



# Helical Piles & Tiebacks Provide Temporary Shoring To Stabilize Adjacent Road During Foundation Construction

Aurora, Colorado



A new multi-housing unit was planned on this site. The plans called for the new foundation excavation adjacent to a public street. The engineer called for temporary shoring to stabilize the soil cut, and to support the road during construction. This project required installation of two different helical screw pile products. The Torque Anchor™ installations and shoring construction had to be accomplished in stages to prevent loss of soil support from beneath the road.

ECP Model TAF-288 Tubular Torque Anchors™ were installed first as vertical piles with spacing of ten feet on center along the edge of the proposed excavation. The piles were used to support Vulcraft CSV Steel Decking. As

construction progressed, two rows of Model TAF-150 ECP Square Bar Tiebacks were installed with center to center spacing of ten feet. This spacing coincided with the tubular piles. Horizontal support for the steel decking was accomplished by installing C12x30 steel channel beams as a waler system for the two rows of tieback anchors.

Project Summary	
Project:	Temporary Excavation Shoring, Aurora, Colorado
Engineer:	CTL Thompson, Inc., Denver, Colorado
Installing Contractor:	Park Range Construction, Inc. ( <a href="http://www.parkrangeconstruction.com">www.parkrangeconstruction.com</a> ) 2755 South Raritan Street, Englewood, Colorado
Products Installed:	TAF-288 Torque Anchor™ Piles – 2-7/8" Dia. Tube TAF-150 Torque Anchor™ Tiebacks – 1-1/2" Sq. Bar
Number of Placements:	10 Piles & 22 Helical Tieback Anchors
Average Embedment:	15 ft
Ultimate Capacity:	30,000 lb
Average Working Load:	15,000 lb
Factor of Safety:	3.7 : 1 Ultimate To Working Load

**Photographs:**

- Top left: Site and finished shoring.
- Upper Right: Tieback installation using skid steer machine.
- Right: Close up view of shoring construction.



ECP Torque Anchors™  
**Earth Contact Products, LLC.**  
*"Designed and Engineered to Perform"*