stipend Covers

- Mileage to and from member institution to Jekyll Island at \$0.565 per mile or current GA rate
- Hotel lodging (single room rate)
- Meals not included at event

Expenses NOT Included in the Travel Stipend

- Conference registration fees
- Membership dues

General Eligibility (Institution must be current on dues)

1. Applicant must be current employee of a member institution.
2. Applicant must also complete and submit the member registration form for the 2013 GAPPA Annual Meeting & Trade Show. Stipend application does not constitute registration for conference.

Reimbursement to Member Institute

- Reimbursement will be post Annual Meeting and Trade Show
- Submit request for reimbursement by e-mail to gappareg@gmail.com, or fax to 706-583-0900
- Reimbursement requests must be received no later than **July 31, 2013**

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2013 GAPPA Booth Assignments

1 Spencer Bristol Engineering, Inc.
2 Club Car
3 Gale Associates, Inc.
4 ICS Contract Services, LLC
5 Heery International
6 Geo-Hydro Engineers, Inc.
7 Forbo Flooring Systems
8 The Whiting Turner Contracting Co.
9 Southeast Pump & Equipment, Inc.
10 Greffen Systems
11 jB+a, inc.
12 Ingersol Rand Security Technologies
13 Finish Line Floors
14 Millard, Inc. Architects
15 Repco Sales of Georgia
16 Timothy Haahs & Associates, Inc.
17 Foresite Group, Inc.
18 Farnsworth Group, Inc.
19 North Ridge Restoration, LLC
20 Big Ass Fans
21 Polygon
22 Wausau Window and Wall Systems
23 Sports Turf Company, Inc.
24 Garbutt Construction Company
25 Stromquist & Company, Inc.
26 O'Brien & Gere
27 CDH Partners, Inc.
28 Tunnell- Spangler Walch & Associate
29 Gilbane Building Company
30 Millicare by Trilogy FM
31 CWC Carithers Wallace Courtenay
32 J&A Engineering, LLC
33 Century Fire Protection
34 The Gordian Group
35 SchoolDude.Com, Inc.
36 INNERFACE
37 Hussey, Gay, Bell & DeYoung
38 KSi Structural Engineers
39 Mike Nix & Associates
40 Culpepper Construction Company of Georgia
41 Universal Restoration Services
42 Multivista Southeast
43 Thomas Carpets, Inc.
44 Parrish Construction Group 2
45 Gleeds
46 New Restorations
47 Turner Construction
48 AFF International
49 Juneau Construction Company, LLC
50 RMF Engineering, Inc.

51 Georgia Safe Sidewalks
52 Michael E. Clark & Associates, Inc.
53 Centennial Contractors Enterprises
54 Charles Perry Partners, Inc.
55 Dyson B2B
56 Sika Sarnafil, Division of Sika Corporation
57 Hecht Burdeshaw Architects, Inc
58 Mingledorff's Inc.
59 Mingledorff's Inc.
60 Ra-Lin and Associates, Inc.
61 Flynn - Finderup, Architects
62 Blue Ridge Technologies
63 Eaton Energy Solutions
64 WayPoint Systems
65 Full Circle Restoration
66 Clark Nexsen
67 Georgia Correctional Industries
68 Georgia Construction Products, Inc GCP
69 Trane - Hold
70 AirEnergy, Inc.
71 McCarthy Building Companies, Inc.
72 ISES Corporation
73 Classic Groundcovers, Inc.
74 John Q. Bullard Assoc. Inc.
75 Rochester & Associates, Inc.
76 Daikin McQuay Georgia
77 Belfor Property Restoration
78 Bradfield, Richards, Rhodes & Assoc., Architects
79 Peter R. Brown Construction, Inc.
80 WellBeing Hygiene
81 Travis Pruitt & Associates
82 ASSA ABLOY/Door Security Solutions
83 Prime Power
84 Control Concepts
85 H J Russell & Company
86 Draper & Associates
87 Andrews, Hammock & Powell, Inc.
88 NBP Engineers, Inc.
89 Automated Logic
90 2WR Inc.
91 Heat Transfer Systems, Inc.
92 Calloway Engineered Systems
93 Georgia Power-Power Services
94 Georgia Power- Energy Services
95 Georgia Power Company
96 DPR Construction
97 Siemens Industry
98 Johnson Controls
99 Johnson Controls
100 Winter Construction

PROPOSED GAPPA 2013 SCHEDULE

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Saturday, May 25, 2013

- 2:30 pm - 5:00 pm Pre-Conference Workshop

Sunday, May 26, 2013

- 7:30 am - 2:30 pm Golf and Tennis Outing
- **4:00 pm - 7:00 pm Trade Show Open**
- 7:00 pm - 10:00 pm Cocktail Reception, Exhibitor Appreciation Dinner and Casino Night

Monday, May 27, 2013

- 8:30 am - 9:30 am Opening Breakfast and Annual Business Meeting
- **9:30 am - 12:30 pm Trade Show Open**
- 12:30 pm - 1:30 pm Lunch—Attendees and Exhibitors
- 1:30 pm - 2:30 pm Concurrent Educational Sessions
- 2:45 pm - 3:45 pm Concurrent Educational Sessions

Tuesday, May 28, 2013

- 8:00 am - 9:00 am Concurrent Educational Sessions
- 9:30 am - 10:30 am Concurrent Educational Sessions
- 11:00 am - 12:00 pm Concurrent Educational Sessions
- 12:00 pm - 1:00 pm Lunch and Keynote Speaker
- 1:00 pm - 2:00 pm Concurrent Educational Sessions
- 2:30 pm - 3:30 pm Concurrent Educational Sessions
- 6:30 pm - 10:00 pm Cocktail Reception, Annual Awards Banquet and Entertainment

Wednesday, May 29, 2013

- 8:00 am - 9:30 am Closing Breakfast and Keynote Speaker
- 10:30 am - 12:30 pm Experience Exchange and Closing

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