

# Case Study

**Customer:**  
Clancy Construction

**Project:**  
Taking BIM to the construction site

**Solution:**  
Trimble RTS 773, Yuma tablet and  
Field Link software



## Taking BIM to the construction site

Irish contractor Clancy Construction is leading the way when it comes to promoting the use of BIM in Ireland. Trimble technology is playing an important part in their plans.

Founded in 1947, Clancy Construction is a leading industry contractor in Ireland and has extensive project experience using BIM. Clancy wants its clients to understand the enormous benefits BIM can offer and through its involvement with the Construction Information Technology Alliance (CITA) promotes BIM to a wider audience by sharing its experiences in this particular area.

BIM is rapidly transforming complex building processes—speeding project completion, lowering costs and improving overall quality at the same time. Clancy uses BIM throughout the life of a project and sees early collaboration with designers, subcontractors, and owners to identify the risk areas on the job as key to the use of BIM to control that risk. This includes applications such as 3D virtual subcontractor coordination, estimating, scheduling, constructability reviews, logistics planning and handover for practical Facility Management use for the client.

Trimble technology is one of the ways that Clancy extends BIM technology to the construction site. The company has a long term collaborative relationship with Trimble distributor KOREC and was an early adopter of Trimble's RTS Series Robotic Total Stations (RTS) as part of an overall strategy to digitise and automate work

practices. Throughout the recession it continued to invest in, and focus on technology and the company now owns three Trimble robotic units and more lately, a new KOREC supplied system consisting of a top of the range 773 RTS high precision BIM robotic total station and a ruggedised Trimble tablet powered by Trimble's Field Link software. These recent additions allow Clancy to extend its work in the office - using BIM platforms and processes - out into the field, all without losing any information.

Behind the company's BIM strategy is Clancy BIM coordinator, Brian Cass. Whilst much has been written about BIM, Brian summarises Clancy's approach simply. "Our strategy on all design and build projects, where the contractor must provide the building design, is to only employ design teams that embrace BIM. This puts us in a unique position amongst Irish building contractors and gives us a clear competitive advantage whilst providing our clients with the reassurance that they are using a stakeholder who invests heavily in technology to ensure a finer quality product for the end user. Our strategy for BIM puts us ahead of the Government's Construction 2020 vision and Forfás\* reports, both of which highlight the importance of BIM to the industry."

Brian emphasizes that key to the success

of this approach is having the right technology in place and this includes the KOREC supplied Trimble RTS/Field Link solution. "We trialled several manufacturer's systems but only Trimble could deliver the robotic total station specifications and tolerances fundamental to our survey operations along with the BIM functionality that we required on site. This included the ability to manipulate and create intelligent setting out data directly from a complex model, live in the field. The Field Link system was a stand-out choice and since its purchase we've used it on a Hospice Care project that we are currently working on in Dublin's city centre. With a value of around 10 million euros, this job is a BIM Level 2 requested project by the client and by using the numerous Building Information Models from design intent to our supply chain and sub-contractors, we are able to federate it and feed that information and layout into the Trimble RTS BIM robotic. It's easy to navigate the Windows touch screen on the tablet allowing our engineers and site team to access the most recent, up to date information from our Common Data Environment (CDE) translated for use in the field. The tablet also allows us to use other software platforms like BIM viewers, AutoCAD and of course our CDE which



▲ Clancy Construction at the Hospice Care site



means the engineer does not have to make multiple trips back to the office to verify any contract documents or drawings. There are very few systems which allow this process to be as seamless as the results supplied by the Trimble solution and this was an important factor in our buying decision."

By using this system, Brian reports that they have been able to add an extra layer of quality control to their processes because it reduces the possibility of human error by digitising and automating much of their field work. On the hospice project, Clancy is also working on the same cloud platform as their collaborative stakeholders which means information from the central repository can be easily translated to the field.

Brian concludes, "Clancy's early adoption of BIM and commitment to investment in technology will continue to shape our future plans. The Trimble system is a first step in taking BIM out of the office and into the field and it delivers exactly the functionality we require, all backed up by KOREC's technical support which is vital when taking on new technology. We were the first company to purchase this system from KOREC and we will continue to look at ways that we can extend BIM to the job site."

\* Ireland's policy advisory board for enterprise, trade, science, technology and innovation.

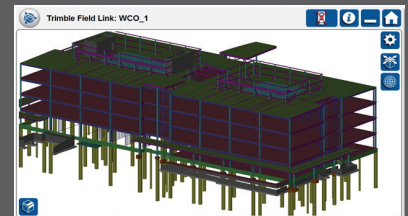
### Taking BIM to the field - Trimble RTS / Field Link system

BIM is revolutionising the construction industry by allowing designers and engineers to collaborate on 3D models filled with huge amounts of accurate and intelligent data. However, when it comes to translating this data to the field, many contractors still rely on manual methods for laying out which can be time consuming and lead to mistakes.

Trimble's RTS Series of robotic total stations offers a practical and easy to use solution. Straight forward software allows contractors to import 3D models from a range of sources and then accurately lay out all the points to be marked. A single engineer can use the RTS's laser measuring system to pin-point locations from the 3D model with 2mm tolerances using the tablet to select each point in turn and mark where the laser indicates. The end result is that one engineer can set out five times as many points as a two person team using manual methods.

Adjustments and adverse field conditions can also be logged and photographed with coordinates thanks to the tablet's integrated camera and the software's 'field report' feature. This information can then be shared from the field providing immediate as built information for the design team so that they can update the collaborative 3D model. This makes the system ideal for sites where lots of QA is required for audit reporting and where quality trails are key.

Trimble Field Link can now also be used with the Trimble R8s GNSS receiver.



### About Clancy Construction

Clancy Construction was founded in 1947 and is a leading contractor specialising in the Irish market. The company's sixty plus years of experience has ensured that it has built up an expert knowledge in both the Public and Private sectors. This knowledge has been put to use in diverse areas ranging from health care to education, leisure to retail and commercial to restoration to name but a few.

The company is particularly interested in projects with a value range of €500k to €15m which fits its robust financial management. The number of clients who use Clancy for repeat work is a testament to the skills of its management team and their desire for collaborative relationship building.

**CLANCY**  
Built on Partnership



## Contact us:

Please do get in touch for further information on any of the products or services mentioned in this case study, a demonstration, support or just a chat about your requirements.

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