Can You Hear Me Now?

Concrete walls are being used more and more commonly for sound walls, often called noise barriers, security walls/enclosures, and even decorative screening to hide objectionable properties. Many different finishes, sizes, and visual opportunities are widely available, such as the artistic displays cast into the panels used on Rochester’s Western Gateway project not long ago.

For this NYSDOT project, Binghamton Precast supplied 69,000 sf of exposed aggregate faced panels; there were 410 panels, 413 posts, plus 823 post and panel caps needed for the three wall runs. The caps of the panels and posts were smooth concrete, while the posts alternated between smooth and exposed aggregate finish. Typical panel width was 11’-3”, with panel heights ranging from 12’-6” to 20’. The posts were cast with steel base plates for bolting to the concrete footings, which also support the wall panels.
SAVING ENERGY ... Long Island solves visual and safety issue for energy station

Hanson Pipe and Precast has solved a visual and safety issue for both the community of North Shore Beach in Rocky Point, Long Island, and Keyspan Energy. An increase in housing and residential development has increased the need for energy stations to keep lights on and computers running.

Hanson Pipe and Precast, in their Pottstown, PA plant, has created textured, monolithic architectural screening walls to surround the substation facility. Seventy-plus precast posts and panels, or approximately 11,000 sf, were used to encase the electrical substation. The precast concrete screening walls and posts are produced with a patented baseplate and are easily installed onto anchor bolts cast into the foundation by the contractor. The monolithic precast panels easily slide between the two posts for simple, fast installation.

Keyspan Energy worked with the community to engineer the structure and select its visual appeal, allowing the community to chose both the desired color and texture. The architectural screening walls meet the New York State building code for vehicle barrier loads, protecting both the substation and the community should a vehicle impact occur. The wall also was coated with an anti-graffiti product, which allows for easy cleanup of graffiti if needed. Thanks to Tim Poppenberg, PE, Hanson Pipe & Precast, for this article.

Strong Growth at Binghamton Precast

To gain additional product lines and more diversification, in April 2006 Binghamton Precast purchased Concrete Precast Products Corp., located in Chenango Bridge, approximately 3.5 miles from their main plant. That is how they got involved with finishing the sound wall project for the I-86 conversion, written up earlier in this issue. Binghamton Precast will continue with wall panel products, along with adding a retaining wall block line (called ReCon) and foundation panels. Further, they are in the process of setting up a new manufacturing building and batch plant to be operational in early 2008.
In 2007, Wegmans Food Markets of Rochester, NY was named on Fortune Magazine’s list of “100 Best Companies to Work For”, and as one of Ethisphere Magazine’s “Worlds Most Ethical Companies”. So it is no surprise that Wegmans decided to install a neighbor friendly sound wall along the entrance road to one of its constantly growing complexes. To shield their appreciative neighbors from the related growth of truck and automotive traffic, Wegmans built this attractive precast concrete sound barrier along the newly expanded entrance road shown. The stone finish is visible on both sides of the wall, and is nicely accentuated by the textured posts and caps. Thanks to Chip Stevenson, BVR Construction Co. for the information on this project. Precast was supplied by Binghamton Precast & Supply.

Stone textured sound walls adjoin entrance road

Attractive sound walls enhance neighborhood

Barton & Loguidice, PC was retained by the Broome County DPW to provide a rehabilitation alternative for the Hooper Road Bridge over Norfolk-southern Railroad in the Town of Union. This project was initiated to improve the structural and condition deficiencies of the bridge, and design was coordinated with the NYSDOT and the FHWA.

The project presented several challenges. Hooper Road could not be completely shut down due to the high volume of commuter traffic that it carries as a link between Endicott and Binghamton; therefore staged construction would be required. The work also had to be coordinated with the railroad, which involved raising the bridge to increase vertical clearance.

The proposed rehabilitation alternative involved rehabilitating spans 2 & 3 and removing spans 1 & 4 completely. Spans 1 & 4 would be replaced with a mechanically stabilized earth retaining wall (MSE). The rest of the project involved complete deck replacement of spans 2 & 3, minor adjustments to the highway profile and horizontal alignment, and widening the structure to accommodate wider travel lanes and a sidewalk on one side.

The selection of the MSE wall system for spans 1 & 4 provided several benefits to the job. The MSE walls provided an economic advantage over conventional concrete retaining walls. They also allowed the contractor to construct a portion of the walls underneath existing spans 1 & 4, reducing the time the bridge was reduced to one lane of traffic. The MSE replacement also allowed greater adjustment in horizontal radii on one side to increase the sight distance and reduce the number of accidents.

Thanks to Erin Shannon Bullard, Barton & Loguidice, P.C. for contributing this story. The Reinforced Earth panels were manufactured by Wm. E. Dailey LLC, Shaftsbury, VT.
Reminiscence – the act or process of recalling past experiences, events, etc.

That it was, when visiting Chip Stephenson (“We like precast”) at BVR Construction’s office regarding his many precast concrete projects (as exemplified by the sound wall jobs in this issue), he showed me his old photos of redecking the pedestrian bridge across the Genesee River. Look closely – each piece was set in place with a helicopter, since the structure was not designed for heavy equipment loads. I made the precast, prestressed slabs in the old Rochester Spancrete plant, probably some 30 years ago … in another life.