



East Midlands Gateway Case Study

Client: Collins Earthworks Ltd

Project: East Midlands Gateway

Services: UKAS accredited, On-site Earthworks Testing

About the Site

SEGRO Logistics Park East Midlands Gateway (SLPEMG) is a 700-acre development with planning consent for up to 6,000,000 ft² of logistics accommodation. The development incorporates a 50-acre Strategic Rail Freight Interchange (SRFI) which will include a rail freight terminal, capable of handling up to sixteen 775m freight trains per day, container storage and HGV parking.

Requirements

Construction Testing Solutions were asked to deliver a comprehensive earthworks testing package for the principle earthworks contractor. As a part of the contracts, we were asked to provide a self-contained, on-site, UKAS accredited laboratory; capable of testing circa 5 million m³ of emplaced fill material.

We were required to deliver the full range of laboratory materials classification to British Standards. Tests included moisture content, sieve analysis, plasticity index, particle density, moisture condition value, optimum moisture content, maximum dry density, quick undrained shear strengths and chemical analysis.

In-situ materials testing included nuclear density tests, plate bearing CBR's, dual cycle plate load tests for EV1 and 2, light weight deflectometer testing for stiffness modulus, sand replacement densities and hand shear vanes (enabling rapid assessment of shear strengths).



CTS were also asked to test the Cement Bound Granular Material (CBGM) for the new A453 road infrastructure, running into the development. This comprised the compressive strength of 150mm re-compacted cubes manufactured from T1SB (with the addition of cement) and further in-situ density testing.

Project timelines were tight, with a fully operational laboratory, complete with a five-strong team of technicians, management structure and quality system, required in just five weeks.

Why Construction Testing Solutions?

Over the past 10 years; Construction Testing Solutions have worked closely with Collins Earthworks on countless major construction projects across the UK. They knew we could deliver on the highly demanding testing regime and the need to turnaround results in 24 hours.

Results

Construction Testing Solutions established an on-site UKAS accredited soils laboratory; generating results daily. This laboratory, along with its infrastructure will remain operational at East Midlands Gateway over the foreseeable future.

Due to the scale of the earthworks operation, the rapid assessment and results turnaround for this project was essential. The identification of non-compliance results is addressed and rectified quickly; allowing the seamless placement of material; ultimately resulting in our client achieving their agreed deadlines.

The verification of compliance for the re-compacted cubes also ensures an extended life span of the new highway infrastructure.



“Over the last 10 years of working closely with CTS, we have developed a great relationship and understanding of how each other work. This relationship is imperative to ensure that our site works are able to progress at the high quality and speed that we both strive to achieve.”

Pat Gaffney – Director



Construction Testing Solutions

Bootham Lane Industrial Estate, Dunscroft, Doncaster,
South Yorkshire, DN7 4JU

t. 01302 352 652

e. enquiries@constructiontesting.co.uk

w. www.constructiontesting.co.uk