



Specification of Works for Phase 2 Site Investigation at Bowlers Yard, Manchester

Prepared for Zerum

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Specification of Works for Site Investigations

Project

Bowlers Yard, Manchester. Erection of a 11-storey building to form 62 residential apartments (Use Class C3a) units with associated landscaping, servicing, access, and parking.

Background

The site is located at the corner of Pollard Street and Munday Street in Manchester M4 7AN. A Phase 1 Preliminary Risk Assessment has been undertaken in 2019. Within the Phase 1 report reference is made to a Phase 2 Site Investigation undertaken in 2014, with the report presented in the appendices. The Phase 2 investigation was carried out on a wider site area which included a parcel of land to the north which has now been developed.

We have carried out a brief review of the available data which does not suggest the presence of significant contamination. The site was historically occupied by terraced housing and has been vacant since the late 1970s. It is thought the site is currently used as car parking.

Ground conditions typically comprise 1.3m to 2.7m of filled ground underlain by stiff to very clay. On the adjacent site to the north the clay strata was proven to depths between 18m and 20m, where sandstone and mudstone bedrock was recorded.

It is noteworthy that only 4 no. exploratory holes were carried out on the subject site however, comprising three shallow trial pits and one window sample to borehole. Gas monitoring was not undertaken.

Given the time elapsed since the investigation in 2014 and the relatively low frequency of exploratory holes further updated site investigation information has been requested by the local planning authority. Further geotechnical data is also required for detailed foundation and structural design.

Duties

Based on the above we would propose the scope of works outlined below to be sufficient at this stage.

- Carry out a detailed review of the existing Phase 1 and Phase 2 information. Subsequent exploratory holes to be targeted in areas of potential contamination sources as noted from historical maps.
- Provision of RAMS, Construction Phase Plan, organisation of sub-contractors and hire of welfare facilities (toilet and hand washing). We understand the site is secure and barriers are not needed.
- Drilling of 2 no. cable percussive boreholes to bedrock, continued with rotary coring to depths of up to 25m bgl.
- Drilling 1 no. cable percussive borehole to 5m.
- Allowance for the installation of 3 no. combined gas and groundwater monitoring wells along with 6 post fieldwork monitoring visits to record groundwater levels and ground gas concentrations.
- Standard penetration testing (SPTs) throughout the depth of each borehole to provide soil parameters for foundation design.
- Hire of a JCB 3CX type excavator and breaker for 2 days to carry out trial pit excavations across the site. Plate bearing tests will also be carried out in up to 4 no. locations within the upper clay soils where possible to derive CBR values and modulus of sub-grade reaction.
- Hand shear vane testing to be carried out within shallow clay soils.
- Collection of soil samples for chemical laboratory analysis; to be scheduled for a broad range of organic and inorganic contaminants of concern, including asbestos.

- Samples of Made Ground to be tested for WAC analysis and preparation of waste classification assessment to assist with disposal of soils to landfill.
- Collection of soil samples for geotechnical laboratory analysis, including soil classification, pH, water-soluble sulphate content, triaxial compression and oedometer testing.
- Provision of a factual and interpretative site investigation report to include a qualitative contamination risk assessment, ground gas risk assessment and a geotechnical assessment of the ground conditions in relation to the proposed development.

Depending on the findings of the site investigation a Remediation Strategy may be necessary to detail how any ground / groundwater contamination is to be treated to eliminate risks to human health and controlled water receptors, ensuring the site is in a suitable condition for the proposed development.

If required, the Remediation Strategy would be developed on completion of the Phase 2 investigations and submitted to the local authority for approval before any works begin on-site.

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