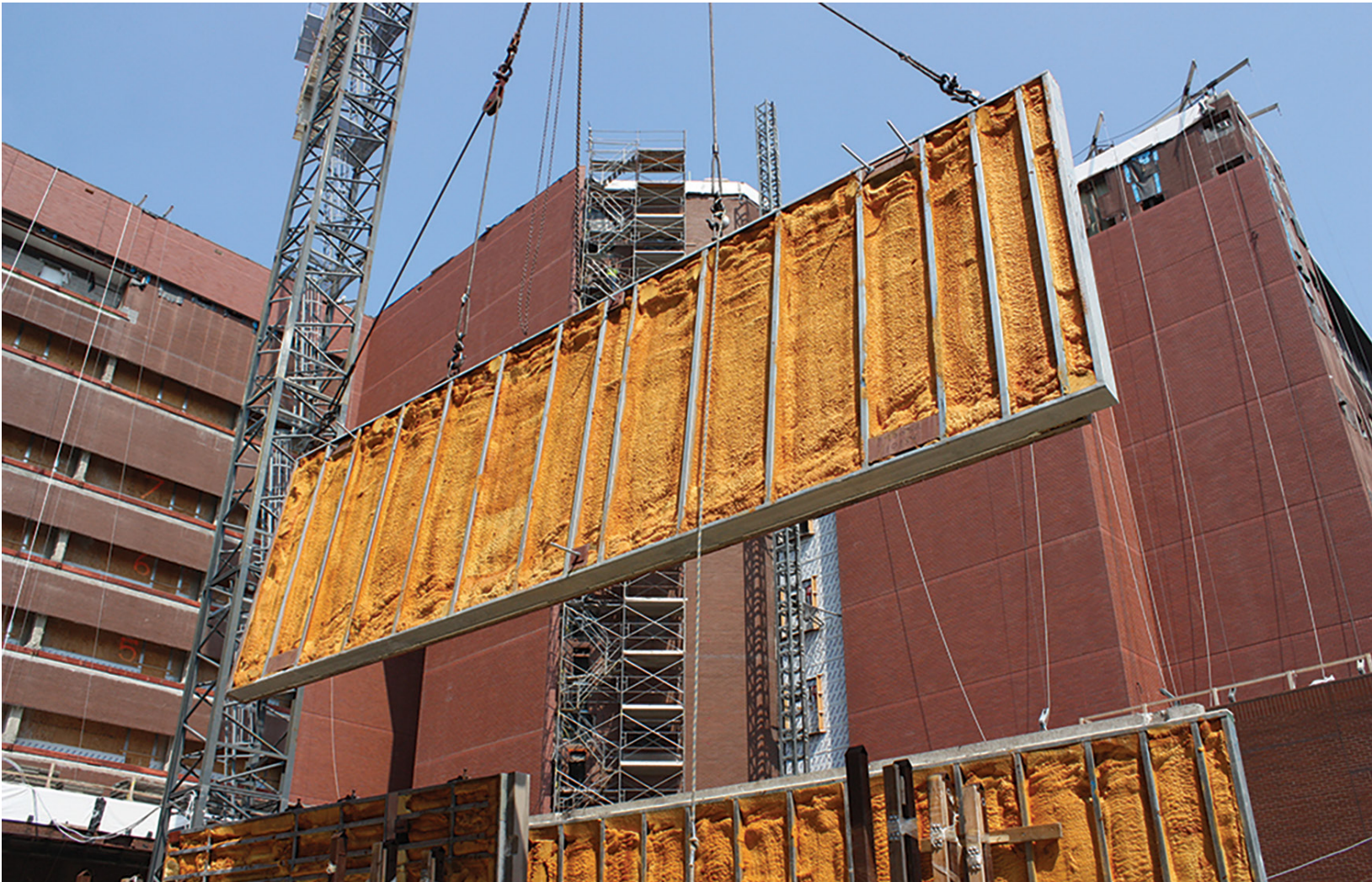


SMITH-MIDLAND: BUILDING ON A LEGACY OF INNOVATION IN PRECAST

Smith-Midland is a leader and innovator in the precast concrete business. With a rich legacy of 55 years in business, the manufacturer of proprietary precast products delivers product regionally through the Midland precast plant and internationally, through a network of licensees. Smith-Midland's precast products draw on important themes in construction, such as efficiency through centralization, prefabrication and modular design. Whether it's the Easiset buildings, which use precast technology to deliver efficiently built, cost effective buildings, or Slenderwall, which consolidates important elements of a commercial wall into a pre-built precast structure, Smith-Midland leads the market in efficiency. And with an array of innovative products, Smith-Midland will continue to shift construction paradigms, bring superior design and construction to new markets around the world.





Smith-Midland started 55 years ago making pre-cast cattle guards. Today it creates the precast products that enables some of the world's greatest buildings and construction projects – the technology and process is truly disruptive.

The drivers behind Smith-Midland's success are economic. First, with an innovative licensing structure, the company can bypass regional logistical constraints by enabling others to manufacture the products, while still participating in growing markets outside of the region. Precast has significant shipping and logistical challenges – the licensing business solves that.

Next, the centralization of onsite manufacturing, and deployment to the jobsite skips numerous steps in the construction process. Construction site bricklaying and other nuanced work is prone to weather interruption and human error. Smith-Midland allows builders to bypass that inefficiency and do more assembling in the build process.

The results are great looking, structurally sound projects that have the capacity to finish on time and under budget.

PRODUCT OFFERINGS

■ Easi-Set Precast Concrete Buildings

The Easi-Set line of 100% concrete buildings are cost-effective and provide a level of quality control not available with other building applications. They are all UL-752 level 5 bulletproof and certified by third party engineers and are available with a range of interior and exterior outfitting options, including HVAC, lighting, plumbing and electricity, just to name a few. Also, Easi-Set concrete buildings are manufactured at floor level in a production plant assuring that they are free of any outdoor damage during construction.

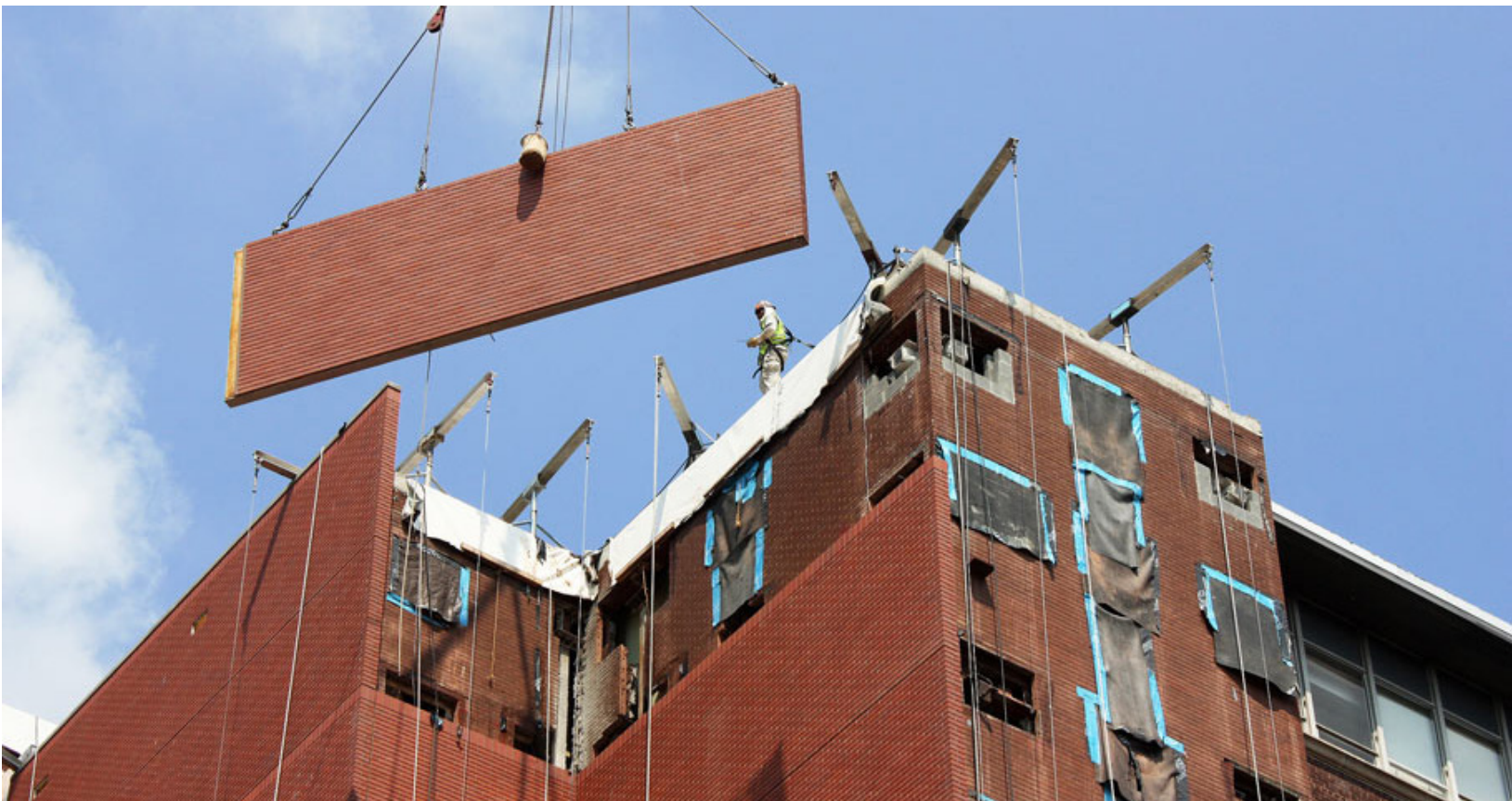
Upon order, Easi-Set precast concrete buildings are delivered directly to your job site. They arrive pre-assembled with any outfitting options pre-installed as well. Due to the precast “floating slab foundation” no foundations or footings are required beyond compacted sand or gravel and these building can accommodate or enclose pre-existing structures.



■ SlenderWall Lightweight Wall Panel System

The precast concrete cladding system by SlenderWall offer features that benefit not only the architect that designs it but the also the ones who will inhabit it. It is the industry's only wall system that incorporates the proven technologies of architectural precast concrete, high-tech PVA fiber reinforcement, thermal coated anchors and heavy gauge galvanized steel or stainless steel studs. This design protects against various stresses including heavy weather, steel frame movement, and seismic shock. SlenderWall panels are designed for permanent use and the exterior cladding panels are maintenance-free and waterproof, which minimizes vapor inflammation. Also, the panels eliminate corrosion by utilizing corrosion-proof and rust-proof materials.

The benefits of SlenderWall on the construction side are just as comprehensive. The use of these panels reduces costs and requirements for elements within the production, delivery, and installations processes in a variety of ways. For example, they reduce installations time and costs by up to 50% due to the proprietary Lift-And-Release panel landing system. This means that panels can be plumbed and aligned after the crane has unhooked thanks to a turn-of-nut connection. On top of this, shipping costs can be reduced by up to 60% as more panels can be delivered simultaneously. Because of these features, all parties involved throughout the construction process will find the use of SlenderWall panels affordable and efficient.



Concrete Sound Walls

A Versatile Noise Barrier Wall Solution For Precast Concrete (offers two variations: Softsound Wall and Sierra Wall)

The first variation of Concrete Sound Walls is the Sierra Wall. Created by Smith Midland in 1980, the Sierra Wall pioneered the use of precast concrete highway sound walls in the United States. It was the first one-piece precast concrete column and panel system and quickly became the gold standard in the Mid-Atlantic region and beyond. Today, Smith Midland introduces Sierra Wall II, which features a fully integrated, one-piece, pre-stressed extended column and sound panel. The inclusion of a foundation portion of the column that extends up to 24 feet or more into the earth, Sierra Wall II is already ahead of its competition.

In addition to the above standards, Sierra Wall completely removes the need for costly heavy-steel reinforcing cages around the pre-stressed foundation portion of the column. The one-piece design also eliminates thousands of linear feet of panel joints, adding significantly to its sound attenuating capacity versus competitive sound wall systems.

The second variation is the Softsound Wall. This is a proprietary composition that is molded and compressed to suit the desired technical and aesthetic requirements of the customer. By combining special aggregates with cement as a binder, in a specific and exacting process, SoftSound creates a material that surpasses any other combination of durability, acoustics, thermal, strength and moldability.



Concrete Barriers

Smith Midland also offers precast concrete barriers, for highway, safety, and security uses. As with all precast products, construction time is remarkably swift. For example, more than one mile of this precast barrier can be installed in 8 hours. These barriers are also incredibly versatile. Some uses include protecting utility plants, manufacturing facilities, office buildings, government installations, and city streets. They can also be implemented to control vehicular and pedestrian traffic for largely attended events, such as conferences and concerts. Further security uses include the closing off of potentially dangerous areas such as foundations, propane tanks, excavated areas, damaged guardrails, and damaged bridges.

Beach Prism - Coastal Erosion Protection Products

Precast concrete products can also be used environmentally to protect ocean coastline from erosion. The Smith Midland Beach Prisms features an open and slotted design that allows water to flow through the precast concrete structures, dissipating wave energy. This allows the sand in the wave to accumulate while reducing its impact on the shoreline. Ultimately, sand is replenished both in front of and behind our shoreline erosion structures. Its effect on the ecosystem is minimal, making it ideal for plant and animal life to thrive. Understanding the powerful and unpredictable nature of ocean behavior, the design concept provides the stability and durability to withstand powerful storms and floods for lasting coastal erosion protection.



■ Agricultural Products

Smith Midland also manufactures a variety of precast concrete products to serve the agricultural industry.

- Our **Precast Cattleguard** eliminates the need for farmers to open and shut farm gates and, due to its six thousand pound weight, holds up under the heaviest loads and most frequent crossings.
- The **Precast Concrete Water Trough** comes in 100- and 400-gallon models. The trough is approved by the NRCS and assists in overall water conservation.
- **Concrete Feed Bunks** offer easy licking thanks to smooth, contoured hard-finished surfaces. Made of the highest quality 5000psi concrete, these bunks are low maintenance and ultimately pay for themselves due to reduced labor cost and increased efficiency.
- **Precast Concrete Crop and Manure Storage** systems are made of 12' high x 8' wide free-standing sections of steel-reinforced precast concrete. They offer durability, efficiency, and economy. Each panel section is guaranteed for a lifetime of maintenance-free service.
- When designing our **Automatic Freeze-proof Cattle Waterers**, we consulted Soil Conservation Service personnel. The result is a cattle water that requires no energy and has swirl action that keeps 100 gallons of ice-free water available even at sub-zero temperatures.

■ Utility Products

Smith Midland offers a variety of precast utility products including Customized Vaults and Manholes. Each is manufactured to comply with the same structural and material specifications to assure uniform quality. All manholes are designed H-20 rated with 5,000 PSI concrete and standard sizes provide economy and simplicity. Available from stock and 30" access opening to 12" square closed sump and ground rod sleeve. Custom loading is also available.

We also manufacture Precast Concrete Construction Wash Racks, which help keep your construction clean and in working order. Each features round-topped rails and built-in footing for extra depth. It requires no additional construction and can be installed in two hours or less.

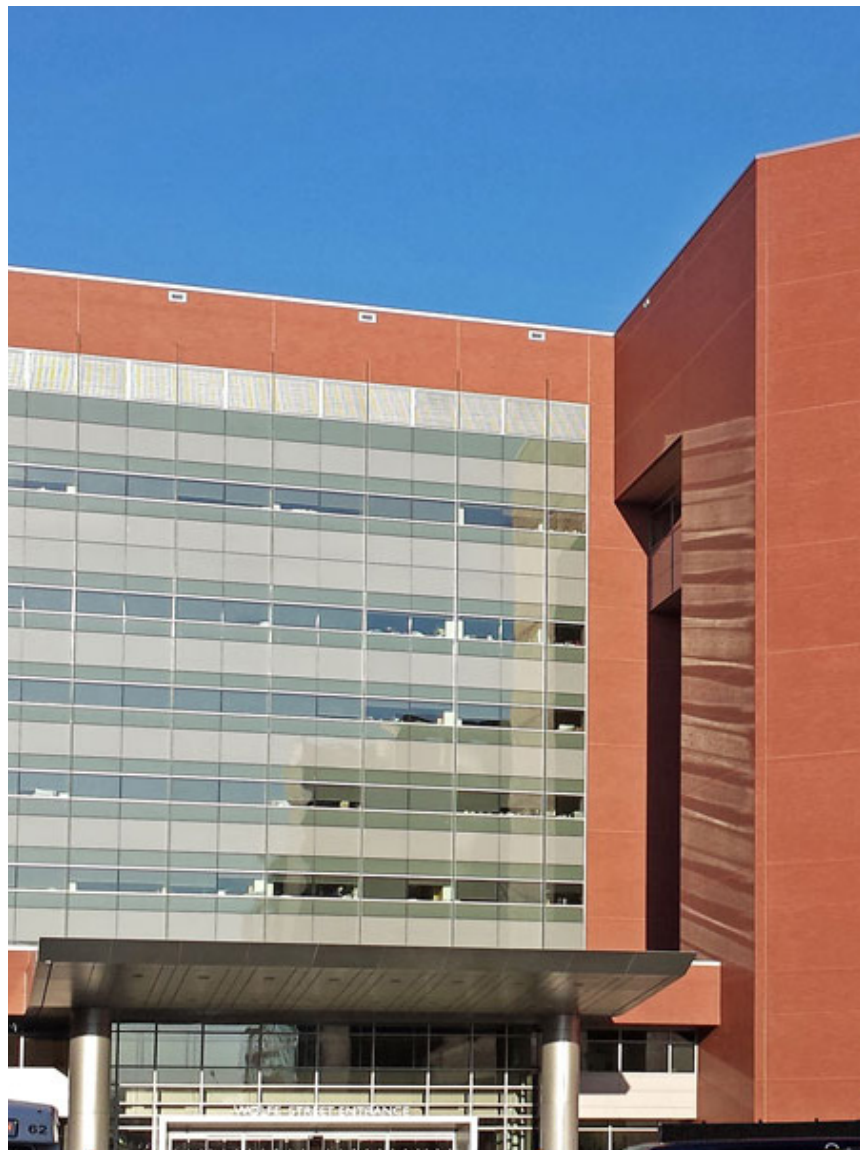
PROJECTS

■ Medical Facility Reconstruction at Johns Hopkins University

The University's choice of SlenderWall® from Smith-Midland Precast plays an important role in the successful reconstruction of a critical 1970's medical facility. Announced on April 16th, 2015, The Nelson/Harvey Building has been recognized as an ACI Excellence award winner.

SlenderWall architectural precast concrete panel system has been chosen as the exterior cladding for the renovation of the 9-story Nelson/Harvey inpatient facility on the Johns Hopkins Medicine Baltimore Campus.

After decades of wear the hand-laid brick envelope of the facility began failing. The architectural firms Wilmot Sanz and Ayers Saint Gross needed a solution that met two criteria: one, that is was lightweight enough to prevent any need for additional superstructure or foundation costs; and two, that the facility would be able to stay operational during the exterior renovation. SLENDERWALL met both requirements. Its 28 lbs. per square foot specification and unique composite construction will allow for the re-cladding to take place without the removal of the old fascia. The 158 SLENDERWALL panels (27,164 sq. ft.)



are designed with a factory-applied Endicott brick facing, keeping in continuity with the campus and the original 1970's exterior. Johns Hopkins also chose to include factory-applied closed-cell foam insulation and the proprietary H2Out advanced sealant system with leak detection. The addition of these options will provide not only savings in time and onsite trades, but insurance against future air and water infiltrations, as well as continuous insulation adding significantly to the enclosure's thermal performance.

The project will be certified under Baltimore City's Green Stars program, at the level equivalent to LEED Silver. This is the first healthcare project to seek certification under this program.

In March 2013, SMC began delivery to the contractor, Whiting-Turner. Completion of the cladding portion of the project concluded in June. The short schedule showcased the benefits of SLENDERWALL in reduced times and costs for production, shipping and installation, as well as decreasing the need for some onsite trades.

■ The Alexander

The Alexander is a multi-level luxury apartment building in Edgewater, New Jersey, stretching the banks of the Hudson River with all the palatial splendor of a royal chateau. Built of SlenderWall's durable, lightweight wall paneling system, the Alexander looks over the Manhattan skyline with the grandeur of a new-world Versailles. This vast residence boasts not only six different floorplans but luxury amenities like a 24-hour doorman, screening room, and fancy design details from Italian marble floors to stained glass ceilings. Absolute opulence with views and Manhattan and to think it was built amidst unprecedented scarcity.

The Alexander was constructed in 2010 during the height of the Great Recession. After the country's economic disaster,



housing costs were falling and homes were hard to come by leaving so many people and families searching for a new ground to plant roots. Thanks to the combined durability and cost-effective design of SlenderWall's lightweight wall panel system reduced installation time and expense by up to 50%, efficiency that had the power to pave the way for a new and sustainable era of accessible affluence. Without SlenderWall, this marvelous residence would have never been possible. The manual labor of alternative 'brick by brick' or traditional pre-cast weighs much more – 80 lbs per square foot to SlenderWall's 30 lbs is expensive and slow. This would have added building expenses and a calendar completely reliant on mercurial East Coast weather. Because of SlenderWall, this building came to life at the perfect time and was built quickly and efficiently.

The benefits of SlenderWall in home construction are immense. Buildings have lesser foundational requirements with Slenderwall, the frame construction absorbs movement and seismic shock, and wind- tested to 226 mph. The total cost of ownership (TCO) is lower because of superior durability and the design can be more nuanced at various design and build budgets because of its innovation. The Alexander is a true example of this. In a world that is trading onsite and manual for centralized, modular and automated, Smith Midland is leading the industry with SlenderWall and has been for 25 years.

■ Department of Defense (Easi-set)

12-Building order via GSA Contract

Smith-Midland Corp. recently delivered twelve 12' x 20' x 8' Easi-Set Buildings to the Department of Defense (DOD). "After initially pricing the buildings with delivery to Blossom Point, MD, the DOD changed the location to Crane, IN. The job went to bid and SMC was awarded the order worth over \$300,000 (12 buildings outfitted, delivered, and set)", said George Sharikas, Sales Manager at SMC.

Six of the Easi-Set Buildings will be used as office space, four for shop space, and two providing hazmat storage. All buildings incorporate epoxy coating on the interior surfaces as well as HVAC systems. Most contained a standard electrical package, some had roll-up doors, while the hazmat buildings included explosion-proof electrical packages. The buildings were assembled and outfitted in Midland, VA and delivered by truck in three shipments of four buildings each. The low-boy

trailers required flag cars for the 650-mile journey. Harold Cross, a senior SMC truck driver made all three trips, oversaw the delivery, and assisted with the setting of all of the Easi-Set Buildings.

If not for SMC's GSA contract, this job could easily have gone to a competitor. If you are an Easi-Set/Easi-Span Building producer and are not on GSA's Schedule 56, you should look at the benefits of doing so. If you have any questions about the GSA process, give us a call and we will be happy to assist you in getting started.

■ Virginia Route 29-Route 250 Interchange & Interstate 66

In early 2016, Civil Wall Solutions and Shirley Contracting chose Smith Midland to help complete a major Department of Transportation upgrade in the State of Virginia. The restoration of the interchange and widening of the Interstate were aimed at increasing the flow of traffic without affecting the nearby historic and residential areas.

Smith-Midland supplied 47,751 square feet (379 panels) of precast sound wall and retaining wall for this large scale Interchange improvement in Charlottesville, VA. Our sound wall combines the unmatched strength and durability of precast concrete with finishes designed to match the surrounding environment. A major benefit of our precast walls is SoftSound™ sound absorptive concrete that includes a dry stack stone form liner finish on the highway side, and a stamped dry stack stone finish on the residential side to meet historic Charlottesville's aesthetic requirements.

A superior sound absorptive technology, SoftSound is a proprietary material molded and compressed to meet the desired technical and aesthetic requirements. It combines highly specialized mineralized wood-chip aggregate using cement as a binder in a specific and exacting manufacturing process. Once installed, SoftSound surpasses other products for sound absorption, durability, strength, and moldability; a must when building around neighborhoods and highly frequented recreational areas.

For the Interstate widening, situated between Haymarket and Gainesville, VA, Smith-Midland incorporated 240,000 square feet (1,035 panels) of precast sound wall and 13,644 linear feet (637 total) of pre-stressed posts. Construction began in January of 2016 and scheduled for completion as soon as May, this project also features SoftSound sound-absorptive concrete finished with a simulated stone form liner. When complete, the wall will match the nearby historic Chapman's Mill.

■ Innovation for the Future

Smith-Midland's innovative spirit is evident in its product design and business model alike. With its Midland precast plant, Smith-Midland manufactures precast products for the region that fuel economic development; projects like the Alexander bring attainable luxury to architects and engineers who are designing the future. Since the advent of Smith-Midland's precast products, wherein they brought centralized design, build and distribution to a typically fragmented industry, the market has sought to catch up. Prefabrication and modular design, for example, are hot industry trends, because they just make sense. But given Smith-Midland's history of innovation, first mover status, and range of offerings tailored to specific markets, it's the future that has Midland buzzing with excitement for what's next.

