



# Mobile Makes the Machine

Rochester, N.Y. contractor taps innovative solution to streamline workflow



While not a big company – Frederico Construction & Development (FCD) currently runs with a staff of about 20 – they are a progressive one. A proponent of GPS and GNSS-based solutions such as machine control for more than 15 years, they cite those solutions as key to their success.

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## Company

Frederico Construction & Development  
Rochester, New York

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## Project

Technology/Arts/Design center at  
Rochester Institute of Technology (RIT)  
Rochester, New York

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## Topcon Products

MC Mobile, LN-150 3D laser

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## Topcon Dealer

Admar Positioning Solutions  
Rochester, New York

So, when work on a \$150 million student design center called the SHED at RIT was in place, FCD knew they could benefit from the use of GPS. However, the jobsite to which they were returning after a scheduled break was far different from the one they'd left two years prior. Two mostly completed four- and five-story buildings now made satellite signal acquisition a challenge.

"But our crews have also become very reliant upon GPS, and the technical detail of all the curb work, the sidewalks, the grading coming down the

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center of the structure, etc., almost demanded its use here," said Lee Frederico, FCD's co-owner. "Fortunately, a combination of seeing one of the trades working alongside us – who was using a Topcon LN-150 3D laser to lay out foundation anchor bolts with amazing precision – and a visit to World of Concrete, opened our eyes to a real solution to the impending GPS coverage issue."

Frederico views trade shows as the ideal opportunity to see advances in technology designed to improve a company's onsite performance and efficiency. He hit paydirt at Topcon's WOC booth where the company was spotlighting MC Mobile, its newest solution targeted for customers – like him – using compact equipment.

"We were actually given a heads up by the sales rep for Admar Positioning Solutions, our Topcon dealer, that we had to see MC Mobile at work," he said. "So, we did, and we were immediately impressed to see Topcon pairing that same LN-150 with an even smaller mini-excavator than the sizes we use. Since we already planned to add a total station for layout, we saw the ability to do that and get 3D machine control on our smaller machine as a huge step forward for us. We were pretty much sold on the spot."



Modular in design, the MC Mobile solution draws upon key elements of surveying and machine control technology to boost efficiencies, while, at the same time, reducing staffing needs and costly wait times. FCD's crew found the solution to be both easy to learn and to use. "What's impressive is the ease with which we can use our tablet mounted to the rover pole to perform layout and other survey-based functions," said Thad Anderson, FCD's superintendent. "Then, when we're ready to get into the excavator and use machine control, we just unhook it from the pole, attach it to the bracket in the machine, switch from Pocket 3D to the machine control software and we're up and running. It's seamless and very efficient – a perfect fit for us."

Frederico pulls no punches when citing the efficiency benefits as being key, particularly given the current impossibly challenging labor market – tighter than he's ever seen in his decades of work in construction.



"This is a situation we've never faced before," he said. "Though we don't have a lot of turnover, in times when we do need to add personnel, it's hard to find anyone who wants to work. So, I like to think that our use of MC Mobile, which maximizes the productivity of our crews, doesn't replace people, it solves the problem of having to find people. It's taken our 15- to 20-person company to a point where it feels like we are functioning with 30 or 40 people."



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A [full-length version](#) of this story is on the Topcon website.



Visit the [Topcon YouTube channel](#) to watch video on the MC Mobile solution featured in this TAW.

