

Leica Geosystems **TruStory**

Leica Builder for Residential Construction



■ Company

Otto Reischl Bau, Dachau near Munich
www.ottoreischl.de

■ Challenge

- Working without batter boards
- Setting out the building lines
- Transfer heights
- Position and height checks

■ Project period

2010 - 2011

■ Location

Feldkirchen near Munich



■ Project

- Instruments and software
- Field: Leica Builder R100M Total Station
 - Office: Leica Construction Data Manager software as interface for transferring the digital data

■ Objectives

Independently measure, set out and control points, lines including heights

Otto Reischl GmbH is a medium sized construction company based in Dachau near Munich. It has over 100 years of experience in refurbishment projects, covering everything from individual homes right up to major commercial real estate. Seventy highly skilled employees ensure the best quality is achieved across all phases of the projects. From design of the loadbearing structure to the handover of the turnkey building, the company is always there to provide its clients with the best possible service and support.

All foremen at Otto Reischl are equipped with a Leica Builder. Juergen Bauer is one of them and is in charge of the construction of

a new residential development on the eastern side of Munich. The project comprises 14 housing blocks with a total of 250 units as well as 7 underground car parks with 320 parking spaces. Every day, Juergen is out on site with his Leica Builder ensuring the blocks and car parks are constructed in their planned positions and correct heights. Juergen Bauer remarks: "I could not perform my job here without this total station.

Before work commenced on the project, Juergen was given over two referenced building lines at right angle and a site datum. They provide the basis for all his measurements on site. "Whether it's for an excavation, crane height, shoring or scaffold, with the Leica Builder I can set out, level, transfer



■ Benefits

- Fast and easy to operate
- Robust and versatile in use
- Easily adapted to the traditional line and offset methodology, previously with tapes etc.
- Highly accurate positioning and ability to check actual against design
- Ability to store points on-board the instrument for recall

information and check the works. This instrument has the exact functions I need – no more and no less." Juergen Bauer has no reservations about getting to grips with digital technology. He has no doubts over its reliability as he has already worked with an analogue theodolite. "Today's building designs are much more complex. Land is very expensive here. Consequently every available centimetre of the plot is used for the building," explains Juergen Bauer and continues: "A building consisting of only right angles is therefore not always the rule, and this is exactly where the Leica Builder is so valuable."

The tightly surrounded site had no room for batter boards. Even the road alongside the site was blocked because it was needed for numerous skips and containers. Juergen Bauer manages perfectly well even without batters to transfer reference lines. Using the Leica Builder, he is able

to determine quickly and easily the position and height of required points or locate previously transferred points of the same local coordinate system.

This saves the company a lot of time and money. "If you multiply that out for 14 buildings, the result is a substantial cost saving. Additional costs are saved from the many measurements that additionally would have been necessary. The instrument soon pays for itself."

Juergen loads the set out data on to his computer in the evening, "I need the data on the computer for collateral security so I can verify and proof the actual coordinates of the points I set out, but I have never needed this data so far." The Leica Builder has kept him free from mistakes.

Just like many similar projects before, the housing association decided to award this contract to

Reischl. "We completed previous projects to the customer's absolute satisfaction. We worked precisely and error-free," explains Juergen Bauer. Supported in this task by the Leica Builder of course.

