

Segrow Park

Customer: McLaughlin & Harvey Construction Ltd

Location: Heathrow, London

Products: GeoBrace 254, 550 & Tubeshor 320

Case Study

Altrad RMD Kwikform provided a safe and cost-effective ground-shoring solution to build a temporary cofferdam to position two 70,000 litre grease trap tanks!

An underground waste food treatment facility has been constructed by groundworks and construction specialist Euro-City Eastern at SEGRO Park, Heathrow. Operations Director, Michael English, turned to RMD Kwikform to provide a safe and cost-effective ground-shoring solution to build a temporary cofferdam in which to position two 70,000-litre grease trap tanks.

Euro-City Eastern carried out the excavation as part of a groundworks and infrastructure package for main contractor McLaughlin & Harvey Construction Ltd.

The system will service an adjacent 172,000 sq ft industrial unit, which has been pre-let on a 25-year agreement to DO & CO, a gourmet entertainment and airline catering company. The business, which operates worldwide with a focus on Continental Europe, USA and Asia, will use the facility for production and distribution.

A term from Euro-City Eastern was tasked with installing the temporary cofferdam, measuring 20m long, 8.2m wide and 4.3m deep, within which to construct the waste food treatment capacity for the facility. The depth of the excavation meant the cofferdam was subjected to high lateral loads, requiring a robust and secure support system to retain the ground.

Located near to the main structure, the excavation was also subject to high water table levels, which contributed to the increased loads and made for challenging on-site conditions. Engineers from RMD Kwikform took these factors into consideration when designing a groundworks solution for Euro-City Eastern.

Operations Director, Michael English, explains: "The purpose of the excavation at Heathrow was to install two 70,000-litre tanks to take waste food away from inside the building. The excavation works took around two weeks. Continued...





"We worked very closely with RMD Kwikform from a design point of view, with very challenging ground conditions on the site. The water table was very high and, after taking that into consideration, RMD Kwikform gave us several ground-shoring options to choose from. We were very impressed with what they came up with. RMD Kwikform attended site and carried out an installation briefing with the operatives and engineers, which was very beneficial to the installation process."

To construct the temporary cofferdam, Michael and his team used RMD Kwikform's 320 Tubeshor hybrid shoring system in conjunction with 550 GeoBrace and 254 GeoBrace.

Tubeshor is used for propping waling beams or capping beams of large excavations, and for vertical applications such as bridge bearing replacement. An integral hydraulic ram unit is rated for an AWL of 2500kN, rising to 4500kN once the unique mechanical lock off collar is engaged.

With a choice of multiple leg extensions from 500mm to 11500mm and a hydraulic ram unit that extends up to 800mm, virtually all prop lengths can be achieved with standard components. The huge strength capability of Tubeshor means fewer struts are needed and assembly time can be reduced, saving time and money.

All major components have robust integral lifting points for safer handling, while Integral forklift points and rotation stops enable safe storage of stacked sections. Its heavy-duty construction, using high-grade steels, is also designed to be less prone to damage.

Euro-City Eastern looks to deliver certainty in areas of cost, quality, safety and professionalism with an environmentally responsible attitude. Working with RMD Kwikform helped the firm achieve this and more.

Michael continues: "From our ground shoring supplier, we look for a very fast turnaround on a practical design, which is cost-effective and simple to use. RMD Kwikform met all of these requirements. The products are very user-friendly, lightweight and easy to install. The system is extremely versatile and compares well with other products on the market.

"The support and service we have received from RMD Kwikform has been fantastic from start to finish, from design right through to installation, with deliveries coming in on time. We will work with them again in the future.

"In addition to the engineering solutions, RMD Kwikform also provided on-site assistance for the project, carrying out a briefing for operatives and engineers. The customer was able to query any concerns or difficulties, ensuring the development ran smoothly."

SEGRO Park Heathrow is located in a prominent position close to Heathrow airport with the M4, A40, M40, M25 and M3 all within easy reach. Local occupiers include DHL, Ocado, Amazon, Travis Perkins, Rolls-Royce, Kuehne + Nagel, British Airways and DB Schenker.