

Case study: Sir Robert McAlpine



Managing challenges, discoveries and changes at the Plaza secures Sir Robert McAlpine a top award

**Sir Robert
McALPINE**
Special Projects

Summary: British building and civil engineering company Sir Robert McAlpine takes pride in its ability to deliver quality, and as a family firm it holds faith in its people. When it regained the opportunity for the refurbishment of a large section of the former Plaza building at 120 Oxford Street, it appointed a first-time project manager as its lead.

It has standardised on Powerproject software for its planning and programme management, which it used on this complex refurb project. It encountered numerous challenges, discoveries and changes throughout. The fresh eyes, innovative approach, value engineering and excellent project management around and beyond these challenges secured the project leader the title of Construction Manager of the Year 2019.

Starting on site to manage the extensive reconfiguration and refurbishment of a large section of the former Plaza centre at 120 Oxford Street in London could have been a little awkward. Sir Robert McAlpine's tender team had not originally succeeded in securing this contract – but, after the winning contractor went into administration just two weeks in, it was delighted to pick up the reins.

The company appointed Joseph McNeil to lead the project, in his first project management role – and the fresh eyes and approach he brought to the project proved instrumental in its success. The project delighted first the client and next its incoming tenant. After the 82-week £10m project concluded, it had generated £3m in further revenues for variations and additions, finishing at the practical completion date after these

changes. Perhaps best of all, the first-time project leader secured the overall title of Construction Manager of the Year, as well as Gold in the Refurbishment and Fit-out category in the 2019 CMYA awards.

"Developing the construction programme for 120 Oxford Street was incredibly rewarding, and certainly the most involved and complex project I've ever been involved with" said Joseph.

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Resetting and revealing

At the outset, the first focus was to reset the timeline on a tender programme that wasn't quite up to the task. The start dates were not the only thing to change. Joseph explained: "The date we got to site wasn't the originally planned date, and the tender programme obviously lacked detail. We proposed some alternative demolition methodologies to try to create time benefits to make up some of the time lost with the false start. When the client team adopted their chosen route, we easily updated the programme using Powerproject to forecast and schedule the way ahead."

The team then started to strip out the old shopping centre and remove fixtures and fittings – and encountered the first planning issue. "The first major round of reprogramming came as we exposed the old steel frame. We discovered many scars and evidence of historic interventions in the structure that we could not have anticipated. We found old steel beams in locations where we had intended to put new connections, unexpected gaps to fill in and so on. We used Powerproject to plan out twice the volume of welding and connection preparation than originally foreseen and analysed the impact of those additional works on the forecast completion date."

The extra time required proved to be a full 18 days, and even that involved mobilising as many extra welders as could physically fit into the spaces. Only once this work was complete could the team move on to installing the first and second floor concrete slabs.

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Duties of client and contract care

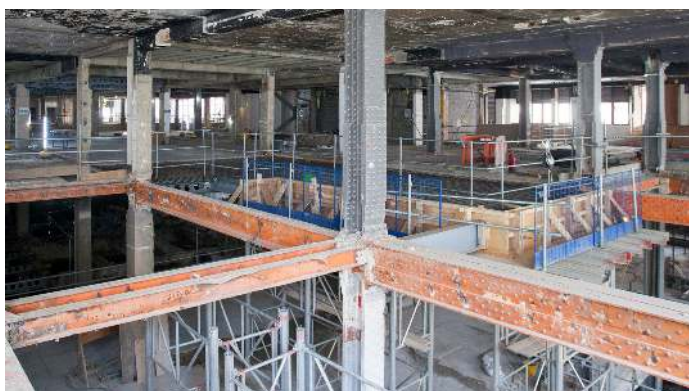
The ability to use software to explore options, ascertain impacts and then communicate clearly with clients is important: "It helps us fulfil our formal reporting and legal notice duties, through rescheduled analysis on agreed programmes. It helps us show what the effect of prolongation of one activity has on the agreed end date, without changing any other interdependencies – that then becomes our contract position. That means we can give the client the opportunity to make informed decisions, to instruct acceleration or to recover delays."

A main formal outcome of such analysis is to justify requests for extensions of time or additional money, by using software to prove entitlement or to clearly defend a position. However, Joseph outlined how he would also use Powerproject to complement discussions, by seeking to offer the client positive ways to mitigate any delays or minimise any extra costs. He said: "I always looked for what works could be completed concurrently or resources that could be added, using the software to explore the implications of moving activities and changing links to find the best path forward."

Throughout the project, Joseph and his team maintained the master programme for the client and a working target programme to guide day to day construction and manage progress.

Critical insights for client

Software always supports client reporting. Joseph believes it helps them fully comprehend what the contractor is trying to get across: "With software you can break things down into sequences and show them graphically, and it helps people see them far better. They can focus in on the part that they are interested in, and there is no better way than Powerproject laying that out in ways people can understand."



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You can overlay programmes side by side so people can see which parts of the different approaches are faster or slower than the other. Then we can present the advantages and disadvantages in text, to support the visuals.”

Reporting in this way also helps eliminate any potential areas of difference of perspective on the programme: “Each fortnight I submitted a jagged drop-line and re-sequenced drop lines against that programme. By continually doing that, it became undisputable that this was the programme that everybody was measuring and reporting against. The reason that’s important is that whenever there are applications for extensions of time, there is often some dispute as to exactly which programme we are supposed to be following – but not in this case.”

The critical path analysis formed an important element of client project reporting. Joseph explained: “In addition to the normal drop-line, we included a critical path analysis in our reporting. It helped us show how we identified opportunities to recover time through allocation of additional resources, decouple dependencies and justify our notifications of delays to progress which could then be used to agree extensions of time. An example of that was where we accelerated works around the ground floor concrete slab and installed the level 2 steelwork concurrently.”

Joseph also used Powerproject as part of managing and communicating with sub-contractors: “We exported sub-contractor package programmes from the master programme to include in original sub-contract orders, rolling up the activities tightly so that milestones are clear – then our subs can come back to us and be clear on how they intend to meet them. We can then take their working detail and easily re-integrate them back into our working programme.”

Confidence brings compensation

The excellent lines of client communication and good progress management also created a situation in which the client felt confident to instruct further works during the contract, adding another floor slab, altering additional rooms in the building. This was compounded by the arrival of a new party. The client had made efforts to secure a tenant for the space during the build, and just before a main sectional completion date succeeded in signing a major fashion retailer. It made some specific requests to its new landlord. “They wanted lift shafts, escalator pits, staircases and many other things in advance of occupation. There were specific requests around the screeding specification and power requirements

to supply the eventual retail display units. The client decided to give us all this work while we were on site, since they were confident that we would deliver. It was such a volume of work relative to the original contract sum it added more than 30% to the overall value.”

Joseph related the impact on the programme itself: “There was really no way that the original contract programme could be followed. With each instruction the sequence drifted away from the original intentions. The original sequence of working from the basement upwards versus all these variations made the programme unrecognisable. In all, we estimated that we received more than 200 instructions during a 14-month period.”

The software was in regular use. He continued: “Every other day we were running variations to the target and contract programme, to assess the impacts. We were doing a dropline report not just every Friday but almost every day of the week. We got it down to a very quick process.”

At the same time, keeping the team and sub-contractors up to speed with the immediate work implications was important: “We ran many short term look-ahead programmes of two weeks or four weeks, as well as printing out the activities for the next six weeks as a visual aid that people could see and follow on site. It was very useful so that site managers could ensure the right method statements were done, or that areas were cleared ready for new work to start.”

Win-win all around

The outcome of such good programme and client management has paid dividends for every party involved. Not only did the client gain its development as agreed, it was snag-free and defect-free. The tenant was able to take possession of their space ahead of schedule, and so start trading earlier than expected, while Sir Robert McAlpine gained additional revenues on an unexpectedly regained project opportunity. Joseph McNeil has not only gained a significant professional award but has been appointed as the team leader for a new group aiming to deliver further opportunities for the same client.

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