

Brownfield Development - Asbestos

INTRODUCTION

The former hospital site became surplus to requirements of the previous owners in 2000, at which point the majority of buildings were demolished. The site remained vacant until 2005 when it was purchased for residential redevelopment.

Southern Testing were appointed as Consultants to undertake a Phase 1 Contaminative Uses Desk Study and Phase II Detailed Geotechnical and Environmental Ground Investigation to support the developers planning application.

INVESTIGATION & ANALYSIS

The initial site walk over survey identified asbestos containing materials (ACM's) to be present within the construction fabric of remaining buildings and in pipework within a maze of duct runs which appeared intact / or partly collapsed across the site. Loose asbestos cement and insulation materials were also evident within the fill soils (demolition rubble) present across the surface of the site.

A phased investigation was undertaken. Initially, a hazard assessment was undertaken comprising of a shallow trial pit investigation on a grid, with composite sampling and screening for asbestos. Sampling of lagging from visible duct runs was also carried out. Such an approach enable better assessment of the H&S risk during later investigation, risk to ground workers / end users / local community and the implications to with regard to possible remediation costs.

Later phases of investigation comprised deeper trial pits to determine the extent of sub surface structures, better coverage to determine the depth of made ground, zoning of site for foundation design and targeting of former areas of the site with potentially contaminative uses. Boreholes were also required for piling information, groundwater monitoring wells and land gas monitoring.

REMEDIATION & VERIFICATION

The remediation strategy proposed was based on a two-phased approach. Phase 1 focused on the systematic and careful removal of "point sources" or "hot spots" of ACM's (such as ducts and lagging). Phase 2 of the remediation strategy included a number of measures to safeguard future residents, the general public and ground workers from the risks (albeit minimal) that existed as a result of the low residual levels of ACMS remaining dispersed throughout the made ground. This primarily involved provision of a marker layer and deter-to-dig membrane together with import of clean cover to proposed soft landscaped areas.

A specialist Remediation Contractor was appointed to undertake site works. Southern Testing managed the project and undertook all validation works to obtain regulatory signoff and allow safe development of the site.



ISO 9001
ISO 14001
BS18001

