



Lumber Mill Rehab Project Fast, Easy with SafScan™ and QuikDeck®

This image, called a "point cloud" is an example of what is produced from the scan.

Thousands of people across the Northeast can thank the Irving Forest Products lumber mill in Dixfield, Maine, for their homes. Over the years, the mill has produced millions of board feet of lumber.

That history, however, naturally takes a toll on the mill building itself. The effects of dust, moisture and time meant the mill needed to rehab its rafters – cleaning, painting and installing roof liner panels, and upgrading the fire protection sprinkler.

But how do you do that, when the mill floor, 50 feet below, is a busy grid of high-tech machines turning trees into boards at a rate of 200,000 board feet a day? How do you overcome the fact that the rafters have irregular diagonal braces that connect to equipment below? And what if there are no current as-built drawings on which to base an access plan?

The answers come from two innovative systems from Safway Services: The SafScan™ high-definition laser scanning technology, and QuikDeck®, a rigid suspended access system.

When Atlantic Construction was given the rafter rehab job, they called Safway. Atlantic knew Safway as a reliable partner with a knack for safe, creative solutions to access challenges.

SafScan accuracy key

Accurate plans of a site are always the first step in planning an access job, and this project was no different.

But when there are no valid drawings, this first step can be a huge problem. "Fortunately, Safway has a very handy tool," said Joe Rizzo, the New-York-based regional manager for Safway's Bridge Division.

SafScan, Safway's proprietary high-definition scanning (HDS) technology, is that tool. "SafScan uses lasers and a computer's ability to collect and process vast amounts of data to create a three-dimensional virtual model of any space," explains Rizzo. "It's quick, and it's accurate."

"That was the only way we could have done it. SafScan was critical," said Mike Yerardi, the Safway sales rep for the job.

"SafScan uses lasers and a computer's ability to collect and process data to create a 3D model."

With the SafScan image in hand, Safway quickly designed a solution to suspend QuikDeck platform panels just under the work area, high above the busy shop floor.

QuikDeck's patented modular system allows a platform to be built in the air – with no support from below, during erection, after the first pieces are installed. It works like

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The scanner is mounted on a tripod, and a round blue and white target can be seen on the beam behind it.

this: The first segment is hoisted into place and suspended from the rafters using clamps and chains. From that base, additional modules are built outward using swing-out trusses which are placed by hand, pivoted, and locked in place. Floor panels are then installed on the trusses. These new segments have enough cantilever strength to support workers as they install new supporting chains. The process repeats with the addition of more trusses and floor panels until the desired area is accessible with a broad, flat, rigid deck.

"The mill's production never skipped a beat."

Brad Cadman, construction manager for Atlantic, said Safway's capabilities make Safway a valuable partner in such jobs. "They deliver the right equipment, and they either provide a skilled set-up crew or they train our crews in the right way to use the products safely," he said. He noted the mill's production never skipped a beat.

QuikDeck increases efficiency

The job was done in two phases, the first covering 22,500 square feet, and the second covering 37,500 square

feet. The original QuikDeck platform was installed under a portion of the work area by Atlantic's crew – with guidance from Safway technicians – in about a week. With QuikDeck's unique build-in-the-air properties, workers were able to then "leap frog" the equipment across the area as the job progressed – removing segments in completed areas and using those components to build out under a new work area. This capability reduced costs, limited any disruption to plant operations, and mitigated any risk that would have been caused by loading in and hoisting materials to cover the entire area at once.

"It got done much quicker than we thought," added Rizzo. "QuikDeck's smooth, continuous surface was ideal for containing any debris from the job, and provided a safety bonus in that it greatly reduced the risk of injury or damage from dropped objects."

Cadman said Atlantic was grateful for Safway's capabilities and expertise. "We've used Safway in the past, and we'll absolutely use them in the future," he concluded.



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