

Project NOMA Angel Square
Subject Summary of Ground Conditions and Planning Status
Project no 0052681
Date 3 October 2022

Revision	Description	Issued by	Date	Approved (signature)
00	For Planning	LR	22/9/22	PH
01	Review of historic ground engineering documents and planning responses	LR	3/10/22	PH

1.1 Introduction

Buro Happold have been appointed by MEPC to provide technical planning support and advice for the proposed NOMA Angel Square. The site is located to the south of the existing 1 Angel Square site (Figure 1 refers). The proposals comprise the redevelopment of the area of public realm. This design note provides a high level summary of the ground conditions, historical planning documentation and an analysis of existing / proposed levels.

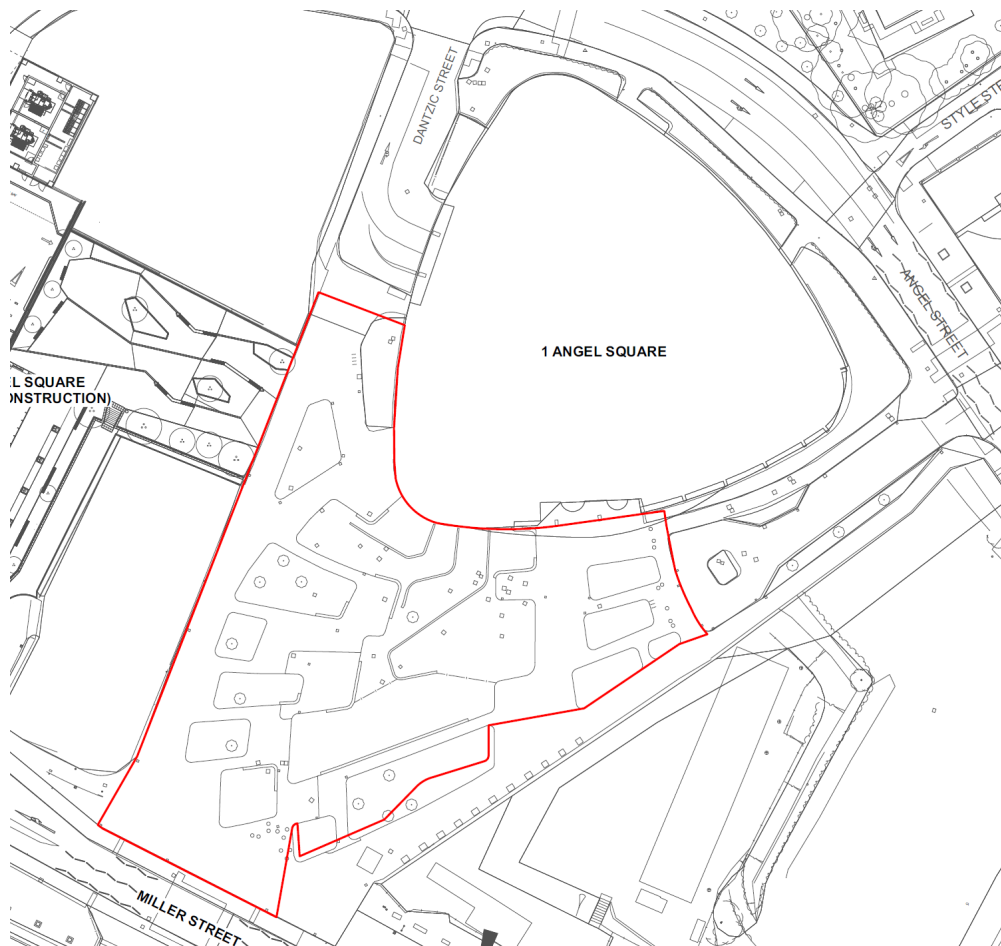


Figure 1: Extract of Planit I.E Limited drawing ref: 2962-PLA-XX-XX-DR-L-0004-Existing site plan

1.2 Ground conditions and risk from historical contamination

All available historical documentation has been reviewed:

- The ground conditions comprise Made Ground, overlying Glacial Till, overlying Chester Formation bedrock.
- Based on the historical chemical testing undertaken, the chemical concentrations in the soils beneath the site are not likely to pose a significant risk to the end users of the development.
- Given the concentrations of determinands generally encountered across the proposed development site, the risk to construction workers due to direct contact with soils is considered to be low and it is envisaged that nominal safety precautions will be acceptable (the adoption of good hygiene and the use of overalls, gloves and dust masks if necessary).
- UXO detection / clearance was undertaken at the time of the construction of 1 Angel Square and its public realm, therefore the risk is considered to be low for any future works.

1.3 Planning conditions

All available historical planning documentation has been reviewed:

- Planning condition 25 a – BH are in receipt of documentation that considers all sections of planning condition 25a to be 'Adequate' (Appendix A refers).
- Remediation Strategy – Whilst BH are not in receipt of the Remediation Strategy document, the planning response dated 27/11/2009 provides a summary of the works (Appendix A refers, extract below for ease of reference). Relevant sections of the BH Excavation and Filling Specification (S090911_EW Spec_T1_fnl) and Updated Rem Clauses (023842_Rem_Clauses_fnl) should also have been referred to by the Main Contractor for managing the 'contaminated land' aspects of the construction works.

Remedial measures are to include:

- *Areas of contaminated ground are likely to be removed during basement excavations. Materials to be removed off site shall be fully audited.*
- *All imported materials to be suitable for use. The report states that a sampling ratio of 1:50m3 is to be applied to imported materials from unknown, mixed or brownfield sources.*
- *Provision of a final layout detailing all areas within the planning boundary has been supplied*
- *Gas control measures compliant with CS2 to include:*
 - *ventilation of confined spaces*
 - *well constructed ground slab*
 - *low permeability gas membrane*
 - *min penetration of ground slab by services*
 - *two levels of tanked and ventilated basement*
- Planning Condition 25b - BH are not in receipt of the verification report for the works. It is assumed that the verification report was 'Adequate' as the development was built.

1.4 Existing and proposed levels

The existing and proposed levels are provided in Appendix B and C. When comparing the existing to proposed, the levels are very similar to existing in order to tie in with 1 Angel Square and the site boundary. Where they differ, the amount is approximately 0.50 m. Therefore, the majority of the works will be working within the existing 'clean' build up zone.

It is possible that localised areas may reach the Made Ground beneath the build up zone. However, following analysis of the historical chemical results, no gross contamination was observed within this material and the risk to future users was and still is considered to be low.

1.5 Conclusions and recommendations

We understand that all the conditions on 1 Angel Square, including those relevant to ground conditions, have either been discharged or complied with.

The historical chemical concentrations in the soils beneath the site are not likely to pose a significant risk to the end users of the development. Provided the construction workers use good working practice and wear appropriate personal protective equipment, the risk to them is also considered to be low.

In addition, based on the supplied existing and proposed levels (Appendix B & C refer), the majority of the works will be working within the existing 'clean' build up zone. As the detailed design progresses, it is recommended that a cut/fill analysis and 3d isopachyte drawing is produced to clearly show the differences in level across the site.

It is recommended that all works within the proposed NOMA Angel Square are completed in accordance with an approved earthworks specification. Within the document there should be a section which sets out the protocol if unexpected contamination is recorded during the works.

The Main Contractor who completes the works will also have to keep detailed records of materials movement in and out of site and ultimately produce a verification report for the works to prove that they have been completed in accordance with the approved earthworks specification.

Appendix A – Planning Condition Summary & Historical Correspondence

Ground Engineering Planning Condition Summary

Planning Condition ref: 090606/FO/2009/N1

Report title / reference	Details	Planning condition No.	Relevant planning condition text	Manchester City Council response	Manchester City Council response date	BH Comments re: NOMA Angel Square
Buro Happold Limited - Ground Engineering Desk Study Report, The Co-operative Group HQ Building, Manchester. July 2009. (Ref: 23842_GE_DS_Fnl)	The report included 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. This information has been used to compile a clear site conceptual model, which identifies potential sources, pathways and receptors and likely pollution linkages. The BH desk study comprises the Preliminary Risk Assessment.	25a	a) Before the development hereby commences, a report (the Preliminary Risk Assessment) to identify and evaluate all potential sources and impacts of any ground contamination and/or ground gas relevant to the site shall be submitted to and approved in writing by the City Council as local planning authority. The Preliminary Risk Assessment shall conform to City Council's current guidance document (Planning Guidance in relation to Ground Contamination).	Adequate	22nd October 2009	The BH Desk Study report includes all the landscaped area in dwg 2962-PLA-XX-X-DR-L-0004-Existing site plan
Structural Soils Limited - Report on Ground Investigation at Co-Operative Head Office, Manchester. September 2009. (Ref: 761072_Final_The co-operative Head Office, Manchester)	Factual report on ground investigation at the site. Covered entire site including public realm area. The report comprises the Site Investigation.	25a	In the event of the Preliminary Risk Assessment identifying risks which in the written opinion of the Local Planning Authority require further investigation, the development shall not commence until a scheme for the investigation of the site and the identification of remediation measures (the Site Investigation Proposal) has been submitted to and approved in writing by the City Council as local planning authority. The measures for investigating the site identified in the Site Investigation Proposal shall be carried out, before the development commences....	Adequate	27th November 2009	The SSL report includes all the landscaped area in dwg 2962-PLA-XX-X-DR-L-0004-Existing site plan
Buro Happold Limited - Ground Engineering Interpretative Report, The Co-operative Group Head Office, Manchester. October 2009. (Ref: 023842_GE_Interpretative_fnl1)	Interpretative report on ground investigation at the site. Covered entire site including public realm area. The report comprises the Final Risk Assessment.	25a	and a report prepared outlining what measures, if any, are required to remediate the land (the Site Investigation Report and/or Remediation Strategy) which shall be submitted to and approved in writing by the City Council as local planning authority.	Adequate	27th November 2009	The BH Interpretative report includes all the landscaped area in dwg 2962-PLA-XX-X-DR-L-0004-Existing site plan
Buro Happold Limited - Excavation & Filling Specification, The co-operative Head Office, Manchester. September 2009. (Ref: S090911_EW_Spec_T1_fnl).	Excavation & Filling Specification for the project. Main contractor to adhere to all clauses within this document during any groundworks.	25a and b	a) and a report prepared outlining what measures, if any, are required to remediate the land (the Site Investigation Report and/or Remediation Strategy) which shall be submitted to and approved in writing by the City Council as local planning authority. b) In the event that ground contamination, groundwater contamination and/or ground gas, not previously identified, are found to be present on the site at any time before the development is occupied until, a report outlining what measures, if any, are required to remediate the land (the Revised remediation Strategy) is submitted to and approved in writing by the City Council as local planning authority and the development shall be carried out in accordance with the Revised Remediation Strategy, which shall take precedence over any Remediation Strategy or earlier Revised Remediation Strategy.	Adequate	27th November 2009	Potentially submitted as part of the overall 'Remediation Strategy'? (Ref: S090911_EW_Spec_T1_fnl). Also relevant for any unexpected contamination during groundworks
Updated Earthworks Remediation Clauses, The Co-Operative HQ Building, Manchester. October 2009. Potentially submitted as part of the 'Remediation Strategy'? (Ref: 023842_Rem_Clauses_fnl)	Information from planning response 27/11/2009. Remedial measures are to include: Areas of contaminated ground are likely to be removed during basement excavations. Materials to be removed off site shall be fully audited. All imported materials to be suitable for use. The report states that a sampling ratio of 1:50m3 is to be applied to imported materials from unknown, mixed or brownfield sources. Provision of a final layout detailing all areas within the planning boundary has been supplied Gas control measures compliant with CS2 to include: -ventilation of confined spaces -well constructed ground slab -low permeability gas membrane -min penetration of ground slab by services -two levels of tanked and ventilated basement	25a and b	a) and a report prepared outlining what measures, if any, are required to remediate the land (the Site Investigation Report and/or Remediation Strategy) which shall be submitted to and approved in writing by the City Council as local planning authority. b) In the event that ground contamination, groundwater contamination and/or ground gas, not previously identified, are found to be present on the site at any time before the development is occupied until, a report outlining what measures, if any, are required to remediate the land (the Revised remediation Strategy) is submitted to and approved in writing by the City Council as local planning authority and the development shall be carried out in accordance with the Revised Remediation Strategy, which shall take precedence over any Remediation Strategy or earlier Revised Remediation Strategy.	Adequate	27th November 2009	Potentially submitted as part of the overall 'Remediation Strategy'? (Ref: 023842_Rem_Clauses_fnl). Also relevant for any unexpected contamination during groundworks
Verification report - completed by Main Contractor	Verification that the groundworks have been completed in accordance with the Remediation Strategy.	25b	When the development commences, the development shall be carried out in accordance with the previously agreed Remediation Strategy and a Completion / Verification Report shall be submitted to and approved in writing by the City Council as local planning authority.	Unknown	27th November 2009	Assumed that verification report was adequate as site is occupied.

To	Head of Planning	FAO: Sue Wills
From	Head of Regulatory Services	
Date	27th November 2009	
Telephone	800 8946	

Contaminated Land Consultation on Planning Application

Application No: 090606/FO/2009/N1

Location: Car Park, Miller Street, Ancoats, Manchester, M4 4DY

Proposal: Erection of 14 storey office (Class B1) building (Co-operative Headquarters) with associated basement car parking on two levels providing 151 car parking spaces with associated public realm works including the closure of part of Dantzic Street and associated alterations to the highway including formation of mini roundabout at corner of Angel Street and Dantzic Street

My Officer, Simon Rogers, writes in response to information received regarding the discharge of contaminated land conditions for the above planning application.

The Contaminated Land Section has received copies of the following reports:

- Ground Engineering Interpretative Report, The Co-Operative Group HQ Building, Manchester, Buro Happold, Reference: 023842, Dated: October 2009.
- Updated Earthworks Remediation Clauses, The Co-Operative Group HQ Building, Manchester, Buro Happold, Reference: 023842, Dated: October 2009.
- Site Plan with Public Realm, Stage D, Drawing, Reference: 090109 (E) Si-002, Dated: September 2009.

The Contaminated Land 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 discharge the relevant contamination and/or gas condition from the planning approval.

The site is situated approximately 200m east of Victoria Railway Station at National Grid Reference 384 349 / 399 053 and is 1.285 hectares in size. Adjacent land use includes housing, a recreational ground, a NCP car park, office buildings and warehousing units. Previous land uses on and adjacent to the site have included agriculture, industrial buildings and associated reservoirs, a church, a factory, a cotton works, a mill, a ropery, a timber yard, a saw mill and a car park. The site lies within 250 metres of one known landfill site. The nearest surface water is the River Irk (325m north of the site) and the site lies above the Sherwood Sandstone major aquifer.

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

The desk study information appeared to be **adequate** in an earlier review.

2. The adequacy of the site investigation

The site investigation information appeared to be **adequate** in an earlier review.

3. The adequacy of the final risk assessment

The final risk assessment appeared to be **adequate** in an earlier review.

4. The acceptability of the proposed remediation strategy.

Remedial measures are to include:

- Areas of contaminated ground are likely to be removed during basement excavations. Materials to be removed off site shall be fully audited.
- All imported materials to be suitable for use. The report states that a sampling ratio of 1:50m³ is to be applied to imported materials from an unknown, mixed or brownfield sources.
- Provision of a final layout detailing all areas within the planning boundary has been supplied.
- Gas control measures compliant with CS2 are to include:
 - o Ventilation of confined spaces within the building.
 - o Well constructed ground slab.
 - o Low permeability gas membrane.
 - o Minimum penetration of ground slab by services.
 - o Additionally, the development has two levels of tanked and ventilated basement.

The remediation strategy that has been provided for this development appears to be **adequate**.

5. Whether the information submitted is sufficient to discharge the relevant contamination and/or gas condition from the planning approval.

Before this Section can recommend discharge of conditions the following information needs to be submitted to the Council for approval:

- (i) 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.

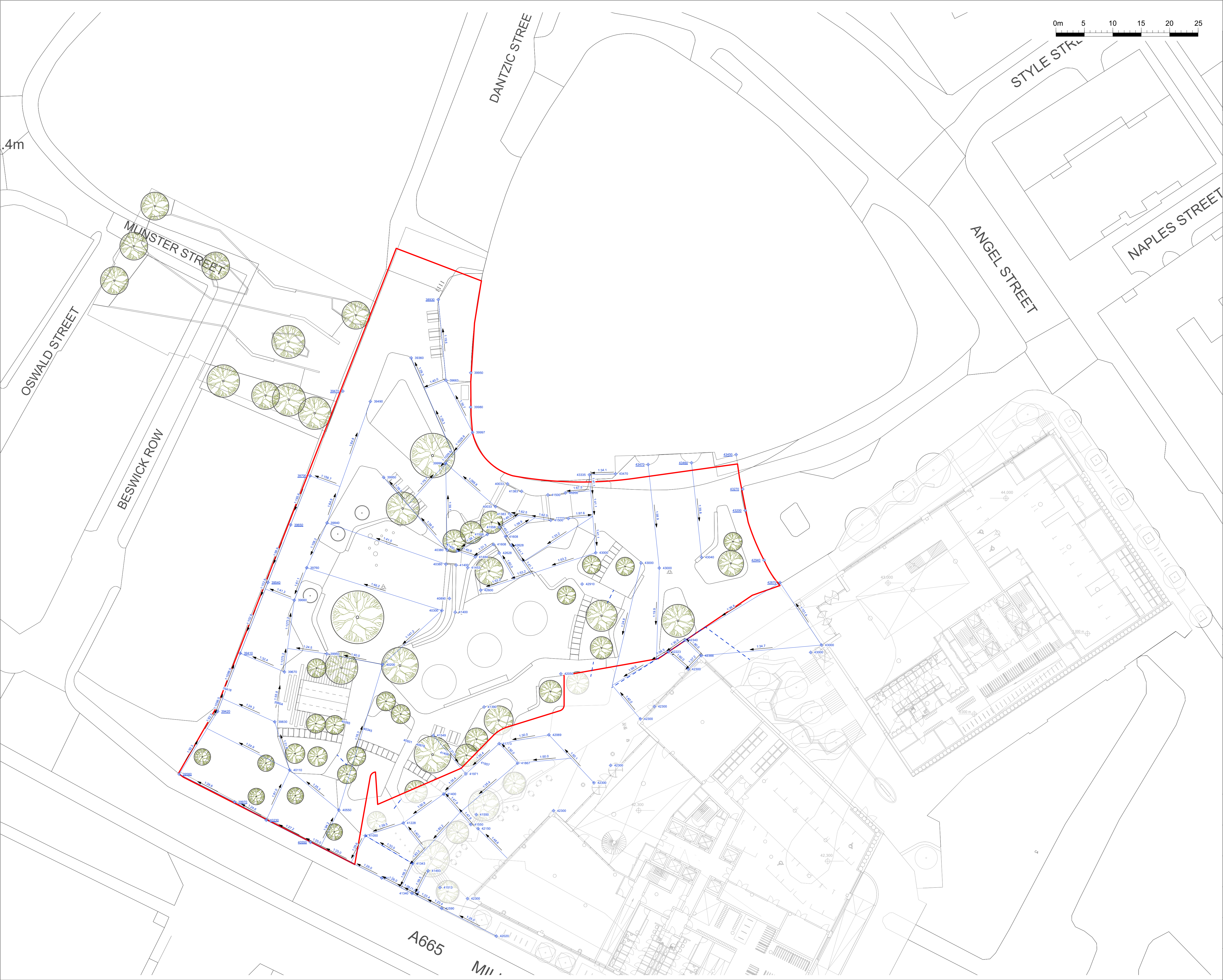
Please do not hesitate to contact my Officer, Simon Rogers, if you require any clarification of the above.

Fiona Sharkey
Head of Regulatory and Enforcement Services

Appendix B – Existing Topographical Survey



Appendix C – Planit I.E Proposed Levels



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NOTES:

1. Do not scale from this drawing.
2. Always work to noted dimensions.
3. All dimensions are in millimetres unless otherwise stated.
4. All setting out, levels and dimensions to be agreed on site.
5. The dimensions of all materials must be checked on site before being laid out.
6. This drawing must be read with the relevant specification clauses and detail drawings.
7. Order of construction and setting out to be agreed on site.

S3-P02	25-08-22	Review and Comment	EKH	SAB
Revision	Date	Description	Drawn	Apprvd.



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Client MEPC

Project Angel Square
 Manchester

Drg Title Levels

Created on	Created by	Approved by
08/07/2022	EKH	SAB

Scale	Size	Workstage
1:300	A1	Stage 2

Drg No.	Suitability	Revision
2962-PLA-XX-XX-DR-L-3000	S3	P02