



Date 29 March 2023
Reference CL1038.290323.1
Website www.bury.gov.uk

Department for Operations

Dean Clapworthy
Bury Council Development Control

Dear Dean

**Radcliffe Civic Hub, 13-21 Blackburn Street, Radcliffe, Manchester, M26 1NN,
Planning Application: 69388 – Contaminated Land**

I write regarding the above planning application. The Environment Section has received copies of the following reports:

- Geoenvironmental Appraisal of land at Radcliffe Hub, Radcliffe, ID GeoEnvironmental Limited, Reference: 5238-G-R001, August 2022.
- Asbestos Management Plan Review, Radcliffe Market Hall, Bury Council Architectural Services, No Reference, 16 June 2020.
- Report on Survey of Asbestos Materials at Radcliffe Market Chambers, Blackburn Street, Radcliffe, M26 1NN, APEC Environmental Limited, Reference: CH.21.12.030.LW, 11 December 2021.
- Invasive Weeds Management Plan, Radcliffe Market, Stephenson Halliday, Reference: 0308, 19 July 2022.

The Environment Section has reviewed the above information in order to assess the following points:

1. The adequacy of the desk study information available for this site.
2. The adequacy of the site investigation.
3. The adequacy of the final risk assessment.
4. The acceptability of the proposed remediation strategy.
5. Whether the information submitted is sufficient to determine that the site presents a low risk to human health and the environment.
6. If pre-commencement or pre-occupation planning conditions are required.

The site is currently occupied by Radcliffe Market Hall, Radcliffe Market Chambers, Radcliffe Plaza, a block of retail and commercial premises and a public house. Adjacent land use includes retail and commercial buildings, a carpark and supermarket and a sorting office. Previous land uses at the site have included a dye works, an electricity substation commercial and retail properties, housing, a market hall and marketplace and a bus station. Previous land uses within the surrounding area have included dye works, cotton and textile mills, iron works, chemical works, a gas holder, a preserve works and areas of potential waste disposal. The site does not lie within 250 metres of any known landfill sites but lies adjacent to the River Irwell. The site is situated on the Middle Coal Measures and Nob End Rock Secondary A

Aquifers. Overlying drift deposits are likely to be absent or comprise River Terrace Deposits. The site is situated within a Radon Affected Area (Category 3 and Category 2) where up to 3-5% of homes are estimated to exceed the Action Level.

It is understood that the proposed development comprises the demolition of 13-21 Blackburn Street/TSB Bank and construction of a three-storey civic hub building (leisure centre and library), a link block between Radcliffe Market and Market Chambers buildings, and the refurbishment of Market Chambers and Market Hall basement, for use as a multi-use event space, with associated external alterations and works and hard and soft landscaping.

1. The adequacy of the desk study information available for this site

It is understood that a previous desk study was completed by Arup in April 2021. A copy of this report is required.

The ID GeoEnvironmental (IDE) report includes a description of the site including its past historical uses. An appraisal of the site environmental setting is presented including its geology, hydrogeology and hydrological regime, mining activities, waste management issues, and identification of additional environmental sources, pathways and receptors. The report includes a review of the previous desk study for the site and site investigation information for adjacent sites. This information has been used to compile a clear site conceptual model, which identifies potential sources, pathways and receptors and likely pollution linkages.

A site walkover was undertaken on 23 November 2021, no visual evidence of soil contamination was noted.

The desk study information provided appears to be sufficient to assess the potential risks at the site.

The report concluded that there was a potential risk to future site users and the environment from potential contamination at the site. However, the risks from ground gas are considered low. Consequently, a site investigation was proposed including a coal mining investigation.

The report states that the site is located within a Radon Affected Area where up to 1-3% of homes are estimated to exceed the Action Level (Category 2) but Building regulations do not require protection measures. However, the consultant considers that precautionary radon protection measures and post construction radon gas monitoring should be considered.

Since the IDE report was published the UK Radon Map has been updated and the majority of the site is now considered to be in a Radon Affected Area (Category 3) where up to 3-5% of homes are estimated to exceed the Action Level of 200 Becquerels per cubic metre for the annual average of radon gas concentration in a home. Consequently, in line with Building Regulations, it is recommended that basic radon protection measures are installed within the new buildings and post completion radon monitoring complete as proposed by IDE.

An invasive species survey and management plan has been submitted. The survey identified the presence of Japanese Knotweed, Himalayan Balsam and Giant Hogweed along the bank of the River Irwell by the Market Hall. Herbicide treated and control measures to prevent spread have been recommended. Validation information to demonstrate ongoing treatment will be required.

Asbestos survey reports/management plans have been provided for the Market Hall and the Market Chambers. The following asbestos containing materials (ACM) were found:

- Market Chambers – Chrysotile asbestos (flash guard and vinyl floor tiles). Proposal to manage ACM in situ.
- Market Hall – Chrysotile and crocidolite asbestos (cement), chrysotile asbestos (gaskets). Proposal to remove ACM

Validation information, including waste transfer documentation, will be required to demonstrate that any asbestos containing materials have been removed.

Asbestos surveys have not been provided for the buildings to be demolished and are required:

- Market Hall-Market Chambers Link Building.
- 1-9 (odd no.) Dale Street and 9-23 (odd no.) Blackburn Street.

2. The adequacy of the site investigation

A site investigation was undertaken in July 2022 and comprised the following:

Technique	No.	Comments
Window samples	7	Excavated to a depth of between 0.55 to 6.7m bgl (WS01, WS01A, WS01B, WS02, WS3, WS3A, WS04). Monitoring wells were installed in all locations. Response zones were within the natural strata in WS01B, WS02 and WS03A and within the made ground and natural in WS04.
Rotary boreholes	3	Excavated to a depth of 13.5m to 18.0m bgl (BH05, BH06 and BH07). Monitoring wells were installed within the mudstone in all three boreholes.
Soil sampling	9	5 no. samples of made ground (WS01B 0.4m, WS02 0.4m, WS03A 0.5m, WS04 0.8m) and 4 no. samples of natural (BH05 0.6m, BH06 1.4m-1.7m, BH06 2.2-2.5m, BH06 3.5m) were analysed for a suite of analysis that included metals and PAHs. The 5 no. made ground samples and 1 no. natural sample (BH06 1.4-1.7m) were tested for asbestos. Made ground sample WS01B 0.4m was tested for PCBs (located in the vicinity of the former electricity substation). The 3 no. natural samples from BH06 were also tested for speciated TPH, BTEX and MTBE.

Groundwater sampling	1	Samples taken from WS03A on 7 July 22 and tested for metals and PAHs and from BH07 on 14 July 22 and tested for metals only.
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It is noted that the depths of the samples in WS04 and BH06 on the certificates of analysis do not match depth stated on the borehole logs. Please provide clarification of the where the samples were taken from.

Site Ground Conditions: Ground conditions at the site comprise of hardstanding (concrete and slabs) over granular made ground to 1.8m bgl containing brick, clinker and timber. In BH05 and BH06 the made ground comprised only of hardstanding and subbase (MOT). The natural strata comprises of sand and clay layers (assumed to be glaciofluvial deposits). Mudstone bedrock was encountered at depths of 3.0 and 5.2m bgl and proven to a depth of 18m bgl. A thin band of coal was identified in BH06 at 13.2-13.3m bgl.

Obstructions were encountered in WS01, WS01A, WS03 and WS04 including sandstone and concrete slabs and a ceramic drain.

No visual or olfactory evidence of hydrocarbon contamination was encountered.

Site Water Conditions: During the investigation groundwater was encountered within the glaciofluvial deposits (between 1.33m bgl in BH06 and 4.15m bgl in WS02) and within the underlying Middle Coal Measures aquifer.

Groundwater samples were taken from WS03A (glaciofluvial deposits) on 7 July 2022 and from BH07 (Middle Coal Measures) on 14 July 2022. The remaining boreholes were not sufficiently productive to obtain samples.

Site Ground Gas Conditions: No potential on-site sources of gas were identified during the site investigation and therefore, no ground gas monitoring has been completed.

3. The adequacy of the final risk assessment

Ground Assessment: The soil analysis results have been compared to the Defra C4SLs and CIEH/LQM S4ULs for commercial land use (1% SOM).

No elevated concentrations of contaminants or the presence of asbestos was identified. Consequently, the risks to human health from potential soil contamination is considered low. This assessment appears reasonable.

However, given the site constraints on the investigation it is recommended further intrusive investigation is undertaken once the buildings have been demolished.

Although a coal seam, was encountered in BH06, no evidence of past mine works were identified during the investigation.

Controlled Waters Assessment: The groundwater / soil leachate analysis results have been compared to the UK Drinking Water Standards and Environmental Quality Standards.

No elevated concentrations of contaminants were identified in the two groundwater samples. It is noted in the report that the assessment criteria for Fluoranthene (0.075ug/l) and Naphthalene (0.075ug/l) are below the level of detection, but that concentrations of <0.1 ug/l were reported. Consequently, the risks to controlled waters are considered low. This assessment appears reasonable.

Please note that the Environment Agency is the regulator of controlled waters.

Ground Gas Assessment: The consultant considers that the potential risk to the development from ground gas ingress is low. This is due to lack of on and off-site sources of gas. However, as the site is situated within a Radon Affected Area, basic radon protection measures and post completion radon gas monitoring have been recommended. This assessment appears reasonable.

4. The acceptability of the proposed remediation strategy

The following measures are proposed so that the contamination identified on site no longer presents a risk:

- Radon Protection Measures as the site is located within a Category 3 Radon Affected Area.
- A post construction radon monitoring programme within the new buildings.
- Clean imported topsoil/subsoil to be placed in soft landscaped areas (minimum 300mm thick) to provide a growing medium. Please ensure that where trees are to be planted the depth of clean soils should be increased.
- Watching brief be undertaken during the development to identify and deal with any previously unforeseen contamination.
- Re-use of soils under a U1 Waste Exemption or a Materials Management Plan if the CL:Aire Definition of Waste Protocol is to be used.
- Excess soils should be disposed of at a suitably licenced waste disposal facility.
- Decommissioning and grouting of borehole BH07 due to the risk of sub-artesian groundwater impacting excavations during the development.

The proposed outline remediation strategy is acceptable to this Section. However, a detailed remediation strategy and validation plan is required. The remediation strategy should include the findings of any further investigation undertaken following demolition of the current buildings.

All parties involved with waste and soil movement at the site should be aware that materials illegally deposited or deposited at inappropriate sites may be subject to relevant landfill taxes, payable by all parties. Only robust due diligence is a defence against joint liability. Illegal deposits can include moving waste soil material on sites, or between sites, without the appropriate permits, exemptions or duty of care.

5. Whether the information submitted is sufficient to determine that the site presents a low risk to human health and the environment

In order for this Section to be satisfied that this development does not pose a risk to human health or the environment, the following information needs to be submitted to the Council for approval:

- (i) A copy of Arup desk study completed in April 2021.
- (ii) Validation information for the invasive species eradication plan.
- (iii) Asbestos surveys for the Market Hall-Market Chambers Link Building and 1-9 (odd no.) Dale Street and 9-23 (odd no.) Blackburn Street.
- (iv) Clarification of the where the samples were taken from in WS04 and BH06 as the depths on the certificates of analysis and borehole logs do not match.
- (v) Further investigation and soil sampling within the footprints of the current buildings once they have been demolished.
- (vi) A detailed remediation strategy and validation plan which incorporates the findings of any further investigation undertaken following demolition of the current buildings.
- (vii) After completion of site works, a verification report is required to validate that the work undertaken conforms to the remediation proposals received and agreed by this Section. The report would be expected to include the following:

The above information will be required by planning conditions, if permission is granted.

Please do not hesitate to contact me if you require any clarification of the above.

Yours sincerely



Rebecca Jones
Environmental Protection Officer

Please Note: The Environment Section has used all reasonable endeavours to determine the risk from contaminated land and ground gas based upon the information available to it. However, the comments made above should not be taken to imply that the land is safe or otherwise suitable for this or any other development. The responsibility for safe development rests with the developer.

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