



Retaining Excellence™

Lowe's

Coralville, Iowa

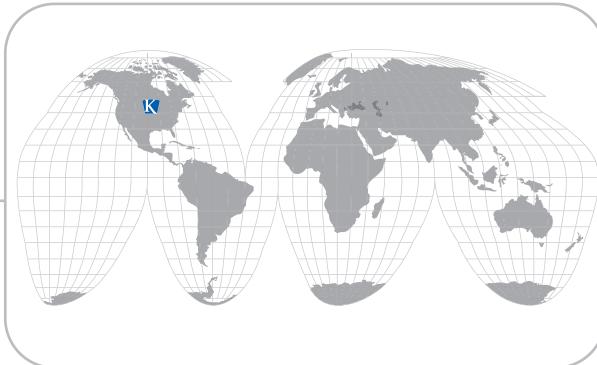
When municipal planners strictly dictate building methods, you've got just two options: adapt to those building requirements or lose the job to someone who will.

In the case of a Lowe's-centered development in Coralville, Iowa, the city had some very specific aesthetic requirements for the look of any retaining walls on the property. As it had with other projects around town, Coralville mandated the use of Anamosa Limestone for the finished faces of all walls.

Although a beautiful buff color, the limestone, quarried in nearby Stone City, Iowa, was not the most effective soil retention material. In order to accomplish the goal of maximizing the available space for a parking lot, project planners decided to use a Keystone retaining wall as the brawn in this wall system while using the limestone as a veneer.

"After the city required that we use the Anamosa Limestone, a Keystone wall was selected as the main wall structure," said Curt Richey of wall installation contractor, Culvers Landscape.

Construction began with the creation of a crushed stone leveling pad that was 38 inches wide to accommodate both the Keystone Compac straightface units and the limestone veneer blocks. The



Project: Lowe's

Location: Coralville, Iowa

Keystone Supplier: Best Block Wisconsin King's Materials

Keystone Product: Keystone Compac

Square Feet: 5,110 sq. ft.

Wall Contractor: Culvers Landscape Curt Richey

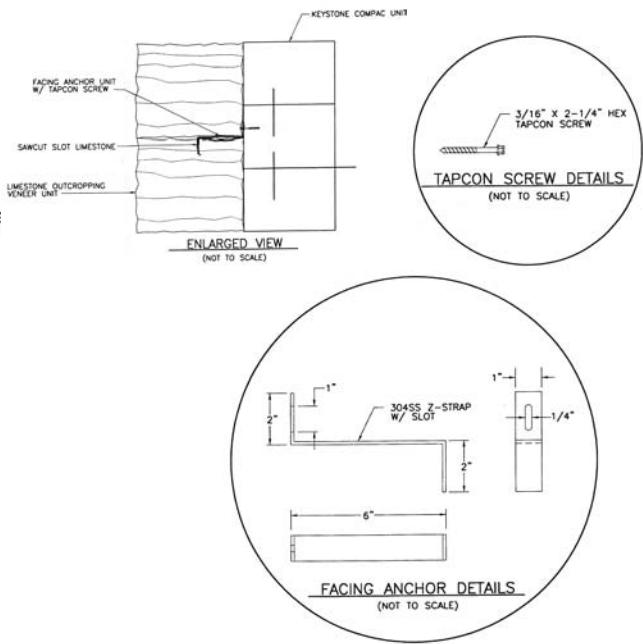
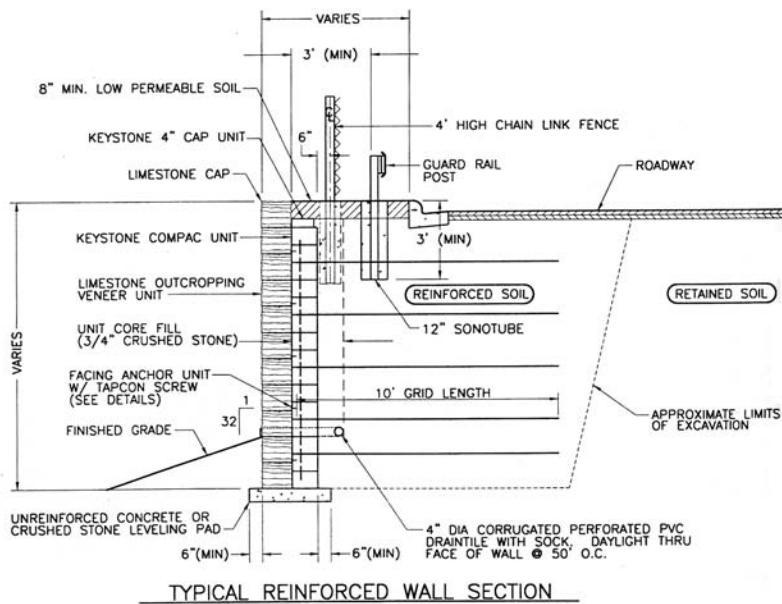
Engineer: Civil Solutions Group Michael Johnson, P.E.



approximate dimensions of the limestone blocks were 12 inches high, by 30 to 36 inches wide, by 14 inches deep. The Keystone Compac wall was assembled in a near-vertical configuration to a maximum height of approximately 10 feet along the 465-foot length of the structure. Behind the Keystone wall, a four-inch perforated PVC drain-tile with sock was installed to assist with water flow through the crushed stone fill.

CASE STUDY





In order to flex, expand and contract as a cohesive system, the limestone veneer was dry stacked in front of the Keystone wall to which it was attached. The limestone veneer was attached to the Keystone Compac Straightface units with a Tapcon™ screw and a stainless steel, "z-shaped" strap system.

"I consulted with Gary Pribyl, Vice President of King's Material, for some ideas on an easier connection detail," said Richey.

"Collectively we came up the 'z-strap' idea which greatly improved the efficiency of the installation." To provide for the attachment of the strap system, the top of the limestone blocks were notched with a chop saw and the tab of the "z-straps" were inserted down into the blocks. These anchors were spaced two feet vertically and three feet horizontally along the entire course of the wall, allowing the Keystone Compac™ units and the Anamosa Limestone pieces to be structurally sound.

"Because the wall alignment was directly adjacent to a street and busy intersection, it was decided that the Keystone wall provided

the structurally sound option," said Michael Johnson, P.E., the senior design engineer for Civil Solutions Group, LLC.

"The veneer portion offered its own challenges due to the fact that we had no platform to work off of and the stones weighed 350 pounds each," said Richey. "With some creative uses of fall protection devices, we were able to complete the project on schedule."

Outside of Iowa City, the Lowe's development is directly across the road from the second largest mall in Iowa, so project planners were especially intent on controlling the aesthetics of the site.

For more information on Keystone Compac or other innovative Keystone products, please visit www.keystonewalls.com or call (800) 747-8971.



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