

ENABLING EARTHWORKS & REMEDIATION OF A FORMER RAF AIRFIELD

AT A GLANCE

Client

Tier 1 National Contractor

Remediation Value

£3 Million

Site Overview

A former RAF base, adjacent to a live civil airfield, was being redeveloped for office and light commercial use. The land had been subject to widespread deposition of materials contaminated with asbestos, metals and PAHs and of highly variable physical quality. A heavily contaminated 1950s MOD landfill was also present and believed to contain Unexploded Ordnance (UXO). Our client required an integrated package of earthworks, remediation and engineered fill placement to a demanding specification, with a verified clean cover system in place. A large excess of contaminated soil needed disposal, entailing a complex stockpile management and removal programme in parallel with the site works. All to a demanding programme, with sectional completion dates, through at times very challenging weather.



SUCCESSES

- Turnkey solution to render a WWII airfield and landfill to build-ready condition within programme and budget.
- The project was awarded the client's quarterly supply chain health & safety award.
- **18,557m³** - site-won materials re-used under a Materials Management Plan, reducing project costs and greenhouse gas emissions that would result from importing material.
- **1,800m³** - recovered topsoil and subsoil tested and combined for landscaping requirements across the project.
- **7,110m³** - hazardous soil and coal tar segregated for disposal.
- **13,360m³** - non-hazardous soil recovered offsite.
- **326** -UXO items made safe, 80 of which were disarmed on site.

CHALLENGES

- Working alongside an active airfield with restricted routes for access and equipment movements.
- Unlicensed landfill presenting unknown challenges.
- UXO threats throughout due to unrecorded disposal.
- Chrysotile, crocidolite and amosite asbestos found within site-wide soils.
- Visible asbestos, lead and TPHs in the landfill areas.
- Exacting specification for fill placement.
- Demanding programme, with sectional completion.
- Extended periods of wet weather, with a high water table and poor drainage.



SOLUTIONS

- A highly detailed remediation implementation plan was developed in advance and adhered to throughout.
- Phased, sectional site access and traffic management plan.
- Detailed UXO discovery, management, and disposal plan.
- Close working relationships maintained with the client, construction contractors and consultants throughout.
- GPS model with onsite direct GPS machine control reduced setting out needs and materials re-handling costs.
- Use of rapid on-site geotechnical classification and testing methods for engineered fill materials reduced laboratory costs and delays awaiting results.
- Detailed materials management plan, with integrated soil disposal and fill placement to utilise periods of good weather to avoid test failures.