

Case Study

Remediation of an Asbestos Contaminated Site for Residential Redevelopment

Client

Housing Developer

Remediation Value

Confidential

Site

The site, located close to Bristol, formerly comprised a dog kennels and used vehicle storage. Full permission had been gained by the owner/developer for the erection of 13 dwelling houses with gardens.

Contamination

Previous site investigations found chrysotile (white) asbestos fragments (ACMs) and loose fibres widely, but patchily present in made ground. Amosite (brown) asbestos was also detected. Concentrations of asbestos in soil were reported up to 25%, but often below 0.001%. Lead and polycyclic aromatic hydrocarbons (PAHs) were also present on the site.

Challenges

- A remediation strategy had been accepted by the Planning Authority for an earlier development proposal. The live development differed in layout and finished site levels, requiring a modified strategy.
- The client wished to retain as much material as possible on site, whilst providing certainty of the absence of residual contamination in sensitive areas.
- Previous site investigations were done with buildings still in place, so information was incomplete.

- There was a tight build programme, with groundwork and foundations underway during remediation.
- Following several previous remediation and redevelopment proposals for the site, maintaining regulatory goodwill was crucial to gaining acceptance for any further revised proposals.



Remediation Approach

- UK Remediation developed an updated Remediation Method Statement and gained pre-approval of this from regulators. This ensured that construction could continue during the remediation phase without risk of further works being needed after regulatory review.

The adopted proposals included:

- Grid based sampling and laboratory analysis to classify site soils in small volumes, so minimising disposal costs.
- Targeted removal of highly impacted soil by on-site segregation and hand picking of visible asbestos.
- Removal of impacted ground to 600mm below finished levels in gardens and soft landscaping areas.
- Installation of a barrier layer and clean cover system above this to ensure ongoing protection of residents.
- The UK Remediation revised strategy maximised retention of material on site, so minimising the need for offsite disposal and import of clean materials.
- UK Remediation undertook monitoring and recording throughout the groundworks, including topological surveys to demonstrate full implementation of the approved methods.
- This information was collated by UK Remediation to provide detailed site completion reports.
- Local Authority and insurer sign-off for the works was successfully gained in a short period of time, allowing onward development to proceed with confidence.