CASE STUDY

Wolverine Engineers & Surveyors, Inc. Brings e-Construction Innovation to Michigan Municipalities

BACKGROUND

Wolverine Engineers & Surveyors, Inc. (Wolverine) has served local communities in the Michigan area for over 100 years with engineering services for infrastructure improvement projects. Their teams prepare bid documents, post solicitations, make award recommendations, and continue following projects through the construction lifecycle.

Fueled by a desire to embrace the future of digital project delivery, Project Engineer Joe White sought out cloud-based solutions that would allow for visual daily reports, remote online bidding, and paperless change order management.

SOLUTION

White and his team combine multiple Infotech software solutions to increase efficiency, transparency, and productivity. **Wolverine uses Appia® for construction administration, Bid Express® for e-bidding, Doc Express® for paperless contracting, and Mobile Inspector® for field inspections.**

RESULTS

| Detailed and streamlined reporting | Safe and secure online bidding | Increased field reporting productivity | Faster dispute resolution |

ANNUAL USE

Office Location: Michigan

5

Appia Team Size

Municipality improvements + maintenance

Project Type

Seeking out cloud-based, multi-faceted solutions

Wolverine started vetting software solutions that would replace its use of FieldManager™, with one primary goal in mind: find something that would better organize and enable photo documentation in the field. White and his team have made consistent efforts to introduce digital solutions to their field, beginning when they first moved on from spreadsheets years ago.

"There's potential for error in spreadsheets," White said. "If you're totaling pay items and you don't capture a certain line, errors can be introduced into pay estimates by using spreadsheets."

Moving from spreadsheets, then to a locally-installed program like FieldManager, and finally to a cloud-based solution in Appia was the natural process of Wolverine's evolution.

"Wolverine justified investment into Appia because of what it offered for construction administration. We saw value in it that I can't really put a dollar amount on but I see it as the way of the future for administering projects."

> "I found out about Appia, a cloud-based product that allows photos to be attached to the IDRs and then explored the Bid Express and Doc Express modules and got really excited because I can see that's eventually going to become how things are handled in the construction industry in our sector, with electronic bidding and electronic file storage."
>
> **JOE WHITE, PROJECT ENGINEER, WOLVERINE ENGINEERS & SURVEYORS, INC.**

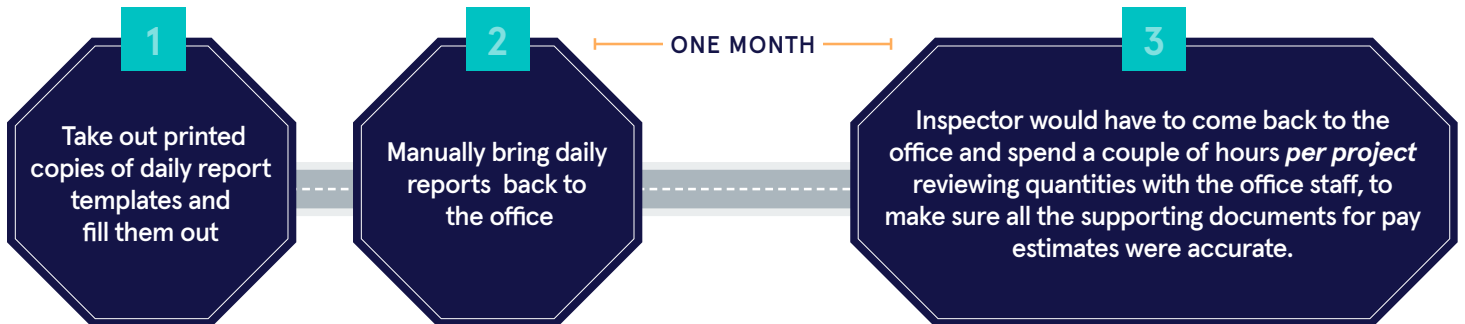# Remote bidding at the height of the pandemic

Before White and his team start tracking projects in Appia, they would assist with the bidding process in the municipalities they serve. Part of the appeal of moving to Appia was in how it works with another Infotech solution, Bid Express. Projects can be bid online and then the awarded bid information can be moved into Appia to set up a project. This functionality is useful - but the timely introduction of Bid Express was even more so.

"It was perfect timing," White added, "because I had a couple of projects that were getting ready for bid right when COVID hit. The entire country was shut down but the local agencies still wanted to move forward with bidding their projects... And so the first project I bid [on Bid Express] in April '20 was at the height of COVID. It worked out well. The more we use it, the more contractors are going to recognize the value of bidding electronically."

Mobile daily reporting in the field

As the Project Engineer for a number of projects in the Michigan area, White has a team of inspectors that help him gather regular updates on project progress. **Prior to the adoption of Mobile Inspector, his team would:**

1

Take out printed copies of daily report templates and fill them out

2

Manually bring daily reports back to the office

— ONE MONTH —

3

Inspector would have to come back to the office and spend a couple of hours *per project* reviewing quantities with the office staff, to make sure all the supporting documents for pay estimates were accurate.

Wolverine's team sought out a way to be more efficient with their field inspections by taking advantage of available mobile technology. Wolverine's inspectors use Mobile Inspector – the mobile counterpart to Appia – to capture data at the job site where there's no internet, and automatically sync it back to the daily report in Appia when they are back online. This process allows Wolverine's inspectors to save time on travel and office work, while also ensuring report accuracy. Mobile Inspector is also integrated into the Michigan Department of Transportation's FieldManager system, so additional training wasn't required.

White noted, "It's a big saver to have [the daily report populated] automatically just by posting to Mobile Inspector."

Managing change orders with electronic documentation

"The contractors that have learned to use it have had nothing but good things to say about it," remarked White.

Wolverine uses Bid Express to bid their projects, Appia to manage them, and Mobile Inspector for inspection. So where does Doc Express come into the picture? Change orders, of course!

Change orders often create ample documentation that require multiple signatures and can cause project delays. To simplify this process, White creates change orders based on the daily report information in Appia, saves it as a PDF, and sends it to Doc Express. From there, it's ready for contractors to sign and approve. The rollout of Doc Express has been gradual, as it depends on the specific contractor's comfort level with technology, but those that have used it, seem to love it.

Working with contractors to resolve issues

The Bid Express, Appia, Doc Express product suite gives everyone involved the ability to see what's happening on all sides of the project.

White grants read-only access in Appia to the contractors he works with, so they can double check that their quantities align with the inspector's daily report. Having read-only access increases transparency, trust, and helps along the pay estimate approval process. Some contractors check Appia weekly to ensure quantities are in a good spot. In one instance, a contractor relied on information from Appia because of its inherent accuracy.

"We had a contractor run into some contaminated groundwater and soil. He went back and reviewed the inspector's IDR, looked at the comments, and pieced together a change proposal for an extension of time because of the days associated with contaminated soil. He literally copied and pasted the comments from our IDRs into his supporting documentation."

Overcome the Challenges of Construction Administration and Inspection

Streamline your processes with a web-based, mobile-accessible service built on intuitive use and flexibility.

+ Cut down on errors and eliminate duplicate entry from spreadsheets

+ Capture real-time daily report data from mobile devices in the field

+ Grant read-only access to project stakeholders to increase transparency

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