

CASE STUDY

Willmott Dixon

Willmott Dixon Delivers the UK National College for High Speed Rail Defect-Free and On-Time Using Viewpoint For Projects and Field View



WILLMOTT DIXON

SINCE 1852



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Willmott Dixon Reduces Costs, Saves Time with Viewpoint Solutions.

Founded in 1852, Willmott Dixon is a privately-owned contracting and interior fit-out group. The organisation is recognised as one of the top construction contractors in the UK and, as such, were awarded the delivery of the National College for High Speed Rail [NCHSR] project. The project duration was 15 months and was valued at £21.2m, comprising more than 71,720M² of teaching and workshop space. The complexity of the project required a system that brought all the various groups together to work from a common data environment, allowing Willmott Dixon to surface and address challenges early and often.





► BEFORE

- » Poor interoperability between software platforms and the coordinates system
- » Supply chain lacked project visibility
- » Time wasted on admin from traditional pen and paper methods
- » Lack of control over all project information

► AFTER

- » Saved up to 5 hours per person per week
- » Improved supply chain integration
- » Greater control over the access to project information
- » Improved efficiency of construction processes
- » Delivered a snag-free project
- » Reduced costs associated with loss of information
- » Made better informed decisions based on real-time information availability



Challenge

Initially, the NCHSR project was not a BIM level 2 requirement from the stakeholders. However, prior to the project starting Willmott Dixon made the decision to deliver all new projects to BIM Level 2 after seeing the benefits on previous projects.

One of the largest challenges Willmott Dixon faced in completing the project was the interoperability between software platforms — between the architects, structural engineers, varying internal standards and several software solutions, working off the same set of data was a near-impossibility.



We're able to record what is going on in real time so if there are any issues we can then go back to event as if it was yesterday to find out what had and had not occurred so we can move along more proactively.

— James Henderson, **Senior Design Coordinator**
Willmott Dixon



Time and Costs Were Increasing

Once the supply chain extended to the inclusion of fabrication software, the issue became even more unmanageable, resulting in more time spent resolving than actually federating the models. Due to interoperability issues, the company couldn't create a data file so the simplest method for resolving this issue was for the architects to produce a coordinate setting out drawings for the project team to base the model from.

Time and costs were increasing pressure on the administrative burden that arose from using more traditional paper-based processes. The company was looking for a system that would automate transfer of accurate, complete and unambiguous information that could increase productivity, reduce cost and help ensure a smooth handover.



Solution

To operate from a single system, Willmott Dixon implemented [Viewpoint For Projects™](#) across its whole construction process. VFP is a cloud-based document and information management solution which enables customers to share, control and collaborate on project documents with dispersed projects teams.

“Across the business, we all use VFP. We use it for pre-construction, so before a job becomes live we look at concept design, all the way through to construction. When we’re delivering a project onsite with our delivery team, VFP is a common theme throughout the whole business and it also allows us to work in a common data environment particularly when we’re delivering projects and BIM Levels 1 and 2,” said senior design coordinator James Henderson.

See Everything Right from the Field

The NCHSR project also utilised the Viewpoint tablet-based system [Field View™](#), which integrated with the common data environment VFP in order to provide the latest project information in realtime from anywhere.

The Willmott Dixon supply chain and consultants also utilised these systems, particularly the use of tablets onsite to manage Field View data as opposed to leaving the work front to refer to emails or hard copies of project information. The design consultants shared every revision of project information to VFP so that remote access to the latest project information was provided to the wider team, allowing continuous integration of project information.



The last time we surveyed our people at Willmott Dixon on Field View they believed they were saving up to 5 hours per person per week. Spread out across all of our projects that's quite a significant saving in time.

— Ben Jowett, **BIM Information Manager**
Willmott Dixon



Results

By digitally transforming its processes, Willmott Dixon created benefits to end-users following handover, which included eliminating work for the estates department by being able to operate the building efficiently immediately after handover. Gaining access to realtime information meant all stakeholders in the project could make quick, informed decisions on operation and maintenance expenditure based on actual asset performance and status. Costs were reduced from automating processes that were previously done on paper and, as all construction data was available, refurbishments could be made at a lower cost and in less time.

As Willmott Dixon BIM Information Manager Ben Jowett noted, “One of the key benefits for us, particularly using VFP, was the control of access of information — we work on a lot of law and order projects and digital information security is very important, particularly with BIM — there are a lot of security standards surrounding the protection of digital information. I think the access controls were flexible enough to allow us to cater them to what a project needed whilst also having a standardised approach to it as well.”



Record What is Going on in Real Time

Henderson added, “The main benefit of using the software in terms of ROI for risk mitigation would be the use of site diaries. We’re able to record what is going on in real time so if there are any issues we can then go back to event as if it was yesterday to find out what had and had not occurred so we can move along more proactively. Using it like myself, from a design point of view, it’s the revision control — so the software only ever shows the latest revision so there is no chance of working to the wrong information.”

The integration of VFP and Field View allowed the NCHSR Project team to remotely manage a number of construction processes much more time-efficiently such as: health and safety permits, quality delivery inspections and site diaries.. One significant benefit the team realised by using these systems was more time spent onsite versus utilising time on the administrative burden that more traditional paper-based processes require.



Fix Snags Along the Way

“With Field View, snags are broken down into two parts. First, we try and deal with all snags while work is taking place onsite to make the project run a lot smoother — so we start a quality delivery system, so as we’re going through the works as they get signed off as the task is being created. In doing that, we created 523 tasks,” continued Henderson.

“Then, when we get to the end stage of the job, when we’re trying to get to the finishes, we start another snagging process. In total, there were 293 snags identified using Field View, which allowed us to get the ‘realtime effect,’ where we work a lot quicker. The biggest benefit is that we are snag-free two days ahead of handover, so we can hand over a BIM Level 2 project, snag-free, to the client”.



Delivery Teams can Stay Onsite

“This process would have originally required site teams to go back to the office and fill out the necessary paperwork,” Jowett said. “Instead, what Field View. allows our delivery teams to do is actually stay onsite whilst carrying out the tasks they need to, which keeps the project running smoothly. The last time we surveyed our people at Willmott Dixon on Field View they believed they were saving up to 5 hours per person per week. Spread out across all of our projects that’s quite a significant saving in time”.

This project is an outstanding example of a collaborative approach from the contractor, consultants and supply chain. This had been the first BIM project for many members of the supply chain and their willingness to up-skill their teams has been unprecedented, with a total of nine data-rich models coordinated and federated, the largest number Willmott Dixon experienced on any project.

Flexibility for Each of Your Projects

Finally, Jowett added: “I would recommend Field View and VFP particularly because the products are very flexible and you can shape them to what your project requires, but it also offers an extent of standardisation so you get the best of both. The equivalent systems on the market don’t really offer that flexibility and you have to try and force your work process into the product rather than letting the product fit into your work process — and that was the real benefit we gained at Willmott Dixon.”

- ▶ Watch our supporting video [here](#).
- ▶ Learn more about Viewpoint solutions here: Viewpoint.com



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ABOUT VIEWPOINT

Viewpoint, a Trimble Company, is a leading global provider of integrated software solutions for the construction industry. Viewpoint software enables customers to integrate operations across the office, team and field to improve project profitability, enhance productivity, manage risk and effectively collaborate across the broad construction ecosystem. With nearly 8,000 clients, including more than 40 percent of the ENR 400, Viewpoint's innovations are transforming the construction industry by fully integrating operations across financial and HR systems, project management tools and mobile field solutions.

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