

Leica Geosystems **TruStory**

Building Surveyors

AJH Associates



AJH Associates
CHARTERED BUILDING SURVEYORS

■ Company

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■ Challenge

Converting a dilapidated barn into an educational centre / outdoor activity. Accurate measuring is needed for modern design plans.

■ Solution

Used the Leica DISTO™ D5 to obtain accurate measurements; support of the indirect Pythagoras function and pointfinder were extremely helpful

■ Result

A complete and accurate measuring design of the dilapidated barn in very short time through effortless laser distance measuring with the DISTO™.

“For us, it was extremely helpful, that the Leica DISTO™ D5 could do more than just measuring.”

(Sarah Walmsley, Surveyor, AJH Associates)

AJH Associates are a practice of Building Surveyors with many years of experience of operating within the private and public sectors. The firm has the experience and capability to offer the complete building and surveying package for building renovation, conversion and redevelopment.

Challenge

The Bank End Barn project was designed with the local and wider community in mind. The project took an unused derelict barn and sympathetically restored and renovated it to make a superb education and outdoor activity center with an indoor climbing wall. Before any of this could be achieved the barn had to be drawn up with existing plans and elevations (both internal and external).

Solution

For all necessary measurements AJH Associates used a Leica DISTO™ D5.

To start with, the initial building foot print was measured using the simple distance measuring function, it was highly advantageous due to the D5's illuminated display screen as the barn had no electricity and all the windows were blocked up.

Once the floor plan was completed it was time to collect more detailed information including...

Dimensions of windows

Low-level windows were measured using standard distance measuring techniques; however this was not possible with the high level windows. To measure the high level windows trigonometric and pythagoras functions were used. The D5 gives the added advantage of having a built in digital pointfinder with 4x zoom and colour display screen, which was very beneficial when measuring the high level windows, as you could easily see what you were aiming at.



Sarah Walmsley



■ **Key features of DISTO™ D5**

- Measures up to 200m
- Measuring accuracy $\pm 1.0\text{mm}$
- Digital Pointfinder (4x zoom)
- 2.4" colour screen display
- Power Range Technology™
- Trapezium function
- Triangle function
- $\pm 45^\circ$ Tilt sensor
- 20 Memory recall

For more information, please email:
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Height of ridge and eaves

The Leica TRI100™ tripod was set up externally to the gable of the building, and measurements were taken to determine the height of the ridge and eaves. By taking external window measurements it was possible to relate the height information obtained externally to that obtained internally.

Picking up of hay ventilation holes of the gable elevation

The DISTO™ D5 was mounted on a tripod in the centre of the barn and it was then set to the pythagoras function to enable AJH Associates to initially calculate the positions of the high level openings and then to calculate the heights of openings. This was a very important exercise as it had been decided that the original hay ventilation holes were to be retained, and a glass block inserted to give people using the climbing wall something to aim to, and to look through. This gave the added advantage of giving some additional light into the building.

Result

A complete and accurate design of the dilapidated barn was established in a short space of time. Measuring with the conventional tape would have taken us much more time and it would not be as accurate as the measuring with a laser distance meter. For us, it was extremely helpful, that the Leica DISTO™ D5 could do more than just measuring. Additional functions such as Pythagoras and Pointfinder simplified the challenging measuring task.



Please find more information