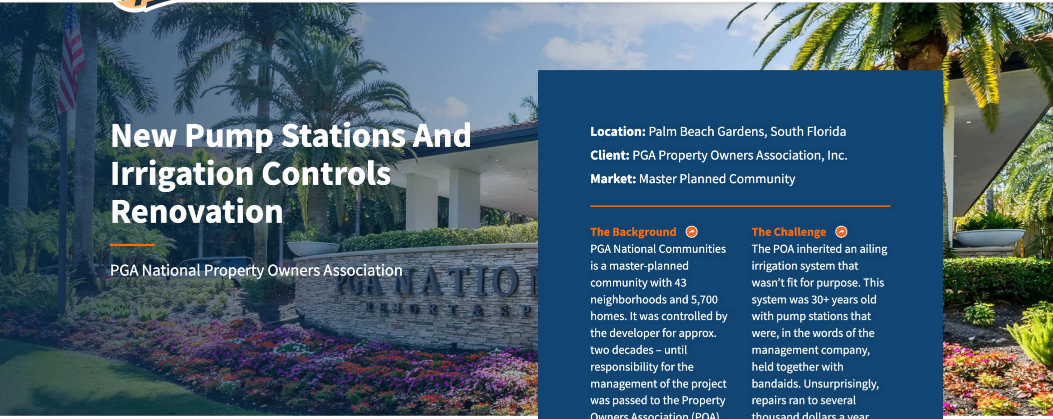


New Pump Stations And Irrigation Controls Renovation

PGA National Property Owners Association

PGA National is a 2,430 acre master-planned community in Palm Beach Gardens, South Florida. The community is split into 43 neighborhoods and has approximately 5,700 residential homes.

Poor Irrigation Infrastructure Inherited

From its inception in the early 1980s until the late 1990s, the community was controlled by the developer, who transferred ownership to the residents and a board of directors in 1998. The PGA Property Owners Association board of directors immediately hired Lang Management to maintain the community – including all the roadways and frontages, decorative landscaping and public greenspaces.

Unfortunately, the POA board had inherited a lot of problems.

PGA National was one of the first developments of its kind, and the developer didn't have the experience - or wherewithal - needed to install suitable irrigation infrastructure. They didn't invest in a proper maintenance program either, or upgrade their six pump stations when it became clear that the original system wasn't coping with the demands of the development's increasingly thirsty green spaces.

To put it simply, the POA and Lang Management found themselves saddled with an inadequate irrigation system that was prone to frequent failure – and incredibly expensive to maintain.

Location: Palm Beach Gardens, South Florida

Client: PGA Property Owners Association, Inc.

Market: Master Planned Community

The Background

PGA National Communities is a master-planned community with 43 neighborhoods and 5,700 homes. It was controlled by the developer for approx. two decades – until responsibility for the management of the project was passed to the Property Owners Association (POA).

The Plan

A complete system overhaul, including the design and installation of 6 new pump stations, an extensive cable-mapping exercise, and the installation of two-wire cable, decoders and clocks across the 2,430 acre site.

The Results

A POA with confidence in their irrigation system, supported by their irrigation partner, Hoover.

The Challenge

The POA inherited an ailing irrigation system that wasn't fit for purpose. This system was 30+ years old with pump stations that were, in the words of the management company, held together with bandaids. Unsurprisingly, repairs ran to several thousand dollars a year.

Putting the Plan into Action

To minimize disruption to the community and adjacent golf resort, we adopted a two-phase approach; working to replace the pump stations, and then embarking on the cable mapping and replacement work.

> ***There is no other company doing things the way Hoover does.***

Dawn Levinstein, Property Manager
Lang Management

The Challenge

Anyone who's struggled with a badly designed or poorly optimized irrigation system knows that it quickly takes over your life. For the POA, the constant outages, burst pipes, failing landscaping and frequent calls became a major source of frustration – and a significant overhead.

The team had personnel running out to do ad-hoc wet checks, scouring the field to track down electrical faults caused by ants chewing through valve wires, and fielding complaints from residents because a three inch main had burst in the night and flooded a roadway. It was a disaster. But it's worth noting that this isn't an uncommon situation. A great many of Florida's maintenance companies, HOAs and developers are stuck with problematic irrigation systems that seem to fall over in a stiff breeze – and rarely deliver on their promise to adequately nourish and support green spaces without depleting landscape budgets.

This is partly down to inadequate design experience; building irrigation systems that can withstand the peculiarities of Florida's climate, fauna and fluctuating weather conditions demands a depth of knowledge that's hard to obtain without serious dedication.

Designing For The Long Term

Designing for the future of a large master-planned community is challenging too. Until you've been through the process a few times, it's hard to appreciate the amount of forethought needed to get in front of unavoidable problems, and put structures in place to mitigate the impact of a mainline break or motor failure.

However, it'd be unfair to blame all the problems experienced at PGA National on poor design. The truth of the matter is that even the best irrigation system in the world will fail to deliver if it's not maintained properly. After more than two decades of inadequate funding and neglect, the pump stations and irrigation controls at PGA National simply couldn't keep up and desperately needed to be replaced. Unfortunately, the POA couldn't get sign off for a total replacement immediately, and had to rely on 'band-aid' fixes for another ten years.

Again, it's worth noting that this is a situation familiar to many Florida HOAs and management companies. The idea of tearing everything out and starting from scratch is overwhelming to the people responsible for the purse strings, but trying to build on a rotten foundation locks you into a 'break' and 'fix' cycle that inevitably leads to skyrocketing repair bills, overspent landscaping budgets and a lot of unnecessary stress.

> ***"I totally rely on Hoover. They're phenomenal. The project went as smoothly as it could possibly go. I thought the work would inevitably involve devastation but it was a very good experience."***
>
> Dawn Levinstein, Property Manager
> **Lang Management**

The Plan

HOOVER
flowguard

A Complete Irrigation Solution

When things finally reached breaking point at PGA National, the POA board and Lang Management started searching for an irrigation partner that could get things back on track. We'd worked with Lang Management on other projects in the past, and the team managing the PGA National community had heard promising things about Flowguard too.

A Provider That Would Stay The Course

After years of ad-hoc wet checks, unexpected failures and unpleasant surprises, the promise of a system with full remote monitoring and support seemed too good to pass up. They were determined to find a provider that would stick with the project – and provide ongoing support.

Understandable goals, all things considered.

We've always made it our business to support and nurture our clients – it's one of the reasons we've been so successful over the past four decades and we would have insisted on signing an ongoing maintenance agreement with a client installing six of our pump stations anyway, but it's always nice to work with people who already appreciate your mode of operation.

The POA and the Lang Management team also liked that we designed and manufactured all of our pump stations here in Florida.

Still, the POA was planning to make a substantial investment and wanted to be sure their money would be well spent. We invited them to come to our HQ, and gave them a tour of the manufacturing facility while talking them through our approach to large projects and explaining the philosophy underpinning the way we work.

This ameliorated any underlying concerns, and Hoover was commissioned for two long-term projects to:

- Design, manufacture and install six replacement pump stations, including all the work involved in removing the now-defunct pump stations struggling to support the community.
- Find, mark and replace the old wires with 55,000 ft. of new two-wire cabling and conduits, decoders and controllers across the 2,430 acre site.
- Provide ongoing maintenance and support for PGA National's irrigation maintenance provider.

> **“*I’m the most pessimistic person. I half-expected Hoover to come in all gangbusters, with the enthusiasm petering out after a few months. That never happened. They’re on top of it. I don’t know how they do it, honestly.*”**

Dawn Levinstein, Property Manager
Lang Management

Putting the Plan into Action

After completing the initial consultation and design phase, we embarked on a relatively gruelling program of work to remove and replace all six of the development’s pump stations.

With the trenching and installation work complete, we then provided an initial period of on-site training to personnel from Lang Management's irrigation team. We followed this with continuing, secondary training for the irrigation team who’d be taking responsibility for the new system.

This brought everyone up to speed on the new pump stations, ensured familiarity with Flowguard (our remote monitoring software) and set expectations for the ongoing maintenance and support.

With the new pump stations in situ, the second project got underway. This included replacing all of the controllers, and finding, marking and replacing the old irrigation wires with new two-wire cabling and replacing the decoders across the 2,430 acre site.

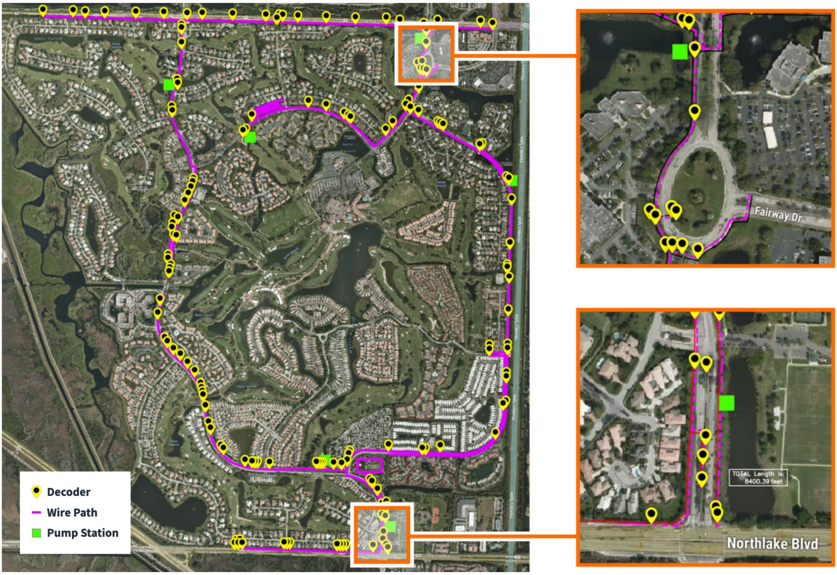
After several months, the Property Owners Association had six brand new pump stations, new controllers, irrigation wires and decoders throughout. Their irrigation system was now finally fit for purpose and capable of supporting the development for decades to come.

Complex Projects, Minimal Disruption

While working on both projects, we worked hard to minimize damage to both the landscape and roadways criss-crossing the community. We fought delays waiting for locates, and took great care to ensure that we were digging in the right places when installing the pump stations and the 55,000 ft of wire and conduit needed for the second project.

We also altered our schedules to minimize disruption during a global golf event that impacted the development for several weeks, and changed the way we worked to maintain progress throughout the rainy season.

PGA National: *Aerial map showing the locations of new pump stations, the wire paths and decoders*



The Results

With the design and installation of the new pump stations, and the second phase renovations successfully completed, we're now providing ongoing preventative maintenance and support to PGA National.

Since replacing the original pump stations with six Hoover pump stations and clocks and installing new two-wire cable across the development, maintenance and repair bills have plummeted and landscaping budgets are under significantly less pressure.

The POA and their management company, Lang Management, are far less stressed about irrigation system performance. Further to this, some of the independently-managed neighborhoods on the development are starting to switch to Hoover systems.

PGA National has confidence in the service they're getting and in the efficiency and durability of their irrigation system, and in the support they receive from Hoover.

From reliable pump stations to maintenance reports and ongoing support, Hoover is shielding PGA National and its property owners from expensive problems.

For a development as large and as complex as PGA National, that does mean constant monitoring, a willingness to answer questions and of course, our routine preventative maintenance site vists, and this is a service that we’re very happy to provide.

In fact, it’s a service that we insist on providing because we understand that our reputation in Florida is built on our ability to deliver outstanding results over the life of a project. Support is in Hoover's DNA – and a big part of what differentiates us from the competition.

Leadership in Energy Conservation Award

Manufacturer of the Year

LEED AP Experts on Staff

Certified Technicians