

Hanley Wood Selects Interstate 80 Reconstruction Project for 2016 Triad Award

The Triad Award program honors projects executed by close collaboration between concrete contractors, suppliers, and public entities and exhibiting a significant degree of innovation and sustainability.

Washington D.C. (PRWEB) January 26, 2016 -- Hanley Wood, the premier company serving the information and marketing needs of the construction industry, is pleased to announce the winner of the 2016 Triad Award, sponsored by CONCRETE CONSTRUCTION, THE CONCRETE PRODUCER, and PUBLIC WORKS magazines and cement and concrete producer LafargeHolcim. This year's top honor goes to a reconstruction project on Interstate 80, from Silver Creek Junction to Wanship, Utah. The two runners up are a subway tunnel in New York City and trunk sewer construction in Ontario, Canada. For additional information and photos of the winners and other entries, visit <u>www.triadaward.com</u>

"Each year we seek out the top public projects that exemplify innovation in concrete construction techniques, materials, and teamwork," says Bill Palmer, editorial director. "This group of entries is truly impressive." The Triad Award program honors projects executed by close collaboration between concrete contractors, suppliers, and public entities and exhibiting a significant degree of innovation and sustainability.

Hanley Wood's editors and LafargeHolcim representatives will present 2016 Triad Awards to the winning project teams on Feb. 2nd at the CC Live! Booth at World of Concrete in Las Vegas.

"We are proud to once again sponsor the 2016 Triad Awards," says John Stull, CEO, U.S. Cement, for LafargeHolcim. "The awards' criteria (innovation, sustainability and leadership) are at the core of our company's values and our partnership with Hanley Wood to promote these progressive solutions enables our industry to share the complexity and cutting edge concrete solutions deployed each and every day."

"LafargeHolcim is part of a large team of contractors, engineers and manufactures that need to work in unison to build amazing things," Stull says. "This year's topic, 'outstanding publicly-owned projects,' certainly is a great subject to promote all the stakeholders involved in these types of projects."

2016 TRIAD AWARD WINNER

I-80 Reconstruction Project, Utah

Through a combination of innovative construction techniques and use of materials, Geneva Rock Construction and the Utah Department of Transportation (UDOT) replaced 7.5 miles of deteriorated asphalt highway with a 40-year concrete pavement designed to withstand the region's harsh elements.

The mountainous stretch of Interstate 80 between Silver Creek Junction and Wanship is part of a major east/west commercial corridor in Utah. The existing asphalt failed to withstand the loads and environmental conditions, and required frequent repairs. UDOT and Geneva Rock worked together to devise a solution that involved partial depth reclamation of four inches of existing asphalt, recycled and topped with 12 inches of Portland cement concrete pavement.



This is reportedly the first project in which only a portion of the existing asphalt was recycled and the remainder was left in place. With a significant amount of material being recycled, Geneva Rock was able to reduce the amount of cement used to create a superior paving base for the new roadway. This reduced the overall cost of new materials and waste disposal, as well as the negative environmental impacts.

Geneva Rock also worked with Gomaco and Trimble to set up a new 3D paving system that created more and safer access around the paving machine; using wireless controls to execute a zero clearance paving setup for the first time.

Jury comments: This project is a great example of large-scale partial depth reclamation. They have succeeded in doing what our industry always promotes, which is using cement in innovative and sustainable ways.

Project Partners

Owner: Utah Department of Transportation Structural & architectural design: Utah Department of Transportation Contractor & concrete supplier: Geneva Rock Products, Inc (Murray, Utah) Materials suppliers: Geary Construction (aggregates; Coalville, Utah), Granite Construction (aggregates; Watsonville, Calif.), Headwaters Inc. (fly ash; South Jordan, Utah), Holcim (US) Inc. (cement; Chicago, Ill.), W.R. Grace (admixtures; Columbia, Md.) Equipment/technology suppliers: Gomaco (Ida Grove, Iowa), Trimble (Sunnyvale, Calif.)

RUNNERS-UP

The Triad Award jury selected two projects for special recognition:

Second Avenue Subway Tunnel, New York City

This \$4.4-billion project is the city's first new subway line in more than 70 years. Its first phase consisted of an 800-foot-long launch box, 15,000 linear feet of circular running tunnels constructed by a tunnel boring machine, and two 30-foot diameter construction shafts. The contract was awarded to S3 Tunnel Constructors, a tri-venture of Skanska, Schiavone Construction and J.F. Shea Co.

The project required high-strength, durable concrete with a 100-year design life. To meet the tight project schedule, contractors opted to construct a cast-in-place concrete tunnel liner which required a concrete mix with high strength and low permeability. A high steel fiber content provided flexural strength and crack control, and saved the contractor the time of placing reinforcing steel. It is believed this is the first cast-in-place tunnel in New York City with steel fibers replacing reinforcing steel in its liner.

Contractors pumped more than 18,000 cubic yards of concrete distances greater than 1000 feet horizontally, and up to 60 feet vertically to form the tunnel liners.

Jury comments: The sheer scope of this project, including the logistics of working underground in such a major city, is impressive. It's unusual to see such large amounts of steel and synthetic fiber used to create a low-permeability concrete mix.

Project Partners



Owner: Metropolitan Transit Authority (New York) Structural engineer: AECOM-ARUP JV General contractor: S3 Tunnel Constructors (New York) Concrete contractor (foundation): Bencor Global Inc. (Frisco, Texas) Concrete producer: Ferrara Bros., LLC, a US Concrete Company (Flushing, N.Y.) Materials suppliers: BASF Admixture Systems (admixtures; Florham Park, N.J.), Holcim (US) Inc. (cement; Chicago, Ill.), Roanoke Sand & Gravel (fine aggregate; Middle Island, N.Y.), Separation Technologies (fly ash; Roanoke, Va.), Tilcon New York (coarse aggregate; West Nyack, N.Y.)

Southeast Collector Trunk Sewer Project, Ontario

To handle the needs of a growing population, the Markham/Pickering area east of Toronto designed a new, 8mile trunk sewer line for the York Durham Sewage System that dates back to the 1970s. The project team faced the challenge of boring tunnels at depths of more than 130 feet below the surface to stay within the optimal soil stratum.

The contractor, Strabag, specializes in heavy construction and infrastructure —particularly tunneling. After boring the tunnel with four custom-built earth pressure balance machines, Strabag worked closely with formwork supplier, Doka, to construct the 13 ventilation shafts that connected precisely with newly-drilled tunnel openings.

With expertise in 3D engineering design and custom-built formwork, Doka provided solutions including epoxycoated formwork panels eliminated the need for installing form liners prior to each concrete pour. This saved materials and time, which was critical to meeting the extremely tight deadline on this \$600 million project.

Jury comments: The project team collaborated to save time and use materials efficiently; for example, employing the use of formwork to achieve design elements that would have otherwise been constructed by hand. Adding a new inlet to an existing sewer system involves a lot of complicated considerations.

Project Partners

Owner: Regional Municipality of York (Ontario) Contractor: Strabag (Mississauga, Ontario) Concrete producer: Miller Concrete (Whitby, Ontario) Formwork supplier: Doka Canada Ltd. (Bolton, Ontario) Materials suppliers: Euclid Chemical Co. (admixtures; Cleveland, Ohio), Bekaert Canada Ltd. (steel fiber; Surrey, British Columbia), St. Marys Cement (cement; Toronto), Vicdom Sand & Gravel (aggregates; Uxbridge, Ontario) Equipment supplier: Caterpillar Tunneling Canada Corp. (Toronto)

Find complete coverage of the 2016 Triad Awards, activities at World of Concrete and feature articles at <u>www.triadaward.com</u>.

About Hanley Wood

Hanley Wood is the premier company serving the information, media, and marketing needs of the residential, commercial design and construction industry. Utilizing the largest analytics-and editorially-driven Construction Industry Database, the company provides business intelligence and data driven services. The company produces



award-winning media, both digital and print, high-profile executive events, and strategic marketing solutions. To learn more, visit <u>www.hanleywood.com</u>.



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