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Bob Breedlove,
Brannon Corporation

Texas-based Engineering Firm Completes Tasks 90% Faster

After Brannon Corporation upgrades to Autodesk Civil 3D, its engineers are able to accelerate the pace of land development projects

Project Summary

Located in Tyler, Texas, the Brannon Corporation (Brannon) provides engineering and planning services to developers and public works agencies throughout Texas. As the leading engineering firm in Tyler, Brannon has thrived as Tyler has grown rapidly in recent years. The firm's land development department was so busy serving clients that it delayed upgrading its civil design tools for several years. Concerned about falling behind competitors technologically, the firm upgraded all its development projects to Autodesk Civil 3D.

Using Autodesk Civil 3D's dynamic modeling capabilities, Brannon is:

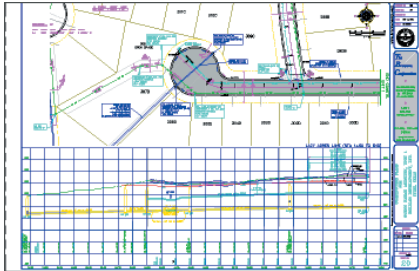
- Reducing the time it takes to complete land development projects by 25 percent
- Calculating material volumes 50 to 75 percent more quickly
- Making global changes to plans as much as 90 percent faster
- Helping clients make more informed planning decisions by producing more preliminary layouts

The Challenge

Avoiding a Steep Learning Curve

In 1999, the development group at Brannon began using AutoCAD 14 along with a civil engineering add-on. The solution worked well for the firm, which proved to be a tremendous advantage because land development was booming in the Tyler area. The firm was so busy that it chose not to implement several software upgrades, a practice which is not uncommon in firms without a dedicated IT department. As updates came and went, the firm became concerned about missing technological advances. Leaders at the firm were also worried about the delays that can accompany the adoption of new technology.

According to Bob Breedlove, a principal and vice president with Brannon, “Our concern about the learning curve was holding us back, but the longer we waited the steeper the curve got. We realized that Autodesk Civil 3D was going to be a huge step forward for the profession, and we decided to be at the forefront, not at the back of the pack.”



"Autodesk Civil 3D has completely changed the way we do dirt and volume calculations. Before we had to cut cross-sections within profiles to do calculations, now Civil 3D performs the calculations as a part of the modeling process. It takes 50 to 75 percent less time."

Rahman Kafray,
Brannon Corporation

The Solution

Taking a Quantum Leap

In November of 2004, Brannon began its transition from AutoCAD 14 to Autodesk Civil 3D. With the help of DC CADD, a Texas-based Autodesk reseller, Brannon set up its preferred templates and styles in Autodesk Civil 3D. After only three days of training, Brannon began work on a subdivision development project entirely in Autodesk Civil 3D. "Moving to Autodesk Civil 3D represented a quantum leap in functionality for us," explains Breedlove. "We were immediately impressed with the way Civil 3D dynamically linked alignments and profiles."

The subdivision development project that inaugurated Brannon's use of Autodesk Civil 3D was the first phase of a 450-lot subdivision in Tyler called Guinn Farms. Consisting of 150 lots and accompanying infrastructure, Phase One needed to be completed by January of 2005 so the developer could begin construction in May of 2005. Initially, Brannon was concerned about the learning curve on Autodesk Civil 3D, but the firm found that the application's time-saving capabilities completely offset the time spent mastering the program.

"When we needed to move a grade, we found we could do it as much as three times faster in Autodesk Civil 3D," says Breedlove. "The application recalculated everything automatically. We completed the project in about the same amount of time it would have taken with our old tools, so we didn't lose any time to the learning curve."

Accelerating 30 Projects

As of spring 2005, ten Brannon engineers and design technicians are carrying out approximately 30 projects using Autodesk Civil 3D. They have noticed that Autodesk Civil 3D is saving them time on a number of common design tasks, including the creation of alignments, points, and surfaces, as well as volume and dirt calculations.

Because design elements are linked in Autodesk Civil 3D, Brannon is also saving time when applying changes to designs.

"Depending on the size of the project, making global changes to a design is as much as 90 percent faster," reports Rahman Kafray, a graduate engineer with Brannon. "Autodesk Civil 3D has completely changed the way we do dirt and volume calculations. Before we had to cut cross-sections within profiles to do calculations, now Civil 3D performs the calculations as a part of the modeling process. It takes 50 to 75 percent less time."

The Result

Completing Projects 25 Percent Faster

Since turning to Autodesk Civil 3D, Brannon has been able to turn the time it saves on routine design tasks into shorter project completion times. "Our time savings will vary based on project types, but Autodesk Civil 3D will shave between 10 to 50 percent off of our project completion times," says Breedlove. "On projects similar to Guinn Farms, I anticipate that our total time savings will be about 25 percent over the life of the project."

Breedlove sees the dynamic plans and accelerated project schedules Autodesk Civil 3D enables as being especially advantageous to Brannon's clients: "Doing multiple preliminary plans in Autodesk Civil 3D takes relatively little time. We'll be able to show clients more options, which helps them make more informed decisions. And as we complete designs more quickly, clients will be able to go to construction sooner. That will help to reduce their interim financing costs."

For More Information

To learn more about how Autodesk Civil 3D accelerates the pace of land development projects, visit us on the web at www.autodesk.com/civil3D.