

Project: A14 Cambridge to Huntingdon Improvement Scheme
Client: Highways England
Contractor: A14 IDT - Skanska, Costain, Balfour Beatty
Date: 2016 - 2019
Location: Cambridgeshire



BEL undertook Sections 4 & 5 of the Scheme following the provision of earthmoving ECI advisory services in 2015/16.

Description of Earthworks

A team of up to 30 staff and 200 operatives undertook the earthworks for the on and off-line improvement of 8km dual two/three lane A14 to motorway-standard dual three/four lane in North Cambridgeshire from Milton to Swavesey.

The earthworks were centred on the construction of three grade separated junctions raised above the A14 in the low-lying Fenland topography. The embankments were constructed in Oxford and gault Clays won from two on-site borrow pits.

The earthworks were complicated by the need to maintain traffic flows on the congested existing A14. This saw the erection of two temporary Bailey bridges across the A14 to permit the mass haul with 45t dumptrucks of 1.5M cu m of clay from the borrow pits at rates exceeding 8K cu m per day per bridge.

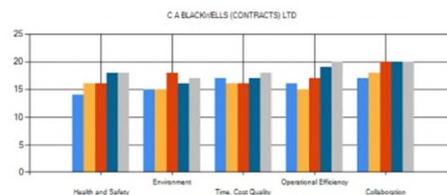


Key Quantities

- 1.47 million m³ of borrow pit excavation
- 1.8 million m³ of topsoil strip and reinstatement
- 380 thousand m³ of subsoil strip and reinstatement

Subcontractor Performance

The IDT monitored subcontractor performance by a programme of “360 degree” Key Performance Indicators. The programme measured not just efficiency and programme performance but also environmental, community, health and safety and quality performance as well as collaborative behaviours. BEL were consistently the top-performing A14 supplier and received four awards from the IDT in recognition of the leading performance.



Technology and Innovation

Blackwell carried out trials of the first autonomous articulated dumptruck (AADT) in Europe. GPS and LIDAR sensors were fitted to the truck to allow it to operate without a driver. The trial garnered much media and industry interest which saw Blackwell and the IDT host an industry demonstration day and saw us appear on the BBC's One Show.

BEL Resources

75t excavators x4	50t excavators x2
45t ADT x 40	30t ADT x 30
Cat D6T dozer x20	20t – 35t excavator x20
Cat 16M & 14m grader x3	50+ road wagons at peak
and support equipment	

Training and Apprenticeship scheme

Highways England's Legacy requirements included targets for training of local people including formal Apprenticeships.

Blackwell set up a plant training school on site and took in over 50 local applicants over 2 years who were provided with high quality instruction and attained NVQ's and CPCS operator cards. It is thought around 75% of the trainees remained in the construction sector following contract completion.

BEL's efforts were recognised in 2018 by the award in the national HE Supplier Recognition Scheme.