

Build your team for the big job

Learn how planning and team building provided efficient irrigation to the 8,000-home Ladera Ranch, CA, project

BY DON DALE

Landscape irrigation supervisor Phillip Heald learned one important thing from the Ladera Ranch project, a

huge California housing development that will span 12 years and put 30,000 people in 8,000 new homes: If you want to do the job right, work from a team concept from day one.

On any job, there is as much a chance the project will produce chaos as there is it will produce cohesion, but on large developments like Ladera Ranch that feature many disparate elements, the chance for chaos is much stronger.

"We tried to find where all the hidden snags were," says Heald of Rancho Mission Viejo, the company building Ladera Ranch in southern Orange County. Thus, a project that didn't begin construction until 1998 began building a consulting team in 1994.

A gigantic project

To give an idea of the Ladera Ranch project's scope, the first phase includes a school, community center, 22-acre sports park, water quality management basin and walking trails. That's in addition to the homes.

Because the project was huge, the team began by producing a master plan guideline, an operation manual and management specs.



Irrigation consultant Steve Hohl programs one of over 300 Rainmaster Evolution controllers being installed for the Ladera Ranch project.

Having those guidelines made early preparations easier. For example, because the heavy clay soil on the 8,100-acre property was going to be difficult on landscape plants, Heald began his consultations on soil materials. "We spent a lot of time early on grading logistics," Heald says. Before soil was ever moved, he had team members working on soil tests, developing plant palettes and customizing soil amendments and backfill mixes.

Heald and his team, which included an overall land and environmental planner, landscape design company, nursery, some of the four installation contractors and the landscape maintenance contractor, then determined the actual irrigation design and selection of components.

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This part of the Ladera Ranch site in Orange County shows some of the 591 miles of irrigation pipe that will eventually be used.



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Go team!

Steve Hohl, irrigation consultant and director of Water Concern Ltd., is also glad that Rancho Mission Viejo had a team-building concept for the new project. During the project, he was the irrigation director for a company called Land Concern that was designing the landscape. The first phase of Ladera Ranch was Oak Knoll, which had over 80 acres of landscaping.

"We started to break (the job) up into smaller pieces," Hohl says, noting that team members contributed ideas from their own areas of expertise.

One of the early decisions that had to be made was what type of irrigation controls to use. Hohl says the entire irrigation project hinged on how it was to be controlled.

"We determined that the whole community would be central-controlled, and that it would be operated by telephone, hard-wired," Hohl says. Radio controls were state-of-the-art, but the team decided that more reliable and cheaper land lines would be used to connect all valves.

The team also helped Hohl decide which control manufacturer to use. This was such an important decision that even employees of the eventual maintenance contractor, O'Connell Landscape Maintenance, were asked for input.

"The maintenance group usually comes in at the end, and it's a low-bid contract," Hohl says. But

he says their viewpoint is important at a project's beginning because they will be stuck with it after construction crews leave.

Tom Page, O'Connell's area manager and liaison with Rancho Mission Viejo, says that as a result of the decision to involve his company in the selection of central irrigation, the Ladera Ranch Homeowners' Association will be spared lots of money and headaches in the future.

"Our aim is to keep maintenance costs down," Page says.

Because of his company's early involvement, Page and his associates were also able to offer advice on the plant palette selection for Ladera Ranch. When shown soil test results, they determined which plants would and wouldn't be appropriate.

It was just as important to make Pacific Coast Nursery, the nursery growing for Ladera Ranch, an early team member. Advance scheduling was required to grow thousands of trees and shrubs.

"We try to stay about two years ahead of the nursery," Heald says of planning the plant material orders. His company considered soil important enough to demand control over the backfilled materials. They also wanted to research the matter thoroughly before deciding if the work should be done on a labor-only basis.

Decisions, decisions

Hohl ended up choosing the

Rainmaster Evolution system because it could program irrigation based on fixed amounts of recycled water, and divide that irrigation throughout the development for maximum efficiency.

"It turns on multiple valves on the same controller to optimize the flow of the whole site while maintaining safe hydraulic conditions on each water meter," Hohl says.

The system was also selected for its ability to conserve water. "Public perception of water management is growing," Hohl says. With that in mind, he knew sprinklers operating during a rain storm would not go over well. The system has alleviated some of his worries because it has its own weather station and makes it easy to customize irrigation settings.

Eye on the future

The first phase of Ladera Ranch, which will one day be an incorporated city, is nearly complete.

All involved with the project laud the team concept because it not only gave them more control over the development but allowed them to take charge of even minor obstacles.

One joint decision that proved valuable involved stringing 168 miles of electrical wire for the irrigation controllers. Since everyone involved had

seen projects that had break-in problems with controllers because of faulty wiring, they brought in one small irrigation contractor who made sure controller wire was properly strung and pulled through conduit.

Construction blueprints with future irrigation timing guidelines right on them eased future maintenance, too. O'Connell Landscape, which also maintains nearby Rancho Santa Margarita, likes this type of cooperative vision. It makes everyone's job easier for the lifetime of the development. And it will make life more pleasant for the people who live there, too. **LM**

— The author, based in Hollywood, CA, frequently writes for *Landscape Management*

THE LADERA PROJECT

TEAM MEMBERS

- ▶ Rancho Mission Viejo
- ▶ Land Concern
- ▶ O'Connell Landscape Maintenance
- ▶ Pacific Coast Nursery

PROJECT MATERIALS

- ▶ 591 miles of PVC pipe
- ▶ 1,600 miles of irrigation wire
- ▶ 175,000 irrigation heads