



# London City Airport Piling & Deck Works

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 Planning Engineer

Collaborate

## London City Airport

London City Airport (LCY) is transforming! As arguably London's most convenient airport and breathtaking port of arrival, LCY is uniquely situated in the Royal Docks close to both the City of London and Canary Wharf district. The transformation that is underway is the result of a decision to invest in improvements across capacity and passenger experience. The significant £480 million redevelopment will see eight new aircraft stands, equivalent to the size of 11 football pitches, being built alongside the creation of the UK's first Digital Air Traffic Control Tower, a full length parallel taxiway and the easterly and westerly extensions of the terminal, quadrupling its size.

The expansion will accommodate an increase in 2 million passengers (6.5 million) annually through London City Airport and will touch almost every aspect of the existing airport experience for those passengers.

## London City Airport - Piling & Deck Works

BAM is responsible for the first major construction project in London City Airport's development programme. The project is essentially to extend the airport into the water of the Royal Docks. This expansion of structure will provide the support for the new aircraft stands, parallel taxiway and the passenger terminal extension.

To pull off this engineering feat, the team will first install over 1000 steel cased concrete piles on an array of floating barges, led by subcontractor Cementation Skanska, to vibrate and drive the 20km of piles into place before drilling and concreting. From there, the construction of 75,000 m<sup>2</sup> of new concrete deck can be supported. Precast concrete slabs, 6000 of them, are installed to provide a working surface and temporary support to the 25,000m<sup>3</sup> reinforced concrete topping pour. All the while, the airport will remain in full operation. Amazing.

## Abigail's Story

As a Planning Engineer on a project involving expensive equipment, massive scale and a very rigid construction sequence, timekeeping is critical for Abigail. If the piling crews don't hold the schedule in installing the steel casing, then not only are they delayed but the drilling, precast and concreting teams are also delayed. So, Abigail's job involves making sure that the massive 2.5 year programme gets broken down into plans that can be understood by the major subcontractors and teams every day as well as recording the progress of works.

Prior to using Planner, the project team used spreadsheets to build their short term plans and would record progress as part of the monthly programme update. With the design work progressing on the wider airport upgrade the inevitable design changes issued to the project team require regular re-sequencing to balance the constraints of the site contractors and offsite precast manufacture capacity. This re-sequencing needs to be rapid and responsive to site constraints, yet the team would spend hours reworking their spreadsheet-based short term plans for every change. The result? A construction team wasting their valuable time colouring cells and struggled to meet submission deadlines for the 4 week lookahead plan.

Now, with Planner, Abigail distributes to the team the master schedule activities they are responsible for and activity owners break them down into smaller tasks. As the team do this, not only can Abigail see the plan evolving but the entire team can see each other's work in real time. When clashes or issues appear, they are dealt with then and there. As for resequencing, well that's now just as simple as a few clicks.

**“Since using Planner, we have not missed a submission deadline. Our 4-week lookahead is submitted on time every Friday. We're in control with Planner - our workload is more consistent, and the team feel a lot happier”.**

When it comes to recording progress, well Abigail no longer needs try and recreate what happened from the memories of her teammates or from reading long-form site diaries. Every on-time delivery and delay is logged and tracked automatically in Planner and ready when she is.