



Geopier SRT® Stops in Progress Slide

San Ramon, California

Geopier SRT™ installed to remove threat to major thoroughfare

Description: The landscaped slopes on either side of the right-of-way of Crow Canyon Road, a major thoroughfare in San Ramon, California, consist of expansive clay and are subject to creep and shallow slides. Sidewalks and thoroughfare pavement located at the toe of these slopes are threatened with the accumulation of mud and debris during high rainfall winter events. A shallow slide measured about 200 feet wide and extended about 50 feet uphill occurred after a severe winter rainstorm. Typically, the slide area would be covered with sheet plastic and wait until the summer months to be repaired using the “remove and replace earthwork method”. The cost of a repair of this magnitude including excavation, recompaction, and subdrainage installation typically is estimated to be \$300,000.

Geopier Solution: The slide was fixed in-place using the Geopier SRT® method costing less than \$60,000. The repair included 300 sixfoot-long Plate Piles™ in an area about 10,000 square feet in size installed in 4foot by 10foot staggered arrays. The Plate Piles were installed by a two-man crew using a 50C John Deere Mini-Excavator equipped with a Stanley 1,000 pound hydraulic hammer. The hammer was adapted with a driving shoe that fits over the top of the angle steel. The Plate Piles weigh 47 pounds each, light enough for laborers to carry up hill from the curb to the site. The excavator moved onto the slide mass and the work



began while the slide was still moving. The excavator pushed the Plate Piles through the soft clay slide mass and then drove them the final four feet to a depth of 7.5 feet below the slope surface. The installation was completed in four days with minimal disruption to slope vegetation and auto traffic.

PROJECT HIGHLIGHTS

Project:

Crow Canyon Road Slide

System:

Geopier SRT

Installation:

300 Plate Piles