



# Innovative Solution Saves 4-6 Weeks

How We Conquered a Site Problem with  
Deep Soil Mixing

**PROJECT: The Hacienda at Mission San Luis Rey**

## OUR CLIENT

Oppidan Investment Company is a national property development firm headquartered in Minnesota. They've developed more than 566 projects valued at \$4.3 billion. Their full range of real estate services focuses on senior housing, industrial and mixed-use developments.



**If we couldn't find a solution to support the weight of our building, we wouldn't be able to build."**

Roger Bernstein  
VP of Construction, Oppidan

## THE CHALLENGE

When Oppidan was selected to develop a senior living community on eight acres of National Historic Landmark property, they knew it would be a challenge. But when the soils engineer identified liquefaction at the site, the project's future looked uncertain. A deep foundation was needed.

One option, hauling out thousands of yards of dirt and bringing in structural fill, would be a colossal earthmoving process. "It was a very big issue. We were concerned it would impact the schedule and budget," said Roger Bernstein, Oppidan's VP of Construction.

## THE SOLUTION

### Deep Soil Mixing: An Innovative Approach, Skillfully Coordinated

W.E. O'Neil analyzed options from a cost and time perspective, working closely with soils and structural engineers.

The solution was innovative: deep soil mixing piers. Concrete would be mixed with existing soil to form hundreds of bearing piers deep below ground. "It was a very efficient, effective way to install the deep foundation system," Roger said.

Next, W.E. O'Neil evaluated subcontractors and coordinated the installation of approximately 900 piers, 60-70 feet below ground.

It was a mammoth undertaking, but a critical one. Roger shared that "if we didn't hit bearing capacities, we would've had to go deeper with the soil mixing piles and it would've cost a lot more money."



## THE RESULTS

# A Stronger, Deep Foundation. Within Budget. Way Ahead of Schedule.

The deep soil mixing piles achieved the required depth and bearing capacity to support the building. And installation was completed in 4 months, well within

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projections. “I'm very happy with it. I think it provided an extremely strong base,” Roger said.

“They executed the foundation system very, very well. Which set them up to

start building the superstructure right on schedule. They weren't trying to make up time.” He added, “Right now, it's running 4 to 6 weeks ahead of schedule. I think that's largely due to upfront coordination.”

“W.E. O'Neil's pre-construction coordination with the consulting team was really phenomenal. And very thorough. And because of that it set the project up for success.”

Shannon Rusk, Oppidan Senior VP of Development, saw something unique in our innovative ideas for site stabilization. “Some other general contractors just bid what they see. W.E. O'Neil took it a step further and said, ‘We've built a lot of these projects. We understand this environment. We think we've got a better solution.’”

“W.E. O'Neil is a GREAT partner. They're engaged, they're timely, they never miss a meeting. You'd think they were Oppidan employees. They want this to be successful, just like we do. I feel like they're us at this point in the game.”

## NEED INNOVATIVE SOLUTIONS AND BETTER CONTROL OF YOUR TIME AND COSTS?

If you're ready for thoughtful leadership in the building experience, we're the right partners.

### CONTACT

Bill Hearne (858) 336-7424 [+Meet Bill here](#)

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Shannon Rusk  
Senior VP of Development, Oppidan