

Crossrail Bond Street (CS JV)

Anneel Majid MEP Planning Manager

Collaborate

Communicate

Crossrail

Crossrail is Europe's largest infrastructure project, consisting of over 100km of new railway that travels east to west underneath the hearth of London! The project was started in 2009 and is scheduled to finish in 2021 at an estimated cost of £18 billion. Upon opening, Crossrail will be officially named the Elizabeth Line and will play a critical part in London commuting, as well as improving connectivity to international gateways such as Heathrow Airport.

However, the new stations are among the most challenging and complex ever undertaken - teams have had to contend with the rich underground history of London including many unexploded bombs, mass graves from The Black Death and Roman artefacts! There's also the added complexity of building underground stations on extremely tight sites, in the middle of one of the busiest cities in the world.

Bond Street

Bond Street is one of the ten new central stations on the Crossrail scheme, nestled among prestigious buildings and busy shopping precincts of Oxford and Regent Street. The project has two ticket halls around 400m apart and interchanges with the Central and Jubilee lines.

London's congestion above ground is a challenge to navigate, but the 225 metres of passenger platforms 28 metres below ground is much more complex! Bond Street excitingly combines massive heavy infrastructure with extremely complex mechanical and electrical fit-outs, to facilitate the advance signalling and control systems. On top of that, Bond Street sets an incredible standard for public infrastructure, whilst also meeting security and usability requirements.

Anneel's Story

Anneel Majid joined the Bond Street project in October 2019 as the MEP Planning Manager. However, this role quickly expanded after he observed some of the challenges the delivery teams had to deal with daily.

With 6-7 floors per ticket hall and 400-500 people (minimum!) working on a shift, it was difficult to know where people were, what they were doing and how to avoid getting on top of each other. Shifts were subsequently missed, as a result of subcontractors having to stand down because they couldn't get into a particular workplace. The project's co-ordination issues were a result of the extensive workforce, management teams and diverse trades needed on-site at the same time.

Anneel observed that even though teams were doing their best to communicate the plan, their manual processes - which included lean boards and a complex master schedule - just couldn't keep up. With work moving so quickly and subcontractors responsible for submitting their own program, teams were adjusting their plans so often that the project had no real visibility over the changes, let alone the causes.

Anneel quickly sought a solution that would help improve the accountability and coordination of the project. As part of a new short-term planning process, Anneel introduced Aphex Planner! As opposed to the subcontractors building their works in silos and subsequently leaving teams to work out what's going on, the engineers are now empowered to build and drive their own program. What's more, Planner automatically finds and tracks coordination issues, which gives Anneel's team full control.

When he presented the solution, Anneel was met with some resistance, as many people in the preceding five years had attempted to bring in new processes and innovations, but had always been unsuccessful. However, the team soon jumped on board once they understood that Planner made it quicker for them to build and update their plans and provide senior team members with visibility over the changes that occurred. Anneel has had complete buy-in since Planner was implemented, the team is confident that their plans are accurate and everyone is held accountable.

Since the introduction of Planner and their new short-term planning process, Anneel has been hosting a weekly collaborative planning session in their ticket halls. The team will gather around two projectors, which display Planner's Collaboration Slides and Gantt. A sequence of works and the allocated resources will be agreed on, before locking in the plan and using Planner to automatically generate PDF versions, which are then distributed to the supply chain.

"The engineers have really detailed programs on Planner, cross-discipline too! I think we're in a really good place, we have it down to a T".

Now, with Planner, the commercial team is also able to view an automated breakdown of delay reasons on Planner and hold subcontractors accountable. With more insight into their delay reasons, the productivity on Anneel's team has soared:

"Our production has [recently] been in the high 80s and early 90s, in the planned versus actual".

Anneel has now locked down a process that has made engineers feel empowered, given teams the confidence to know their planned works are accurate and provided more senior members with reliable data to help them understand their delays more clearly.