



Remediation and ground engineering

Caparo Works, Walsall

Client: Anthem Lovell (JV between Walsall Housing Group and Lovell Partnerships)

Value: £2m (£44m development value)

Location: Walsall

End use: 252 new social and private homes

Challenge

Remediation and enabling works to unlock the canal-side site of the former Caparo Engineering Works for development of over 252 social and private houses.

A complex mix of ground issues meant the site had sat derelict for over a decade since the factory's closure.

These included: TPH-contaminated soils, mineworkings, deep made ground, extensive concrete obstructions and substructures, presence of Japanese Knotweed and mare's tail, surface asbestos, and demolition of unsafe buildings.

Solution

Our team was already familiar with the site, having first provided technical consultation ten years ago.

This allowed us to quickly design a better value foundation solution for the client, value-engineering a cost-effective reinforced strip foundation, and removing need for piling.

We designed a new earthworks specification, which was approved by the NHBC, and agreed phased handover with the regulator.

Using our 3DMC-enabled plant, we excavated, turned-over, and re-engineered over 4m of made ground soils below all plots, frontages, and roads, providing an engineered development platform compacted to 75MPa.

Re-compacted layers and compaction data were recorded in real-time using our intelligent dozers and roller. This was supported with a rigorous re-assurance geotechnical testing regime, giving full confidence to the NHBC.

Our team also bioremediated contaminated soils, removed over 10t of asbestos, and carried out demolition works adjacent to listed structures and neighbouring back gardens.

Results

- Phased handover allowed development to start early
- 99% reuse of excavated materials onsite
- Project completed on time and on budget
- Better value foundation solution agreed with NHBC
- Zero incidents
- Minimised disruption by liaising closely with neighbouring property owners