

# CASE STUDY



**RAM JACK**

## Chula Vista Apartments Saved From Dangerous Settlement



### INSTALLATION OVERVIEW

Get more info on the ins-and-outs of Ram Jack products used.

### ENGINEER RESOURCES

Find the back page of this case study for more information on engineer resources.

# 123

RAM JACK  
HELICAL PILES  
INSTALLED!

**RAM JACK PACIFIC**

[www.ramjackpacific.com](http://www.ramjackpacific.com) | 619-726-0052

El Cajon, CA



## Chula Vista Apartments Saved From Dangerous Settlement

Chula Vista, California

Ram Jack Pacific was called to Villa Granada Apartments in Chula Vista, California. This spacious, double-story, garden apartment complex comprises twelve (12) two-story buildings that were developed and built in the early 1970s. All structures were designed with decks above the entry points, with a walkable corridor.

### PROBLEM

Regrettably, the original contractor failed to install a 24 in. by 24 in. by 26 in. deep footing as the plan had specified and instead used a thickened edge for the concrete walkway. The combination of poor soil conditions, insufficient footings, excess watering, and poor drainage resulted in the supporting columns settling at 123 different locations throughout the complex over the past few decades. This settlement caused various cracks and trip hazards throughout tenant walkways. This pressing issue called for immediate rectification.

### PROPOSED SOLUTION

Ram Jack first met the team from Degenkolb Engineers at an event several years before. They reached out to Ram Jack for the project, introduced them to the owner, who then immediately determined that they had made the right choice. During Ram Jack's first onsite-meet with Degenkolb and Pacific Coast Land Consulting, they excavated several preliminary locations to analyze the type of footing they were dealing with. The team swiftly realized that there was more of a thickened edge than actual footing. They quickly

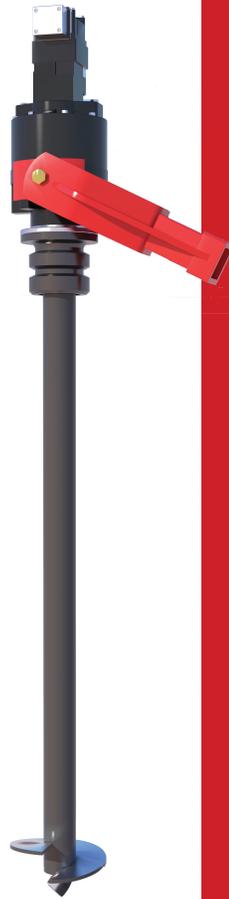
realized the need for helical piles and a new construction cap, a minimally-invasive technique that would allow them to reach load-bearing soil. This would need to be tied to the columns to combat time-induced sinking, heaving, and rolling. During the planning phase, Ram Jack determined the need to shore the columns while working. This was important to prevent additional settlement and preserve tenant safety. Seeing as the landscape was already flawlessly manicured, they could use small, lightweight excavators for the footings and installation of the Ram Jack helical piles.

### OUTCOME

Parking restrictions meant work couldn't be done on all buildings simultaneously, forcing the project to be split into four phases. During the final phase, it was noticed that the 8 in. sewer main was situated exactly where the piles needed to be, meaning the footing would need to be enlarged - among other various changes. Even with these delays, the tenacious Ram Jack crew finished two weeks ahead of schedule in this short 4-week project.

**Contact your local Ram Jack to speak with a project manager or in-house engineer today!**

**DON'T DO IT TWICE. DO IT RIGHT.™**



## INSTALLATION OVERVIEW

**Commerical Installation**  
Ram Jack Pacific

**Products Used**  
2<sup>7</sup>/<sub>8</sub> in. Helical Piles

**Product Type**  
Remedial - Helical

**Typical Applications**  
Ram Jack's 2<sup>7</sup>/<sub>8</sub> in. diameter driven steel pilings are slip jointed allowing for a smooth and homogeneous pile.

**RAM JACK PACIFIC**

[www.ramjackpacific.com](http://www.ramjackpacific.com)

619-726-0052

El Cajon, California



# Custom Engineered Solutions Rooted in Quality.



CCMC RECOGNIZED

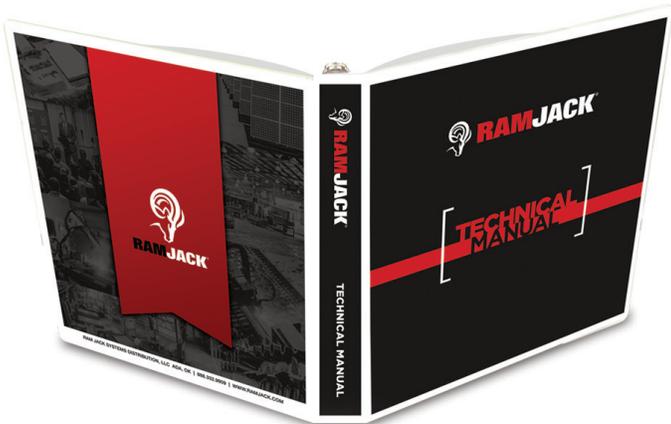
ISO  
9001:2015  
CERTIFIED



ICC-ES RECOGNIZED

At Ram Jack®, we are focused on providing custom-engineered solutions that meet the unique needs of our commercial clients. You can move forward with confidence knowing we maintain code compliance, providing piles and brackets that reach the highest rating among competitors' products recognized by ESR-1854. Our company has the most products recognized by the ICC and boast an ISO 9001:2015 certified manufacturing facility.

We have the facility to design and fabricate custom products—we are the one-stop solution for engineers and even offer our own in-house engineers for assistance with your project. If you need assistance with foundation designs, we also provide engineer tools and resources and our engineers can work with the project's EOR to develop a custom-designed solution.



## Everything an Engineer Needs

The Ram Jack Technical Manual provides engineers with the information that you will need to understand, design, and specify Ram Jack's helical and driven piles. It also provides information verifying compliance with current building codes and ICC-approved acceptance criteria.

Everything an engineer could ever want and need to know about Ram Jack Helicals and Driven Piles in one book. If you or your firm would be interested in a Ram Jack Technical Manual, please contact your local Ram Jack dealer by emailing [info@ramjack.com](mailto:info@ramjack.com).



**DON'T DO IT TWICE.  
DO IT RIGHT.**

TM