Category: –8 – Best Building Project – Specialty Contractor Non-MEP (Under 2 Million)

Contractor: Metropolitan Glass, Inc.

Project Name: Paul M. Rady School of Computer Science and Engineering at Western Colorado University

Moving Education Forward During a Worldwide Pandemic and Sub-zero Temps

The Paul M. Rady School of Computer Science & Engineering project is an alliance between Western Colorado University and University of Colorado-Boulder, to meet the growing demands of Colorado's high-tech companies hungry for employees. Through this university partnership, students may obtain both Computer Science and Mechanical Engineering and Applied Science degrees – in Gunnison at Western Colorado University – as graduates of UC-Boulder.

The $80 million completed facility – built to LEED standards – includes 75,000 sf of adaptable space for teaching and lab learning, as well as faculty office space and study collaboration areas. Western State University chose Mesa Properties as its owner's representative and general contractor, with Farnsworth Group as architect.

Mesa Properties chose MGI as the specialty glazing contractor for this project because the project required a contractor familiar with fast-changing mountain temperatures and vast experience developing innovative solutions to project challenges, as well as a reliable team in place to complete the project.

"MGI was an excellent partner throughout this project, which became challenging as the COVID-19 crisis struck," said Mesa Properties' Jamie Seitz. "As a team, we delivered a facility that helps the Gunnison community offer additional education and career opportunities to students, while allowing them to study locally. I appreciate MGI's frequent and clear communication with all team members, and the overall professionalism of the team.

The triple-threat of brutally cold days, a massive curtain wall with leaning glass and a 10-week complete project shutdown made this construction a challenge; yet, MGI was up for the task!

A Worldwide Pandemic Brings the Project to a Screeching Halt

As the project was nearly 75% complete, rumors began swirling around the construction crews about an impending closure of Gunnison County to non-residents, due to concerns around the spread of COVID-19. At this point, MGI had six construction team members, as well as more than 500 lites of glass (four truckloads) and three truckloads of framing on site. Sure enough, on April 3, in an effort to preserve safety and hospital beds, Gunnison County began requiring all non-residents to evacuate the area immediately by the safest means available. Within 24 hours, MGI's construction team left the area, and the project was put on hold for 2 ½ months.

To be a responsible corporate citizen, MGI required all employees who'd traveled to Gunnison to quarantine for two weeks. Throughout the closure, the MGI team had secured materials, glass and construction equipment in a safe area near the jobsite. Once the County and project opened again, the MGI team immediately returned to work, with proper pandemic safety protocols in place. Even though the project was put on complete construction hold for 10 weeks, the team was able to safely complete it with only a 5-week "pandemic delay."

MGI Defies Gravity and Sub-zero Temps to Construction a Leaning Tower of Glass

The Rady School of Computer Science and Engineering building's main feature is a 200-foot long x 45-foot tall glass curtain wall that leans outward, requiring glass to be set at a 7-degree angle. Cantilevering out with 340 separately-framed panes (aka lites) of glass proved to be quite a challenge for MGI's engineering and construction teams.

"Our team used a glass manipulator sky lift to hoist the heavy lites of glass, one at a time; and then, we had to lean the glass back in order to defy gravity," recalls MGI Senior Vice President Curtis Thomas. "The ferociously cold western Colorado weather added to that challenge."

On most working days, the MGI team started working in below-zero temperatures, and oftentimes, the temperatures remained below freezing level for most of the day. To maintain human, machine and material safety, as well as ensure a quality seal on the glass, MGI took numerous safety precautions. The team planned the morning work for inside the building and waited until temps went above zero to head outside. The cold weather also reduced the effectiveness of the sky lift, so most work involving that machine was completed in above-zero-

degree weather, as well. All motorized equipment was stored indoors when not in use, to keep it in good working condition.

The team prefabricated the frames in the weatherproof and temperature-controlled environment of MGI's warehouse to minimize outdoor exposure. All onsite caulking weather seals had to be performed at 40 degrees Fahrenheit or warmer, so the team carefully coordinated this work as the daily temperatures allowed.

MGI's project management team met frequently to assure western Colorado's frequently changing weather patterns did not affect the project timeline or quality of work. Through advanced planning, temperature dips didn't affect the project timeline for MGI's team.

Coordination and Safety Led to Zero Lost Time Accidents at Rady School of Computer Science and Engineering

MGI follows a stringent safety program for each project. For the Western Colorado University project, the construction team assured all heavy products and tools were used with controlled access zones in place, and followed weight and height restrictions on all machines, reducing the risk of injury for passers-by and work teams.

The MGI team completed this project in 7,000 hours and with zero lost-time accidents.

Since its inception more than 55 years ago, MGI has embraced a culture comprised of integrity and high-quality glazing work. Along the way, the company grew its expertise to become solution specialists on complex projects involving high engineering standards, demanding specifications, innovative products and reliable, safe execution. The Paul M. Rady School of Computer Science and Engineering at Western Colorado University project was a challenge – on levels most of us have never experienced – and MGI embraced this project with the same drive that has made the company a successful and reliable specialty contractor for all these years.