

Tideway Case Study

Deltek Solution

Leading infrastructure investors leverage Deltek Acumen to drive schedule quality and maximise efficiency on London's Thames Tideway Project.



Tideway

Upgrading London's sewerage system to clean up the River Thames and cope with the capital's growing demands.

A new "super sewer" for London, known as The Thames Tideway Project is now underway. It will be constructed by Tideway – privately financed by a consortium called Bazalgette Tunnel Limited, in conjunction with the delivery partner CH2M. The tunnel will not only improve the environment, ecology, public health, appearance and reputation of London, but it will also give a much-needed and immediate economic boost by creating thousands of skilled jobs and hundreds of apprenticeships. The project has a budget of £4.2 billion.

The Challenge

London's current sewer system is more than 150 years old. It was designed to handle at its maximum capacity a population of one fifth of London's present size. Following a cholera epidemic, Parliament de-camped to Oxford and commissioned Joseph Bazalgette to clean up the city. A key feature of this network was an overflow which would discharge into the river when capacity was reached. However, these overflows were not designed for regular use and last year over 40 million tonnes of raw sewage was discharged into the River Thames. Tideway is building the super sewer to tackle the problem of these overflows with the aim of managing London's requirements for at least the next 100 years.

The tunnel will stretch for 26km and will be constructed under the River Thames at depths of up over 80m. Access points for the tunnelling apparatus and the installation of supporting systems necessitate extensive groundworks in some of the busiest places in Central London. The works, when complete, will change the face of the Thames for generations to come and reconnect London with its iconic river.

The key to making this project a success is collaboration between Tideway and their contractors. The Tideway project parties have agreed the baseline schedule that will serve as the yardstick by which performance will be measured. This schedule will also be the baseline against which the incentive program for the supply chain will be constructed and measured. The project has been funded on the expectation that it will take a total of 10 years to complete. An alternative scenario is being developed that is expected to deliver significant savings by optimising early contractor involvement, fostering innovation and maintaining tight schedule governance.

At Tideway there is a desire to show that, by having both a relentless focus on planning and appropriate governance around execution, infrastructure projects can in reality be much less risky than is commonly believed.

By focusing so heavily in the early phase to de-risk the project, Tideway believes that new sources of financing will look at infrastructure projects such as Tideway more favourably in the future.

The Solution

Large infrastructure projects with complex supply chains have demanding governance requirements. The more stakeholders there are, the more important it is to be able to confidently and accurately report and then be able to answer the difficult questions. As such, Tideway needs to be as confident as possible that the schedules it receives from contractors and the schedules that Tideway then constructs using this received information are as realistic and robust as possible. For Tideway management a schedule is more than just a set of dates for when something is to be done. It is the logical embodiment of how the works will unfold and integrate. Inter-dependencies and consequences also have to be shown and be open to scrutiny. Tideway senior management recognise the importance of a robust, quality schedule to manage the project.

Deltek Acumen has been used in the tender phase so as to support Tideway's negotiations with potential contractors. Tideway has written into its supplier contracts that submitted schedules must meet a minimum Deltek Acumen Fuse Schedule Quality Index score as part of the periodic programme submission cycle. Tideway is also leveraging the forensic capability of Deltek Acumen to map the changes made when contractors submit their revised plans.

The Benefits

Like many large and complex UK and Commonwealth infrastructure projects with

demanding output requirements and challenging timescales, the New Engineering Contract 3rd Edition (NEC3) suite of contracts will form the basis of the relationships between Tideway and its contractors and consultants. For this project, Tideway has selected "Option C – Target Cost", with the purpose of incentivising contracting partners to perform. The successful delivery of a complex mega-programme under this agreement demands rigour and robustness in the control of the project and each of the tens of thousands of activities that together comprise it. The programme is described as 'the beating heart' of the project, and its robustness is key to whether the project succeeds in driving activities forward and ensuring that the critical path is understood and can be challenged.

Deltek Acumen is integral to this process and has been prescribed within the Employer's Requirements to the contract. Tideway's stated aim is to drive schedule quality and ensure that progress discussions are focussed on core issues rather than poor information. Deltek Acumen also enables Tideway to understand the programme health, because a Project Master Programme is generated each month which highlights progress, raises Early Warnings and importantly drives the contractor alliances with milestone incentive payments.

Deltek Acumen is playing a key role throughout the project, from helping in the assessment of complex programmes in the procurement phase, to assessing and analysing the monthly programmes during construction phase. In addition, Tideway is also using the Deltek Acumen 360 module to assist it to look for every opportunity to drive efficiencies through the schedule.