

Case Study

Onsite Treatment and Disposal of Asbestos and Coal Tar Contamination

Client

Major UK Developer

Remediation Value

Confidential

Site

Active city centre bus station undergoing redevelopment for a landmark leisure centre. Contamination identified during the site investigation phase included a layer of coal tar bound asphalt, PAH impacted sub-base material and 'hotspots' of asbestos contamination. Remediation was required to mitigate human health risks and to allow the bulk reduced level excavation to be safely progressed.

Contaminants

- Visible fragments of Chrysotile asbestos cement,
- Coal tar bound asphalt,
- PAH impacted sub-base.

Remediation Methods

- Delineation, excavation, and removal of coal tar bound asphalt for offsite treatment and recycling.
- Excavation of PAH impacted sub-base, stockpiling for testing and for comparison against site reuse criteria.
- Targeted excavation of soils containing asbestos and onsite treatment prior to disposal as inert.

- Trial pitting and sampling to verify waste classification of excess natural clays destined for offsite disposal.

Challenges

- A large volume of asbestos containing soils was encountered with limited space availability.
- Undertaking asbestos treatment in a highly sensitive location in central Exeter
- Operational and logistical challenges of undertaking remediation work within the wider site development and active bus station

Successes

- Excavation and disposal of coal tar bound asphalt as hazardous waste prior to main works.
- Establishment of controlled quarantined area.
- Treatment of a total of 4,600 tonnes of asbestos fragment containing soil, using physical processing to allow specialist operatives to handpick visible asbestos.
- Waste assessment of treated material to confirm the absence of asbestos enabled formerly Hazardous material to be removed from site as Inert. This resulted in a saving of £140,000.
- UK Remediation undertook site environmental monitoring throughout to provide a strong evidence base for effective health controls.
- Validation sampling of all remediation excavations to confirm the absence of contamination.

- Working closely with various sub-contractors onsite to ensure programme delivery.

- Asbestos treatment completed under UK Remediation's Mobile Plant Permit.

- UK Remediation developed and administered a CL:AIRE-compliant Materials Management Plan to facilitate reuse of materials on the site.



Busy city centre site: Remediation works visible at rear



Small batch picking of asbestos within the controlled area