

Sure-Weld® TPO
Roofing Systems

CASE STUDY

Carlisle & CSU: Caring for the Community



JOB PROFILE

PROJECT LOCATION:
Fort Collins, CO

SQUARE FOOTAGE:
44,300

ROOFING CONTRACTOR:
Front Range Roofing Systems, LLC

PROJECT DURATION:
9 Months

GENERAL CONTRACTOR:
Adolfson & Peterson Construction

ROOFING SYSTEM:
60-mil Sure-Weld TPO membrane
fully adhered with TPO Bonding
Adhesive

As the flagship campus of Colorado State University, CSU Fort Collins is a hub for academic research in a variety of fields, and strives to not only challenge its faculty and students but also provide for their physical and mental well-being. In fact, earlier this year, CSU Fort Collins opened a state-of-the-art health facility on its campus that rivals some of the most renowned universities in the service it provides not only to students and faculty but also the surrounding community.

Prior to 2016, the health system on campus provided excellent service but was split between three separate locations, limiting the efficiency of service and collaboration between service providers. In 2016, the university broke ground for a brand-new health care facility, which would house all of the CSU Health Network services under one roof.

When CSU began designing the new Health and Medical Center, they knew it would be a complex project and partnered with Adolfson & Peterson Construction to manage all of the moving pieces and make sure that the project was completed up to standard, on budget, and within schedule. A significant aspect to managing a project of this magnitude was choosing top-quality contractors and premium construction products. With more than 70 years of industry experience, Adolfson & Peterson Construction had the knowledge and expertise needed to meet and exceed CSU's expectations.

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In a northern climate like Colorado, the rooftop of a building is of essential importance for both design and construction. The roof is often a building's first barrier against inclement weather—for example, snow and ice, which CSU Fort Collins experiences on a regular basis during the winter months. Choosing a roofing system that would withstand temperature fluctuations and snowstorms, provide optimal energy savings, and reduce the university's carbon footprint was a priority for the design team. That is why they chose a thermoplastic polyolefin (TPO) roofing membrane system manufactured by Carlisle SynTec Systems.

Carlisle SynTec's Sure-Weld TPO roofing membranes are extremely durable and are the industry's most highly reflective membrane, utilizing every solar ray for optimum energy efficiency. As such, Carlisle's white TPO membrane is ENERGY STAR® qualified and Cool Roof Rating Council (CRRR) certified.

In addition to enhanced energy efficiency, Carlisle's TPO is manufactured with the Octaguard XT™ weathering package. Comprised of eight performance-enhancing ingredients, including heat-stabilizing antioxidants, UV absorbers, and UV light stabilizers, Carlisle's unique weathering package offers long-term durability and performance.

The installation of the CSU Health and Medical Center roof began in August 2016 and was managed by Front Range Roofing Systems, LLC, a full-service roofing contractor based in Greeley, Colorado. With more than thirty years of experience installing Carlisle SynTec roofing systems, the team at Front Range Roofing Systems was ready to roll.

The installation crew began by installing a metal deck over the 44,300-square-foot facility, followed by two layers of Carlisle's two-and-a-half-inch polyiso insulation. A second layer of tapered polyiso insulation was added to increase the thermal efficiency of the building and avoid the potential for ponding water on an otherwise flat rooftop.

Next, a half-inch layer of DensDeck® Prime roof board was placed on top of the insulation and mechanically attached using Carlisle's plates and fasteners. The next steps were to apply TPO Bonding Adhesive to the roof board and roll out the 60-mil-thick TPO membrane on top. Last but not least, the installation crew installed Carlisle's TPO prefabricated accessories around pipes and drip edges to ensure premium, watertight performance and enhance the aesthetic appeal of the rooftop. As a finishing touch, Carlisle donated the materials necessary for printing the CSU ram logo directly onto the center of the TPO rooftop, making this stellar medical facility difficult to miss.

The entire rooftop installation was completed by May of 2017, and CSU celebrated the opening of its new Health and Medical Center with a ribbon-cutting ceremony in August. With all of their health services now under one roof, CSU is providing top-of-the-line healthcare not only to its students and faculty but also to members of the surrounding community. The four-story medical facility offers family medicine and counseling, occupational medicine and rehabilitation services, digital X-ray imaging, and health education, to name a few of its services. This is one \$59 million project that will more than pay for itself in the love and care that CSU staff will now be able to provide each person who walks through their doors.