

Razorback Stadium Upgrade

Fayetteville, Arkansas

Keller's proven ability to consistently meet hard completion dates was instrumental in keeping the underground construction portion of the Razorbacks Stadium upgrade on track.



The project

Upgrading of the Donald W. Reynolds Razorback Stadium, home of the University of Arkansas football team, involved the expansion of the north end zone to accommodate new structures. The need to meet tight deadlines is common in construction and when it involves a prominent college sports facility, the urgency is underscored by fixed season-opening dates that, if not met, would result in significant loss of revenue.

The challenge

All completion activities were required to be completed by the beginning of the 2018 football season. This hard deadline required an accelerated construction schedule, including multiple trades working concurrently and a 24-hour work schedule. Site geology primarily consisted of firm to stiff clay above weathered shale. However, a significant portion of the material behind the existing north end zone wall, which was subsequently demolished ahead of the new construction, consisted of random backfill of unknown quality and composition. Portions of the foundations of the existing structure, which was to remain, were unknown until demolition and excavation had begun. This caused a redesign of the earth retention system in those locations to be done “real-time”.

The solution

Keller expanded on the initial general design concept provided in the project documents to develop a turnkey design/build earth retention system for the north end permanent earth support. Scope of work included a combination of soldier piles and shotcrete lagging and soil nailing in areas of lighter loading. With no soils to retain by conventional methods at the demolished wall section, Keller designed and incorporated a 30-ft high MSE rock fill wall constructed in 1.5-ft lifts. Keller’s ability to implement a turnkey design streamlined the earth support installation process, an important consideration on this fast-track project.

Project facts

Owner(s)

University of Arkansas

Keller business unit(s)

Keller

Main contractor(s)

Hunt Construction Group
CDI Contractors

Solutions

Support of excavation

Markets

Institutional
Sports and entertainment

Techniques

Soldier piles and lagging
Soil nailing

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