

ANOTHER SOLUTION FROM RECON! AESTHETICS YOU WANT. PERFORMANCE YOU NEED.

Project Facts

Name: Blair Quarry

Customer: Winn Bay Sand Limited Partnership

Location: Blair, WI

Size: 5040 Sq. Ft.

Contractor: Structures Hardscape Specialists, Inc.

Wall Engineer: Civil Solutions Group, LLC; Robert Race, P.E.

ReCon Block Supplier: Dalmaray Concrete Products, Inc.



The Challenge:

In May of 2011 Dalmaray Concrete Products of Janesville, WI learned that Winn Bay Sand needed a very tall retaining wall, and they needed it quick! The wall would support an elevated platform that needed to be built into the side of a sandstone cliff that would serve as an off-loading / tipping station for their mining trucks. The platform needed to be 36' in height, the face of the wall needed to be "near vertical", and the wall would be subjected to a 2000 pound per sq. ft. surcharge from the large mining trucks that would back up to the edge of the wall. In front of the vertical wall would be a large elevated hopper into which the trucks would empty their sand and rock. The customer needed the ramp built quickly and affordably.

The Solution:

Dalmaray approached Structures Hardscape Specialists and Civil Solutions Group, both of Chaska, MN, and together this team proposed a solution using the ReCon Wall System. The proposal was presented to Winn Bay Sand within four days. The wall was designed using the ReCon 24" deep block from top to bottom, with the soil behind the wall being reinforced with Strata geogrids. The tongue and groove system built into the ReCon Block was modified so that the batter in the wall would be 1 degree (as opposed to the standard 3.6 degrees). A 2' thick reinforced concrete slab was poured at the top of the wall and just in front of the tipping area. This slab was designed to distribute the load from the trucks across the slab, especially the horizontal force exerted when the trucks brake at the edge of the wall.

The Result:

Dalmaray Concrete Products of Janesville WI supplied the ReCon Block. Between block on hand and their ability to bring production on line quickly, the blocks were delivered within seven days of the receipt of the order. Structures Hardscape Specialists began construction as soon as the blocks arrived and completed construction within eight days of the first delivery of the block. The quick response allowed Winn Bay Sand to stay on schedule with the construction of the unloading station which was a critical deliverable.