

MIDWEST CONTRACTOR

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BEATING THE ODDS

**Contractor uses
stringless paving system
for the advantages**

By Jeff Winke

“Successful construction contractors are calculated risk takers,” states Paul Ideker, president of Ideker Inc., St. Joseph, Mo. “You have to take risk in business – but it needs to be well-researched and planned to minimize any negative outcomes.”

Ideker recently took a well-researched and planned risk that appears to be on track to be a winner. In this down economy, Ideker has invested heavily by purchasing a Gomaco 9500 Trimmer, a Gomaco 2800 4-track paver, and equipped them with Leica Geosystems PaveSmart LMGS 3D machine control systems, as well as a CAT 140H motor grader equipped with a PowerGrade 3D machine control system. The company also acquired eight Leica Geosystems TPS 1200 Total Stations. In total, Ideker invested \$600,000 in Leica technology.

Ideker acquired its Leica technology from Laser Specialists, Inc., Olathe, Kan., the local Leica Geosystems dealer. “We’ve received tremendous support and field training from Laser Specialists,” Ideker states. “They have helped us every step of the way with technology that’s improved our productivity and finish quality.”

The new system has been put to use on a \$23 million MoDOT highway project. Ideker won the assignment for an eight-mile, four-lane concrete overlay of I-35 between Holt and Kearney, Mo., which also included 10 bridge re-decks



John VanMeter of Leica GeoSystems shows how the system is started on the GOMACO 2800 Paver.

and overlays. Ideker has a crew of 40 to 50 workers on the site out of his approximate 200 workforce. The family-owned and managed business started in 1947 and specializes in heavy grading, highway and flood control projects, as well as various types of concrete and asphalt paving.

“The existing asphalt road was experiencing premature rutting, so we first needed to mill eight inches of asphalt overlay to get down to the original concrete road, built in 1966,” Ideker says. “The Leica PaveSmart system helped us to accurately mill to the right depth and to build an optimized profile on top of the old concrete by milling down to a controlled depth.” The process removed approximately 315,000 sq. yds. of milling, pavement and approximately 139,000 cubic yds. of excavated material.



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General Contractor – Ideker, Inc. (St. Joseph, Mo.)

Key Vendor – Laser Specialist (Olathe, Kan.)

Engineer – Missouri Dept of Transportation (MDOT)



Concrete is placed in front of the paver using a RexCon Placer-Spreader machine.

Left: Using the Leica Stringless technology both Elevation and Steering adjustments can be easily made from the control panel located at the ground level of the paver.



Applied Construction Technology, Olathe, Kan., used the latest road profile optimization tools in Carlson Civil Suite 2010 Software to create a best fit CAD profile designed for the concrete overlay on the highway and shoulders. The 3D project model was built by Applied Construction Technology, which was used with the Leica systems. Establishing the profile and building the model was difficult because the existing, circa 1966, concrete had settled and deviated from the original profile.

“In using the Leica technology we eliminated the need for stringlines and a survey crew that sets the hubs and line. This saved us time and money,” states Ideker. “With no stringlines, our haul trucks aren’t blocked in to having to travel long distances to turn around and we don’t have to waste time resetting the ones they accidentally flatten. A big plus is not having to wait till the survey crew arrives to set paving hubs.”

Due to restricted haul roads, Ideker paved the 38 ft. roadway in two passes, 22 ft. and 16 ft.

An additional challenge has been the wet weather, which slowed the earthwork, but didn’t affect the milling. Ideker reports that there was over twice the average rainfall this season.

Finished concrete completely slip-formed without the need for string-line.



Leica LMGs Machine Software shows operator all phases of control from one easy to read screen.

Large photo: Leica TPS1201+ Robotic Total Stations accurately controls all movements of GOMACO 2800 Paver.



Ideker Inc. Key Personnel on the I-35 Project

Cody Phillips, project manager
 Danny Holyfield, project superintendent
 Brandon Kendall, general concrete paving superintendent
 Bob Hamilton, grading superintendent

For the paving, Ideker's Gomaco paver used the fully-automatic Leica Geosystems LMGs 3D machine control systems with the actual 3D prism position being measured by Leica Geosystems TPS 1201 Total Stations, which were placed approximately every 300 ft. As the paver passed, the last total station would be moved to the front. The contractor leap-frogged the total stations down the road ensuring consistent quality within 1/8-inch.

Ideker has maintained an aggressive 7,000 ft. of paving per day. The company began work in March and has a \$500,000 incentive to complete the I-35 concrete overlay project by Nov 15th. There is also an incentive/disincentive of \$20,000 per day to complete the project in 259 calendar days (up to \$500,000).

"Because of our dedicated employees and our new technology, we're on schedule and we will be done on time, thanks to technology," Ideker concludes.



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