



CLIENT
Linden Homes

LOCATION
Nottingham, UK

SITE AREA
6.6 Hectares

VALUE
£1.1 Million

TIMEFRAME
16 Weeks

INDUSTRY
Housebuilding

JOB TYPE
Remediation, materials management, ground engineering



- > REMEDIATION
- > MATERIALS MANAGEMENT
- > GROUND IMPROVEMENT
- > DEMOLITION SERVICES
- > TURN-KEY SOLUTIONS

REMIEDIATING A 6.6 HA FORMER LANDFILL SITE FOR NEW HOMES

CHALLENGE

McAuliffe and its specialist remediation arm, GeoStream UK, were contracted to carry out an extensive remediation and earthworks programme on a 6.6 Ha site in Nottingham in preparation for the construction of 171 new homes.

Client Linden Homes, the housebuilding division of Galliford Try, acquired the site on Wilford Lane to help meet Rushcliffe Borough Council's Local Plan Two, which aims to build more than 2,500 homes by 2028.

The site, which was previously a landfill site, was predominantly landfilled with pulverised fuel ash (PFA) from a nearby coal fire power station with isolated areas of landfill waste. The southern part of the site was bound by a former municipal landfill site still producing significant levels of landfill gas.

McAuliffe and GeoStream UK were given a 16-week timeframe to complete the project, while adhering to strict environmental and waste disposal requirements and providing ground gas mitigation.

Various challenges on the scheme included:

- Bespoke design and build of a gas barrier to prevent gas migration from the adjacent site
- Maintaining an existing footpath and cycleway which dissected the site and needed to remain fully operational
- Separate remediation and early handover of council retained land
- Pre-treatment and segregation of materials as per the MMP, reducing waste to landfill to reduce cost and time
- Early sectional handover to enable on-site piling activities

ACTIVITY

McAuliffe designed and agreed a comprehensive remediation method statement (RMS) and validation plan after undertaking initial site investigations and associated risk assessments prior to commencing work. This included GeoStream's own in-house gas curtain design, to prevent lateral gas migration from the adjacent site, which was approved by Rushcliffe Borough Council.

The McAuliffe team undertook additional on-site investigations to determine the most effective location for the proposed gas curtain, which was aligned to the on-site topography and location of the adjacent landfill waste.

McAuliffe's 3D-GPS enabled fleet of 20 – 35T excavators, dozers and dump trucks moved large volumes of materials in accordance with a materials management plan (MMP). This included preparation of each individual plot to its specific finished floor level, complete with piling mat.

On-site 6F2 was produced and supplemented with external sources to complete the piling mats as the works proceeded.

As part of the volumetric appraisal for the site, McAuliffe was able to value engineer on site levels to provide a void space below the clean cover for all on-site construction arisings, which would otherwise have been disposed of to landfill as Non-Hazardous classification. This saved circa £300k and avoided more than 1,100 lorry movements.

Throughout the project, the team adhered to an MMP and liaised with the local authority to ensure full compliance with CL:AIRE Definition of Waste Code of Practice. Tree clearance and licensed badger works were also undertaken in line with Natural England requirements.

RESULTS

- Design, build and installation of a 340-metre bespoke in-house designed and manufactured virtual gas curtain following an extensive site investigation
- 6.6 Ha site delivered build-ready in 16 weeks with five-week sectional completion and sign-off by the Environmental Health Officer of the council retained land
- Project delivered on time and within budget, with direct savings of £300k

