

COMPRESSED SCHEDULE CALLS FOR CROSS-TRADE COORDINATION

The side-effects of the deluge of rain we received this last spring are still being felt today. On top of flooding and lake closures, there was a direct impact on construction projects that had to push back start dates because of wet soil.

New building construction for the Lakes International Language Academy (LILA) adopted an aggressive new timeline to combat this obstacle. The K-6 charter school looked to build upon the success of its tuition-free immersion program (Spanish or Chinese) that follows an accredited International Baccalaureate Primary Years curriculum in the form of a new facility.

The rain, while good for flowers, turned the work site into a challenge. The foundation's soil turned to soft clay, making for a less-than-ideal work environment. In fact, a concrete composite had to be mixed into areas where soil integrity was most vulnerable, effectively turning the school's new parking lot into a great big cinder block.

Egan's Electrical, Mechanical, and Building Systems & Services groups partnered with general contractor Kraus-Anderson to find a way to get the job done on time.

Collaboration between Egan and Kraus-Anderson's Project Manager Jake Boerboon and Superintendent Jesse Fiskewold were essential to project success. Even closer coordination was required than is customary for a project like this. Potentials for lost-time or further delays were addressed and resolved before the fact, creating an extremely well-organized work model.

Design Build was also a huge factor in facilitating the accelerated timeline. Thanks to Egan doing the design and construction, many issues were resolved before they could reach the field. Without this, on-site problem solving would be a necessity and could have delayed the project further.

The construction team benefited greatly from prefabrication on this project.

COLLABORATION WITH MILLWRIGHTS FOR SAFETY, PRECISION, AND SPEED

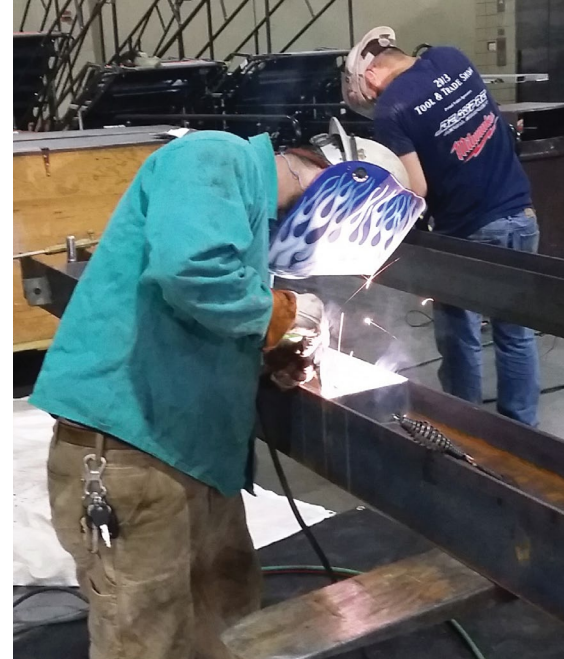
On a Tuesday afternoon, Egan Company was tasked with a project: Daktronics, a scoreboard and electronic display company, needed help to safely raise 3,000 pounds of cable dangling 150 feet from the Xcel Energy Center ceiling. And it had to be done in 72 hours.

The scoreboard had been lowered, taken apart, and left in the middle of the Xcel with wires dangling from the ceiling. In three days, the Xcel needed to be set up for a Rod Stewart concert. Xcel thought the wires could be raised and set on the catwalks high above the floor; however, the catwalks could not support the weight of the cables.

Further situation analysis by Egan's Electrical Foreman, Project Manager, and Safety Director led to a concern with safety. They concluded that a millwright needed to be involved to ensure the cables were lifted and installed safely. Egan Certified Millwright Marc Beltz met the team at the Xcel to determine a safe solution.

“Egan’s millwright team is safe, efficient, and thorough. They understand what is needed to make the project work and that the needs of the client are to be met.”

– Jason Hanlon, Braun Intertec Associate
Principal/Senior Structural Engineer



Egan Journeymen and Millwrights Rich Frerich and Cole Witteman fabricate the steel rigging fixture on site at Xcel Energy Center.

Since 1999, Egan Company has offered millwright services to customers. Millwrights specialize in safely moving heavy equipment and the precise alignment of machines. Essentially, a millwright is an industrial mechanic.

Beltz and the electrical team partnered with Braun Intertec to develop a plan to raise the cables. Braun Intertec engineered rigging that met Egan's objective to safely lift the heavy cables. The design was completed by early afternoon on Wednesday and the steel rig was fabricated on site by the Egan millwright team the next day.

“Egan’s millwright team understands that all procedures, design, and construction need to meet certain standards and requirements before the work can be completed,” said Jason Hanlon, Associate Principal/Senior Structural Engineer at Braun Intertec.

It takes more than just muscle to complete a job like this. Egan millwrights work with a high degree of precision and certainty to ensure proper installation of heavy materials. Once a precise and safe installation procedure was established on Thursday, the cables were lifted and installed in the ceiling in time for fans to enjoy the Rod Stewart concert.

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Cables weighing around 3,000 pounds are set for rigging.

Beltz attributes the success of this job to the great collaboration between groups at Egan.

"We have the opportunity to work with every group at Egan and also collaborate with engineering firms," Beltz said.

"We're proud to offer millwright services to customers."

Beyond precisely moving heavy equipment, Egan millwright services also include welding, machinery installation, rigging, preventative maintenance for mechanical equipment, optical and laser alignment, and custom fabrication.

Primarily, Egan millwrights work in the power plant, foundry, food production, and manufacturing industries.

"We provide specialized services that you can't get from anyone else but a millwright," Beltz said. "If it moves, you need a millwright."

Historically, the "mill" in millwright comes from building and maintaining flour mills, paper mills, and sawmills powered by wind and water. Though the trade has evolved since then, the basic idea is the same: to provide customers with necessary services to keep industries producing.

EXPANDED INDUSTRIAL CONTROLS RESOURCES

Egan has growing experience in the control panel and system integration market, and it bolstered that market position with the acquisition of Maple Grove-based Sterling Automation in July.

"Egan holds a strong commitment to delivering value and efficiency to its customers," said Mike Berg, Sterling Automation owner. "By joining forces, we're able to exceed our customers' ever-growing needs by leveraging the total package resources of Egan."

Sterling Automation brought expertise in UL 508A control panel construction, system integration, and engineering services.

PROMISES KEPT

"At Target North Campus, InterClad promoted safety to the highest level. From all stages, InterClad was at the front of the pack leading on job safety...daily morning stretches and safety meetings, detailed daily pick plans, continuous proactive efforts, and safety first pre-planning. It was an absolute pleasure to work with InterClad at Target North Campus. I would like to say a special thank you to site foreman, Steve Flaherty. His professionalism to detail and safety was spot on. Steve and InterClad made our site safer to work on every day."

— Jim Gerres, Ryan Companies, Inc.

(Steve Flaherty is a Field Superintendant at Egan/InterClad)

"I would be remiss if I did not let you know how happy everyone here at the Minneapolis Convention Center is with [Egan], especially with the Major League Baseball All-Star Game FanFest set up. It was a very complicated show, and the fact that move-in took place on July 4 weekend did not make it any easier. However, having Dirk Schmitz, Matt Larson, Jimmy Selmer, and Lenny Haupt here made it seem like a cakewalk. In my eyes, they are the true All Stars."

— Edith Gay, Minneapolis Convention Center

(Dirk is an Electrical Foreman and Matt, Jimmy, and Lenny are Journeymen Electricians at Egan)



Top: Adams Elementary School in the Anoka-Hennepin School District. Left: A fire safety panel installed at a St. Paul school. Middle: Al Fox, First Level Electrician Apprentice, wires the building automation controls for a rooftop unit at Adams Elementary. Right: A fire safety panel installed at a St. Paul school.

SUMMER OF SCHOOL UPGRADES AND INSTALLS

Every summer, Egan Company's Building Systems & Services (BSS) group upgrades or installs new building automation or fire systems in schools across Minnesota and Wisconsin.

Egan completed work this summer in over eight school districts, including St. Paul Public Schools, Eden Prairie Schools, Anoka-Hennepin School District, School District of Clear Lake, and St. Michael-Albertville School District. All of this work is compressed into a three-month timeframe and equates to over 20,000 hours of manpower.

The building automation system controls everything from air handling units to VAV boxes to pool converters to lighting. Many schools also incorporate energy efficient systems to produce lower utility bills. The fire systems in the schools provide smoke management systems, advance detection, voice evacuation and exit technology, and sprinkler system monitoring.

The installation of these two systems can prove challenging, especially in such a short timeframe;

however, Egan simplifies the project process by providing system engineering, design, installation, and start-up and commissioning to finish the job quickly.

All systems were updated before school started this Fall. Year round, Egan also provides maintenance to these—and other—school districts.

"Every summer we roll up our sleeves for various schools," said Tom Addabbo, Egan Account Manager. "It's always a challenge to help bring these schools back online before the school year starts. Fortunately, our field team does it year after year and knows what it takes to meet these tight timelines."

SUMMER 2014 NUMBERS AT-A-GLANCE

- 4,505 hours of building automation system setup, engineering, graphics, and drafting
- 11,290 hours of building automation field installs
- 1,681 hours of building automation commissioning
- 4,900 hours of fire systems field installs
- 538 hours of fire systems testing and inspection



Left to right: Jim Malecha, Dan Scarr, Brielle Chavie, Mike Kuhlman, Julia Robbie, Nick Carver, Logan Markuson, Kyle Louwagie, Jacob McMillen, Trent Nelson, Joel Poualeu, and Jim Paul.

BUILDING CAREERS FROM THE GROUND UP

Some new faces arrived this summer for Egan's first official internship program.

Eleven interns were hired with the hopes of gaining valuable knowledge and experience. Departments who took on these soon-to-be graduates and recent grads included Engineering, Construction, Industrial Controls, Human Resources, Marketing, and Information Technology.

Along with working closely with their respective teams, interns were treated to "Safety Ride-Along" trips to different job sites across the metro. These trips served as an experiential guide to how Egan employees incorporate safety on the job.

Egan hopes to continue growing the internship program in the coming years and wishes its current interns the best of luck with the upcoming Fall semester.

“One of the best investments Egan can make is a strong career development program. Our long term success is highly dependent on finding the best and brightest people that have a passion for the industry and can help shape our future. For industry veterans, it is extremely rewarding to work alongside new people that want to learn about the business. It is never too early to start developing the next generation of leaders of Egan.”

– *Jim Paul, Egan Company Executive
Vice President*

NEW ROAD WORKER SAFETY LEGISLATION

As of August 1, 2014, a Minnesota law enforced slower speeds in work zones and set a definitive fine for speeders.

A minimum fine of \$300 was established for speeding and ignoring workers directing traffic. When workers are present and a lane or a part of traffic is closed for more than 24 hours, the work zone speed limit drops to 45 miles per hour. This is the first change to MN construction work zone laws in about 15 years.

EGAN PIPEFITTER PLACES THIRD

Jesse Posusta, Egan Pipefitter Apprentice, placed third in the United Association 4th District Regional Apprentice Contest in Mokena, Illinois. In the contest, apprentices demonstrate the skills they learned throughout their certified five-year training program.

In order to qualify for the regional contest, Posusta placed first in the Pipefitter category at the Minnesota Apprentice Contest, representing Minneapolis Pipefitters Local Union 539.



SAFETY AWARDS ABOUND

Pictured with the Ryan Companies safety team, left to right: Scott Beron (Safety Director at Ryan Cos), Larry Hanson, John Gaddini (Safety Coordinator at Ryan Cos), Kari Gerstner, Mark Meyer, Tim Woolworth, Deb Linquist, Steve Flaherty, Levi Watkins, Paul Rudell, Jim Person (Director of Field Operations at Ryan Cos), and Jim Malecha.

This summer, Egan Company received two awards that both relate to our commitment to safety – though not in entirely similar ways.

Minneapolis-based Ryan Companies awarded Egan's InterClad group with the "Safest Subcontractor of the Year" award for 2013. The award was handed out at a Ryan Companies safety banquet in July.

Subcontractors were nominated by referral for any given project performed in 2013. Though only one referral is needed to be nominated, InterClad was nominated for

their B.H. Whipple Building, Target North Campus, and Toro projects.

Egan also won a Telly Award for our safety orientation video. The award honors excellence in broadcast and non-broadcast film and video production. The video is shown to every new hire as a means to showcase safety as a critical facet of our company.

Have you seen it? To watch the video, visit:

<http://bit.ly/1w15htG>

TECHNOLOGY BANDS EGAN TOGETHER

Jim Nonn, Egan Company's Chief Information Officer hadn't planned for this. As he watched the antenna wave in the -20 degree wind chill, he thought, "This isn't going to work."

The antenna was part of a new "air-fiber" connection that sends/receives data from Egan's corporate headquarters to Egan's Industrial Controls group about a mile away at speeds of 1.4 Gigabytes/second. The connection consisted of two antennae on top of each building that needed direct, uninterrupted line-of-sight to each other.

Minnesota's December weather had other plans. Not only was the antenna failing to stay put in the freezing wind, but it was also too short. Line-of-sight to Industrial Controls was cut off by another building. If these antennae failed to work, the Industrial Controls employees may as well have not shown up to work next Monday.

With the help of Egan pipefitters and low-voltage electrical employees, a team was formed to find a solution.

A taller, sturdier tower was fabricated in Egan's pipe shop, customized electrical wiring was rigged to it, and a bucket truck and crane were procured to safely install the new equipment. All of this was completed same-day.

"It's one of those times when I'm really glad I work at Egan, not just because of our construction capabilities, but the fact that people are willing to drop everything and help when you need it most," Nonn said.

Both antennae have needed minimal maintenance since that icy December day, and connection speeds between Egan locations have been consistently superior.

CROSS-TRADE COORDINATION

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Circuits and feeders were crafted in-house and pre-assembly of the duct helped reduce installation time in the field. Close coordination between mechanical and electrical also minimized penetrations in the precast and allowed coordination of hanger systems, nearly cutting the initial estimate time in half.

Egan also supplied the academy's building automation system. The weather delay shortened the installation timeframe significantly, requiring work to be completed in about a week.

The project finished on time, giving the school about two weeks to furnish and organize the building to be student-ready for the Fall.

The Lakes International Language Academy Project is a newly constructed, 43,000 square foot, two-story facility that included two parking lots and a gymnasium. The building's automation system included integrating seven Lennox RTUs, installing controls on VAV boxes, and interlocking the kitchen make up unit with miscellaneous exhaust fans.

Core project team: LILA Building Co. and Kraus-Anderson Construction Company

Egan services performed: Design Build of Mechanical, Plumbing, Electrical Systems, and Building Automation Systems



Egan construction team installs plumbing for academy's kitchen area.

PROMISES KEPT

“Mike Hovey provided outstanding service during the HVAC upgrade at the United States Air Force 934th Airlift Wing. He was very attentive, helpful, and knowledgeable about the product being installed. We are delighted with his willingness to go the extra mile in presenting such comprehensive status reports of his daily activities. His efforts served to help keep us in good standing with our client, and for this we are grateful.

Companies with the integrity and fortitude to support projects to completion are very rare these days; however, Egan Company has proven that it embodies both of these qualities. We are so pleased to have had the opportunity to work with Egan.”

— Edward Graydon, Covenant Electric

(Mike Hovey is a Sheet Metal Foreman at Egan)

“I have been a part of many electrical installations, both as an installer and as a customer, and I would have to rate Ernie's work ethic, knowledge, and work toward customer satisfaction as high as any electrician I have ever worked with. I am very satisfied with the install at Minnesota Correctional Facility-Moose Lake.”

— Greg Anderson, Minnesota Department of Corrections

(Ernie Walters is an Electrical Foreman at Egan)



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Egan Company crew sets a traction power substation weighing 80,000 pounds for the Central Corridor Light Rail Transit Project.
Photo credit: Minnesota Utility Contractors Association



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Egan Company is a fully integrated, specialty contractor that delivers attention, commitment and craftsmanship to every project. Egan serves every stage of a building and provides in-house expertise in planning, design, building and maintenance. Core services include: mechanical, electrical, industrial controls, outside electrical, millwrights, building systems, 24/7 service and curtainwall/glass (InterClad).