FLOOD RISK ASSESSMENT

Jewson Builders Merchant, Beckford Street, Newton Heath, M40 5AJ

Reference: U0794 FRA-v1

Feb-26

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London Office
5th Floor, 167, 169 Great Portland St, London W1W 5PF

Oxford Office
Oxford Innospace, Old Music Hall, 106-108 Cowley Road, Oxford, OX4 1JE

info@urban-water.co.uk

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The study provides no guarantee against flooding of the study site or elsewhere, nor of the absolute accuracy of water levels, flow rates and associated probabilities.

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Purpose of this report

1.1 Urban Water has been appointed to undertake a Level 1 – Screening Study Flood Risk Assessment for a development located at M40 5AJ.

Objectives

1.2 The objectives of this FRA are to demonstrate the following:

- Whether the proposed development will likely be affected by current or future flooding.
- Whether the proposed development will increase flood risk elsewhere.
- Whether the flood risks associated with the proposed development can be satisfactorily managed.
- Whether the measures proposed to deal with the flood risk are sustainable.

Documents Consulted

1.3 To achieve these objectives, the following documents have been consulted and referenced:

The National Planning Policy Framework (NPPF)
CIRIA C753 document The SuDS Manual, 2015
Local Flood Risk Management Strategy (LFRMS)
Level 1 Strategic Flood Risk Assessment (SFRA)
Aerial photographs and topographical survey of the site
British Geological Society Records
Local Council flood Maps
Environment Agency flood maps
The CIRIA publication 'C635 Designing for exceedance in urban drainage Good practice'

Development Site and Location

2.1 The site is located at Beckford Street, Newton Heath. The nearest postcode is M40 5AJ. Refer to appendix A for site location plan.

2.2 The current use of the site is an existing area of site predominantly made up of tarmac and concrete, with one strip of existing grass. The current user vulnerability classification of the site is Less vulnerable . The site is located in the River Flood Zone 1. Refer to Appendix B for more details.

Development Proposals

2.3 The proposed development includes the new road access to the warehouse site. Refer to Appendix B for the layout of the proposed development.

2.4 The vulnerability classification of the proposed development is Less vulnerable with an estimated lifetime between 50 and 100 years.

Site Hydrology and Hydrogeology

Hydrology 2.5 Moss Brook is located approximately 800 m away from the development.

Aquifer 2.6 The development is located within a secondary aquifer type A. Aquifers type A consist of permeable layers capable of supporting water supplies at a local rather than strategic scale. They are generally aquifers formerly classified as minor aquifers.

Source Protection Zone 2.7 The site is not located within a Source Protection Zone.

Groundwater Levels 2.8 The ground water levels for this site are unknown.

Site Geology

Bedrock

2.9 The British Geological Survey records of the site show that it is located within the Pennine Middle Coal Measures Formation-Mudstone, siltstone and sandstone.

Superficial Deposits

2.10 The British Geological Survey records show that the superficial deposits are Till, Devensian-Diamicton.

National Planning Policy Framework (NPPF)

3.1 The NPPF and its technical guidance is a set of planning policies with the key objective of contributing to sustainable development. As part of it, they ensure that flood risk and sustainability are considered during the planning process. This ensures that developments are not located in flood risk areas and directs developments to lower risk areas. The NPPF applies a sequential risk-based approach to determining land suitability for development in flood risk areas. The NPPF also encourages developers to seek opportunities to reduce the overall level of flood risk through the development layout and the application of Sustainable Drainage Systems (SuDS).

The Flood and Water Management Act (2010)

3.2 The Flood and Water Management Act aims to reduce the flood risk associated with extreme weather events. It provides robust flood risk management for people, homes and businesses and encourages using SuDS for developments. A robust SuDS strategy should consider the recommendations in this Flood Risk Assessment.

Strategic Flood Risk Assessment (SFRA)

3.3 Planning policy with regard to development and flood risk in the area is detailed in the Local Flood Risk Management Strategy (MCC -LFRMS) which was published in 2014. The proposed development site is located within the administrative boundary of the Manchester City Council.

3.4 The SFRA commits to direct new development to locations at the lowest flood risk. The SFRA provides information on the levels and flood hazards that could result from flooding. The Environment Agency flood zone maps and the SFRA ignore the presence of existing flood defences when defining the potential extent of flooding.

3.5 This report follows the guidance given in the Local Flood Risk Management Strategy by evaluating the flood risk and providing relevant flood mitigation.

4.1 The NPPF guidance states that the sequential test "is designed to ensure that areas at little or no risk of flooding from any source are developed in preference to areas at higher risk. This means avoiding, so far as possible, development in current and future medium and high flood risk areas considering all sources of flooding including areas at risk of surface water flooding."

Applicability of the Sequential Test

4.2 The flood risks were determined by identifying all the sources of flooding and assessing their possible impact and likelihood to development. It is confirmed that the development is:

- In Flood Zone 1, based on the Planning Flood Risk Map
- At Medium risk of surface flooding
- At high risk of groundwater flooding
- Within a critical drainage area
- Outside of an area with sewer flooding

4.3 This type of development is exempt from applying the sequential test as per the National Planning Policy Framework paragraph 176, footnote 62. The development has been made safe and has not increased the risk to other properties. See copy of paragraph 176 below "Applications for some minor development and changes of use 62 should also not be subject to the sequential test, nor the exception test set out below, but should still meet the requirements for site-specific flood risk assessments set out in footnote 63." The text of footnote (62) is "This includes householder development, small non-residential extensions (with a footprint of less than 250m2) and changes of use; except for changes of use to a caravan, camping or chalet site, or to a mobile home or park home site, where the sequential and exception tests should be applied as appropriate."

Exception Test

4.4 Fluvial flood risk for this minor development has been assessed using the Environment Agency Flood Map for Planning and the standing advice approach set out in the NPPF, which considers both the scale of development and the vulnerability classification of the proposed land use.

Step 1
Flood Zone categorisation

4.5 The proposed development is less than 1 ha and falls within the Environment Agency (EA) Flood Zone 1. Therefore, this Flood Risk Assessment Level 1-Screening report should be sufficient under the NPPF. Flood Zone 1 is considered to have a low probability of flooding, with an annual probability of flooding of <0.1%. The chance of flooding is 1 in 1000 years or lower.

Step 2
The Exception Test

4.6 The Exception Test is not required for this development.

5.1 The development has been assessed for the following potential flood risks, river and tidal flood risk, surface water flooding, flooding from groundwater, reservoir flood risk and drainage systems.

Flood Defence and Historic Flooding

5.2 The Environment Agency records show that the site does not benefit from flood defences. They also show that the area around the site has not been flooded in the past. See Appendix C for details.

Flooding from river and sea

5.3 The proposed development is less than 1 ha and falls within the Environment Agency (EA) Flood Zone 1. Therefore, this Flood Risk Assessment Level 1-Screening report should be sufficient under the NPPF. Flood Zone 1 is considered to have a low probability of flooding, with an annual probability of flooding of <0.1%. The chance of flooding is 1 in 1000 years or lower.

5.4 The climate change allowance is not applicable for this site.

5.5 The site is located in an area outside of fluvial flooding flood risk.

5.6 It is concluded that the site is not affected by fluvial/sea flood risk.

Surface water (overland flows) flood risk

5.7 The Environment Agency maps show that the flood risk from surface water is medium. The residual risk of localised ponding remains likely. The Environment Agency surface water flood risk maps are defined by applying a specific procedure based on digital terrain models and assumptions regarding infiltration and urban drainage losses. The surface water flood maps are determined by the Environment Agency as follows:

5.8 *"Once we combined the data from local detailed models and the national model, we removed flooding to a depth of less than 75mm. This is because in surface water flood modelling, most land is covered by some water as rain falls across the area. While this*

very shallow floodwater may be an inconvenience, it is generally unlikely to prevent access or cause flooding to properties.

Building footprints are raised above their surroundings as part of the modelling process. We have used an uplift of 30cm above the 'zero' elevation of the building. This means that in the raw model outputs, buildings can look like they are not at risk of flooding.

The map does not provide property-specific data and cannot specify whether individual buildings are themselves at risk. However, it is important that the RoFSW maps indicate where buildings are considered to be in a flood risk area.

To do this, we infill building footprints, based on how much of the building's exterior wall and area of the property is wet.

We used building outlines from the OS MasterMap layer to do this.

Finally, we infill small dry areas (less than 50m2) surrounded by floodwater and remove small wet areas (less than 100m2). This is an important step in cleaning our data."

5.9 The strategic flood risk for the Manchester City Council confirms that the flood risk for the site is Medium. The surface water flood data has not been produced to determine the flood levels at individual properties. This data does not contain the climate change allowances for depth levels. Therefore, the Design flood level given below is an assumption. The new development may have greater or lower surface water flood depths.

5.10 Based on the Environment Agency and the Strategic Flood Risk Assessment's surface water mapping, together with the presence of surface water drainage systems at the site and surrounding area, it is concluded that the site is at Medium risk of flooding from surface water sources. The depth of water is taken from the future flood risk of the RoFSW dataset. This dataset shows future flood risk based on UKCP18 climate projections and the high-emission RCP 8.5 scenario. It uses the 'Central' allowance for the 2050s (2040–2060), accounting for increased peak rainfall and surface water flooding. The potential depth of water is 200 mm with a Low probability of occurrence. The average ground level at the location of the surface water flooding is 66.72 m AOD. The surface water flood level on this site could be in the region of 66.92 m AOD. This level has been taken to complete this flood risk assessment

Flooding from drainage systems in adjacent areas

5.11 The council records have been reviewed. The flooding from drainage incidents maps were not found in the Strategic Flood Risk Assessment. Therefore, for the purpose of this report, it has been assumed that the risk of flooding from drainage systems is low.

Reservoirs Risks

5.12 The Reservoir Flood Map (RFM) produced by the Environment Agency does not show the risk to individual properties of dam breach flooding. The maps do not indicate or relate to any particular probability of dam breach flooding. The maps were prepared for emergency planning purposes. They can be used to help reservoir owners produce on-site plans, and the Local Resilience Forum produce off-site plans and to prioritise areas for evacuation/early warning in the event of a potential dam failure. The RFM shows that the development could be outside of the possible dam breach flooding path. See Appendix C.

Groundwater flood risk

5.13 The British Geological Survey's flood risk susceptibility maps show that the development has the potential for groundwater flooding above ground level. Groundwater levels vary seasonally and are influenced by ground and meteorological conditions and proximity to water features. The groundwater flooding risk for this site is considered to be high. The groundwater flood depth could potentially be 0.15m. The average external level at the site is 66.64m AOD. The potential groundwater flood level is 66.79m AOD. This level has been given as a precautionary measure. It is recommended that monitoring of groundwater is undertaken should this measure be reviewed. Refer to Appendix C for record drawings.

Critical Drainage Areas

5.14 The development falls within a Critical Drainage Area. The risks of critical problems and the increase of downstream flooding are high. Critical Drainage Area (CDA) is an area that has critical drainage problems and which has been notified to the local planning authority by the Environment Agency.

6.1 The Flood hazard assessment has demonstrated that the site is:

- In Flood Zone 1, based on the Planning Flood Risk Map
- At Medium risk of surface flooding
- At high risk of groundwater flooding
- Within a critical drainage area
- Outside of an area with sewer flooding

6.2 Under the NPPF it is necessary to demonstrate that, for any new development on the site, it is possible to provide an adequate level of flood protection for personnel working or living at the development.

Design Flood Level

6.3 The design flood level is the maximum estimated water level during the design storm event including an allowance for climate change in line with current best practice and the national planning policy guidance.

6.4 The Design Flood Level for this development has been determined by evaluating the levels from the Fluvial/Sea, Surface Water and Groundwater flood levels.

6.5 For this site, the Design Flood Level is 66.92m AOD. This is the highest level and corresponds to the Surface Water Flood Level.

Flood Protection

6.6 The proposed works only consist of minor alterations of a localised area to facilitate vehicular access. The works do not involve the introduction of new buildings, or any changes to site layouts that may increase user vulnerability to flood events.

6.7 It is recommended that the finished levels of the access tie into the existing ground levels and profile. The proposed works will not materially alter existing overland flow routes, surface water storage or the existing drainage regime of the site. Given the limited extent of works and the retention of existing site levels, the development is not expected to increase flood risk on site or elsewhere.

7.1 The NPPF specifically stipulates that consideration should be given to potential off-site flood impacts of any proposed development. These off-site impacts are in relation to the following:

- Surface water management
- Flood flow conveyance, storage and climate change

Surface Water Management

7.2 The proposed works do not alter existing levels or existing areas, and will therefore not change the existing run-offs and overland flows.

7.3 With no increase in the rate of surface water discharge from the site, compared to the site in its current configuration, the proposed development would have no adverse impact on surface water flood risk at the site or surrounding area. The SuDS should be designed at the detailed project stage.

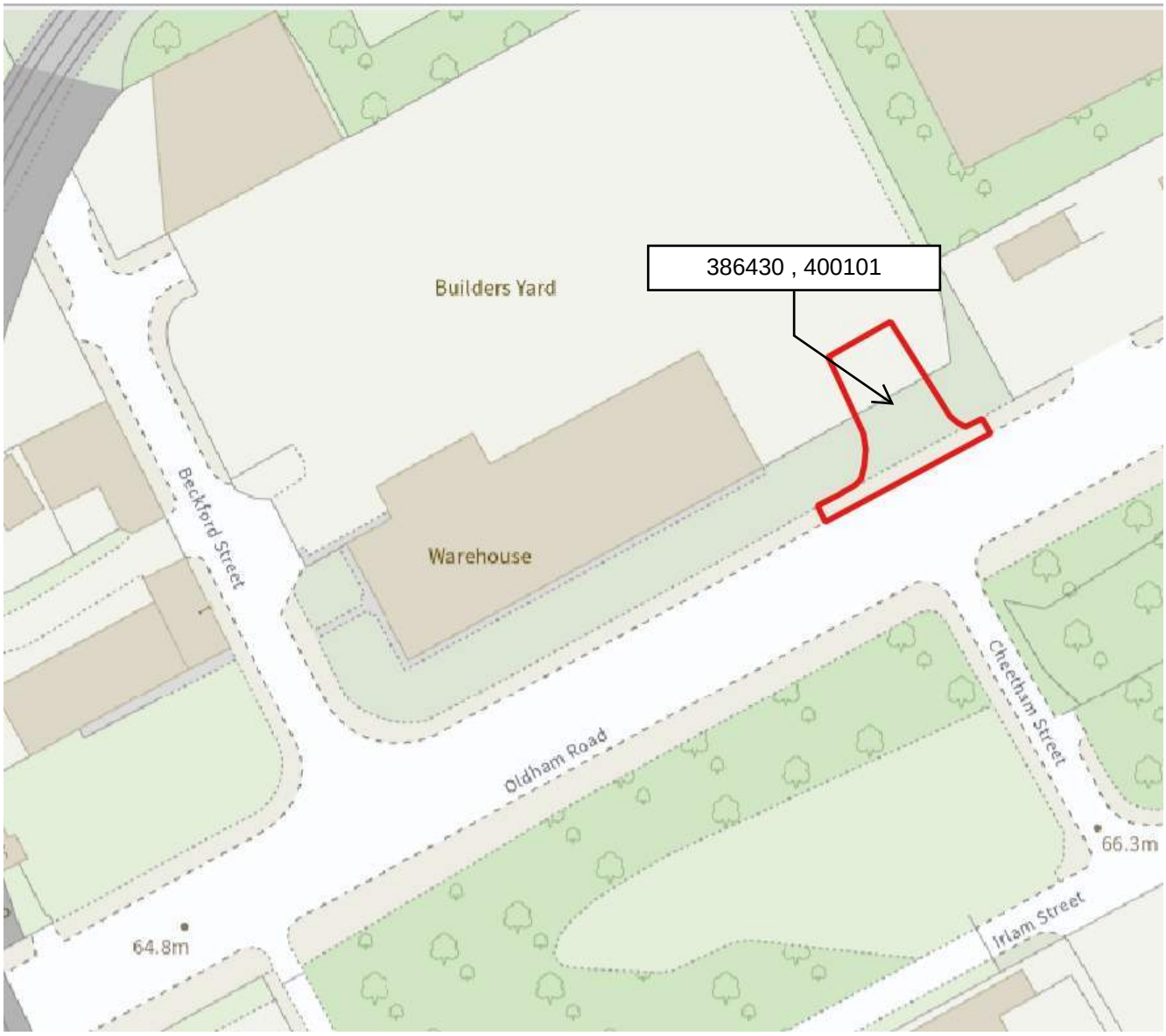
Flood Flow conveyance and storage

7.4 Due to the size of the development and its location in the flood risk zone, flood compensation for this development is not required.

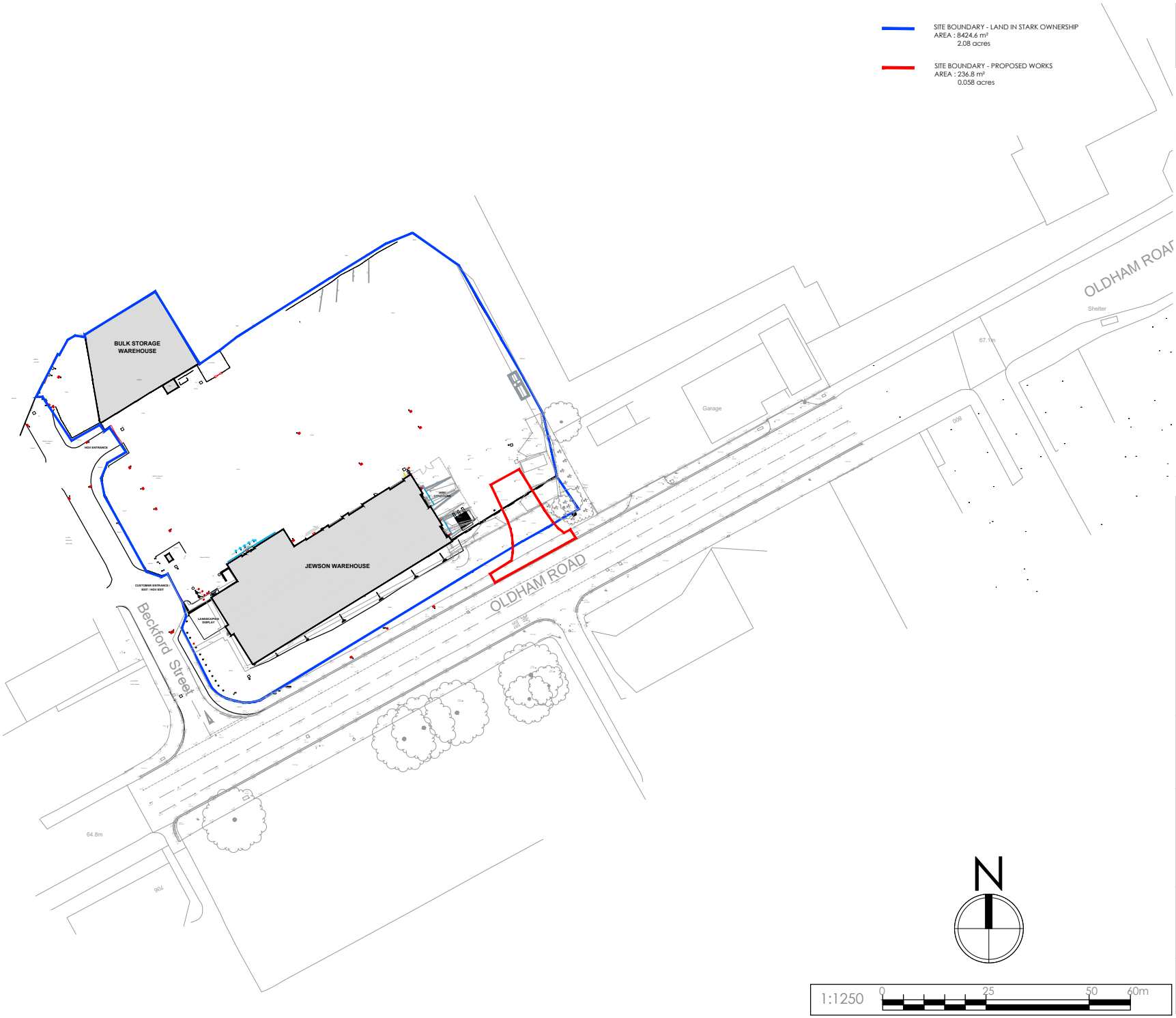
8.1 It is concluded that subject to the proposed mitigation measures, the site can be developed in accordance with the provisions of the NPPF and the requirements of the Environment Agency and the local planning authority.

8.2 This report demonstrates that the proposal will be safe, in terms of flood risk, for its design life and will not increase the flood risk elsewhere.

Appendix A


386430 , 400101
Builders Yard
Warehouse
Beckford Street
Oldham Road
Cheetham Street
Irlam Street
64.8m
66.3m

Appendix B



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Project.
Proposal for New Entrance
Oldham Road
Newton Heath
M40 5AJ

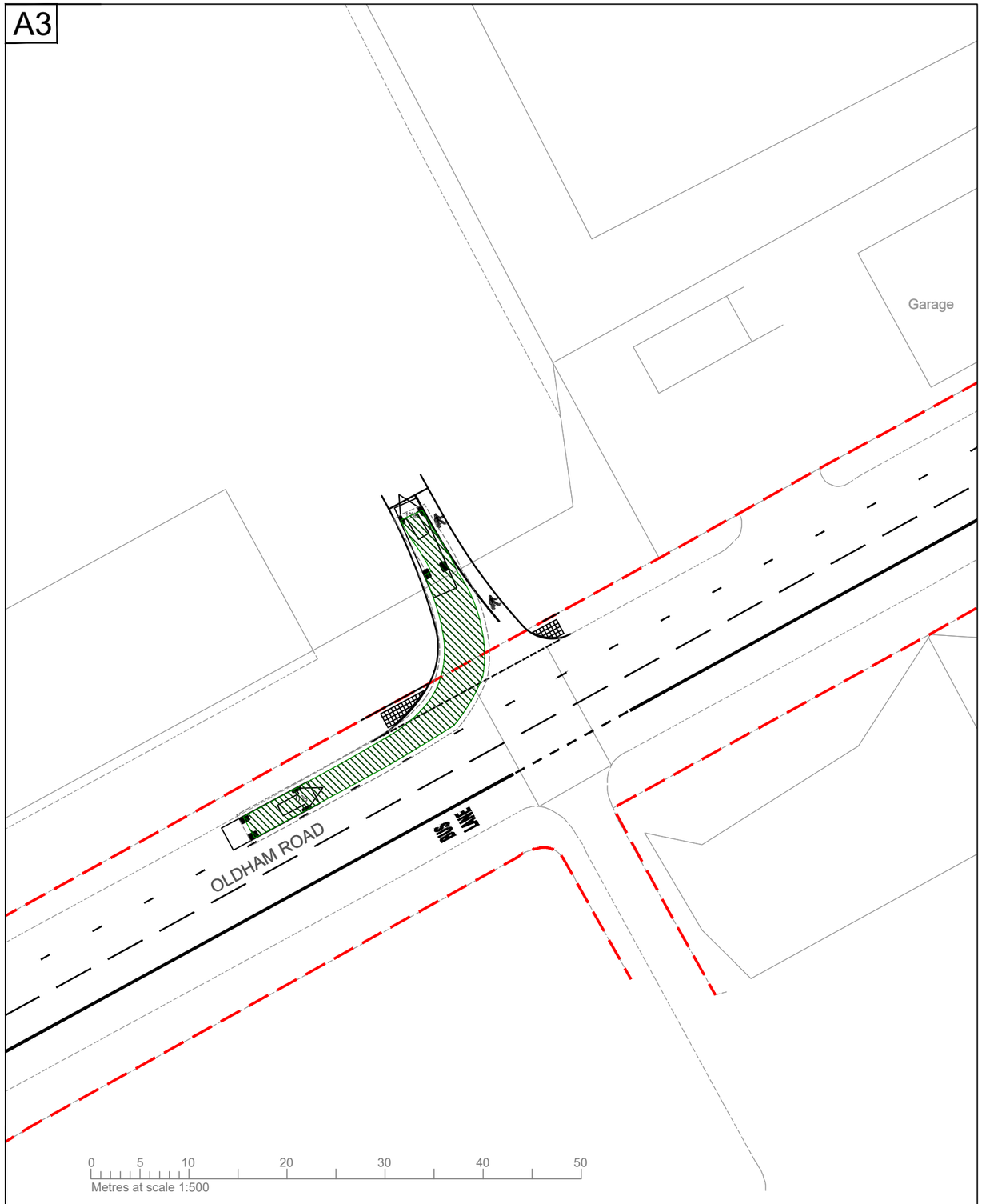
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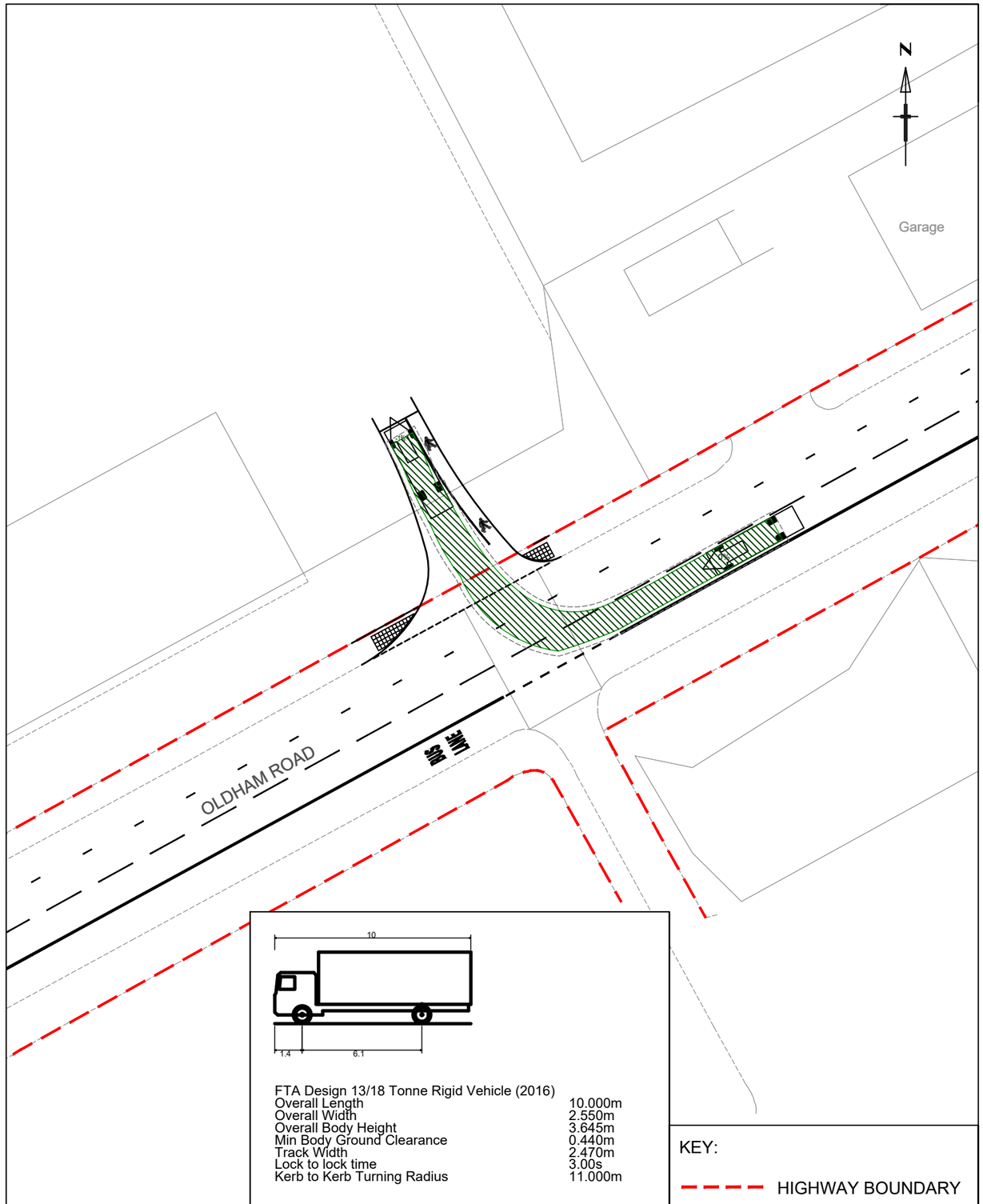
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1 : 1250	MCP	SG	Dec '25	V1.0

Drawing No.
STK-ZZ-DR-K-FRTHS-01

STARK A4

A3





FTA Design 13/18 Tonne Rigid Vehicle (2016)

Overall Length	10.000m
Overall Width	2.550m
Overall Body Height	3.645m
Min Body Ground Clearance	0.440m
Track Width	2.470m
Lock to lock time	3.00s
Kerb to Kerb Turning Radius	11.000m

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Fax: 01454 320 099 Email:bristol@connect-consultants.com

QUALITY MANAGEMENT SYSTEM
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client
STARK BUILDING MATERIALS (JEWSON)

project
PROPOSED DEVELOPMENT
NEWTON HEATH
BECKFORD STREET

title
SWEPT PATH ANALYSIS
RIGID VEHICLE
WHEEL OUTLINE

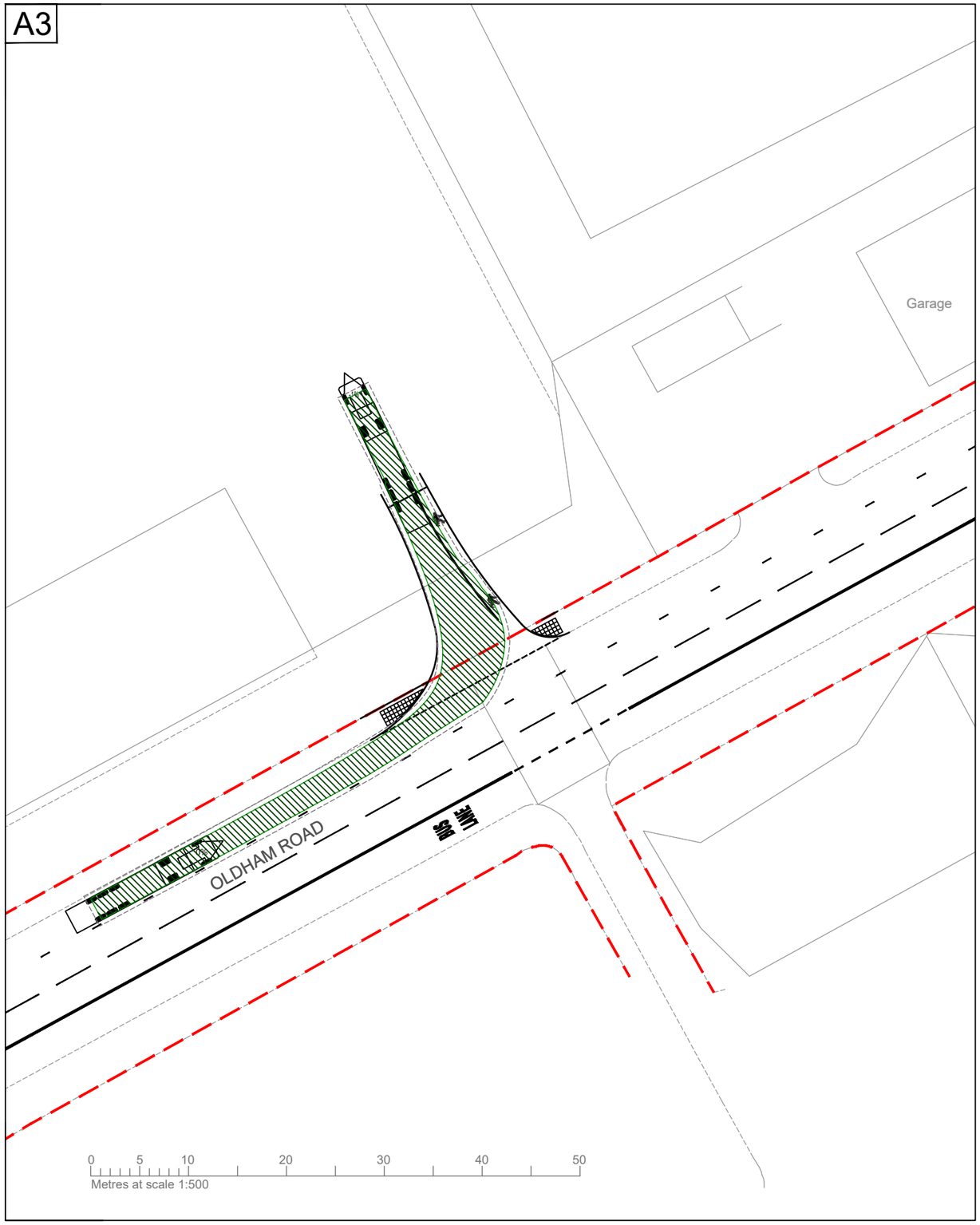
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OCTOBER 2025	C.P	J.C

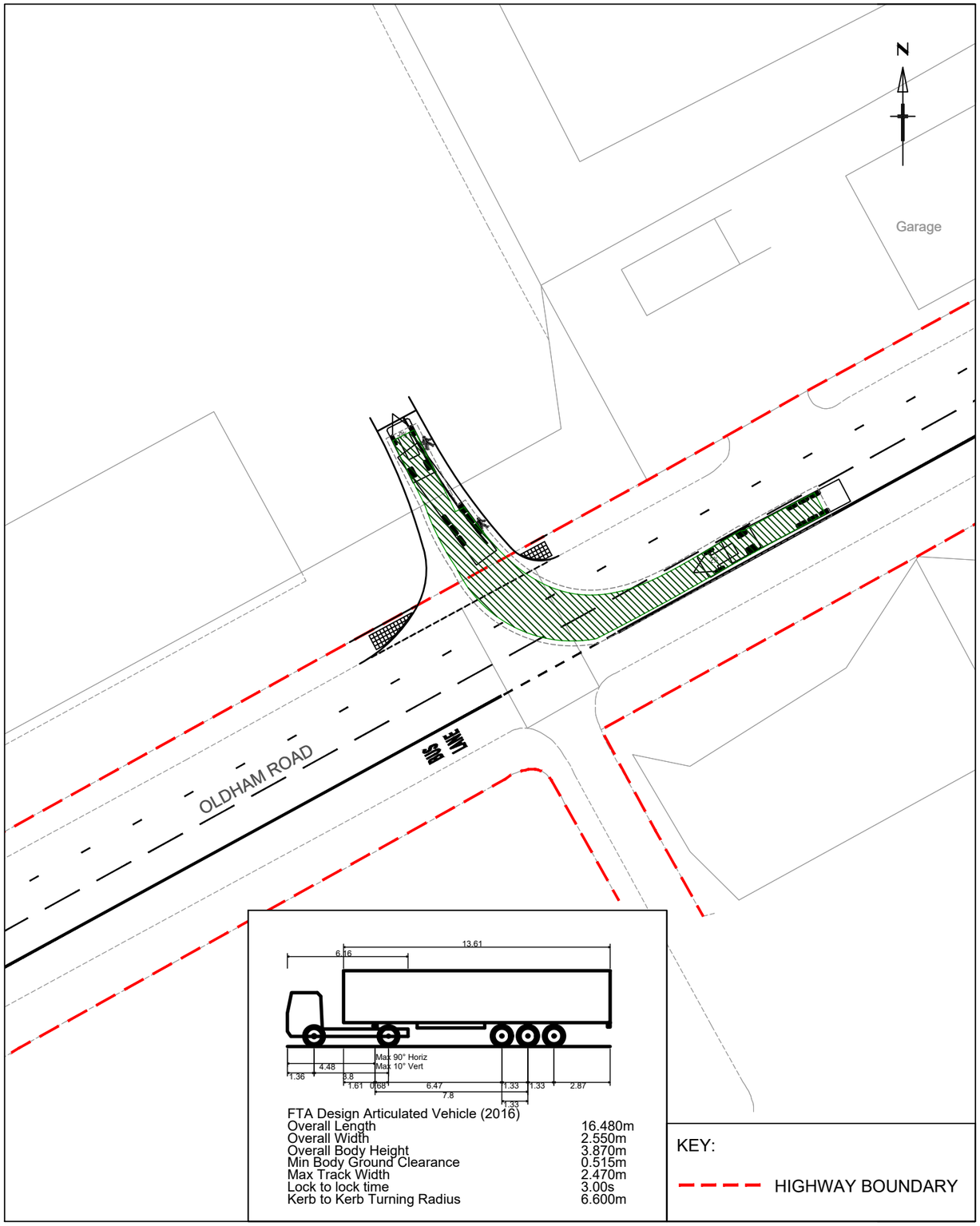
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rev.: -

A3





FTA Design Articulated Vehicle (2016)

Overall Length	16.480m
Overall Width	2.550m
Overall Body Height	3.870m
Min Body Ground Clearance	0.515m
Max Track Width	2.470m
Lock to lock time	3.00s
Kerb to Kerb Turning Radius	6.600m

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client
STARK BUILDING MATERIALS (JEWSON)

project
PROPOSED DEVELOPMENT
NEWTON HEATH
BECKFORD STREET

title
SWEPT PATH ANALYSIS
FTA DESIGN ARTICULATED VEHICLE
WHEEL OUTLINE

date	drawn by	checked by
OCTOBER 2025	C.P	J.C

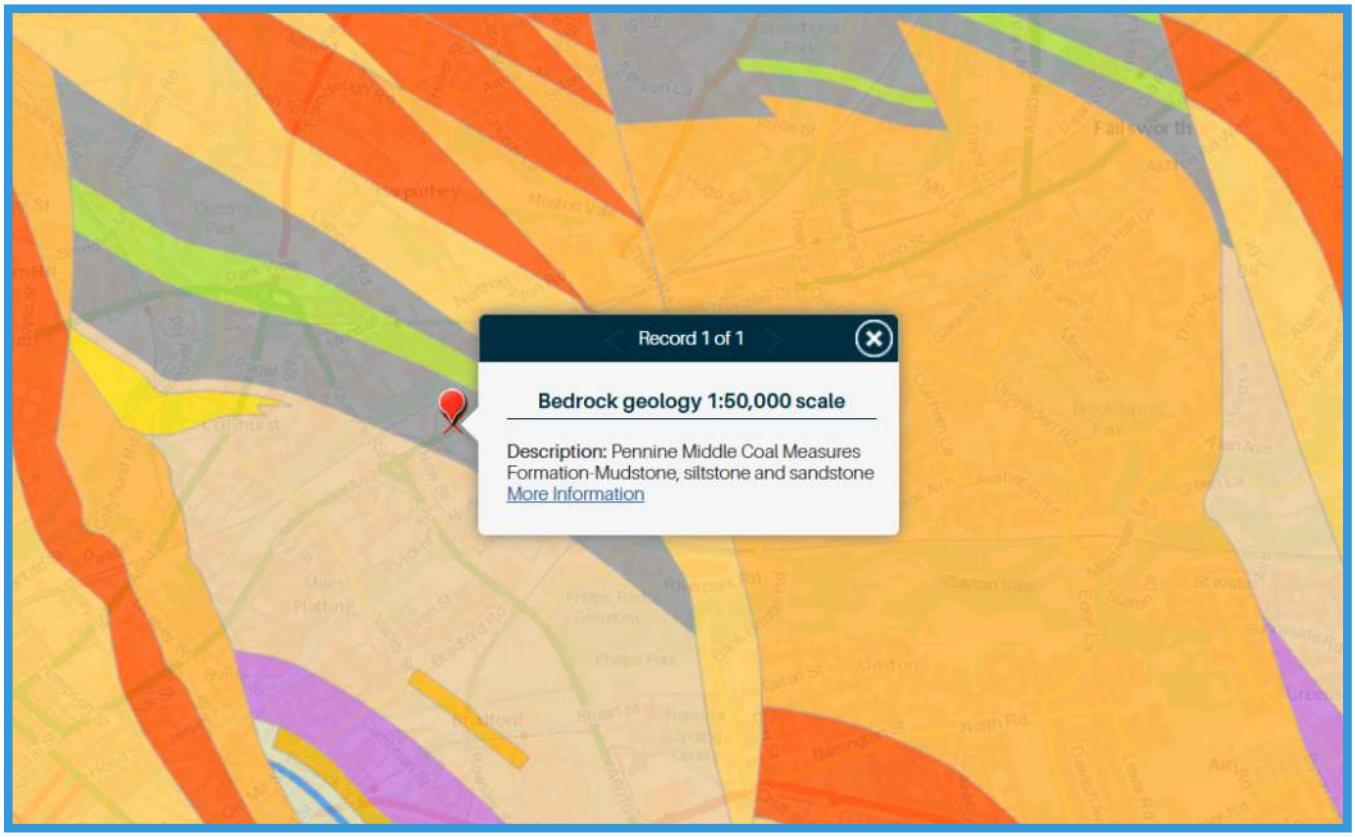
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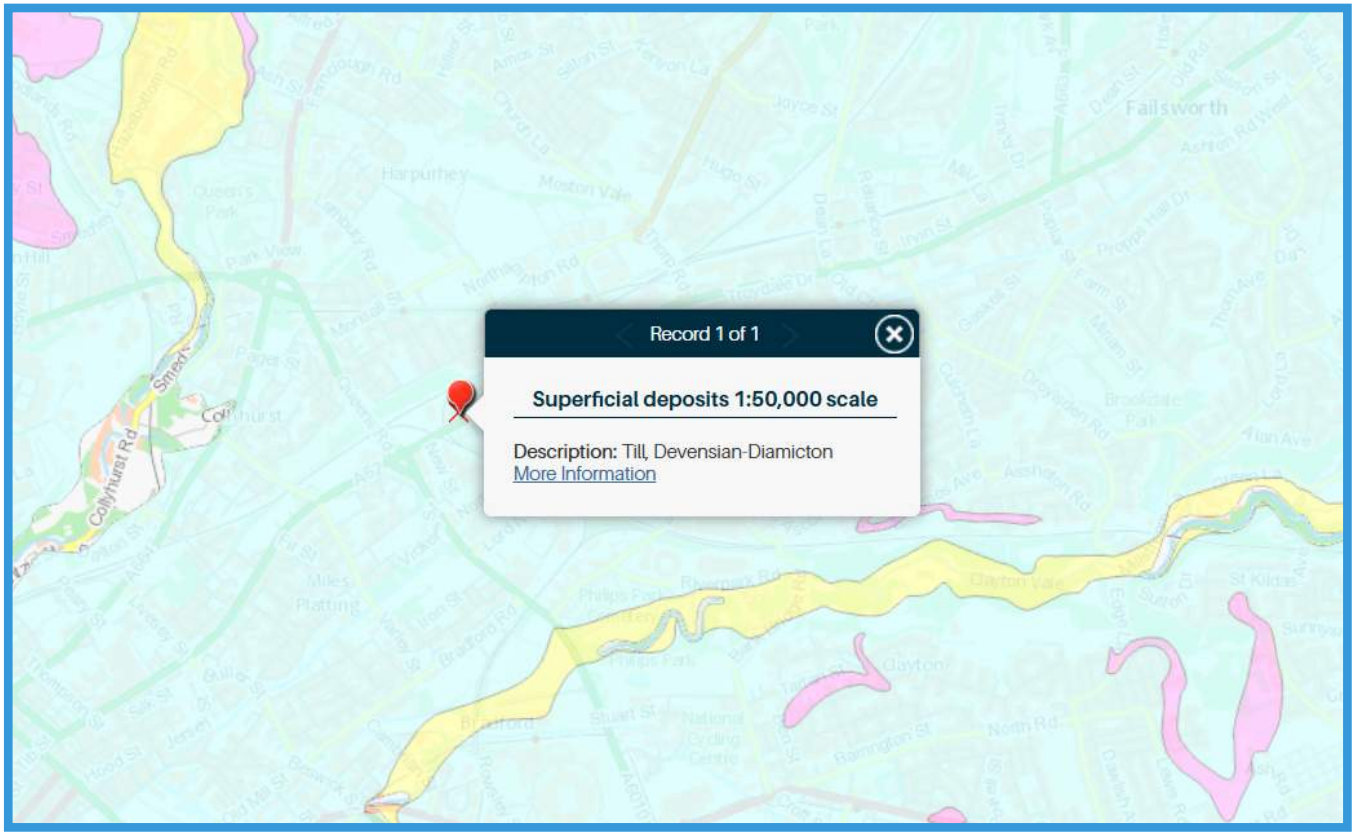
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Appendix C

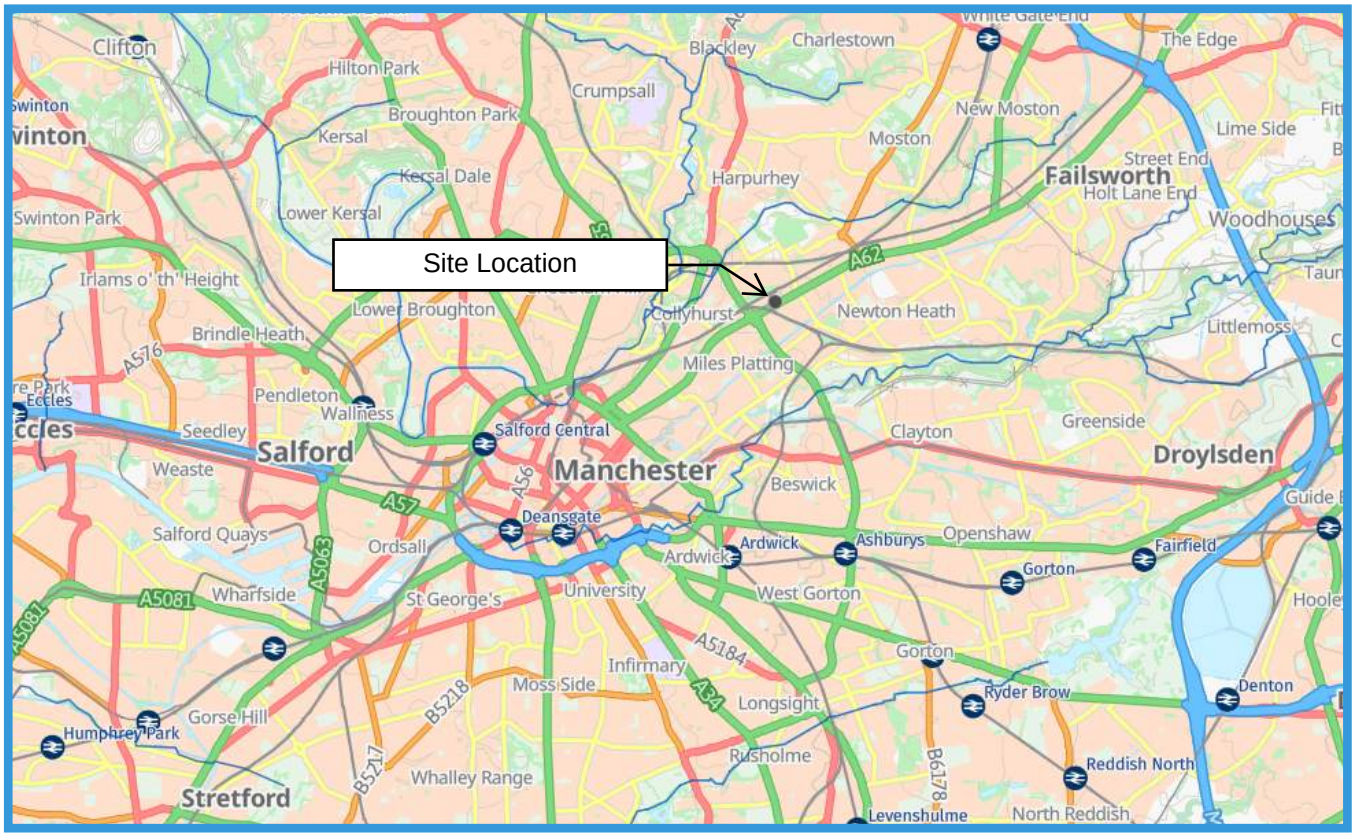
GEOLOGY - BEDROCK - Pennine Middle Coal Measures Formation-Mudstone, siltstone and sandstone



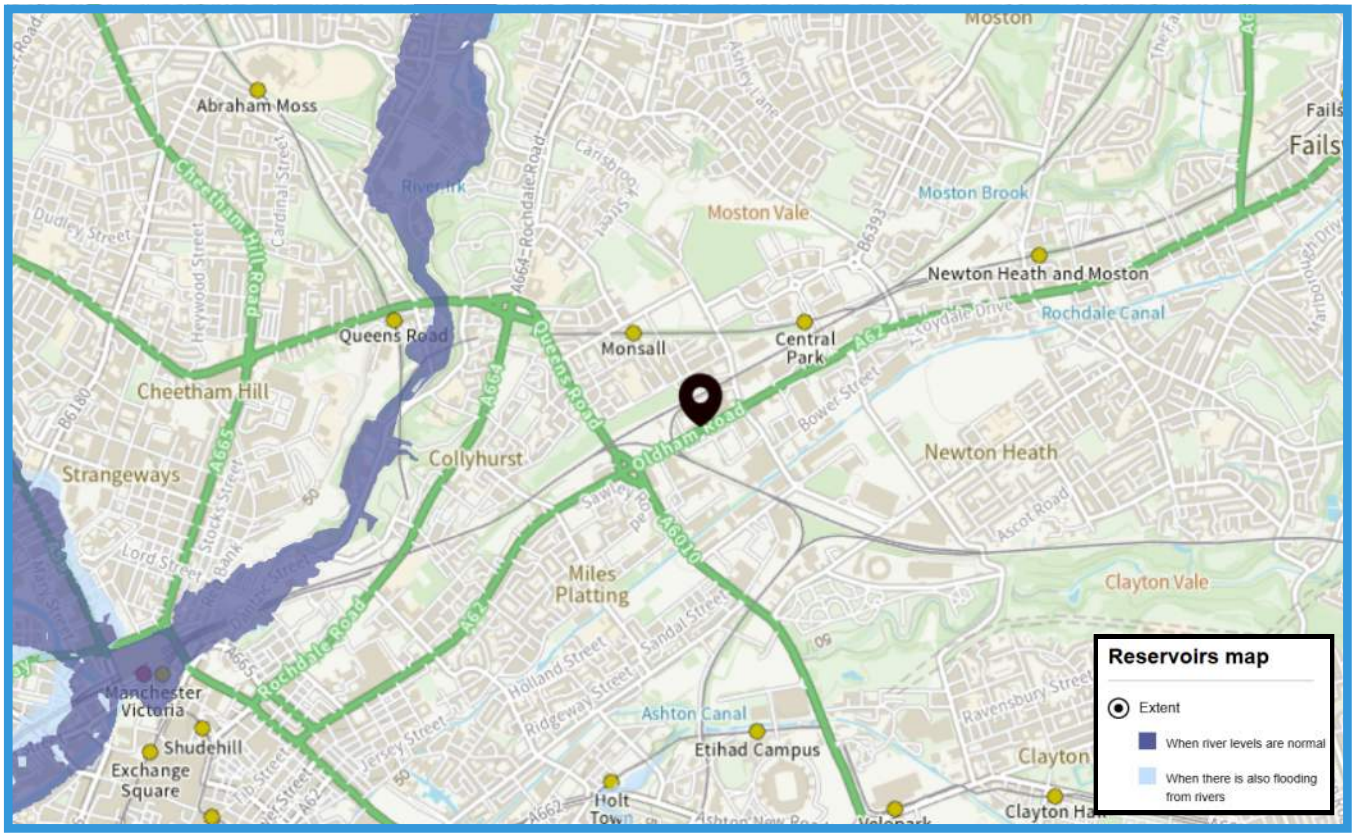
GEOLOGY - SUPERFICIAL DEPOSITS - Till, Devensian-Diamicton



Main River Map

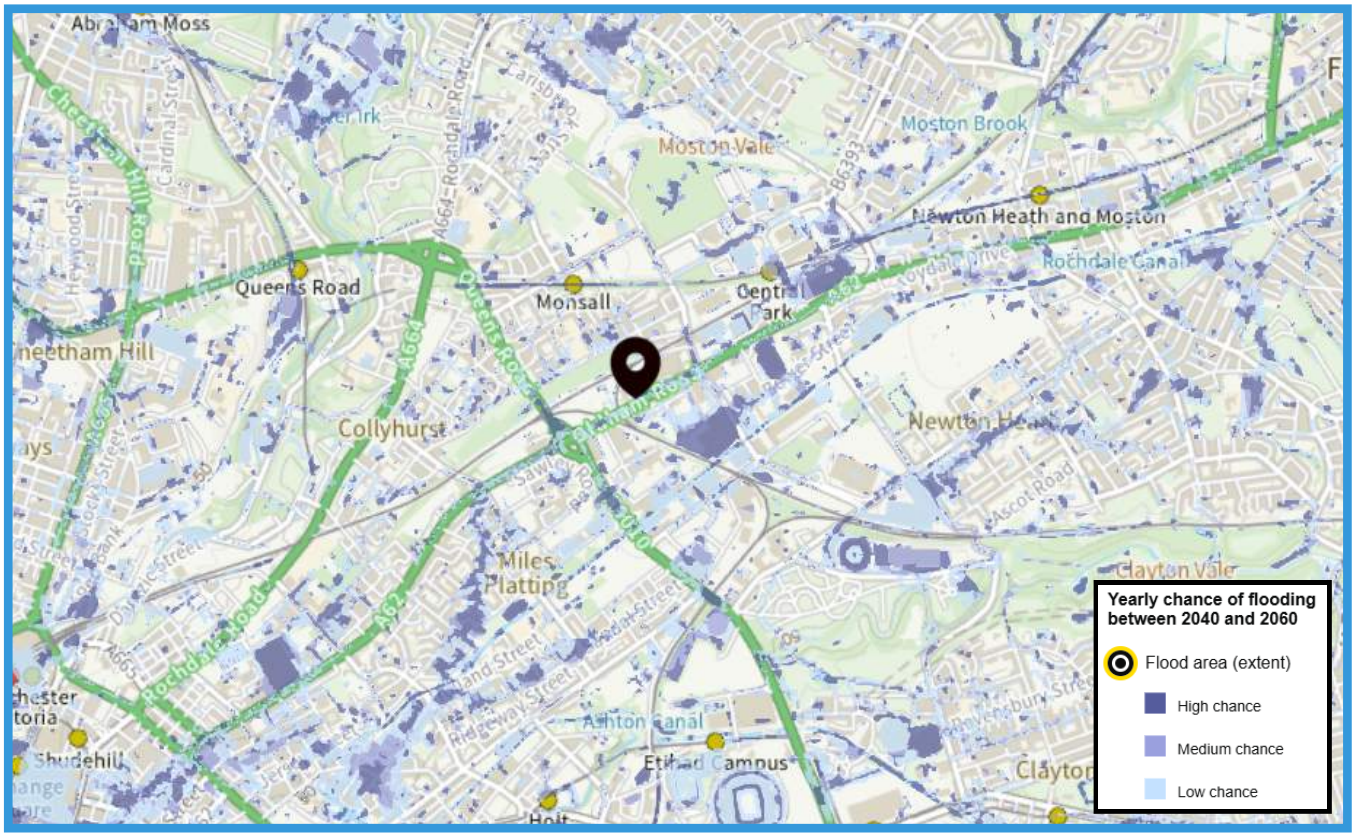


Reservoirs Map

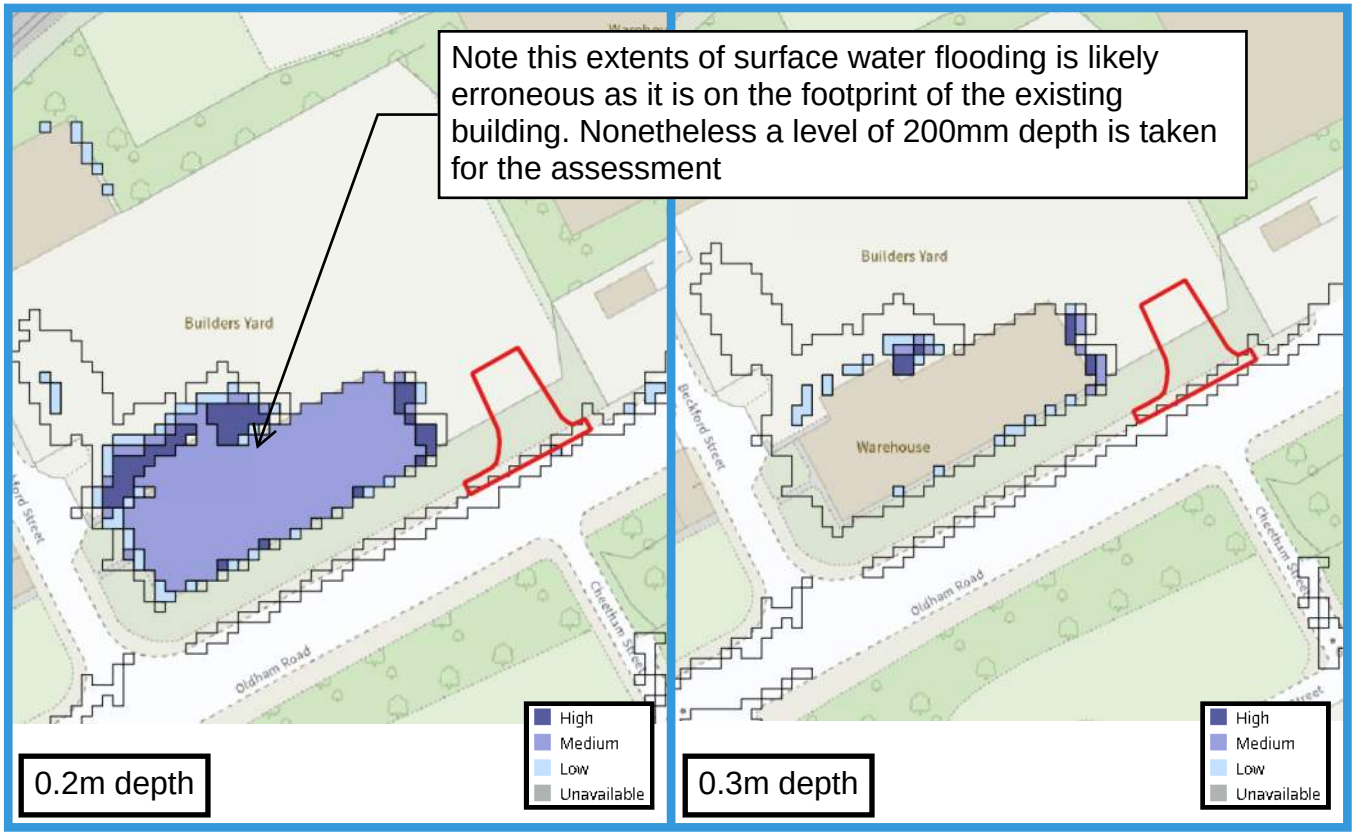


SITE SURFACE WATER FLOOD RISK

High risk means a chance of flooding greater than 3.3% (1:30)
Medium risk means a chance of flooding of btw 1% (1:100) and 3.3%
Low risk means a chance of flooding of btw 0.1% (1:1000) and 1%
Flooding from surface water is difficult to predict as rainfall location and volume are difficult to forecast. In addition, local features can greatly affect the chance and severity of flooding

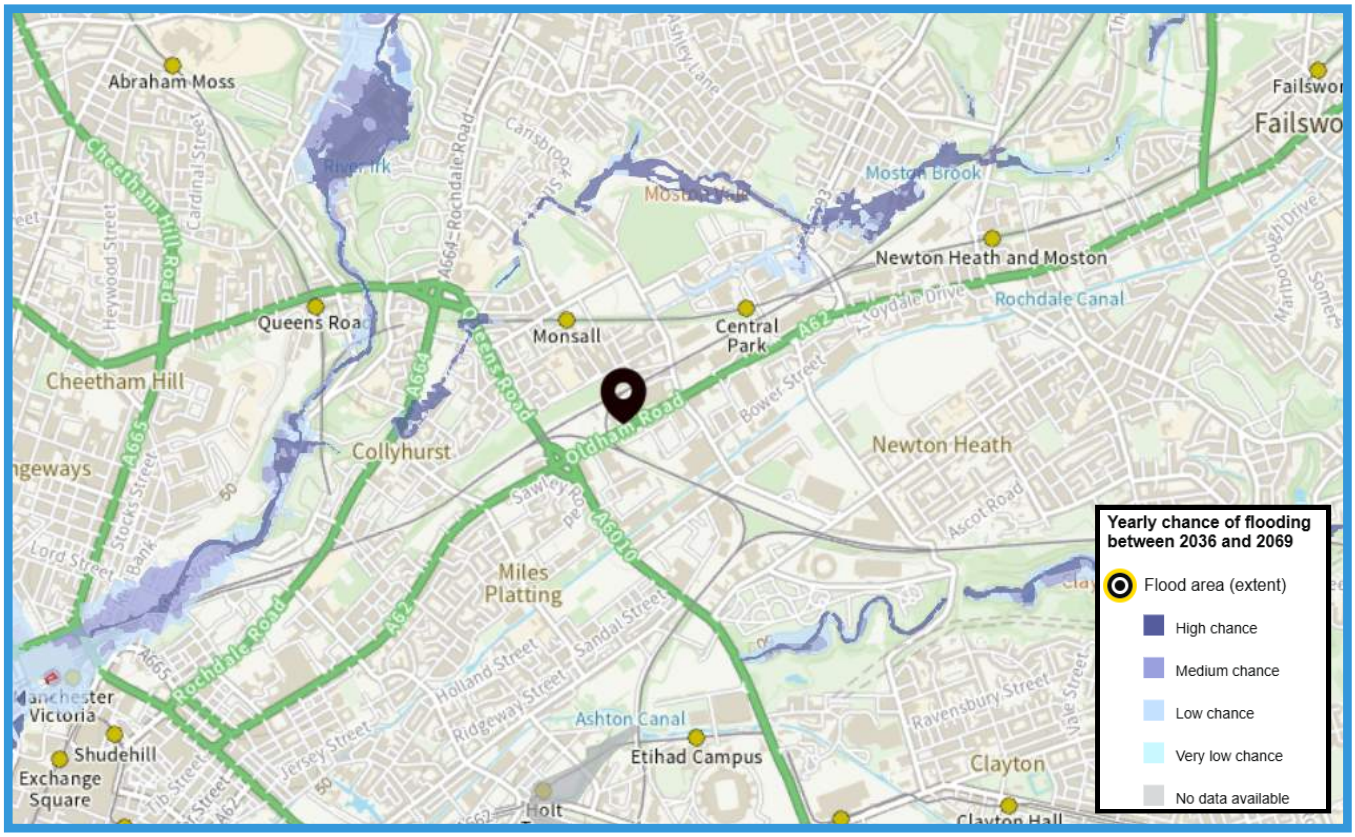


DEPTH

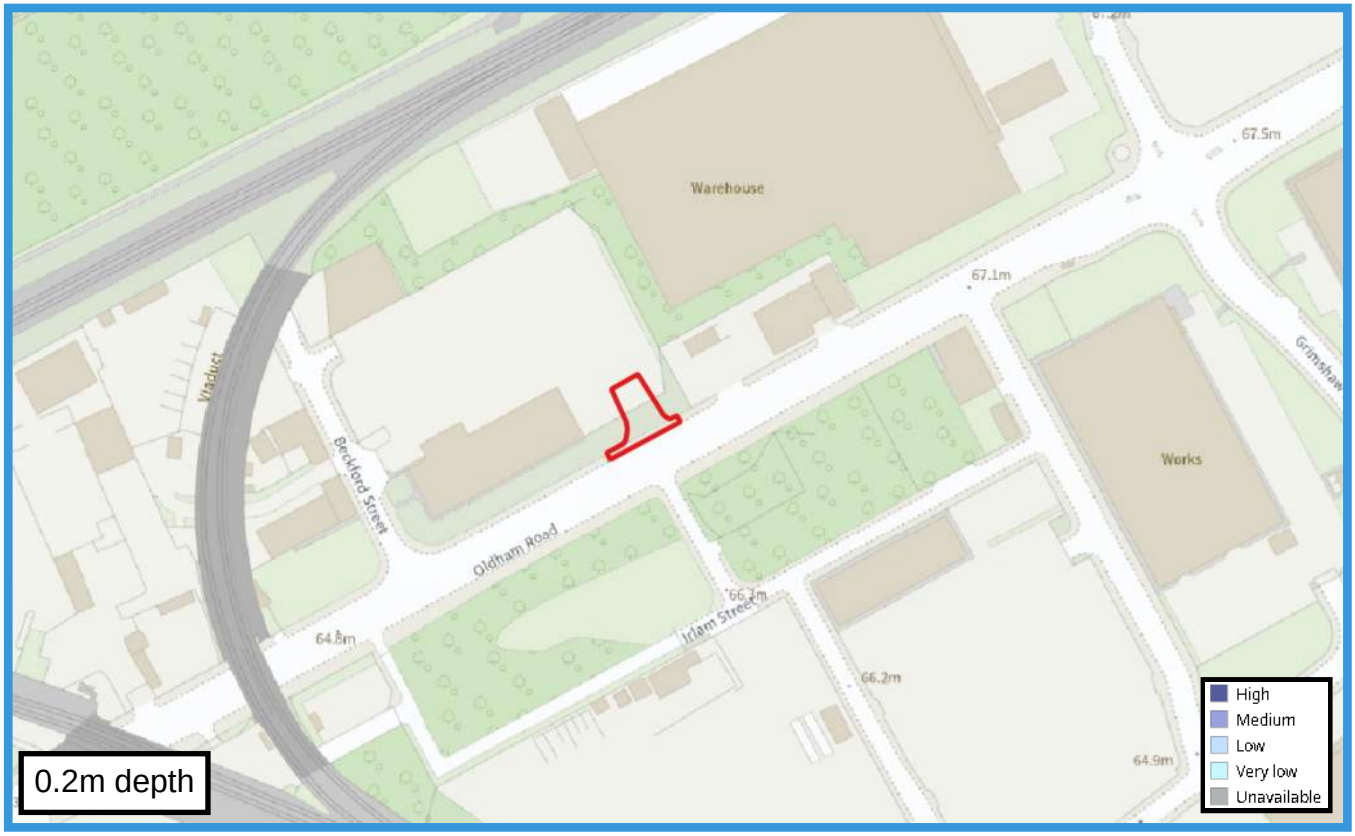


RIVER AND SEA FLOOD RISK MAP

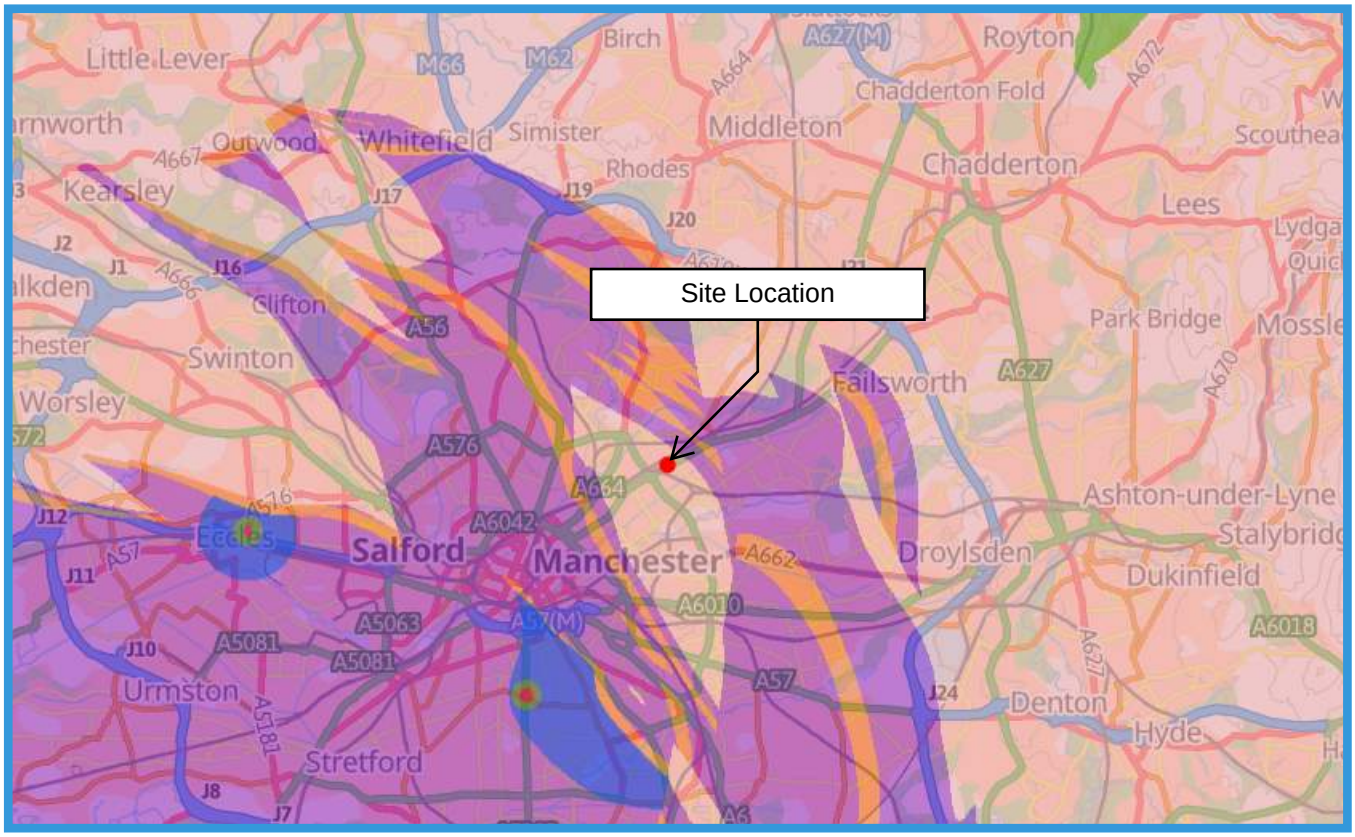
- High - greater than or equal to 1 in 30 (3.3%) chance of flooding in any year
- Medium –Less than 1 in 30 (3.3%) but greater than or equal to 1 in 100 (1%) chance of flooding in any given year
- Low –Less than 1 in 100 (1%) but greater than or equal to 1 in 1000 (0.1%) chance of flooding in any given year
- Very low –less than 1 in 1000 (0.1%) chance of flooding in any given year



DEPTH



MAGIC RESULTS



Site Check Results

Site Check Report generated on Mon Feb 16 2026

The following features have been found in your search area:

You selected the location: Centroid Grid Ref: SD86430009

Aquifer Designation Map (Superficial Drift) (England)

TYPOLOGY	Secondary (undifferentiated)

Aquifer Designation Map (Bedrock) (England)

TYPOLOGY	Secondary A

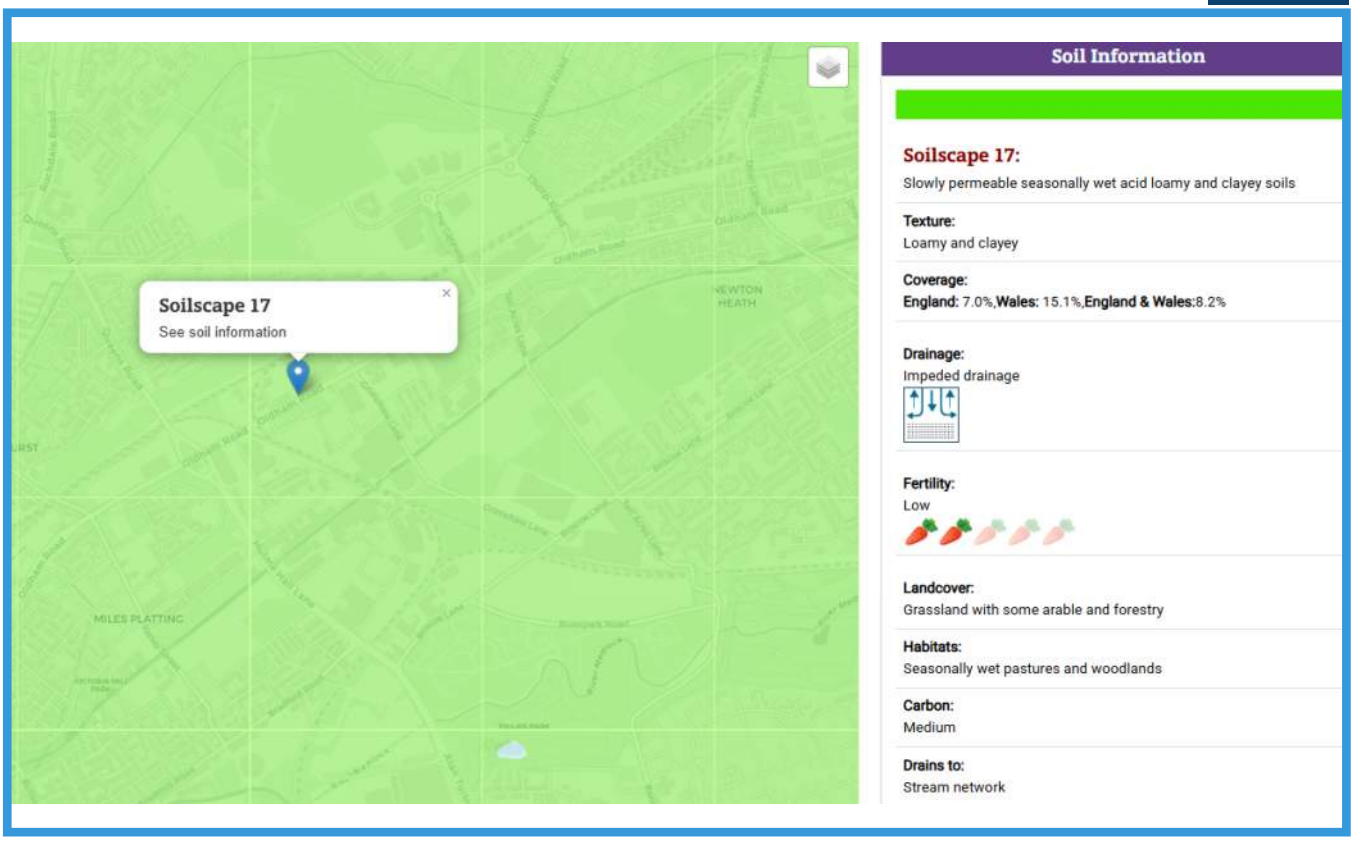
Source Protection Zones merged (England)

No Features found

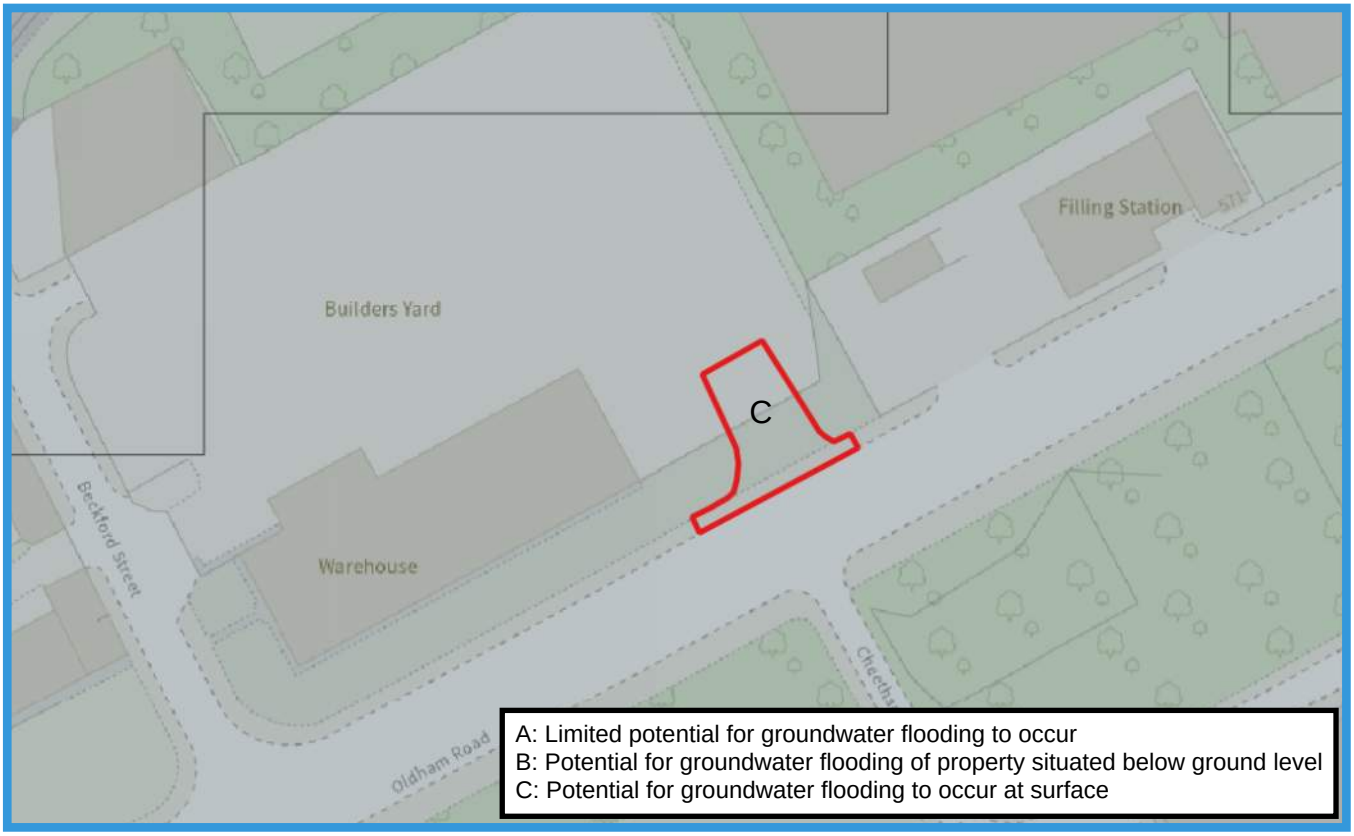
URBANWATER

SOILSCAPES MAP

LandIS®



GROUND WATER FLOOD RISK

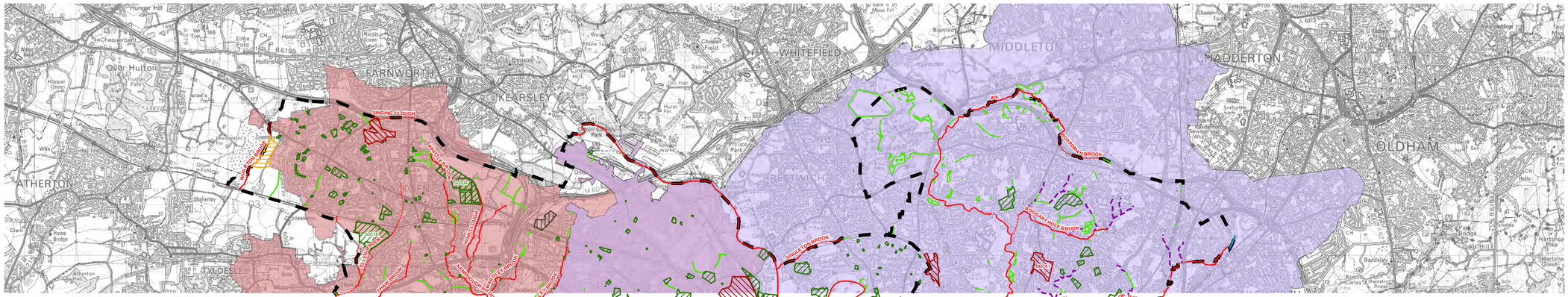


FLOOD WARNING AREA

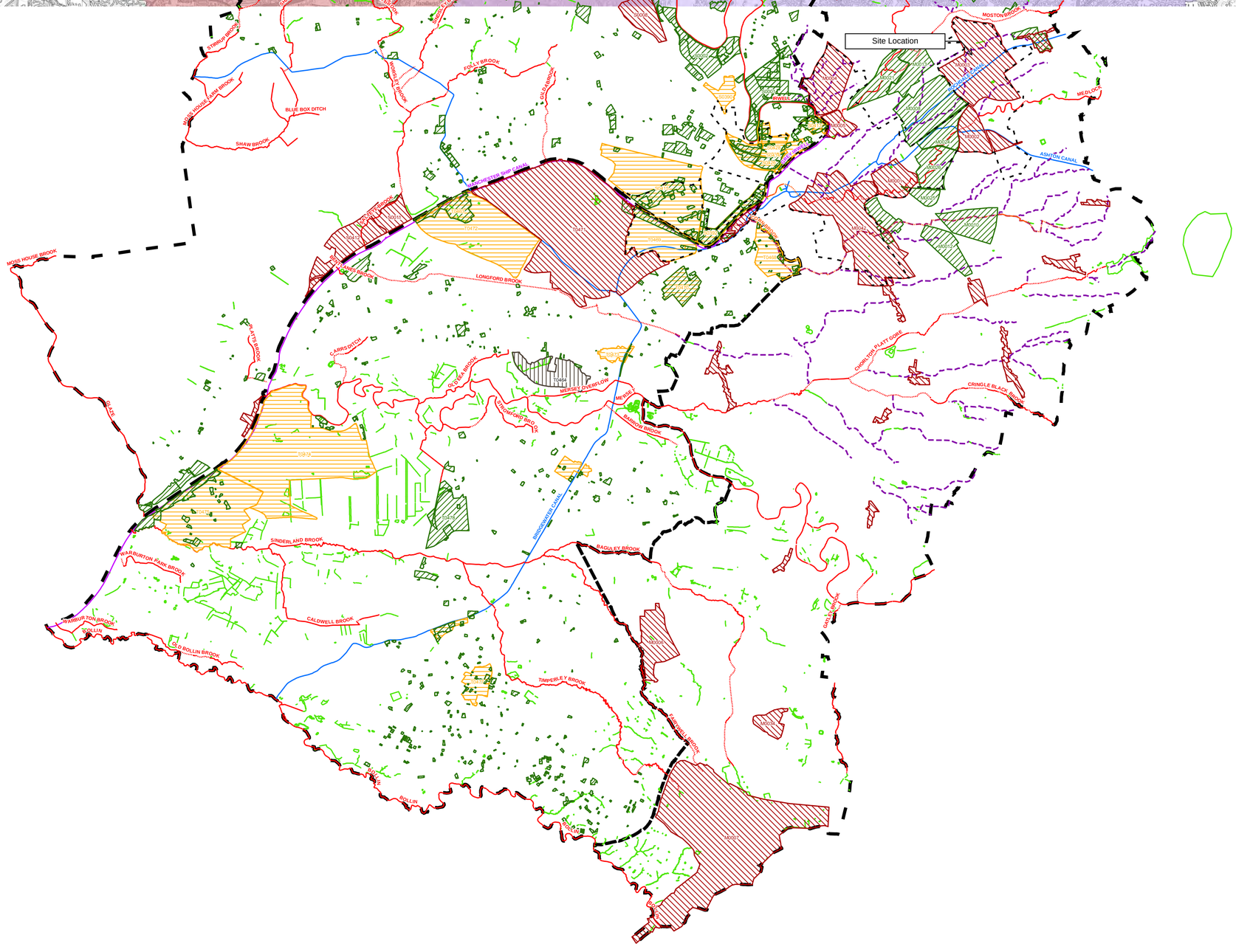


HISTORIC FLOOD MAP




Hunger Hill
Over Hulton
FARNWORTH
KEARSLEY
WHITEFIELD
MIDDLETON
ADDERTON
ATHERTON
TYLDESLEY
PRESTWICH
OLDHAM
SINGING CLOUGH
PINCEL EDGE BROOK
HOUR CROSS BROOK
CLOWES BROOK
KEARSLEY BROOK
SINCLAIR BROOK
RIVELIN BROOK
BK
BOGGART HOLE BROOK
Site Location


Salford
Manchester
Trafford


MOSTON BROOK
MEDLOCK
ASHTON CANAL
CHORLTON PLATT DYKE
CRINGLE BLACK BROOK
FOLLY BROOK
BLUE BOX DITCH
SHAW BROOK
MOSS HOUSE FARM BROOK
MOSS HOUSE BROOK
LONGFORD BROOK
PLATTS BROOK
CARRS DITCH
OLDHAM BROOK
MERSEY (RIVER)
MERSEY (UNDERFLOW)
GORTON BROOK
BARROW BROOK
BRIDGEWATER CANAL
SINDERLAND BROOK
RAGULEY BROOK
WARBURTON PARK BROOK
WARBURTON BROOK
ROLLIN
OLD ROLLIN BROOK
CALDWELL BROOK
TIMPERLEY BROOK
BLACKLEY BROOK
GLAZE
BLAKE

Flood map for planning

Your reference	Location (easting/northing)	Created
Unspecified	**386423/400104**	**16 February 2026 13:55**

Your selected location is in flood zone 1, an area with a low probability of flooding.

You will need to do a flood risk assessment if your site is **any of the following**:

- bigger than 1 hectare (ha)
- in an area with critical drainage problems as notified by the Environment Agency
- identified as being at increased flood risk in future by the local authority's strategic flood risk assessment
- at risk from other sources of flooding (such as surface water or reservoirs) and its development would increase the vulnerability of its use (such as constructing an office on an undeveloped site or converting a shop to a dwelling)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

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Environment Agency

Flood map for planning

Your reference
Unspecified

Location (easting/northing)
386423/400104

Scale
1:2,500

Created
16 Feb 2026 13:55

- Selected area
- Flood zone 3
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Water storage area

0 20 40 60 m

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