AT WORK

TOPCON

Sumitomo Densetsu

"2-millimeter accuracy of GLS-1000 was quite impressive to us."

"Laser scanner dramatically improves safety and productivity in precise monitoring of road subsidence."

Hiroshi Tomoto (left) and Nobuhiro Kanbe (right), the Underground Cabling Department, Sumitomo Densetsu

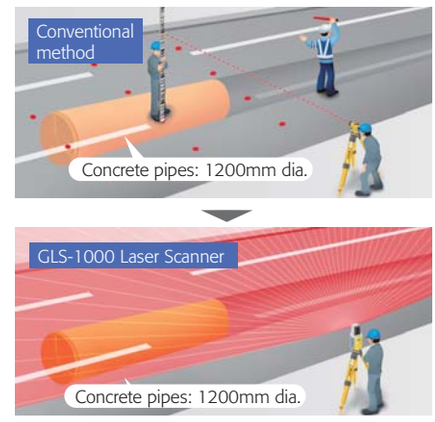
As the only general facility construction company in the Sumitomo group, the Sumitomo Densetsu specializes in engineering and construction of electric power transmission and information communication facilities for plants and buildings. They recently researched the impact of underground construction work on the structures above ground at Kishiwada-city, Osaka, Japan. They used the Topcon GLS-1000 Laser Scanner to monitor the subsidence of road surface right above the construction route of underground electric power transmission lines.

"The biggest benefit using the GLS-1000 is the dramatic improvement in safety," said Hiroshi Tomoto of Underground Cabling Department. Previously they had to partially close the road so that they could measure the road surface height on a point-by-point basis with using levels and staffs. They were also forced to work at night when the vibrations due to the large trucks were minimized. They foresaw the possibility that a laser scanner could improve both safety and productivity in their work.

"We can scan the road from the sidewalk, so there's no need to close any traffic. We compared the measurement values of GLS-1000 with conventional instruments and found the difference was only 2 millimeters or less, which was quite impressive," added Nobuhiro Kanbe, who conducted the surveying tasks. "We can take measurements whenever we need, and the scanning process doesn't interfere with other tasks. It's really useful."

Laser scanners can measure road surfaces more quickly and safely than any other conventional methods. It also allows them to view the surface data rather than points, which greatly facilitates

3D Measurement data



subsidence analysis and comparison of any desired locations. Besides, the surrounding structures are simultaneously captured as colored point cloud data, making it easier for the ordering party to understand the measurement locations.

"From now on, we will make the best of the GLS-1000 laser scanner. Our proposals using new 3D measurement method will certainly differentiate ourselves from our competitors," said Tomoto.

GLS-1000 Laser Scanner