

Stafford

Former Use:	MOD Logistics Depot
Developer:	Lovell Partnerships Ltd
Value:	£700,000
Location:	Stafford
Size:	13 Hectares

This project involved the remediation of a former RAF depot which was to be converted into 356 houses for returning service personnel.

The original site investigations identified shallow made ground at the site impacted with low levels of asbestos, and a former boiler house area which was impacted with a hydrocarbon plume that was recommended for removal from site. The consultant had recommended import of clean subsoils and topsoil to cap the site with clean materials and then to construct piled foundations for the new dwellings. Over a 13 hectare site this amounted to a very costly and unsustainable approach to the remediation, with over 78,000m³ of materials required to be imported to the site, and a very costly, non-sustainable foundation solution, together with a significant loss of mature trees.

Provectus established the distribution of asbestos across the site, and we were able to characterise the type of asbestos (in fragments rather than in fibre form) and its distribution with only a small proportion of the site having concentrations of asbestos in excess of guidance thresholds. The asbestos impacted soils were remediated by removal of fragments by visual screening and sorting. Having carried out trial pits on a 15m grid to confirm the distribution of asbestos impacted soils, a significant volume of re-usable topsoil was also stockpiled which was a valuable resource.

In addition there was a significant volume of concrete crushed by the demolition contractor left on site for further reuse.

Utilising a materials management plan under the CL:AIRE Code of Practice for definition of waste, the hydrocarbon plume and impacted soils were excavated and remediated on-site using bioremediation techniques and the void created was utilised to relocate low level impacted asbestos and ashy soils at depth which was to be covered with clean soils won from on



site and houses to be built over the prepared development platform.

Once decontaminated to agreed targets the hydrocarbon materials were reused in the works. Topsoil was reused for house gardens and public open space landscaping.

This design allowed the original piled foundation design to be replaced by an alternative traditional strip or trench fill design resulting in a significant cost savings

As a final detail it was suggested to the client that they have their consultants redesign the final levels for the site to take account of arisings from foundation excavations, roads, drainage and services excavations etc. This also saved the clients the requirements to export these soils to tip with consequent further significant savings on construction costs in addition to sustainable remediation cost savings. The works undertaken and subsequent advice to the client meant that there was a zero to landfill throughout the entire project, and also enabled the client to reduce imports to site significantly also, including the removal of any requirement to import topsoil.

All the remedial works and advice were undertaken in conjunction and close scrutiny of the relevant regulators (EHO and EA) and were validated / verified to the acceptance of all parties.