



Japan emergency dwelling construction on fast track following tsunami

Topcon IS allows one person to survey three distant sites in one day

Obara Construction Co. Ltd., a construction company with more than 50 years experience, is located in Kitakami city, Iwate Prefecture.

Following the massive destruction created by the tsunami which hit Japan in March 2011, the company employed Topcon's Imaging Station (IS) and data collector FC-250 total station with Kantoku-san V for surveying the construction sites of emergency temporary housings in the Iwate Prefecture.

Gaku Obara, company executive director, said, "In this construction, we have to finish the construction of 118 emergency temporary housings in six locations in 90 days - three places in Kamaishi-city and three sites in Otsuchi-cho. This required the utmost speed in every stage of construction." He said, "With limited manpower and little time to complete



Gaku Obara, Executive Director Atsushi Saito, Civil Engineering Department

the task, we hit on the idea that the images and one-man surveying capability of Topcon's IS could achieve rapid and high quality work." The company had used the IS for several years and knew first-hand the high performance and productivity of the instrument:

Atsushi Saito, civil engineering department staff member, surveyed the sites, and said "Without the IS it would be impossible for one person to survey three different sites of 20km distance in just one day!"

He said, "The construction sites were located 100km from the company, so it greatly enhanced the surveying productivity at the sites to compare surveyed data with the 3D design data previously taken in IS." He continues, "Before we used the IS it took two days to survey one site, and two days to draw out the data.

"When we switched to the IS, surveying productivity increased more than 30 per cent than conventional style, and cut off more than half of working hours in drawing out." As a result, the use of IS saved time and money on the project. Furthermore, Saito pointed out additional merits of the IS, "We have used the IS for total station as-built management more than a year. With this instrument the surveyor can check the sighting point by himself. And he can check the direction and line of stakeout visually to realize smooth and



productive one-person surveying. We utilized as-built survey system to improve the working speed and quality at the same time. In some site, we successfully measured the heights thanks to the 3D functions of IS.

Obara said, "The importance of the construction industry changed dramatically from before and after the earthquake and ensuing tsunami disaster. Before the disaster, the market had been decreased by recession; after the disaster demands for the infrastructure improvements increased daily."

He said his company is "confident that that we are providing quality service, and constructing safe and secure structures quickly. That is the true goals of building contractors." Obara said his company is "operating under the basic policy that we will construct the best possible buildings in the least amount of time." And, he said, "We are working hard every day to restore the infrastructure of areas affected by the disaster."