



Contaminated Land Phase One Desk Study for proposed replacement Mosque at Masjid Al Bilal, Bury Old Road, Prestwich, M25 0ER.

Prepared for

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February 2024



Summary

This report consists of a phase one contaminated land desk study produced in support of planning application for the redevelopment of Masjid Al Bilal, Bury Old Road, Prestwich, M25 0ER.

Following the site walkover and review of the available information it has been concluded that there is a slim chance of contamination existing on site from presumed made ground which requires either further investigation or mitigation measures to be taken to prevent any significant risk of significant harm to the identified receptors either and to ensure the site is safe and suitable for the intended use.

The report further recommends that a watching brief is maintained throughout the construction of the new dwellings and any signs of potential contamination found are fully investigated, with appropriate remedial action taken as necessary.



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Introduction

Martin Environmental Solutions has been commissioned, to carry out a phase one contaminated land desk study report in relation to a proposed redevelopment of the Masjid Al Bilal, Bury Old Road, Prestwich, M25 0ER.

Aims and Objectives of the report

The aims and objectives of this report are as follows:

- Assess the likelihood of contamination affecting the site,
- Identify any likely receptors to be affected by the potential contamination,
- Identify the pathways by which the receptors will be exposed to any potential contamination,
- Identify any areas where further investigation will be required.

Scope of works

This report has been written in line with the 'BS 10175: 2011+A2: 2017 Investigation of potentially contaminated sites – Code of Practice' and Land Contamination Risk Management (LCRM).

The scope of this report covers the phase one desk study only. It will look at relevant information on: -

- the history of the site and surrounding area,
- the current use of the site and surrounding area,
- the geology and hydrogeology of the area,

A site walk-over survey has been undertaken in addition to consultations with the existing site owner, to identify any potential contamination issues.

Evaluation of the above information will be used to construct an initial conceptual model as appropriate, with the identification of any additional investigations that may be required.



The Site:

Site Address: Masjid Al Bilal, Bury Old Road, Prestwich, M25 0ER.

Grid reference: 382801; 402751

An aerial photograph of the site is included in Figure 1.

Current Site use:

The site currently consists of a car park and the existing mosque. Residential properties are located to the north, east and south of the site with the main road to the west. Opposite the site are a row of commercial properties with residential above.

Research

Details of Research

This report has been based on information gathered from a number of reputable sources, covering details:

- on the historic and current use of the site,
- any known waste disposal activities in the area,
- any regulated industrial activities within the vicinity of the site including recorded industrial accidents,
- on the geology, hydrogeology, hydrology of the area,
- identification of any environmentally sensitive sites,
- any natural hazards.

Principle sources of this information have been:

- environmental data from Groundsure Limited
- the Local Planning Authority,
- historic maps (Groundsure Ltd),
- site walk-over survey and discussion with the current owners.

Site History

Information on the historic uses of the site has been obtained from historic mapping information (Appendix 2), and environmental data from Groundsure Limited.

Mapping Year	Changes on Site	Changes off Site
1848	The site forms part of a larger field.	The main road runs to the west of the site a property is located to the north 150m away and to the south 200m away. There are few properties within 750m of the site.
1893-94	No Change	Additional properties have been built in the area, lots of woodland is shown in the area. A railway is located 750m to the northwest.
1907-09	No Change	No Significant Changes
1915-23	No Change	A housing estate has been built 120m to the southwest
1932	No Change	Significant development in the area, mainly east and west with housing estates having been built. Properties are located to the immediate south of the site.
1938	No Change	More development in the area.
1952-56	No Change	More development in the area. Allotment gardens are located to the north and a substation 125m to the east, with another in the housing estate to the west.
1968	No Change	No significant changes
1977	No Change	The allotments to the north are now playing fields
1985-92	Brooklands Library is shown on site, with the car park to the south.	No significant changes
2001-03	No Change	The houses to the rear and north of the site have been constructed.
2010	The site is no longer identified as a library	No significant changes



2024	No Change	No significant changes
Aerial photos	An extension is built to the north of the building in 2018.	No significant changes. The housing to the rear and north is shown in 2000.



Regulatory Information

Relevant information obtained from the Groundsure report (Appendix 1) is summarised below.

Three permitted activities that has been identified within 500m of the site as defined in the Environmental Permitting (England and Wales) Regulations 2016 or previous legislation. These include a dry cleaners located 28m southwest on the far side of the street, a historic petrol station located 202m south.

No pollution incidents or discharge consents have been identified in the surrounding area located.

The above identified sites are unlikely to impact on the development site.

No active or historic landfill sites or waste sites are present in the area. No waste exemptions are recorded.

Eight current potentially contaminative sites are identified. These include the above dry cleaners, 28m southwest a bakers 84m south, this is a residential property, a now closed construction finishing company at another residential property. Three substations located 146m northeast, 196m west and 199m south. A car wash 211m south and a publisher 226m southeast.

Historical potentially contaminative land uses have been identified within 250m of the site from the purchased information; most of these have been identified from the historical mapping and include:

Ground workings to 190m to the west from 1956, these are related to the school and levelling off the land for the playground.

A Police Station 219m southeast.

An unspecified tank is also identified 209m west from the site in 1909 at Sedgley New Hall, although a review of the mapping at the time does not confirm its presence.



Geology and Hydrogeology

Information from the British Geology Survey 1:50,000 mapping identifies the bedrock in the area as Chester Pebble Bed Formation – sandstone and Manchester Marls Formation – Mudstone overlaid with Glaciofluvial Sheet Deposits of Devensian, Sand and gravel.

The information obtained on the hydrogeology of the area identifies the site as having a Principal aquifer in the bedrock providing a high level of water storage and may support water supply/river base flow on a strategic scale, with a Secondary A aquifer in the superficial layer.

Six groundwater abstraction licenses have been identified, covering three sites, the nearest located 1322m southwest and 1786m east are still active the first for a golf club and the second a borehole at British Cables Ltd. The third a historic boreholes at The site is not located within a Source Protection Zone.

The Groundwater vulnerability is described as high in the surface geology, medium in the superficial and low in the bedrock layers.

Hydrology

There are no nearby watercourses in the area.

The site is not within a floodplain, and the risk of flooding is classified as low.

Environmental Sensitivity

There are five Local Nature reserves located within the vicinity of the site. The nearest is 1001m southwest at Kersal Moor, Kersal Dale is located 1080m southwest and Blackley Forest 1133m northeast.

Prestwich Clough Wood is located 1485m northwest, while the Merseyside and Greater Manchester Green belt is located 412m north. The site lie within a Nitrate Vulnerable Zone.

The property is in an area identified as having less than 1% of properties above the action level of 200 Becquerel's per cubic metre, based on specific property search. Radon protection measures are not required in line with BR211.

No additional natural hazards have been identified & the site has very low/negligible risk of shrink swell, running sand, and compressible ground.



There are no mining activities identified in the immediate area although the site is located within a coal mining area as identified by the Coal Authority.



Site Walkover

A site walkover was undertaken on the 8th February 2024 and confirmed much of what had already been identified from the information obtained on the site. The photographs in Appendix 3 provide some indication of the current layout and condition of the site.

The site is accessed from the main road to the west, residential properties are located to the other three boundaries. The site is elevated from the roadside as are the neighbouring properties suggesting a natural incline from the road.

To the south and west of the site are asphalt parking areas, to the south corner a grass verge, hedgerow runs along the southern boundary and an earth banking is located to the eastern boundary rising up to the properties at the rear.

To the northeast of the site is located the existing single storey building. Constructed from brick, block, metal profile sheeting the building is gas centrally heated. To the northern corner a metal shed used for storage of inert equipment.

No signs of contamination, discoloration or olfactory evidence, dead or dying vegetation were seen during the walkover.

The current owners are unaware of any issues on site which could have led to contamination and the site.



Conclusions

Potential Contaminants

Following a review of the information gathered on the history of the site and the surrounding area and following the site walk-over survey there are no contaminants identified on or off site that are likely to present a significant possibility of significant harm to any identified receptor.

Receptors and Pathways

Potential receptors which may be affected by any unknown contamination on site will include:

- Construction workers who are likely to be affected by any potential contamination as they will initially be working in the ground and are likely to be the ones who unearth any potential contaminants.
- Future users of the site, including residents, staff and visitors to the site. For the purpose of evaluating any effects from any contamination found during any intrusive investigation future users/visitors to the site should be regarded as the 0-6-year-old female child.
- Any building on site e.g., foundations which may be attacked by any contaminants in the ground or services.
- The underlying groundwater which may be contaminated by migrating pollutants present on the site. There is also the potential for further pollution of the groundwater or the watercourse from disturbing any potential contaminants on site.

The pathways by which these receptors may be exposed to any unforeseen potential contamination will include:

Construction workers

- Inhalation, of gases or vapours released during ground work or fine particles.
- Ingestion of the contaminants, principally from cross contamination with contaminated soil and inadequate hand washing before smoking and eating.
- Absorption through the skin following contact with contaminated soil.



Future users and visitors

- Inhalations of gas/vapours or fibres, particularly if these are allowed to enter the new structures through the ground and build up in an enclosed area.
- Ingestion of contaminants, through the ingestion of contaminated soil from the garden area via direct contact, e.g., playing in the garden.
- Absorption of contaminants from dermal contact with contaminated soil.

Buildings

Contaminants on site have the potential to affect the foundations to the new building or the services supplying it.

Watercourses

As discussed above, if they exist on site, there is a potential for any contaminants to migrate through the ground into the groundwater and aquifer or via run-off into the watercourse.

Neighbouring sites

If present on site contaminants have the potential to migrate to neighbouring sites through ground water or air blown transfer.



Conceptual Model

The table represents a basic conceptual model. It highlights the potential sources of pollutants identified from the gathered information, and potential pathways in which any contaminants could reach the identified receptors.

Pathway	Description	Identified sources	Receptor at risk	Likelihood
1	Run off and seepage into groundwater from any spillages	-	Watercourse/ Environment	V. Low
2	Migration of gases into the building.	-	Future users	V. Low
3	Inhalation of gases/ vapours outside	-	Construction workers/future users	V. Low
4	Inhalation of fine particles	-	Construction workers/future users	V. Low
5	Direct ingestion of contaminated soil	-	Construction workers	V. Low
6	In-direct ingestion of contaminated soil	-	Future users	V. Low
7	Absorption via direct dermal contact with contaminated soil	-	Construction workers/future users	V. Low



Recommendations

As a result of the investigation into the historical use of the site and surrounding area no contaminants have been identified on or off site that are likely to present a significant possibility of significant harm to any identified receptors. As such the site is considered to be safe and suitable for the intended use.

It is further recommended that a watching brief is maintained throughout the construction of the new building and any signs of potential contamination found are fully investigated, with appropriate remedial action taken as necessary and the local planning authority informed of the findings.

Figure 1 – Aerial Photograph





Appendix 1 – Groundsure Data



Appendix 2 – Historical Mapping

Appendix 3 – Site Walkover Photographs

Southern boundary looking west then east



Southeast corner looking across site.



Southwest corner looking across site.



western bodnary looking north then south.





northwestern carpar area looking north then south along western boundary



Looking across the area southwest to north east



southern boundary of area looking east



Nrthern boundary of area





Eastern boundary looking north





Eastern boundary looking west





Shed in north east corner





Appendix 4 Report limitations and exclusions

Basis of Risk Assessment

The methods used follow a risk-based approach with the potential risk assessed using the 'Source – pathway – receptor pollution linkage concept.

Limitations and Exceptions of this Report

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The findings and opinions provided in this document are made in good faith and are based on data provided by third parties (Groundsure, Environment Agency, The Coal Authority, and Regulatory Bodies) and the report should be read in conjunction with the limitations on the document control form. The accuracy of map extracts cannot be guaranteed and it should be recognised that different conditions on /adjacent to the site may have existed between and subsequent to the various map surveys.

This report is prepared and written in the context of the purposes stated above and should not be used in a different context. Furthermore, new information, improved practices and legislation may necessitate an alteration to this report in whole or in part after its submission.

The conclusions and recommendations of this report are based on the development described, for any other development the report may require revision.

All of the comments and opinions contained in this report, including any conclusions, are based on the information obtained by **Martin Environmental Solutions**. The conclusions



drawn by **Martin Environmental Solutions** could therefore differ if the information obtained is found to be misrepresentative, inaccurate, or misleading. **Martin Environmental Solutions** reserves the right to amend their conclusions and recommendations in the light of further information that may become available.

The report should be read in its entirety, including all associated drawings and appendices.

Martin Environmental Solutions cannot be held responsible for any misinterpretations arising from the use of extracts that are taken out of context.

This report does not comprise a geotechnical assessment of the strata underlying the site.

Any borehole data from the British Geological Survey sources is included on the following basis: 'The British Geological Survey accept no responsibility for omissions or misinterpretations of the data from their Data Bank as this may be old or obtained from non-BGS sources and may not represent current interpretation'.

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Any risks identified in a Phase I Desk Study Report are perceived risks. Actual risks can only be assessed following a physical investigation of the site.

The findings of this report are based on finite information obtained from research and consultations. Martin Environmental Solutions cannot guarantee the reliability of all such information and the searches should not be considered exhaustive. The findings of the report may need to be reviewed as any future exploratory investigations progress and in the event that additional archive information becomes available.

Notwithstanding the findings of this study (and any subsequent investigations), if any indication of contaminated soil (visual or olfactory) is encountered at any stage of the development further investigation may be required.



Arboricultural Survey and advice on arboricultural issues are considered to be outside the scope of this report except for their effect on the foundations to the proposed buildings.

Where identification of any species is made, especially invasive plants such as Japanese Knotweed, Himalayan Balsam or Giant Hogweed, this should only be considered as a preliminary assessment and subject to confirmation by a professional Arboriculturist. Martin Environmental Solutions takes no responsibility for failing to identify, or the incorrect identification of, any tree or plant species on site.

Our investigations exclude surveys to identify the presence or indeed absence of asbestos in buildings/infrastructure on site. If asbestos is suspected to be present, we recommend specialists in the identification and control / disposal of asbestos are appointed prior to commencement of any works on site or, if appropriate, purchase of the site. The presence of asbestos on site may have considerable effects on the cost / timescale in developing the site. There is good guidance in relation to Asbestos available on the Health and Safety Executive (HSE) web site.

Whilst a site walkover has been undertaken as part of this report, the survey does not constitute either an asbestos or structural survey and all areas of the site may not have been visited / inspected.