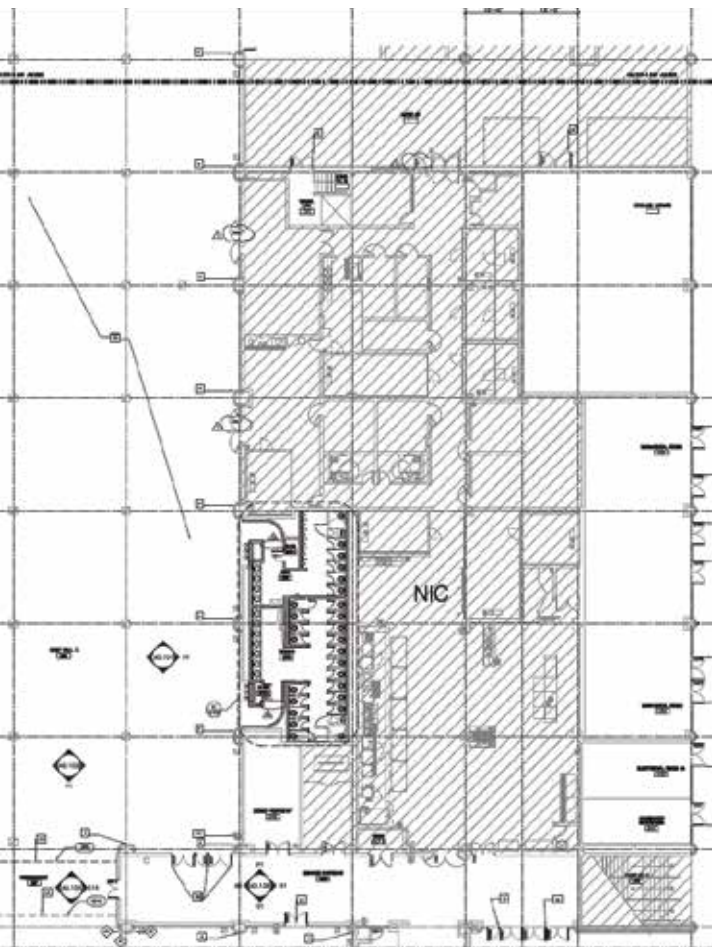


ON YOUR MARK,  
GET SET,  
**Reroof!**

The Roofing Industry Alliance for Progress sponsors its second construction management student competition

by Chrystine Elle Hanus



The team from M.E. Rinker, Sr. School of Building Construction at the University of Florida, Gainesville



The team from Bert S. Turner Department of Construction Management at Louisiana State University, Baton Rouge



The team from McWhorter School of Building Science at Auburn University, Auburn, Ala.

**COMPETITION FOSTERS** innovation, provides an opportunity to serve, helps people work smarter and allows individuals to work together in a common industry, according to [www.businessgross.com](http://www.businessgross.com). Developed in 2014, The Roofing Industry Alliance for Progress' Construction Management Student Competition was designed with all this in mind. The contest challenges college students' roofing knowledge, construction management skills, time management, and organizational and presentation skills in institutional and real-world settings.

After successfully conducting its inaugural competition during NRCA's 128th Annual Convention and the 2015 International Roofing Expo® (IRE), the Alliance hosted teams from three schools to compete in its second annual Construction Management Student Competition held during NRCA's 129th Annual Convention and the 2016 IRE Feb. 15-19 in Orlando, Fla. This year, the teams were challenged to develop a plan to reroof the Orange County Convention Center, the site of the 2016 IRE.

### Some background

In 1996, The Roofing Industry Alliance for Progress was established as a 501(c)(3) nonprofit organization to create an endowment fund to serve as a highly focused resource for the roofing industry and its customers. The Alliance's objectives are to conduct research and educational projects that support high-quality programs for roofing contractors; ensure timely and forward-thinking industry responses to major economic and technological issues; and enhance the long-term viability and attractiveness of the industry to roofing workers.

As part of its objective to support and promote careers in the roofing industry, in 2014, the Alliance partnered with three top schools of construction management: the Department of Construction Management at Colorado State University, Fort Collins; McWhorter School of Building Science at Auburn University, Auburn, Ala.; and M.E. Rinker, Sr. School of Building Construction at the University



Teams were asked to submit a qualified bid package for installing a new roof system on the Orange County Convention Center.

of Florida, Gainesville, to enhance college students' experiences by exposing them academically and experientially to roofing as a career choice.

To better expose students to roofing in a hands-on manner, the faculty from these schools recommended the Alliance sponsor a student competition, and in 2015, the Alliance developed and sponsored its first competition that presented teams of four students from each of the three schools with a problem statement and asked them to bid on installing a roof system on a Bass Pro Shop Sportsman's Center. The winning team was selected from Colorado State University.

Launching from the success of its first competition, the Alliance expanded its outreach and invited 11 schools to participate in its second competition to bid on installing a roof system on the Orange County Convention Center. This year, teams from McWhorter School of Building Science at Auburn University; M.E. Rinker, Sr. School of Building Construction at the University of Florida; and the Bert S. Turner Department of Construction Management at Louisiana State University, Baton Rouge, participated.

## The challenge

The teams were presented with a problem statement and tasked with submitting a qualified bid package for installing a new roof system on the Orange County Convention Center. Participants received roofing-related drawings, resources, project specifications and price lists to develop a written proposal.

Requirements for the written proposal included the following:

- Letter of transmittal
- Table of contents
- Organizational structure
- Project organizational chart
- Labor rates for field and shop
- Crew size(s) by roof area with dates and durations
- Scope review document
- Written execution plan

- Project bid
- Proposed project schedule
- Equipment and material selection
- Detailed safety plan
- Detailed quality-control plan

Teams also were tasked with developing a 15-minute oral presentation that typically would be provided to a project's general contractor, who selects the roofing contractor for the project. Teams were asked to consider the following when developing their verbal presentations:

- Quality of visual aids and handouts
- Apparent knowledge
- Appearance and professionalism
- Voice projection
- Visual contact
- Confidence and salesmanship
- Teamwork and coordination
- Question and answer responses



The team from Louisiana State University conducts its oral presentation.

## The work

The three teams submitted their written proposals by Dec. 31, 2015.

Auburn University's team members included Benjamin Coode, Grant Dohrenwen and Oscar Iniguez (team captain). The team developed a proposal that included installing a new mechanically attached standing-seam aluminum roof system with self-adhering underlayment on one roof area and PVC roof systems with polyisocyanurate insulation and DensDeck® cover boards on the remaining 15 roof areas. The plan included tearing off the existing metal and TPO roof systems and installing new plaza deck pavers and associated flashing and trim. The team's proposal required a crew of 12 people working 180 days for a price of \$2.1 million.

Louisiana State University's team included Tucker Attaway, Meghan Brunet (team captain), Aaron Cherry



### ON the WEB

To view a video of the teams' oral presentations, log on to [www.professionalroofing.net](http://www.professionalroofing.net).

and Nathaniel Duxbury. This team's proposal included installing a new mechanically attached standing-seam aluminum roof system with self-adhering underlayment on one roof area and PVC roof systems with polyisocyanurate insulation and DensDeck cover boards on the remaining 15 roof areas. The plan included tearing off the existing metal and TPO roof systems and installing new plaza deck pavers and associated flashings and trim. The team's reroofing proposal required a crew of eight people working 182 days at a price of \$4.02 million.

The team from University of Florida included Nick Loewenthal, Eddie San Juan (team captain), Caleb Staus and Drew Winant. The team developed a proposal that included installing a new mechanically attached standing-seam aluminum roof system with self-adhering underlayment on one roof area and PVC roof systems with polyisocyanurate insulation and DensDeck cover boards on the remaining 15 roof areas. The plan included detailed, chronological instructions for tearing off the existing metal and TPO roof systems and installing new plaza deck pavers and associated flashing and trim. The team's reroofing proposal required crews of four to 10 people working 109 days at a price of \$1.76 million.

Throughout the competition, the teams were partnered with local roofing contractor mentors for assistance. Auburn University was mentored by Kyle Thomas, vice president of Thomas Roofing Co. Inc., Mobile, Ala.; Louisiana State University was mentored by Tupac De La Cruz, owner of Roofing Solutions LLC, Prairieville, La.; and University of Florida was mentored by Lincoln Register, vice president of J. Register Co. Inc., Jacksonville, Fla.

"Working with the Auburn University team was an excellent experience," Thomas says. "In a day and time when we seem to constantly hear how bad the next generation is, it's been quite rewarding working with and getting to know the young students and realizing how sharp and motivated they really are."

After the teams submitted their written proposals, they prepared to present their 15-minute oral presentations. According to Bruce McCrory, a competition judge and chief operations officer for Kiker Corp., Mobile, Ala., overcoming these tasks was no easy feat.

"This was a difficult reroofing project and a lot of work," he says. "Not only was pricing the project with its multiple areas of roofing challenging but also the logistics involved with setting up around a busy area would test even a seasoned roofing professional."

## Judging

In February, the teams were hosted by the Alliance to travel to Orlando, Fla., to present their proposals during NRCA's 129th Annual Convention and the 2016 IRE. Before presenting their proposals to seven judges, each team had 15 minutes to rehearse. Following each team presentation, the judges conducted a 10-minute question-and-answer session.

"I was looking to see whether the teams really understood the elements of the roof assembly and how it may be affected by wind uplift and code compliance," McCrory says.

The judges used the criteria in the figure to score the presentations, and the highest cumulative score determined the winner.

After the oral presentations, the teams had a unique opportunity to visit the rooftop of the Orange County Convention Center to see the roof areas they diligently had been planning for months to reroof.

"Being able to visit the roof of the convention center was great for the students," McCrory says. "I think it put the whole process together. Visual reinforcement is a wonderful teaching tool."

University of Florida's team captain says being able to see the actual roof system presented for the competition provided a special educational opportunity.

"It was a neat experience that really put it into perspective," San Juan says. "There were a few small details that we didn't notice on the plans."

Scott Kawulok, a competition judge and executive project manager for B & M Roofing of Colorado Inc., Frederick, Colo., says interacting with the students after the competition was a valuable experience for all.

| Written proposal                                  | Possible points |
|---|-----------------|
| Overall quality of written proposal               | 20              |
| Project management and organization               | 15              |
| Feasibility of construction and program schedules | 20              |
| Accuracy/feasibility of conceptual costs          | 15              |
| Quality of safety and quality-control plans       | 20              |
| Supplemental information                          | 10              |
| Oral presentation                                 | Possible points |
| Overall quality of the oral presentation          | 20              |
| Feasibility of project management and schedule    | 20              |
| Accuracy of completeness of project costs         | 20              |
| Quality of safety and quality-control plans       | 20              |
| Answers to questions                              | 20              |



Auburn University team members present their reroofing proposal.



After the presentations, the teams visited the rooftop of the Orange County Convention Center to see the roof systems they had been planning to reroof as part of the competition.



The team from University of Florida was announced the winner of the Alliance's second annual Construction Management Student Competition.

"It was nice to get the opportunity to not only judge the quality of the written and oral presentations but also spend some time with the students after the competition was over," he says. "It was exciting to hear how the competition and the IRE affected the students not only in terms of learning more about the roofing industry but also opening their eyes to other opportunities that exist in roofing and other specialty trades."

The students also had the opportunity to visit the IRE exhibit hall to view product demonstrations and learn more about the roofing industry overall.

"Visiting the trade show was tremendous," says James Sullivan, Ph.D., faculty adviser and director of the undergraduate program at M.E. Rinker, Sr. School of Building Construction at the University of Florida. "The students walked away with a deeper understanding of the construction industry and all those involved with building great things. They really enjoyed the 'real-world' aspect of the competition."

Later that evening during NRCA's Industry Awards Ceremony and Cocktail Reception, the team from University of Florida was announced the winner.

"I was incredibly proud to win," San Juan says. "We all put a lot of work into the project. It brought us out of



A panel of seven judges listens to the teams' oral presentations.

our comfort zones while learning more about roofing and our own abilities as professionals."

According to McCrory, the Florida team won because it best achieved all the items a customer looks for when reviewing a bid.

"I tried to put myself in the place of the customer," he says. "Which company [team] achieved all the items important to me? Did the price seem correct? Did the company realize the importance of making sure the project was done correctly, safely and on time?"

In recognition of its hard work, the team from University of Florida received a team trophy and a \$5,000 scholarship for its school, as well as individual team member trophies.

San Juan is grateful for the opportunity and encourages other students to participate in the future.

"I absolutely recommend the competition to other students," he says. "I learned more about roofing and the industry than I ever would have learned in a class. It also got me thinking about the challenges roofing contractors face every day."

## Preparing for next semester

Alliance task force members already are working to secure a project for next year's competition. After a project has been selected, task force members will prepare the competition details, criteria, deadlines, etc., for the task force's review and approval during NRCA's Midyear Meetings in July. Once approved, the Alliance will distribute the information to construction management schools in time for the fall semester, and the Alliance's third annual Construction Management Student Competition will begin.

"The competition is an effective part of the Alliance's goal to build relationships with construction management schools around the country, which will bring sharp, young talent into the roofing industry," Thomas says. "If you're attending the IRE next year, come to the competition and watch these teams present. You'll be quite impressed." 🌟🌟

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