ROADS

A421 Improvements

The use of an Early Contractor Involvement (ECI) contract provided a number of benefits that ensured the success of the project to construct 13km of new dual carriageway on the A421 between the south side of Bedford and the M1.

The A421 is part of the strategic east-west (Oxford-Milton Keynes-Bedford-Cambridge) strategic route corridor. The existing A421 between the Bedford Southern Bypass and the M1 was largely single carriageway. With traffic flows expected to rise from 25,000 to 65,000 vehicles per day by 2026 the road was becoming increasingly congested with a poor accident record.

The ECI contract was awarded to Balfour Beatty Civil Engineering in November 2005. Construction began in October 2008 with completion, ahead of programme, in December 2010. The cost of the scheme came in under the £201 million budget. The new road features a re-modelled junction with the M1 and Ridgmont Bypass in the west and connects to the Bedford Western Bypass in the east. 16 major structures and 2 million cubic metres of earth were removed and 400,000 sq m of surfacing was laid. The scheme also involved extensive planting and landscaping. Drainage is via new balancing ponds prior to discharge into existing watercourses.

As the ECI contractor, Balfour Beatty examined local constraints in relation to construction best practice, best value and 'buildability'. These constraints are balanced against programme and cost targets. This had the benefit of providing greater programme predictability. In addition, the process also improved the understanding of local sensitivities to the construction process. This helped to identify and resolve potential objections and so reduced the overall timescale of the statutory Public Inquiry leading to associated cost savings.

The ECI contract also allowed Balfour Beatty to fully engage with specialist contractor PJ Davidson Ltd at a very early stage and so determine the most efficient solutions. The early input of PJ Davidson resulted in improvements to the proposed surface water channel and concrete barrier and facilitated a smooth day-to-day site operation.

The new road has resulted in improved road safety and journey times as well as considerable relief for communities along the old single carriage which is now used by local and not through traffic.