



SUBSURFACE CONSTRUCTORS, INC.

Full Service Geotechnical Contractors and Ground Improvement Specialists

Earth Retention



Pinnacle Casino Tunnel, St. Louis, MO – Earth Retention for Cut and Cover Tunnel

PROJECT DESCRIPTION

In order to install a pedestrian walkway that would connect downtown and the Edward Jones Dome to Laclede’s Landing and the Pinnacle Casino, a cut and cover tunnel was required to allow installation underneath the MLK bridge off ramp, Interstate 70, and 4th Street. Subsurface Constructors was contacted to provide a design-build solution. In order to limit schedule time on a project that could be very disruptive to heavy urban traffic, Subsurface designed a cantilevered system that would save tie back installation time and better facilitate a faster installation.

The tunnel length is approximately 440 feet and the excavation depth has a maximum depth of 30 feet. The plans call for 225 cantilevered soldier beams, some of which required splicing over the drilled shaft due to Interstate 70 overhead. Additionally, Subsurface installed drilled shafts to support temporary bridges upon which traffic will flow while the system is excavated and lagged to subgrade. Subsurface will install an electronic monitoring system to track the performance of the shoring system.

PROJECT TEAM

Owner:	Pinnacle Casino	Geotechnical Engineer:	Geotechnology, Inc.
Earth Retention Design/Builder:	Subsurface Constructors, Inc.	General Contractor:	McCarthy Building Company