



CASE STUDY - TARMAC TILBURY

In 2020 KKB won a competitive tender to carry out a package of enabling works to develop a 45-acre stone-capped area of the Port of Tilbury 2 site into a new materials processing facility.

The project involved bulk earthworks and remediation as well as a large package of civil engineering works. Asbestos hotspots were decontaminated under the Control of Asbestos Regulations 2012 after which the site was cleared of vegetation and rubbish. Following this we undertook an extensive site-wide cut and fill operation to achieve the required design levels.

This involved the remediation of 40,000 cubic metres of excavated material through our complex sorting processing area.

These soils were then profiled into the Earthworks scheme with the introduction of in-situ lime and cement stabilisation to reduce the moisture content and increase the shear loadings to achieve the required earthworks specification.

This on-site processing enabled us to minimise the disposal of U/S soils and minimise the requirement for imported granular materials and ultimately reduce the project's carbon footprint.

Discipline: Earthworks/Civil Engineering

Client: Tarmac

Completed: July 2022

Value: £8.7 million

Duration: 24 months

Location: Port of Tilbury, Kent

We were very impressed with KKB's performance and can-do attitude in delivering a series of complex packages of enabling works for our new Tilbury facility. Their management team adopted a consultative approach throughout to transform our concepts into reality. The two-year project was completed on-programme, to-specification and without any major issues. The standard of workmanship was also to a very high quality

Steven Wallis, Area Operations Manager, Tarmac





The civils package involved the installation of the working platforms for the site's asphalt processing and ready-mix concrete (RMC) facilities and all associated reinforced concrete post and sleeper wall material storage bays. The foundations for the facilities were piled and then the concrete slabs were constructed.

The extent of the works in the Eastern part of the site expanded quickly to include the reinforced concrete works for two new weighbridges, a sea dredge conveyor and processing area, workshop foundations as well as a covered RAP storage bay.

KKB installed all the infrastructure including underground foul/surface water drainage, storage ponds and headwalls; ducting for electric and telecoms; underground water mains (including chlorination); sub-base and

kerbing for the new asphalt spine road and surrounding access routes.

Works progressed to the site's western side which included the radial conveyor area and the train loading platform.

We installed foundations for two large radial conveyors, associated storage areas and retaining walls including the installation of 1400 Nr. of square driven piles (ranging between 20 and 30m in length). A 100m x 4m high circular reinforced concrete retaining wall and base were constructed around the larger radial conveyor. The two reinforced concrete radial storage slabs were constructed on driven piles covering an area of 9800 sqm.

We also constructed the train loading platform which consisted of a reinforced concrete slab and upstand retaining wall set 500mm back from the railway track and running for a total length of 185m to allow the trains to be loaded by a mechanical shovel.

In total the project used more than 22,000 square metres of mesh reinforcement and 630 tonnes of reinforcement bar. Works were carefully sequenced to enable us to conduct the works concurrently with the ground remediation and earthworks packages, to minimise program duration and costs.

