WASHINGTON—Carlisle Companies Inc.'s Construction Materials unit has donated an EPDM roofing membrane for use on Weinberg Commons, a 1960s low-income multi-family housing project in Washington that was retrofitted to lower energy costs.

Carlisle and Weinberg Commons were connected through the EPDM Roofing Association, which produced a video on the project available at its website.

“We saw it as a good opportunity to get involved with a project that's promoting the concepts that we're interested in promoting,” said Ron Goodman, EPDM marketing manager at Carlisle Construction Materials. “That's the long-term sustainable design where EPDM has a great track record. And the use of adequate insulation that’s well above the industry norm. We saw it as an opportunity to showcase the technology.”

The roof was installed in the fall of 2014; Goodman estimated the donation's value at about $35,000. Matt Fine of Zavos Architecture and Design L.L.C.—architect of the Weinberg Commons project—said Carlisle donated the membrane and three other manufacturers through the Polyurethane Manufacturers Association provided other polyurethane-based adhesive materials.

Construction is scheduled to wrap up in the fall with move-ins to follow shortly after.

“Every year we are approached for civic donations of some sort,” Goodman said. “This one fit into that program and was a good fit for some of the messages that we'd like to see acted on and replicated throughout the industry. It was definitely one of our more substantial donations.”
comfortable. Air tightness is the primary goal because any infiltration of air is wasted energy.

“We're really encouraged with what we've seen so far with the units,” Fine said. “They're very comfortable inside. It's very apparent that interior comfort is there and that they're very well insulated, very well sealed up.”

Weinberg Commons went with the black EPDM roof because of its ability to minimize the amount of energy consumed during winters, typically colder in the northern climates. They designed the roof so that it would minimize the amount of energy consumed on the coldest day of the year.

The firms looked at heating degree days versus cooling degree days as a major factor in their decision to go with EPDM. Using an average temperature of 65 degrees, Washington had 3,972 heating degree days compared to 1,713 cooling degree days, making a roof that helps conserve heating energy a more efficient choice, Carlisle said.

“That's where the black EPDM has an advantage, because it does absorb the energy from the sun and helps warm the surface and the building,” Goodman said. “It definitely has a positive impact in reducing heating costs. I think that was one of their key concerns.

“They did some other smart things in the installation of the insulation. They did it in multiple layers—I think it was four layers of two-inch insulation—and they staggered the joints, which makes it more thermally efficient. And they also adhered the insulation in place instead of using mechanical fasteners, which eliminated thermal bridging.”

Goodman said by adhering the insulation instead of mechanically fastening it, the firm achieved a 3 to 8 percent loss in R-value.

Goodman said the typical code is R-20 or R-25 for commercial buildings, but Fine said the system installed at Weinberg Commons has achieved results as high as R-80.

“We were looking for something long term, serviceable and with a good warranty,” Fine said. “We were looking to not necessarily have a reflective roof and EPDM is the gold standard when it comes to a membrane roof.”

Goodman noted a few other benefits to EPDM—mainly that it remains repairable at the end of its service life. Many plastic-based sheets are internally reinforced. He said once that internal reinforcement is exposed and worn through at the end of its service life, repairs become difficult.

EPDM also has stronger hail resistance, he said.

“Because it weathers so incredibly well, even if it’s 30 years old, EPDM can still be cleaned and spliced with new flashing materials,” Goodman said. “So what we see is people have the ability to extend the life of an EPDM roof well beyond the life of its warranty term. The longer something lasts and doesn't need to be removed the better.”
what best describes your view of a possible trade war with China?

- It could cause a prolonged downturn in the markets.
- I don’t think it will impact my business.
- I say it’s about time.
- It’s too early to make a determination.

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