



The finished retaining wall supports the access road above and faces the exposed slope of soil and rock that resulted from the new home's construction. The concrete paver driveway provides the perfect aesthetic complement.

#### LOCATION

Private Residence  
NEWBURY PARK, CALIFORNIA

#### PRODUCT

Anchorplex™ retaining wall system, incorporating Diamond Pro® wall units

#### MANUFACTURER

Sierra Building Products  
Fontana, California

#### BELGARD®

#### WALL DESIGNER

Daya Bettadapura  
ABI Engineering Consultants  
Irvine, California

#### WALL CONTRACTOR

Henri LaBorde  
Stabilized Retaining Systems, Inc.  
Castaic, California

#### WALL AREA

2,070 square feet

#### THE CHALLENGE

Excavation for a required fire access space between a slope and a newly built dream home in Newbury Park, California, brought about a near-vertical slope of exposed soil and rock. This slope caused the homeowners to look for solutions to stabilize the hillside cut, which also supports an access road. Given the geotechnical requirements, the area's high seismic accelerations and the scant space available for further excavation, a structural engineer recommended a complex and very expensive caisson-supported cantilever retaining structure. However, the savvy homeowners challenged their contractor to look for more economical alternatives.

#### THE SOLUTION

Determined research led to the Anchorplex™ retaining wall system, which met the structural needs for the seismically active area and required little excavation. The homeowners worked with contractor Henri LaBorde of Stabilized Retaining Systems, Inc. and Daya Bettadapura, P.E., ABI Engineering Consultants, on the design and construction plan.

A key consideration in using the Anchorplex™ wall system was the minimal amount of excavation required. The work to stabilize the hillside cut had to be done within the limits of the homeowner's property, which is mostly only 5 feet between the hillside cut and the completed home. The tight area provided little room for equipment or space to stockpile the excavated soil.



Construction is under way using the Anchorplex™ retaining wall system which significantly reduces the excavation commonly associated with segmental wall systems.



The Anchorplex™ retaining wall system uses segmental retaining wall units, which are backed with a zone of structural backfill.

The Anchorplex™ system is a retaining wall built with Anchor™ products reinforced with structural backfill placed immediately behind the block. This system eliminates the need for the construction of a mechanically stabilized earth zone behind the wall face and requires less excavation and compaction than is usually necessary in a geogrid-reinforced retaining wall.

One benefit of using the Anchorplex™ wall system was the significant amount of money it saved the homeowner. "The original plan for the caisson-supported system would have cost more than \$200,000," said the homeowner. "I'd estimate we saved nearly \$90,000 by using the system."

### THE RESULT

This project is a perfect example of how the Anchorplex™ retaining wall system can be used to build a retaining wall in a tight space. The construction of the 2,070-square-foot wall went quickly and smoothly and was completed in three weeks.

"The contractor was a gem to work with," homeowner said. "He really researched the project, worked with the the engineer and listened to our needs. The wall is a lovely complement to our new home and landscaping. And, even after very heavy rains here this year, the wall looks great."

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