



**'Topcon 3D-MC allowed us to pave the complex ramp quickly and accurately'**

## Veteran Operator Admires Its Accuracy and Ease of Use

Established in 1923, Watanabe Sato Co., Ltd. is one of the most experienced construction firms in Japan. The firm is utilizing Topcon's LPS-900 3D-MC Grader and 3D-MC Dozer machine control systems.

"For years we had a keen interest in machine control technologies. We purchased the Topcon systems following the government strategy for promotion of the ICT-Aided Construction<sup>\*1</sup> published by the MLIT<sup>\*2</sup> in 2008," said Hiroshi Kubo, manager of the firm. "Before purchasing, we used the system on a trial basis and achieved the construction accuracy within  $\pm 10\text{mm}$  ( $\pm 0.4\text{in.}$ ), which dispelled our concern on the ability of the automated systems."



Hiroshi Kubo,  
Manager of Watanabe Sato Co., Ltd.

Tsugio Hayasaka,  
Hayasaka Grader Co.



Watanabe Sato recently utilized the 3D-MC Grader for the ramp pavement in a high-standard highway construction. "The slope angles of the ramp vary from 0 to 8 percent and the shoulders have gradients between 0 and 2 percent," Kubo said. "Although this task should have been quite difficult with the ordinary technique due to the complex design, the Topcon 3D-MC Grader allowed us to complete it very quickly and accurately."

Kubo said, "We took measurements at various points and compared them with the design data. The finishing accuracy was within 4mm (0.16in.) in standard deviation."

In combination with the GPT-9003MC robotic



total station, "the Pocket-3D software allows for real-time comparison between as-built and design data," said Tsugio Hayasaka, veteran machine operator. "This system is very easy to learn, and even the novice can operate the machines without difficulty."

Kubo said, "We will use the Topcon machine control systems for various applications. I'm thinking to use the 3D-MC Grader for base and surface layers. We also have a plan to purchase a new paver system in the near future."

<sup>\*1</sup> Construction methods that make use of Information and Communication Technologies (ICT) to increase work efficiency and quality.

<sup>\*2</sup> MLIT: The Ministry of Land, Infrastructure Transport and Tourism