



Lake Sumter Crossing

The Villages, Florida

The town of The Villages, Florida, is a master-planned community built in an area where Florida's sandy and wet soil conditions appear too challenging for residential construction. One of the bigger issues in the development of this town was providing a route leading across a large waterway and into the heart of the community. Industry leaders Keystone Retaining Wall Systems LLC and Contech Engineered Solutions LLC teamed up to provide the perfect solution.

The Keystone Country Manor system provided an aesthetically beautiful and structurally sound veneer to a bridge structure built from the Contech SUPER-SPAN product.

Keystone Country Manor, with its hand-laid stone appearance, allowed town developers, The Villages of Lake Sumter, Inc., to build on their vision of quaint, historic-Americana charm for this planned-community site.

Development and expansion on The Villages' 25,000 acre site called for two bridge structures to support a heavily-traveled county highway. As part of the original bridge design, a precast



Project:	<i>Lake Sumter Crossing</i>
Location:	<i>The Villages, Florida</i>
Keystone Product:	<i>Keystone Country Manor® Contech SUPER-SPAN™</i>
Licensed Manufacturer:	<i>The Keystone Group Marietta, Georgia</i>
Total Wall Area:	<i>40,000 square feet</i>
Developer:	<i>The Villages of Lake Sumter, Inc.</i>
General Contractor:	<i>Steve Counts, Inc. Bellevue, Florida</i>
Headwall Contractor:	<i>Assoc. Construction Prod. Inc. Tampa, Florida</i>
Engineers:	<i>Farner Barley Lady Lake, Florida</i>
Landscape Architect:	<i>Jim Holden Ocala, Florida</i>



CASE STUDY



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Keystone Country Manor walls offer practical structural solutions to challenging soil retention issues with the beauty, charm, and feel of natural stone – but with the ultimate in strength, stability, and performance of concrete. And because the Keystone Country Manor units are textured on three sides, they offer the ultimate in design flexibility. Freestanding walls and parapets, curves, corners, columns, serpentine configurations, stairs, tiers, and more can be readily incorporated into any design when using this wall system. In the case of this Florida bridge project, Keystone Country Manor teamed with Contech SUPER-SPAN to provide an effective and attractive alternative to the originally-planned precast system.

For more information on Keystone Retaining Wall products and services, please visit www.keystonewalls.com or call (800) 747-8971.

structure was selected for installation on deep piles due to the very poor foundation soils. Instead, Contech Construction Products proposed a ten-barrel, horizontal-ellipse SUPER-SPAN system requiring only minimal subgrade remediation. Keystone Country Manor segmental retaining wall system headwalls then surrounded the Contech bridge structure. The Keystone Country Manor walls added the aesthetic appeal that was desired for this upscale planned-community, and their versatility offered the design and installation freedom necessary to complete this complex and extensive structure.

“One of the major challenges in this project was to maintain uniformity,” said John Bethards of Associated Construction Products (ACP), Inc. *“Our crews had to install the wall in sections around each of the SUPER-SPAN structures. This meant the installation would begin with one or two courses on one side of the bridge between two SUPER-SPAN ellipses. Those courses were backfilled and compacted. The installation crews would then transition to the other side of the highway and lay one or two courses, backfill and compact, on a bridge section between two ellipses on that side. Building would again move back to the previous side and start with one or two courses between the next set of SUPER-SPAN ellipses, and so on.”*

The project utilized 40,000 square feet of the 5-piece Keystone Country Manor System in the Colonial Blend – over 100 truckloads of units, which were produced at Big Rock Building Products in Rockwood, TN. The final results were two long-span structures, supporting eastbound and westbound traffic, which were reminiscent of classic, early-American, hand-masoned stone arch bridges. This structure provided all the structural integrity and performance of today’s segmental retaining wall technology.

