

Product

Maxwell Systems® ProContractorMX®

Company

The PIPCO Companies

Peoria, IL

Industry

Peoria Industrial Piping Company (PIPICO) is a full-service construction contractor offering services in site excavation, plumbing, fire protection, HVAC, process piping, sheet metal, electrical, and more.

Challenges

The company was using manual takeoff and estimating methods by doing all the counting and scaling by hand. That required transferring numbers from one place to another multiple times and comparing plan versions by eye, which increased errors that could be costly.

Redundancy and the slow process also cost them time that could be better spent elsewhere. Adding to that, it was time-consuming for estimators to reach out to suppliers for quote requests due to handwritten material lists and outdated processes. PIPICO was also unable to be strategic and look back at past bids for insight when developing new bids.

Solution

After research of best technology to fit their needs, PIPICO uses Maxwell Systems ProContractorMX. The Takeoff and Estimating software tailored for Earthwork is a fast, accurate, and easy-to-use solution that lets them quickly and accurately generate cut and fill quantities, prepare estimates, handle invitations to bid, and produce professional proposals. The seamless workflow allows PIPICO to generate more bids in less time and with more accuracy.

Results

Using ProContractorMX, PIPICO increases accuracy and saves about 25% time during Earthwork takeoffs and estimating, as well as completes bids with a 50% time-savings compared to previous methods; plus, PIPICO can more efficiently manage subcontractor bids and supplier quotes during the process. ProContractorMX also stores their historical data and so accuracy on future bids can be improved, too.



Maxwell Systems Case Study

The PIPICO Companies

Starting out as a plumbing, heating, and piping contractor in 1958, Peoria Industrial Piping Company (PIPICO) is now a full-service construction contractor serving central Illinois. This \$20 million company with more than 50 employees specializes in the fields of site excavation, plumbing, fire protection, HVAC, process piping, sheet metal, electrical, inspection services, and design build services.

The PIPICO Companies have a specific division dedicated to Excavation and Site Utilities, which encompasses a wide variety of services in commercial, industrial, institutional, and municipal applications. With jobs ranging anywhere from \$50,000 to \$1 million, accurate and efficient estimating is extremely important to the success of the business.

Estimating by Hand...the Challenges

Until recently, the sole estimator in this division was developing estimates long hand with paper and pencil and then transferring them into Excel spreadsheets, which was a slow and redundant process with a high potential for human errors.

Kim Freitag, estimator for PIPICO's Excavation and Site Utilities division, explained the effort required with their previous methods: "Depending on the size of the job, it could take a couple days to two weeks to estimate a job. Our average job is about \$500,000 and each would take about four to five days to complete."

Freitag had to do all the counting and scaling by hand and every time the numbers had to be transferred from one place to another, there was an increased chance of mathematical errors or transposed numbers.

The redundancy made the entire process take much longer than necessary. Freitag explained, "I'd have my takeoff broken down by material pieces and then would have to total that up, transfer that total to a summary sheet, and then take that total and transfer it to the Excel spreadsheet on the computer. I was forever transferring data from one place to the next."

In addition to redundancy and the potential for errors, the manual process also didn't allow PIPICO to be strategic and look back at past bids for insight when developing new bids.

More 

Moving to Automated Estimates

Freitag decided it was time to move away from their cumbersome and error-prone processes and find a software solution to automate takeoff and estimating.

After conducting some research on estimating solutions for construction, PIPCO selected Maxwell Systems ProContractorMX®. PIPCO chose the Takeoff and Estimating system tailored for Earthwork, which is a fast, accurate, and easy-to-use software solution that allows contractors to quickly and accurately generate cut and fill quantities and seamlessly work with the estimating functionality for efficient bidding.

“There was no other program out there that would take earthwork and estimating and allow the users to go back and forth from one to the other,” explained Freitag. “ProContractorMX was the only one that would let me do that and eliminate transferring data between two programs.”

He continued to explain with the value of ProContractorMX being comprehensive and providing users with a seamless interface between the Earthwork, Estimating, Invitation to Bid, and Bids and Proposals. That workflow allows PIPCO to generate more bids in less time and with more accuracy.

Freitag described his typical takeoff and estimating process using ProContractorMX. The first step is to upload the digital plans or scan in paper blueprints as PDFs into the system. Once the plans are in the system, Freitag reviews them to determine if there are any areas that need to be grouped together or handled a particular way for the job.

Using a Maxwell System Estimating Touch Screen Monitor with interactive pen and the ProContractorMX digital takeoff capabilities, Freitag is able to easily determine a job's cut and fill quantities and calculate the equipment and labor costs. “The Touch Screen Monitor enables us to save time and increase accuracy of our Earthwork takeoffs and estimating quantities,” Freitag explained. “It is significantly better and about 25% faster than using a mouse, especially for an earthwork contractor that is tracing lots of contour lines. It's got the speed of using a digitizer with the convenience of the digital takeoff.”

Increased efficiency has also been realized specifically for PIPCO's civil jobs where ProContractorMX has helped ease the process of estimating these unique projects. “On the civil side, calculating unit prices requires a lot less effort compared to our old methods. Most of our projects have individual prices, which creates challenges when calculating in overhead, an item that is not directly involved with the job, or a certain little piece of material,” said Freitag. “With ProContractorMX, we can allocate different expenses and distribute those costs among the unit prices. It allows me to set up the estimate and then determine where I want to include markups, instead of doing it all long-hand and then moving the numbers around to reach the target total number for the bid.”

“With ProContractorMX, a \$500,000 bid, depending on the intricacy and unit prices, would have taken four or five days before, and now we can complete it in about two days – a 50% time-savings,” added Freitag. “Overall, I probably turnout 30% more bids than before because of the increased efficiency of the process with ProContractorMX.”

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Efficiently Managing Plan Changes

Manage Sheet Revisions is another feature in ProContractorMX that PIPCO utilizes. When addendums to plans come in, Freitag is able to go into that specific sheet and see if any of the changes affect what he estimated. Previously, he had to take each sheet, lay them side by side, and then go back and forth between the versions and compare them visually to identify the changes. If a pipe was moved over 50 feet, for example, or even four or five feet, it was often difficult to notice.

“The Manage Sheet Revisions capability makes it a lot faster. I can now bring up plans and changes in two different colors and see exactly what was changed and determine how it will affect what I’m estimating – saving me time and hassle,” explained Freitag.

Easing the Invitation to Bid Process

The ProContractorMX Invitation to Bid feature makes it easy for contractors to manage subcontractor bids and supplier quotes by efficiently handling bids and quotes and quickly applying details to appropriate estimate items. Freitag said, “It allows me to send quote requests out very easily because it generates the PDF and automatically generates the email. I don’t need to go in and attach a file to an email. All of our vendors are set up in ProContractorMX and in a couple clicks of the mouse; all the quote requests can be set up and sent to our suppliers or subcontractors.”

Before using ProContractorMX, the materials list from the takeoff was typically handwritten and would need to be typed into a preformatted Excel form. Then individual emails (or even faxes) would need to be created and sent to each supplier with a quote request attached. This task alone was extremely time-consuming for the estimator.

Preparing for Future Bids

By utilizing a takeoff and estimating software solution where historical data is stored, accuracy can be enhanced significantly. With details on specific crews and their productivity levels for performing certain tasks already stored in ProContractorMX, for example, it is much easier to estimate labor hours for future bids. Estimators know what that crew can achieve in one day or a certain timeframe. “I am able to easily plug in what our crews can do in a linear foot, cubic yard, day, however I decide to set it up and the answer is right there,” said Freitag.

“I also now have access to cost analyses for each project so that I can review how long a project or specific task took to accomplish and go back and tweak the ProContractorMX database for future jobs. This is a big benefit of the ProContractorMX solution,” he added.

Leveraging Training & Support

“The technology platform of ProContractorMX makes the solution very easy to use,” said Freitag. “For example, once the catalog is set up, it’s real easy to find the items needed, and easy to set up from scratch or use a template for similar job, resulting in a real

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time-savings.”

Freitag is an advocate for participating in the software training provided by Maxwell Systems whenever possible. He participated in a three-day classroom training session, which he found very beneficial to get started on ProContractorMX. “I then attended the Annual Conference and all of the classes. They were excellent. There was a lot of information shared and the opportunity to interact with other contractors and discuss how we use the program and share ideas was extremely valuable,” Freitag commented.

Furthermore, Freitag noted that the training and support available through Maxwell Systems is top notch and he finds the self-paced videos very valuable tools to learn new features or to even to brush up on certain aspects of the software. He uses the Support Center’s convenient online chat most frequently for any quick questions or issues he has regarding the software. He adds that the support team will either provide a solution immediately online, call back to discuss it further, or open a case to rectify the situation. “I’ve always received a good response from the customer support team at Maxwell Systems,” added Freitag.

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