

COMPANY

**Graham Construction**

LOCATION

**UK&I**

SOFTWARE

**Construction**

# Graham Construction: Cad for Site Engineers



*Timmy Ewart was instrumental in ensuring the delivery of this specific project remained relevant to Graham site engineers and continued to work with Cadline to refine the deliverables throughout the programme, ultimately ensuring it produced the best outcome for the team on site.*

**Graham Construction, Cadline and Autodesk are collaborating to deliver Transformational projects that will have a positive and significant impact on Graham Construction overall project delivery.**

Matthew Dawson, BIM & Digital Construction Manager, and key player in Graham Construction Digital Transformation strategy identified the need to understand if the use of Autodesk Civil 3D on site would have a constructive impact on the team's overall output within Graham's Building division.

As part of the initial discussion the need to ensure site personnel continue to be equipped with sufficient knowledge to interrogate and produce data on site that would contribute toward the overall digital project deliverable was identified.

In some respect the site engineering team had an advanced understanding of certain topics whilst other key topics had not yet been adopted as part of their workflows. The primary challenge was to baseline the team's current abilities and structure training around

site activities whilst supporting the adoption of refined workflows for Graham site engineers.

## Project Goals

Graham Construction site engineers need to interact with different data sets received from clients and suppliers. The site team are required to input, extract, manipulate and interrogate the different data sets received to ensure successful project delivery. It was agreed, as a minimum, site engineers would have a solid foundation in AutoCAD to maximise productivity gains when interacting with the data sets on site.

The initial goal was to understand the Site Engineering teams overall CAD proficiency and to translate this into a custom training agenda based on their workflow requirements to input, extract, manipulate and interrogate the different data sets received.

Additionally, the site engineering team would have a base understanding of how to interrogate and interact with drawings and information output from Civil3D. It was important for the team to be able to deliver specific aspects of their work in Civil3D where it was deemed to be more efficient in the context of the information received and to be delivered.

## Solutions

Timmy Ewart (Site Engineer Graham Construction) worked closely with David Lewis (Graham Construction dedicated Customer Success Manager), and the Graham site team to baseline the site team's knowledge through a series of workshops that were used to develop a programme of work that would support both the consolidation and extension of the teams AutoCAD knowledge whilst ensuring the content remained relevant to their specific role and deliverables.



The team also worked with Cadline Industry specialists to explore the use of Autodesk Civil 3D in the context of the site engineering teams standard work activities, for example the need to extract and confirm data for purpose of setting out, producing volume calculations, as built records and more.

As Autodesk Civil 3D also includes all AutoCAD functionality it made sense to build on the teams existing AutoCAD knowledge and introduce key tools in Autodesk Civil 3D that had the most potential to have a positive impact on site team. The teams collaborated to create training agendas that were customised to Graham Construction site Engineers specific needs and would also have the best chance of adoption. The training was structured around site activities and was supplemented by Cadline ISO accredited support and access to a dedicated customer success manager to review progress and support adoption and refinement of the various workflows and technologies.



## Business Outcomes

The programme has increased the site teams CAD proficiency by reducing the reliance on the design office for select activities and has empowered the team to be work more independently when interrogating drawings and information on site. This in turn has increased the team's productivity and efficiency.

Introducing Autodesk Civil 3D into the workflow means the site team now have the option to interact with information that would have previously been inaccessible and has empowered the site engineering team to take control and deploy workflows they decide are most appropriate based on the information received and the output required, enabling the team to continue to positively contribute toward both the physical and digital delivery of a project.



site engineers and Cadline Industry specialists this engagement would not have been as impactful. Cadline and Graham continue to work closely with a view to delivering continuous improvement and are currently planning the next phase of the project.

## Conclusion

Timmy Ewart was instrumental in ensuring the delivery of this specific project remained relevant to Graham site engineers and continued to work with Cadline to refine the deliverables throughout the programme, ultimately ensuring it produced the best outcome for the team on site. Without this close working relationship between the