Earth Retention
Design + Supply + Support

A No-Litigation Solution To A Failing Large Retaining Wall

Project:
Unstable SRW Retaining Wall at Carver High School

Location: Columbus, GA

General Contractor:
Balfour Beatty Construction

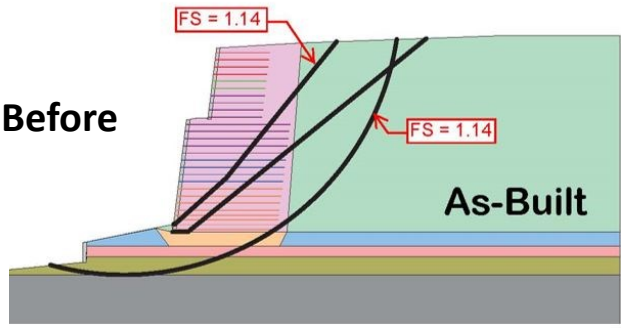
Retaining Walls Installer:
Reinforced Wall Systems

SRW Engineering Firm:
Earth Retention, LLC

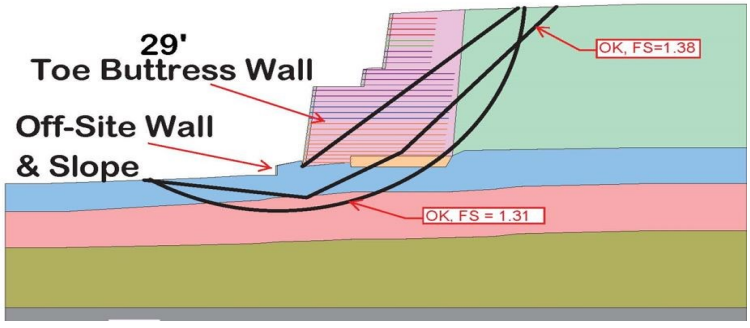
A two-tier 50 foot (15m) tall geosynthetic reinforced MSE wall was built to support athletic fields at the New Carver High School in Columbus, GA. Contract documents required the general contractor, through their qualified sub-contractors, to provide both the design and construction of this SRW block faced wall over its 750 foot (229m) length.

During construction, the top tier experienced significant block cracking in the radii, so the project team sought out a third-party review before the project was completed. Global and compound stability analyses identified structural deficiencies in a 50-feet section and were remediated using a toe-buttress wall and unique concrete panel/soil nail support in this very confined access site.

Earth Retention, LLC, based in Atlanta, GA, was selected to perform a full engineering review and geotechnical analysis of the project, and recommend a remediation plan.



After



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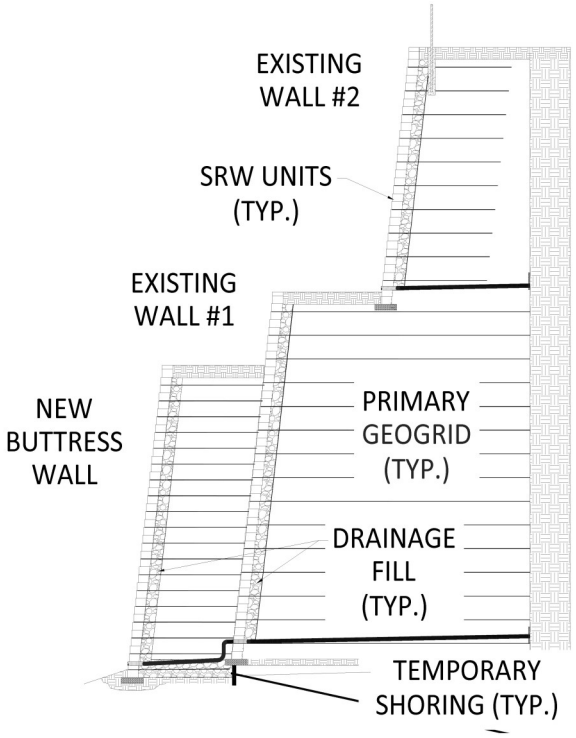
"Litigation: A machine which you go into as a pig and come out of as a sausage."

Ambrose Bierce

The 10-to-29-feet tall toe-buttress wall was constructed to improve the internal stability of the original lower tier MSEW. Site geometry and soil conditions required small height excavation support, consisting of discreet concrete panels stabilized by a single 54-kip capacity soil nail, be used beneath the existing original MSEW construction to ensure safe working conditions for construction of the toe-buttress wall.

While it took almost two years to resolve all the design, responsibility and funding issues relative to the stabilization work, this solution was successfully executed in approximately 60 days, and has performed well since that time, based on long-term survey monitoring.

This project illustrates how serious design deficiencies can be rectified between opposing parties with cooperation, honesty, and direct negotiation to arrive at an effective solution that satisfies the objectives of all the parties without costly litigation.



Start of the new buttress wall and temporary shoring

Nail Testing & Lock-off

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Earth Retention, LLC
231 Rope Mill Parkway, Woodstock, GA 30188
contact@ersdb.com • earthretention.com
(678) 903-3614