



Excavations

Reference Details:

Owner City of Reno, Nevada +++ **General Contractor** Granite Construction +++ **Design Team Leader** Parsons +++ **Project Management** Jacobs Engineering Group +++ **Sub Contractor (Shoring Contractor)** Schnabel Foundation Co.



Reno ReTRAC

The Reno ReTRAC (Reno Transportation Rail Access Corridor), involved separating train and vehicular traffic in downtown Reno by constructing a 33-foot deep trench that will take train traffic below ground, eliminating car, truck, bus and pedestrian delays at 11 at-grade rail crossings along the 2.1-mile route. Without this, vehicle delays were expected to more than double from 188 hours to 473 hours per day. Once complete, vehicle emissions will be reduced as a result of decreased automobile idling, and potential for accidents will decrease by separating trains from automobiles and pedestrians. This Reno corridor, budgeted at \$282,000,000, is part of a primary East-West Union Pacific rail line which will provide smooth flowing passage directly through the center of downtown Reno of an anticipated 34 trains each day on two mainline tracks at speeds up to 60 miles per hour.

A prominent part of this project was retention of the trench walls which utilized temporary soil nails to support the excavation until the permanent walls were in place. Due to the unstable soils which were present throughout the project area, casing of the drilled shafts for the soil nails would have been required in order to install typical solid bar soil nails. Use of DSI-LANG's DYWI[®] Drill System,

which simultaneously drills the soil nail steel into the earth and fills the created cavity with cement grout, eliminated the need for casing and helped the Shoring Contractor to construct a high quality, cost-effective solution that played a large role in maintaining the project schedule.

Due to the prodigious demands of this mammoth project DSI-LANG's global network was engaged to manufacture the DYWI[®] Drill System in Europe and also to handle the logistics of transporting the over 390 tons of material by truck, ocean freight and rail to the final destination in a timely manner.

In total, DSI-LANG supplied over 184,000 lf of R38 DYWI[®] Drill material which has been fully and successfully installed, completing the excavation at the satisfaction of the owner. The remaining portion of the construction is scheduled for November 2005.