

# Boulder Lumber

## JOB PROFILE



## The Project

**Project Name:** Boulder Lumber Warehouse

**Address:** 2990 Sterling Ct. Boulder, CO, 80301

**Square Footage:** 19,512

**Completion Date:** July 2019

**Project Duration:** 1 month

**Contractor:** Black Roofing Inc.



## The Project

Since 1927, Boulder Lumber has served the building contractors of Boulder, Colorado, providing lumber, millwork, doors, windows, decking, and other building materials. In 2019, Boulder Lumber's built-up tar and gravel roof needed to be replaced, largely because of damage caused by wind events.

The city of Boulder is located in the Boulder Valley where the Rocky Mountains meet the Great Plains. Wind uplift is a major concern for buildings in this area, as high winds come off the canyons from the Rocky Mountains. Winter conditions in Boulder range from mild to bitterly cold, with an average of 88 inches of snow per season.

## The Problems

1. Wind uplift is a big problem due to the high winds that come off the canyons. The wind intensifies as it travels over buildings, which creates high pressure at roof perimeters.
2. Boulder Lumber's existing roof (built-up tar and gravel over a concrete deck) had previous issues with wind events. The wood nailer would become dislodged from the perimeter deck and start to peel back the built-up system.
3. The unpredictable weather in northern Colorado shortens their roofing season compared to other areas in the country. Winters can be very cold, and the Boulder area receives an average of 88 inches of snowfall per season.

The importance of a properly designed roof edge system shouldn't be underestimated. On average, the roof edge represents about 1% of a building's overall cost. However, improper design and installation of the roof edge can have big consequences. Selecting a properly designed and tested metal edge system can diminish these risks. A quality roof edge system will resist the inward pull of the roof system due to expansion and contraction, as well as the wind uplift forces that can peel the edge system off the building.

## The Priorities

When selecting a new roof, Boulder Lumber was looking for something with excellent wind uplift resistance to avoid the problems they'd experienced in the past. They also wanted a system that could be installed quickly in a variety of temperatures, since the weather in Boulder can be very unpredictable and the labor market is tight.

Lastly, they wanted to work with a skilled, dependable roofer who would get the job right the first time around.

## The Proposal

Boulder Lumber enlisted Black Roofing to install a tough, durable roofing system that would be able to withstand the high wind uplift pressures at the perimeter of the roof. Black Roofing suggested Versico's RapidLock Roofing System due to the ability of this roofing system to perform well in this environment.

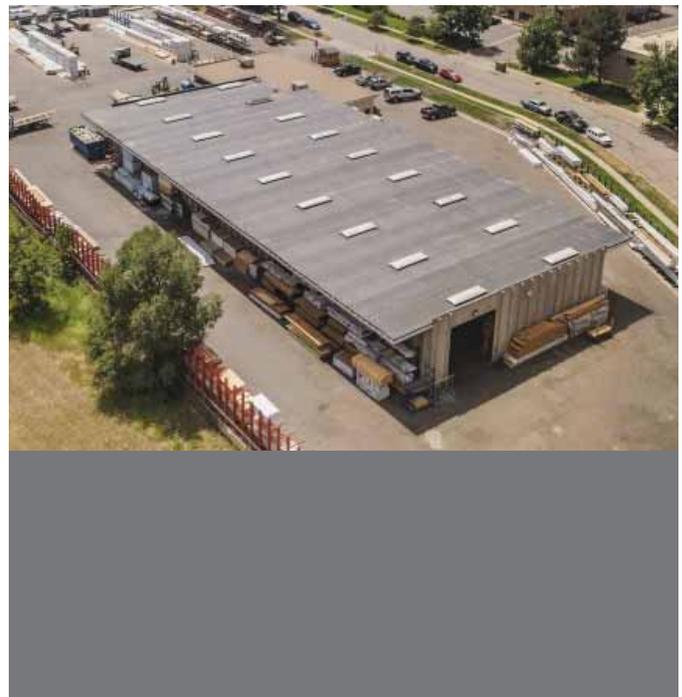
The RapidLock Roofing System uses VELCRO® Brand Securable Solutions' hook and loop attachment method to provide a fully adhered system without adhesives. The backing on the VersiFleece membrane attaches to a specialized facer on the insulation boards. RapidLock roofs are quick and easy to install and there are no installation temperature restrictions, making this system an ideal fit for the Boulder Lumber project. RapidLock installations provide up to 80% labor savings compared to traditional bonding adhesive and up to 25% labor savings compared to a traditional VersiFleece system.

## The Products

- 115-mil VersiFleece® RL™ EPDM RapidLock membrane
- ½" SecurShield® HD RL Polyiso RapidLock Insulation fully adhered with Flexible DASH™ Adhesive
- 1" SecurShield Polyiso fully adhered with Flexible DASH Adhesive
- CAV-GRIP® 3V Adhesive/Primer applied to concrete deck

## The Process

1. The 20-year old existing built-up roof system had to be torn off to the structural concrete t-deck, including scraping residual asphalt.
2. Because of the damage to the concrete deck, the existing wood nailer was deteriorating. Black Roofing decided to use Metal-Era's Eliminator to provide a strong connection on the perimeter and protect the roof against high winds.
3. Black Roofing used CAV-GRIP 3V to prime the deck. CAV-GRIP 3V promotes adhesion and can be used in temperatures as low as 15°F when used as a primer.
4. Flexible DASH Adhesive was used to adhere a layer of 1" SecurShield Polyiso insulation to the concrete deck. Alan Nedelea with Black Roofing says, "We used Flexible DASH to eliminate any of the fasteners that would have been needed to penetrate into the concrete deck, and also to provide a good adhesion for the wind uplift required for this system."
5. A layer of ½" SecurShield HD RL was adhered to the base layer using Flexible DASH. SecurShield HD RL has a specialized facer that allows for adhesiveless membrane attachment.



6. VersiFleece RL EPDM was attached to the ½" SecurShield HD RL. Black Roofing simply positioned the RapidLock EPDM sheets, removed the release liners, then broomed and rolled the membrane into place.
7. Once the job was complete, a 15-year, 55-mph wind speed warranty was issued.

## Why RapidLock?

Black Roofing needed a roofing system that was able to withstand the high wind uplift pressures at the perimeter of the roof, but also a strong roofing system overall.

Boulder has unpredictable weather, which includes cold temperatures that can cut the roofing season short. RapidLock allows the roofing season to extend into the winter months, since there are no temperature restrictions for installation.

As in many like industries, the labor shortage is a recognized issue in the area. RapidLock's labor-saving benefits help combat the labor shortage, allowing the roofing system to be installed in far less time than a traditional roofing system.

Nedelea says, "This is the first RapidLock roofing system that Black Roofing has installed. We really enjoyed doing this project."



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Versico, PO Box 1289, Carlisle, PA 17013  
Tel: **800.992.7663** Fax: 717.960.4036 Web: [www.versico.com](http://www.versico.com)