



## Via Estoril Slope Restoration Laguna Niguel, CA

On March 19, 1998 the country watched on national news, as 500,000 cubic yards of earth, trees and homes in Laguna Niguel, California slid down a hillside and damaged the apartment buildings below. Nearly a year later on April 3, 1999, we began the repair to the hillside which would take eleven months to stabilize. When completed, the hillside will be revegetated and returned to open space.

Our stabilization of this hillside wall required us to drill 363 cased holes up to 210 feet in length and install 600,000 feet of high strength strand tendon. These tendons, anchored behind the slopes failure plane are tensioned against 700 cubic yards of cast-in-place concrete wales and 750 cubic yards of two foot thick shotcrete anchor blocks to stabilize this slope. In addition, we built a 60-foot deep temporary soil nail wall, and excavated 335,000 cubic yard of soil and rock.

Owner: Niguel Summit Community Association  
 General Contractor: Schnabel Foundation Company  
 Walnut Creek, CA

<http://www.schnabel.com>