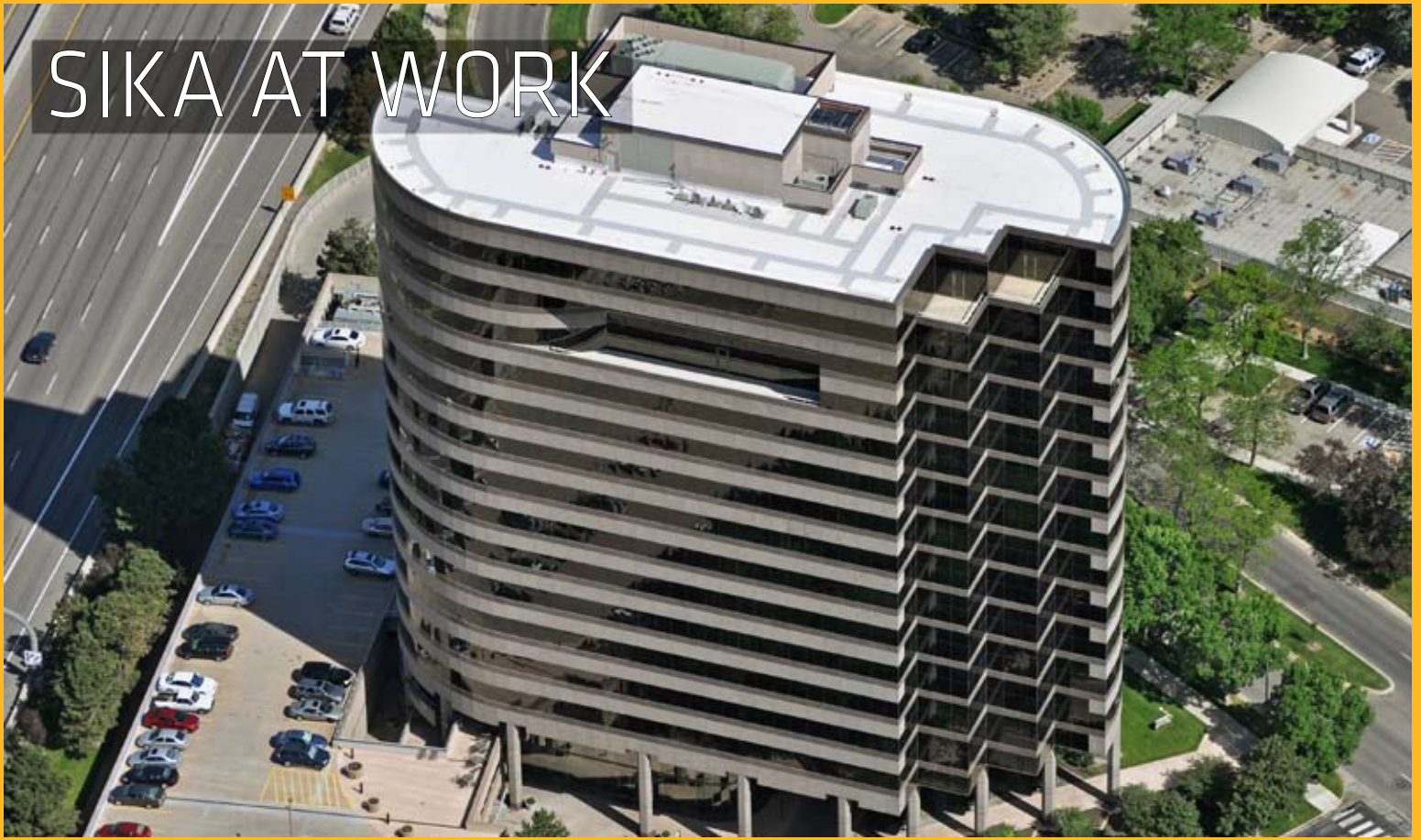


# SIKA AT WORK



## PROJECT

One Denver Technology Center  
Greenwood Village, Colorado

## OWNER

Principal Group

## ROOFING CONTRACTOR

D & D Roofing, Inc.  
Commerce City, Colorado

## ROOF CONSULTANT

Wiss, Janney, Elstner Associates, Inc.  
Lakewood, Colorado

## ROOFING SYSTEM

Adhered EnergySmart Roof® using  
60 mil Sarnafil® G410 membrane  
in white color

## PROJECT SIZE

19,200

## COMPLETED

May 2012

## Sarnafil ROOF GIVES DENVER TECH CENTER OFFICES GOLDEN TOUCH

When One Denver Technology Center renovated their facility recently, one of its goals was to retain a LEED® Gold certification. One component that helped the upscale office building in Greenwood Village, Colorado achieve that objective was a Sarnafil EnergySmart Roof.

The EnergySmart Roof is light colored to reflect the sun's rays, thereby keeping the building cooler and lowering energy costs. "The white reflective color of the roof was important in retaining a LEED Gold," stated Mike Gardner, Associate III at Wiss, Janney, Elstner Associates, Inc. of Lakewood, Colorado and the roof consultant on the project. "We also had to recycle as much of the old roof as we could."

## ROOF SYSTEM AND CONTRACTOR UP FOR JOB

Meeting the recycling requirement and installing the new roof were not easy tasks. The existing roof had 16,000 pavers on top. Roofing contractor D & D Roofing, Inc. of Commerce City, Colorado tore down the roofing system to the structural concrete deck, cutting up and bundling the existing membrane and preparing the isocyanurate

and pavers for recycling. "Over 192,000 pounds of existing pavers were recycled or repurposed along with 8,448 pounds of insulation," said Chris Frey, vice president at D & D Roofing.

After the tear-off was completed two layers of two-inch isocyanurate insulation, isocyanurate insulation crickets, and one layer of gypsum board were installed. The 60 mil Sarnafil membrane was then adhered to the gypsum board, followed by sheet metal edge and counter flashings detail.

All of this work was done during an unusually frigid Colorado winter. "We had to monitor the temperatures closely because the adhesive for the membrane and insulation could only be used when the temperature was 35 degrees and rising," Frey remarked. "February, 2012 was an extremely cold month in the Denver area, and roofers were only able to work two of the 29 days because of the low temperatures."

If this installation wasn't challenging enough, the roof was 200 feet above the ground and in close proximity to pedestrian and automobile traffic. "As with all projects, the roofers were tied-off – in this case to the penthouse in the middle of the roof – whenever they were working within ten feet of the roof perimeter," Frey stated.

One Denver Technology is located adjacent to Interstate 25, where thousands of vehicles pass every day, so special care had to be taken to make sure automobile and pedestrian traffic were kept out of harm's way. "To that end access around the building was barricaded to protect pedestrians in the unlikely event that something fell off the roof," Frey explained. "We also had to close streets around the building for safe and proper crane access."

To reduce disruption to traffic and tenants D & D Roofing could only bring the crane in on Saturdays and Sundays, "which meant we had to stage all the tear-off material in the right place and think about where we were going to be working next so we could put the crane in the right spot," Frey said.

Some weekends the winds at the roof level would be as high as 32 miles per hour, which resulted in several weekends when D & D Roofing couldn't use the crane and had to shut down.

#### WORKS WELL WITH OTHERS

The height of the building and the wind speed also merited some special design considerations. "I wanted to make sure we exceeded the municipality wind uplift requirements so I worked with Sika representatives on the perimeter anchorage," Gardner explained. "They helped me on pressure and attachment rates and the amount of anchor bar that needed to go around the building."

Gardner was not surprised that the Sika people were so helpful. "I was a roofing applicator before I became a consultant, and I know Sika is easy to work with, has great products, and their technical people are always there to help," he remarked.

"Sika is a demanding company in terms of quality control," Frey stated. "Their technical people were there often to do a review of the details, and were very helpful if we had questions."



Another organization that was keeping a close watch on the installation was OSHA. "OSHA's regional headquarters were across the street from this building, so they came on site several times," Frey said. "There were other trades working on the roof who received citations but we passed all OSHA inspections without any citations."

Another population D & D Roofing had to please were the tenants of the building. "This building has some upscale, Fortune 500 tenants, and it was imperative that the roofing operations were not disruptive to their business operations," Frey explained. "The roofers had to share the

elevators with the tenants and had to be clean and professional at all times. We also used low VOC adhesives to reduce odors and comply with the Gold LEED requirements."

Despite all these demands and challenges, D & D Roofing was able to complete the installation on schedule, within budget, and without a punch list. "I was very pleased with the caliber of their work," Gardner remarked. "Working with Chris Frey made my job as a consultant much easier." It was this professionalism that earned D & D Roofing Third Place in Sika Sarnafil's 2012 Contractor Project of the Year, Sustainability Category.

#### MEETING A GOLD STANDARD

Today the roof is LEED Gold certified and performing well. "There have been no problems with the roof and the building owners are pleased," Frey said.

Gardner added, "I would definitely specify this roof again. As a roofing consultant I represent owners, and I'd like them to be long-term clients. I want them to have a roofing system that will perform for a long time and meet their needs. The Sarnafil roof does that."



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