



# Young Contractors eliminates staking with Topcon's Millimeter GPS™

**Company:** Young Contractors, Inc.

**Location:** Waco, TX

**Project:** US Highway 6 Widening

**Location:** Riesel to Marlin, TX

**Topcon Products:**

HiPer Lite+ GPS+ base / rover with Millimeter GPS™

FC-100 field controllers w/ Pocket 3D

3D-GPS+ automatic w/ Millimeter GPS™ / Cat 140H

*"Proudly building the infrastructure of Texas... one road at a time."*

Young Contractor's motto sums up the intent and focus of this Waco-based highway contractor. Young is a subsidiary of Knife River Corporation, a producer of construction materials and aggregates.

Knife River is owned by a still larger conglomerate, MDU Resources Group, Inc., located in Bismarck, North Dakota.



**Devin Smith, project engineer**

Young is in the process of replacing an existing nine mile stretch of two-lane Highway 6 with a new four-lane roadway. Devin Smith, project engineer, explained the multiple stakings that are required for subgrade preparation. "First we have to set stakes for subgrade," he said. "We usually set it low to compensate for the material swell. After the lime is mixed, we have to come in and set grade to finish by. And then we have to set grade again for the rock that will go on top of it. Sometimes the materials will set up on you and it is hard to get stakes in."

Smith explained the reasons for purchasing Topcon's Millimeter GPS automatic machine control system for their Cat 140H motor grader. "We want to eliminate two to three steps worth of staking," he said, "We want to keep up with technology. We are trying to grow, speed up, and be competitive. Everybody else is using GPS and they are bidding with the latest technology. And if we are not using it, we are behind."

Chris Affinowicz is the project surveyor for Highway 6. Before Young purchased Topcon's HiPer Lite+ GPS survey system with Millimeter GPS, Affinowicz performed all layout and grade checking tasks with a total station. After using the Topcon system, he appreciates the speed with which he can now operate.



"I love it," Affinowicz said. "It saves a lot of time just on setup alone. With Topcon's GPS, I can run a mile at a time vs. eight hundred feet with one setup on a total station. That saves about three hours a day."

Affinowicz uses Topcon's Office 3D to check surface models before loading them to the 3D-GPS+ machine control system. "It's user-friendly," he said. "I use the machine simulator every time to check and see if there are any glitches in the model. If there's a grade bust, it's like hitting a wall. The system makes it easier to visualize the job."



**Chris Affinowicz, project surveyor**

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