

# Utah Construction & Design

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## EPS Geofoam Opens a World of Possibilities for Concrete Construction

By Sean O’Keefe

Construction challenges come in all shapes and sizes, and much like the nearly limitless diversity of potential challenges, solutions can be equally unique. For general contractor W.W. Clyde & Co. of Springville, one such challenge and innovative solution recently presented itself on a road and bridge project in Pocatello, Idaho.

The Cheyenne South Valley Connector is composed of a mile of new two-lane roadway that when completed will connect the east and west sides of Pocatello. The project’s main feature is a 430 ft. bridge that will traverse the Portneuf River, six sets of active railroad tracks, South 2nd Avenue in Pocatello and several local bike and pedestrian paths. On a community-impact project of this scale, finding ways to streamline the construction schedule and minimize disruptions to local activities is paramount.

“This is a great project for our firm and will be a real community asset when it opens at the end of 2015,” said Project Manager Bryson Clyde. “In almost every construction project cost, schedule, and resources are the three primary variables and as the project manager it’s my responsibility to balance the allocation of each, which often requires innovative thinking.”

One such innovation came in the form of an unusual application of ACH Foam Technologies’ Foam-Control EPS Geofoam. An engineered lightweight material made of expanded polystyrene (EPS) foam with high compressive strengths and predictable material performance, Foam-Control EPS Geofoam is frequently used as a structural-fill on roadway and embankment projects. In the case of the long bridge, W.W. Clyde’s Structures Manager, Rich Lowe, suggested that

Geofoam be used to create the form work required to shape the bridge’s three concrete piers.

“We had never used foam as concrete forms before, but this project really opened our eyes to the possibilities of this product and its ability to help us solve construction challenges in the future,” added Clyde.

Typically, builders use either wood or metal to construct concrete forms, which in custom applications like the bridge forms can be very time consuming and fairly expensive. Clyde calculated that using Geofoam as the concrete form material saved the project an estimated \$7,800 in material costs alone. Add to that a projected 200 man hours saved by not having to build wooden forms by hand to meet design specs.

The contractor carefully reviewed the engineering plans for the piers and then worked closely with ACH’s engineering department to develop drawings for the form work, which required state approval before being used. Once drawings were approved, foam blocks were cut and shaped to the engineering specifications of the pier radiuses. Curved fillets were attached to the foam blocks to create the finished concrete’s fluted surfaces, adding a smooth, aesthetic flair to the final surface. The foam blocks were then delivered to the site, secured in place, and the concrete was poured from the top to fill the carefully constructed void of each pier.

“We shaved more than a week off of a very tight construction schedule by using EPS Geofoam to make the concrete forms,” said Clyde. “When it arrived on site, putting it in place was quite easy and things were very efficient.” ■



EPS Geofoam was effectively utilized on the Cheyenne South Valley Connector project in Pocatello, Idaho.

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