

Teeing Up a Wireless Schedule

It takes a strong scheduling application and a strong vision to ensure that a wide range of suppliers and partners are properly coordinated and resources aren't underutilized.

With projects ranging from golf courses, tennis courts, fitness centers, club houses, and villas, as well as single-family homes and townhomes, many would say Citrus Hills Investment Properties Inc., www.citrushills.com, Hernando, Florida, has an ideal mix of residential projects in its portfolio.

Building 350 homes in the past year, increasing steadily from the 120 it built just five years earlier, as well as owning and developing all of the land it builds on within the state of Florida, many would also say Citrus Hills has an ideal stream of growth.

Yet despite a strong portfolio and steady growth, Citrus Hills was struggling with the way in which it scheduled and managed projects. With differing scheduling methods used across the company and various partners and suppliers to coordinate, officials at the company knew finding a satisfactory solution to tackle this problem would be anything but an ideal process.

"We have 13 superintendents out in the field, where all (of them) schedule a little different," says Dale Sweigart Sr., project management and scheduling, Citrus Hills. What we were after was to get everybody to schedule the same, ease up on our subs a little bit, and try to help them manage their business and their resources. The resource leveling was one of the big things we were looking at."

While it was using Microsoft Project from Microsoft Corp., www.microsoft.com, Redmond, Wash., to track its projects and subcontractors, the application wasn't embraced with any uniformity throughout the company. One of the biggest issues, says Sweigart, was that only some people in the company actually used the application.

"Microsoft really didn't have what we were looking for. We needed something to be a master schedule that everybody could follow (and) would be (updated in) realtime," says Sweigart.

Alongside of getting everyone on the same page with a standardized scheduling package, the company also sought a solution that would provide a broad view of the company's entire portfolio of projects. This software tool would enable Citrus Hills to distribute work evenly among its subcontractors with even greater accuracy.

Overall, says Sweigart, it needed a solution that provided realtime information to keep all parties busy and profitable. In other words, Citrus Hills needed an ideal scheduling solution.

The Right Fit

Though it was a tall order, Citrus Hills set out to find the right scheduling solution for its needs—and one that would integrate well with its existing enterprise systems.

The search led the company to Builder Management Technology (BuilderMT), www.buildermt.com, Lakewood, Colorado, and its Wireless Scheduling application. The system provides users with the ability to record realtime updates to schedules through wireless devices, such as a personal digital assistant or a BlackBerry from Nextel Communications Inc., www.nextel.com, Reston, Virginia

"We went with BuilderMT because they did have Wireless Scheduling on the BlackBerries with Nextel. So my superintendents can walk into a house and check off any phases being completed and we have realtime information updating our master schedule at all times," explains Sweigart.

John Radi, vice president of business development for BuilderMT, believes the checklist functionality was a very attractive feature for Citrus Hills. He says, "Every builder works a little bit differently, so they can create user-definable checklists. Typically they can be built (by the builders) from scratch, (but) we can import from another file format if they have those available. What it allows the management to do is define a quality control mechanism to catch things as they walk a job looking for specific items on a checklist."

These checklist items are then defined by the user and then placed in a "checklist bucket" in the database. From there the user will proceed to assign each item to a template. Thus, every time a job is scheduled with a particular template, the checklist automatically gets attached to the schedule.

This is where integration to the backoffice enters the equation. Being fully integrated with Citrus Hills' accounting system from Timberline Software Corp., www.timberline.com, Beaverton, Oregon, the process of transferring this data from the field to the backoffice is as close to seamless as it gets.

When a supervisor marks an activity as completed in the field through a wireless device, that information flows from the BuilderMT database into the Timberline estimating database, in which purchase orders are automatically approved for payment. The database drops that information into the connected Timberline accounts payable, enabling a check to be easily generated.

The integrated information flow means superintendents can approve bills from the field via a BlackBerry and the information automatically populates into the accounting system at the home office. Sweigart says this makes the superintendents' job easier because they don't have to return to the office each time a task is completed or keep track of information that needs to be inputted at a later time.

"It's a big time saver. The vendors like it because they typically get paid quicker. The superintendents love it because they don't have to go matching up invoices with purchase orders and it eliminates a lot of that paper shuffle and makes it a (much) more efficient process," Radi says. "(Citrus Hills) really wanted to automate the system and reduce the paper (involved) in monitoring the project schedule; they wanted to shore up the effectiveness of updating the schedule."

Yet the benefits of this application have only begun. Armed with dedication, internal support, and a solid piece of technology, Citrus Hills is moving ahead and constantly accessing how this application can be expanded to further meet its needs.

Solving Problems

Citrus Hills is only at the inception of fully leveraging this technology. The software for the wireless application is installed and the company is beginning to build its master schedule. Sweigart says the application has just gone out into the field and the realtime information isn't yet in effect. But the impact of a master schedule is clearly in place.

The result of using a master schedule is what Sweigart calls "level resources," where work is evenly distributed across employees and subcontractors. This ensures subcontractors aren't getting more work than they are able to handle.

"What we are looking for is to be able to know where our subs are and not make a bad sub out of a good one. We hire a sub that can do so much work; we got to make sure we don't overload them and the only way we can do that is to track everything we put in the field. At this point I think I have 225 houses in the field under construction, so we have a lot out there," says Sweigart.

Another benefit to creating a master schedule is the ability to proactively plan ahead and allocate future work. Sweigart says, "We can project (our subcontractors') work for the next six months. It gives them a security factor so they will then say, okay I can hire a few people, (because) I know I have enough work going."

It is also a single source that any manager can access to view current progress on a job and the performance of subcontractors - helping Citrus Hills obtain a broad view across its projects. This can be key in the process of distributing its resources more effectively.

The true worth of the system is still evolving as the company continues to leverage its full functionality. With plans to add further applications from BuilderMT, such as vendor and subcontracting modules and warranty management applications, Citrus Hills is mapping out a plan for its information-technology infrastructure that is both integrated and intuitive.

When looking for a residential builder with leading-edge technology, Radi points to Citrus Hills as a prime example. Incorporating wireless technology to the scheduling process is just the latest step in the technology transformation the company has undergone in the past few years.

One of the reasons it has been so successful with this process, explains Sweigart, is due to the fact it has gone the extra mile to ensure the entire organization is on-board with new technology, from the field to the front office.

"We talked to everyone in the field, explained to them what we wanted to do, and got very positive results out of our subs, out of our superintendents," Sweigart says. "Everybody had a positive attitude on this because it is something that is going to help them quite a bit. Everybody's getting on board."

He adds the company's president, S. Michael Daries, was "very instrumental in letting us go along with this."

On the whole, the implementation of Wireless Scheduling will ultimately provide Citrus Hills with a uniform way of scheduling. This goes a long way in adding a layer of consistency and reliability to the way each superintendent conducts work in the field.

Until the full benefits of the technology are realized, the range of possibilities that stem from working with realtime information across the company is what has Citrus Hills most excited. Sweigart says, "I'm getting a lot of positive (responses) out of our superintendents. They are all waiting for (realtime information) to come; they already know it's going to make their jobs easier."

Article from August 2005, *Constructech* magazine