



Avalon Jamboree Village

Irvine, California

The Geopier GP3® system was chosen for this unique “wrap” style parking garage and apartment complex.

Description: This project featured a “wrap” style structure, with apartments surrounding a parking garage. Construction of the compound was challenging because multiple bridges connected one structure to the other, and the settlement tolerances of each building needed to be carefully considered. The design specification allowed for no greater than ½ inch differential between the parking structure and the apartments. Adding to the complexity, the parking garage was practically built to completion before the apartment buildings were even begun.

Subsurface Conditions: The site was underlain by 20 to 25 feet of soft to medium stiff lean clays with groundwater encountered at 8 to 10 feet of depth. This was underlain by stiff clays and dense sands to a depth of 50 feet.

Geopier Solution: Surcharging and piles were considered as viable foundation options, but the Geopier GP3® system was selected for ground improvement due to constructability and technical settlement requirements. In order to meet these requirements, GP3 increased the time rate of settlement for the foundations of both structures. A survey program verified that differential settlement tolerances were within specifications before bridge-building commenced.



PROJECT TEAM

Owner:

Avalon Bay Communities

Geotechnical Engineer:

Geotechnical Professionals, Inc.

Structural Engineer:

VCA Engineers and Seneca Structural

General Contractor:

Avalon Bay Communities

Geopier Installer:

Foundation Service Corp.

Geopier Designer:

Western Ground Improvement