



310 Killinghall Road, Bradford, BD2 4SE
info@scarhillconsulting.co.uk

Proposed Development
Land East of The Fairway
Manchester, M40 3WS

Ref: 24-004

DRAINAGE STRATEGY STATEMENT

October 2024

Document Control

Revision	Date	Prepared By	Approved By	Description
0	17/10/2024	SM	SM	Discharge Planning Condition
1				
2				



Contents

1. Introduction	3
2. Proposed Development.....	4
3. Existing Drainage	4
4. Proposed Surface Water System.....	5
5. Foul Water System.....	6
6. Conclusion.....	6

List of Figures

Figure 1 - Site location plan	3
-------------------------------------	---

Appendices

Appendix A – Proposed Site Layout

Appendix B – United Utilities Water Records

Appendix C - Proposed Drainage Plan

Appendix D - Soakaway Test Result

1. Introduction

- 1.1. Scarr Hill Consulting have been commissioned by Moston M40 Ltd to prepare a drainage strategy for the development at land east of The Fairway, Moston, Manchester (the site).
- 1.2. This report has been prepared to submit to Manchester City Council (MCC) Local Planning Authority (LPA) in order to discharge condition 3 of the planning appeal decision (APP/B4215/W/21/3273212). This report has been developed in compliance with current policies and best practices.
- 1.3. The site is an undeveloped irregular shaped parcel of land located east of The Fairway (the road), approximately 7km north-east of Manchester city centre, covering an approx. area of 1000m² (0.1ha). The grid reference for the site is SD 88591 02008.

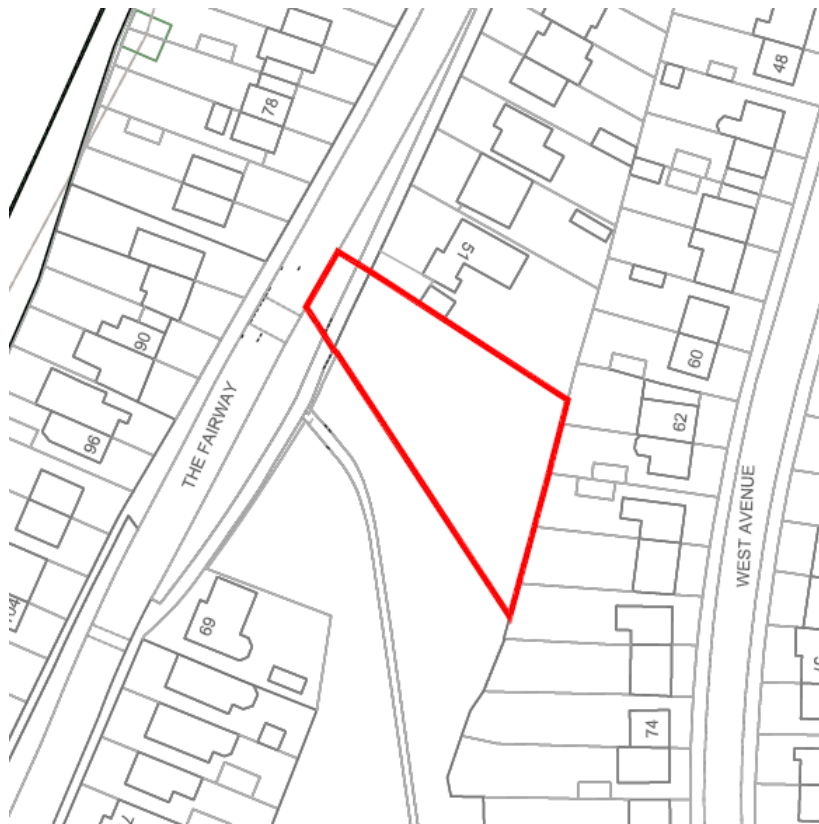


Figure 1 - Site location plan

1.4. The site is currently vacant and consists of overgrown vegetation and trees. There is a gradual fall in the site topography from the road towards the gardens of the adjoining properties at the back of the site.

1.5. The local watercourse (Moston Brook) is situated approximately 250m to the south of the site

2. Proposed Development

2.1. The proposal is to develop the existing vacant plot of land with the erection of 2 no. two storey residential dwellings with associated car parking, landscaping and boundary treatment. A new dropped kerb access will also be provided from the road.

2.2. It is assumed that the dwellings are to be constructed traditionally, in load bearing masonry with suspended timber floors and roof, off a suitable concrete strip foundation.

2.3. The proposed site layout drawing is included in Appendix A

3. Existing Drainage

3.1. The sewer records obtained from United Utilities (UU) indicate that there is a 225mm diameter clay public foul sewer running north to south in The Fairway. This eventually connects into a 1750mm diameter concrete combined sewer further downstream. There is also an 850mm diameter concrete surface water sewer running parallel to the foul sewer which deviates and connects into the same 1750mm diameter combined sewer in the adjacent land to the south.

3.2. The site does not appear to be served by the existing public sewer as confirmed by the UU records and historical data of the site which indicates that the parcel of land has never been developed. It is, therefore, assumed that any rainwater currently infiltrates directly into the soil with a contributing area of 100%.

4. Proposed Surface Water System

4.1. The National Planning Policy Guidance (NPPG) and National Planning Policy Framework (NPPF) states sites should be drained on a separate system with the foul water draining to the public sewer and the surface water draining in the most sustainable way, to mitigate the developments impact on the site itself and the adjacent areas. The following drainage options in the following order of priority are to be investigated when considering the disposal of the surface water drainage:

1. Discharge through infiltration;
2. Discharge to a watercourse;
3. Discharge to a surface water sewer, highway drain, or other drainage system;
4. Discharge to a combined public sewer.

4.2. An infiltration/percolation test carried out by Mugen Geo on 12th of October 2024 proved that the ground was not suitable to discharge the surface water run off from the proposed development. The report is included in Appendix D.

4.3. Moston Brook is the nearest watercourse, which is situated approximately 250m to the South. The brook is deemed inaccessible and unfeasible to discharge surface water runoff from the proposed development.

4.4. Considering the above, we have developed the surface water drainage strategy as follows.

4.5. Surface water runoff from the roof will be collected into a suitably sized attenuation tank via 100mm diameter drains, and discharge into the existing 850mm diameter public surface water sewer in the road.

4.6. Hardstanding areas will be surfaced in a permeable material to allow water to infiltrate directly into the ground where possible.

4.7. The discharge into the existing public sewer is to be restricted to an allowable rate to be agreed with the water authority (United Utilities) and the attenuation tank will then be sized accordingly.

5. Foul Water System

5.1. The foul drainage will be collected in a separate system on site and then discharged into the existing 225mm diameter public foul sewer via a single connection. The invert level of the existing sewer is to be investigated to ensure the new drainage can be connected via a gravity sewer system. Alternatively the foul drainage will have to be pumped via a rising main.

5.2. The proposed drainage layout drawing is included in Appendix C

6. Conclusion

6.1. The findings of this report are summarised below:

6.2. This drainage strategy report has been produced to discharge the planning condition for the proposed development involving the erection of 2no. two storey residential dwellings.

6.3. The site will be served with a separate foul and surface water drainage system. It is proposed to connect the foul drainage into the existing 225mm diameter pipe in the road, and the surface water will drain into suitably sized attenuation tank on site before discharging into the existing 850mm diameter public surface water sewer, also located in the road. The attenuation tank will be designed to accommodate all rainfall events up to and including 1 in 100 year + 45% for climate change in accordance with the NPPF.

6.4. The surface water discharge from the site is to be limited to a rate agreed with the local water authority prior to commencement of any works.

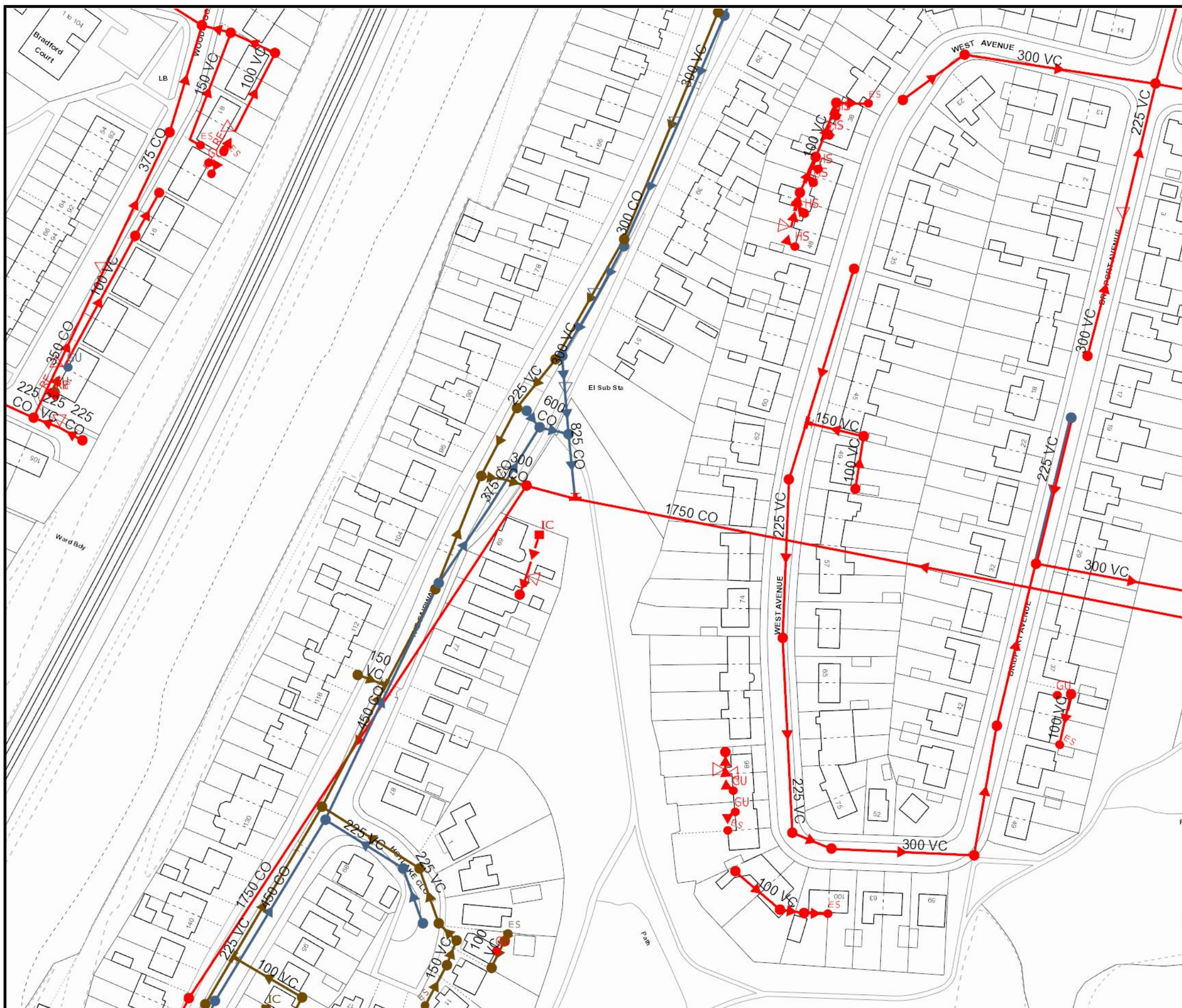


Appendix A – Proposed Site Layout





Appendix B – United Utilities Water Records



SEWER RECORDS

Address or Site Reference

Land east of Fairway The Fairway,
Manchester,
m40 3wa

Scale: 1:1250
Date: 05/03/2019

Printed by: Property Searches

The position of the underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available. United Utilities Water will not accept liability for any loss or damage caused by the actual position being different from those shown.

Crown copyright and database rights 2017
Ordnance Survey 100022432. Unauthorised reproduction will infringe these copyrights.



Appendix C – Proposed Drainage Plan

Do Not Scale

KEY

- EXISTING SW DRAINAGE
- PROPOSED SW DRAINAGE
- EXISTING FW DRAINAGE
- PROPOSED FW DRAINAGE
- EXISTING COMBINED DRAINAGE
- SITE BOUNDARY
- PROPOSED STORAGE TANK

Notes

- EXISTING DRAINAGE INFORMATION BASED ON UNITED UTILITIES WATER SEWER RECORD. EXISTING DRAINS TO BE SURVEYED TO CONFIRM SIZE, DEPTH AND LOCATION.
- ARCHITECT TO CONFIRM PROPOSED LEVELS AND LOCATION OF SVP'S/RWP'S.
- ALLOWABLE DISCHARGE RATE TO BE AGREED WITH UNITED UTILITIES PRIOR TO CALCULATING SIZE OF ATTENUATION TANK.

17.10.24	ISSUED FOR PLANNING	SM	P1
Date	Revision	By	Ref

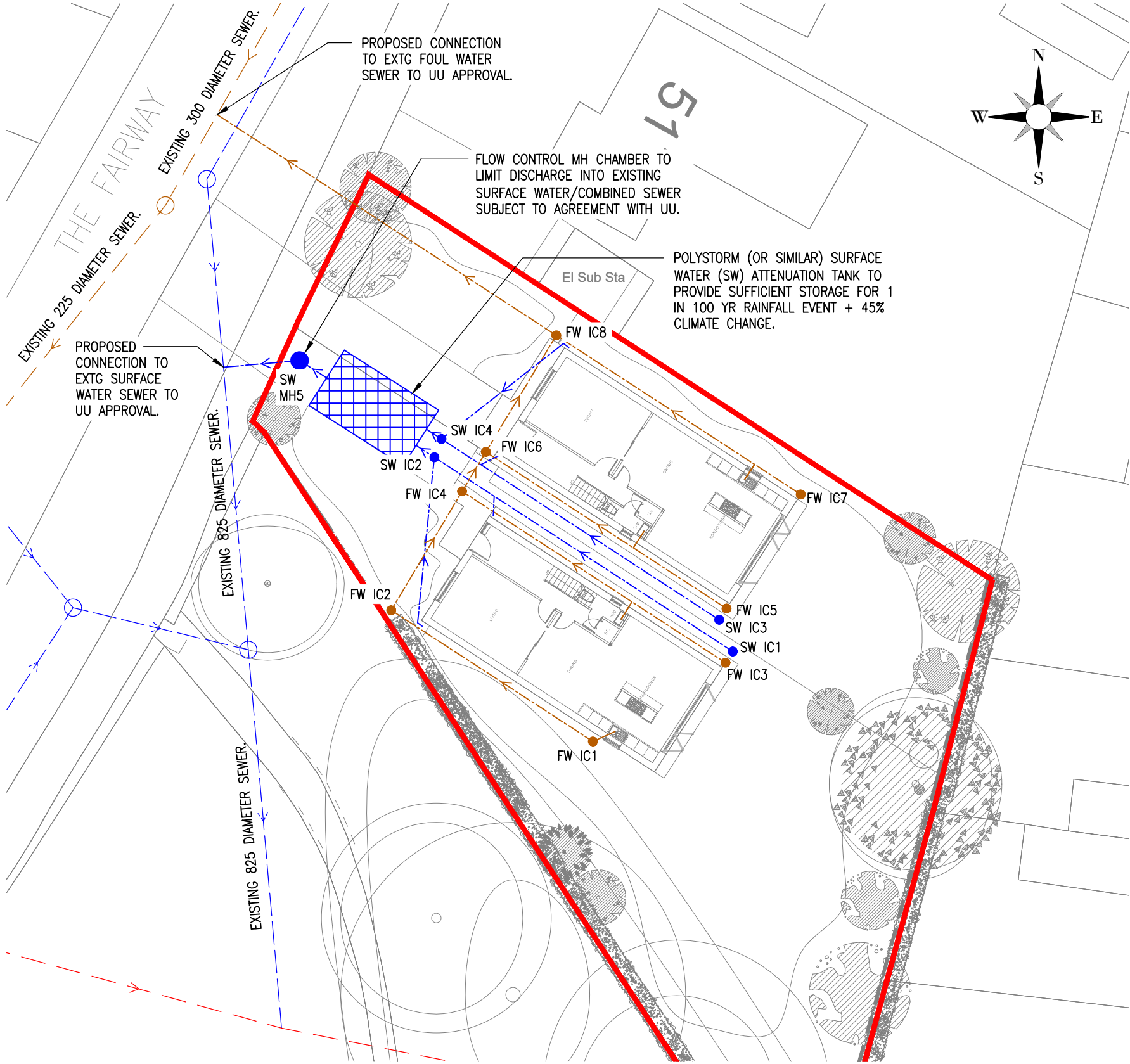
Scarr Hill Consulting
Civil & Structural Engineers

Tel: 07816176579 Email: info@ScarrHillConsulting.co.uk

Project
PROPOSED DEVELOPMENT
LAND EAST OF THE FAIRWAY
MANCHESTER, M40 3WS
Title

DRAINAGE STRATEGY PLAN

Scale	1:100	Drawn	SM	Checked	SM
Date	17.10.24	Status	PRELIMINARY		
Drg. No.	24004/D01				Rev. P1





Appendix D – Soakaway Test Result

Moston M40 Ltd

Albion Mills Business Centre

Albion Road

Bradford

BD10 9TQ

Our Ref: 2410 M40 3WS soak

Planning Ref:

Date: 14th October 2024

By email

Dear Sirs,

RE: Soakaway Test on 'Land east of the Fairway Manchester M40 3WS'

This letter report summarises a 'soakaway' test excavated at the above site.

Background

This letter report has been prepared to assess the suitability of constructing a soakaway for a new residential development at the above site. The test was undertaken with reference to BRE 365 to provide an indication whether a soakaway system will work.

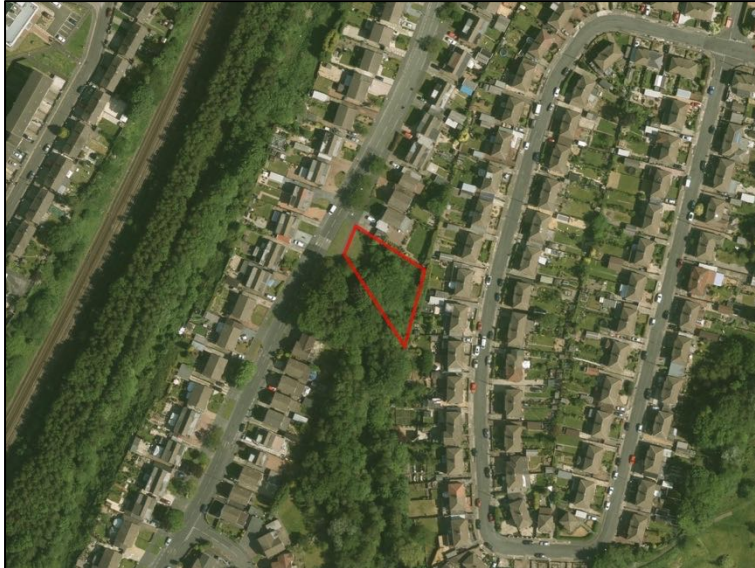


Figure 1 – Extract satellite image of development site

Site Setting

The site was an irregular shaped parcel of land comprising open space between residential properties on The Fairway (a road) adjacent to Moston Brook. The main development area was covered in rough vegetation.

No evidence of Japanese Knotweed or other invasive species was identified during the site walkover, however, a detailed inspection of the fauna was not undertaken. There were mature trees on the site margins.

The site and its condition at the time of excavation is shown in the site photos in appendix B.

Geology

The British Geological Survey (BGS) 1:50,000 scale map solid & drift edition indicates the site is underlain by superficial Glacial Till. This overlay the solid geology of the Newton Heath Sandstone above mudstone, siltstone and sandstone of Pennine Upper Coal Measures Formation of Carboniferous age. These strata will weather to both cohesive and granular strata depending on the site aspect and local conditions.

Investigation

The investigation works were undertaken using a 2T tracked excavator. The test trial pit position was located in the west of the site where it is assumed the soakaway system would be located as part of the planned development.

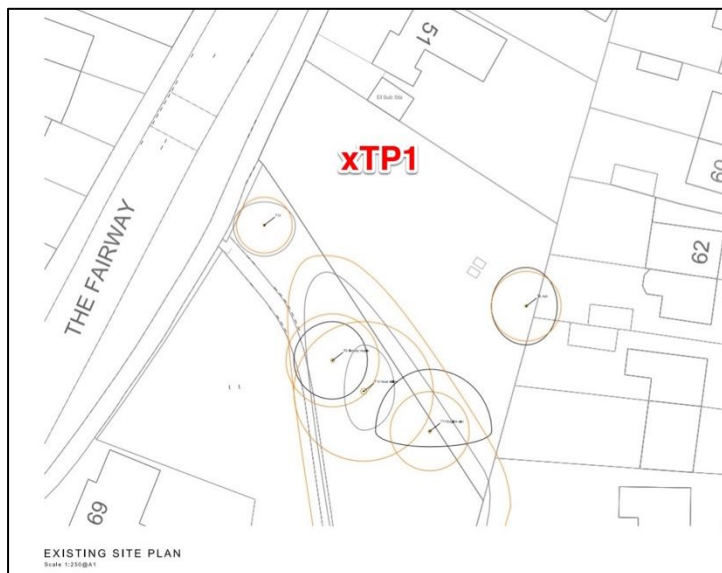


Figure 2 – Trial Pit Location Plan

The trial pit TP1 was excavated to approximately 1.8m bgl and the test undertaken within the Glacial Till and within made ground strata, which was predominantly of



sandy silt and sandy silty clays with compacted brick and concrete. The pit was filled to approximately 1m bgl. After 60 minutes the water level had not changed and the test was terminated and the pit backfilled.

A selection of photos showing the trial pit and test and general site condition is included as appendix B.

Conclusions and Recommendations

The soakaway test as conducted was considered sufficient to confirm that a soakaway system is unlikely to provide the indicated infiltration rate required for the accommodation of surface water drainage for surface run-off from the site. Given the site setting it is assumed that discharge to the existing sewer network is likely to be more suitable given the development proposal.

It is assumed that the ground levels have been raised to improved drainage and although Moston Brook is present immediately south of the site it is effectively channelised and inaccessible for the proposed development.

If, at any stage during the construction any significant changes from the assumed ground conditions are found, this should be brought to the attention of Mugen Geo Ltd and appropriate advice sought.

I trust the above information is sufficient for your requirements. However, if you have any comments or queries please do not hesitate to contact me.

Closing

I trust the above information is sufficient for your needs. Should you require any further clarification please do not hesitate to contact us.

Stuart Proudlock - MSc DIC FGS AGS
Engineering Geologist

Appendix A - Site Photo Record



General view looking east across the site from The Fairway



General view looking north east across the site from The Fairway



General view to the east looking towards the trial pit position



General view to the south from near TP1



TP1 pit



TP1 filling operation

Mugen Geo Ltd

Mugen Geo Ltd is Registered in England No 124549123
Registered Office - Machpelah House Hebden Bridge HX7 8AU



TP1 during test



General Terms & Conditions Mugen Geo Phase II Investigations

The proposal above describes a ground investigation to be undertaken on behalf of The Client and owner of the site) referenced above. The investigation proposed is been designed based upon information supplied by the client to assess the suitability of the site for sustainable drainage.

The Client is to ensure services have been identified prior to any excavation or provide full utilities plans.

This report will be produced on behalf of The Client and no responsibility is accepted to any Third Party for all or any part. The final report should not be relied upon or transferred to any other parties without the express written authorisation of Mugen Geo Ltd and payment of a fee. If any unauthorised Third Party comes into possession of this report, they rely on it at their own risk and the authors owe them no duty of care or skill.

Whilst the prepared report may express an opinion on the possible configuration of strata, contaminants or gases between or beyond exploratory hole positions or on the possible presence of features based on either visual, verbal or published evidence, this is for guidance only, and no liability can be accepted for its accuracy.

The comments on groundwater and ground gas conditions will be based on observations made at the time of the investigation. It should be noted, however, that groundwater and ground gas levels may vary from those reported due to seasonal or other effects.

It must be understood that any ground investigation only samples a small percentage of the ground. As a result changes in ground conditions and soil properties can occur between any two exploratory points, for example local features such as soft ground, pockets of contamination and faults. Unrecorded bell pits and shafts can also exist between exploratory points. The proposed ground investigation is designed to minimize such risks. Conclusions and recommendations are based on the information presented in this report, but unforeseen features may exist. Therefore, the actual ground conditions should be noted during construction and further advice sought if they differ significantly from those predicted.

Further investigation can be carried out to further reduce uncertainty and risk but ultimately these risks cannot be eliminated. In commissioning further research or investigation the costs, and the assumed benefit of doing so, must be considered.

Where information has been obtained from Third Parties, no liability can be accepted for the accuracy or completeness of this information. Where anecdotal evidence or speculations are presented, they must be treated as such and cannot be relied upon.

Mugen Geo Ltd

Mugen Geo Ltd is Registered in England No 124549123
Registered Office - Machpelah House Hebden Bridge HX7 8AU