

23 New Mount Street
Manchester

Drainage Strategy

for

Homezzz Ltd

July 2018

Hydrock Ref: R/10323/F001

DOCUMENT CONTROL SHEET

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Client: HOMEZZZ LTD

Project: New Mount Street, Manchester

Title: Drainage Strategy

Status: Final

Date: July 2018

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Issue Number:	**3**	**Name**	**Signature**
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Document Revision Record

Issue number	**Date**	**Revision Details**	**Issued To**
1	21/11/2016	Draft	HOMEZZZ LTD
2	24/11/2016	Final	HOMEZZZ LTD
3	19/07/2018	Site layout updated and job number amended from C161449 to C-10323	HOMEZZZ LTD

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EXECUTIVE SUMMARY

This report has been prepared by Hydrock Consultants Limited (Hydrock) on behalf of our client HOMEZZZ LTD in support of a planning application to be submitted to Manchester City Council, for a proposed conversion of office buildings to residential flats and associated infrastructure.

The report considers the feasibility of incorporating Sustainable Drainage Systems (SuDS) based on an assessment of the site against criteria put forward by Ciria C753. The report also considers the surface water drainage requirements as stated within the Manchester, Salford, Trafford Strategic Flood Risk Assessment and any additional requirements regarding surface water discharge stated by the Environment Agency and Lead Local Flood Authority.

Surface Water Drainage Strategy

The SuDS hierarchy of surface water discharge options are in priority order; infiltration to ground, discharge to a watercourse, discharge to a surface water sewer and finally discharge to a combined sewer. These options should be considered in turn to provide the most sustainable surface water drainage solution.

Despite the permeable nature of the underlying geology, infiltration SuDS are not an option due to the fact that existing building covers the entirety of the site and no additional parking is proposed to accommodate permeable paving for example. The closest watercourse is the River Irk, situated over 200m to the north-west of the site. There are no surface water sewers in close proximity to the site.

The surface drainage strategy will be to reuse the existing outfalls into the combined sewers within the surrounding roads. See Appendix C for a copy of the sewer records.

As the proposal is for a conversion and the building area covers the whole site, the use of SuDS is limited for this site. However, as part of the proposals a roof garden will be installed as part of the new single storey extension. This SuDS feature will provide a betterment in surface water runoff rates and volumes.

Foul Water Drainage Strategy

There are existing foul drainage connections into the surrounding public combined sewers. These connections will be reused as part of the proposed development.

1.0 INTRODUCTION

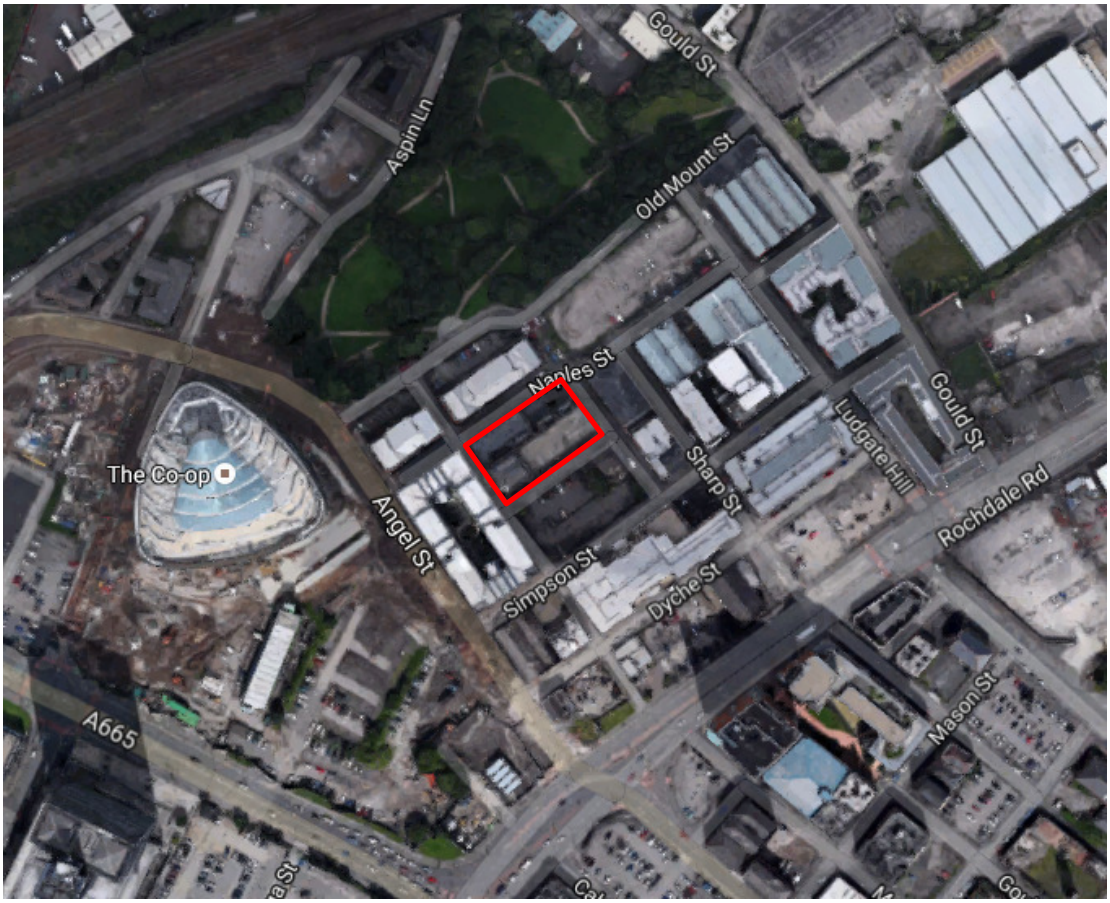
1.1 Existing Site Description

1.1.1 The site is referenced in Table 1, and a location plan is provided in Figure 1.

Table 1: *Site Referencing Information*

Item	Brief Description
Site name	23 New Mount Street, Manchester
Site address and location	23 New Mount Street, Manchester , M4 4DE
Council Area	Manchester City Council
Approximate Grid Reference	OS: 384470 E, 399084 N
General Locality	The site is situated in north Manchester approximately 1.5km from the city centre.

Figure 1: *Location Plan*



1.1.2 Area

The total site area is approximately 0.14 ha.

1.1.3 Boundaries and Surrounding Land

The site is bounded on all sides by roads. Naples Street, School Street, New Mount Street and Ludgate Street are the north, east, south and west borders respectively.

1.1.4 Existing Land Use and Access

The whole site is currently occupied by an existing building that is used for offices. Pedestrian access can be gained from most sides.

1.2 Development Proposals

1.2.1 The proposed development is for the conversion of the commercial property to residential accommodation. There will be no increase in impermeable area or significant changes made to the footprint of the site. No new parking is proposed on the site.

2.0 PLANNING POLICY AND CONSULTATION

2.1 Strategic Flood Risk Assessment (SFRA)

2.1.1 SFRAs provide guidance as to the information required to identify the amount of development permitted in an area, how surface water drainage systems in the area should function, and discuss any specific local surface water management techniques required in the area. The NPPF states that regional planning bodies (RPBs) or local planning authorities should prepare SFRAs in consultation with the EA and LLFA.

2.1.2 In May 2009, JBA Consulting was commissioned by Manchester City, Salford City and Trafford (MST) Councils to undertake a level 2 Hybrid Strategic Flood Risk Assessment following on from the Greater Manchester Sub-Regional SFRA completed in August 2008. The SFRA was produced in accordance with Planning Policy Statement (PPS) 25 guidance (PPS 25 guidance has been superseded by the NPPF, however the information within PPS 25 is still valid).

2.1.3 A summary of the main elements from the SFRA is presented below. The full report can be obtained from the Manchester City Council website.

- Development should be designed so there is no flooding to the development in a 1 in 30 year event, and so there is no property flooding in a 1 in 100 year plus climate change event.
- Surface water management, including the use of Sustainable Drainage Systems (SuDS), should be incorporated.
- The site is located within the Conurbation Core Critical Drainage Area. These areas are identified from historical flood events and/or modelled data as having a significant risk from surface water flooding and include drainage catchments for the sewer network.

2.2 External Consultation

2.2.1 In compiling this report, liaison has taken place with the relevant authorities. Correspondence has been received from Manchester City Council as the Lead Local Flood Authority. A response is awaited from United Utilities. Listed below is a summary of the correspondence, with the full responses presented in Appendix C.

2.2.2 Ms Zorica Todorovic from Manchester City Council has agreed that there is limited space for attenuation on site. The council have also stated that they believe the proposed atrium is replacing the pavement area between the buildings and will have different drainage connections. The Council require an understanding of the existing drainage in that area, what the proposals for that drainage area and how the atrium roof drainage will be incorporated into the overall drainage. N.B. There is no existing pavement area between the buildings and this is not applicable.

3.0 DRAINAGE STRATEGY

3.1 Existing Surface Water Runoff

3.1.1 The surface water and foul discharge from the site currently outfalls into the public combined sewers located around the site.

3.2 Proposed Surface Water Runoff

3.2.1 The proposed surface water drainage strategy should under new developments follow the drainage hierarchy which address the strategies in the following order: Infiltration to ground, discharge to watercourse, discharge to a surface water sewer, discharge to a combined sewer.

3.2.2 The site is underlain by Till and the Chester Pebble Beds Formation which is comprised of fine to coarse grained sandstone with sporadic siltstones. Despite the permeable nature of the underlying geology, infiltration SuDS are not an option due to the fact that existing building covers the entirety of the site and no additional parking is proposed to accommodate permeable paving for example.

3.2.3 The closest watercourse is the River Irk, situated over 200m to the north-west of the site. There are no surface water sewers in close proximity to the site.

3.2.4 The surface drainage strategy will be to reuse the existing outfalls into the combined sewers within the surrounding roads. See Appendix C for a copy of the sewer records.

3.2.5 As the proposal is for a conversion and the building area covers the whole site, the use of SuDS is limited for this site. However, as part of the proposals a roof garden will be installed as part of the new single storey extension. The roof garden will enable the uptake of precipitation through vegetation and will encourage residents to harvest rainwater for gardening purposes. The level roof gardens will provide a lower rate of run-off than the previously existing pitched roofs. Therefore, there will be a reduction in surface water runoff rate and volume from the site.

3.3 Proposed Foul Water Runoff

3.3.1 There are existing foul drainage connections into the surrounding public combined sewers. These connections will be reused as part of the proposed development.

Appendix A – Site Layout

CONTENTS	
Identifier	**Name**
AXIS Architecture	Site Layout

1 Demolition and adaptation of existing structure. Main contractor to complete method statements identifying the demolition / dismantling sequences / temporary works required to prevent accidental collapse of the structure, and safe working methods.

RESIDUAL RISK

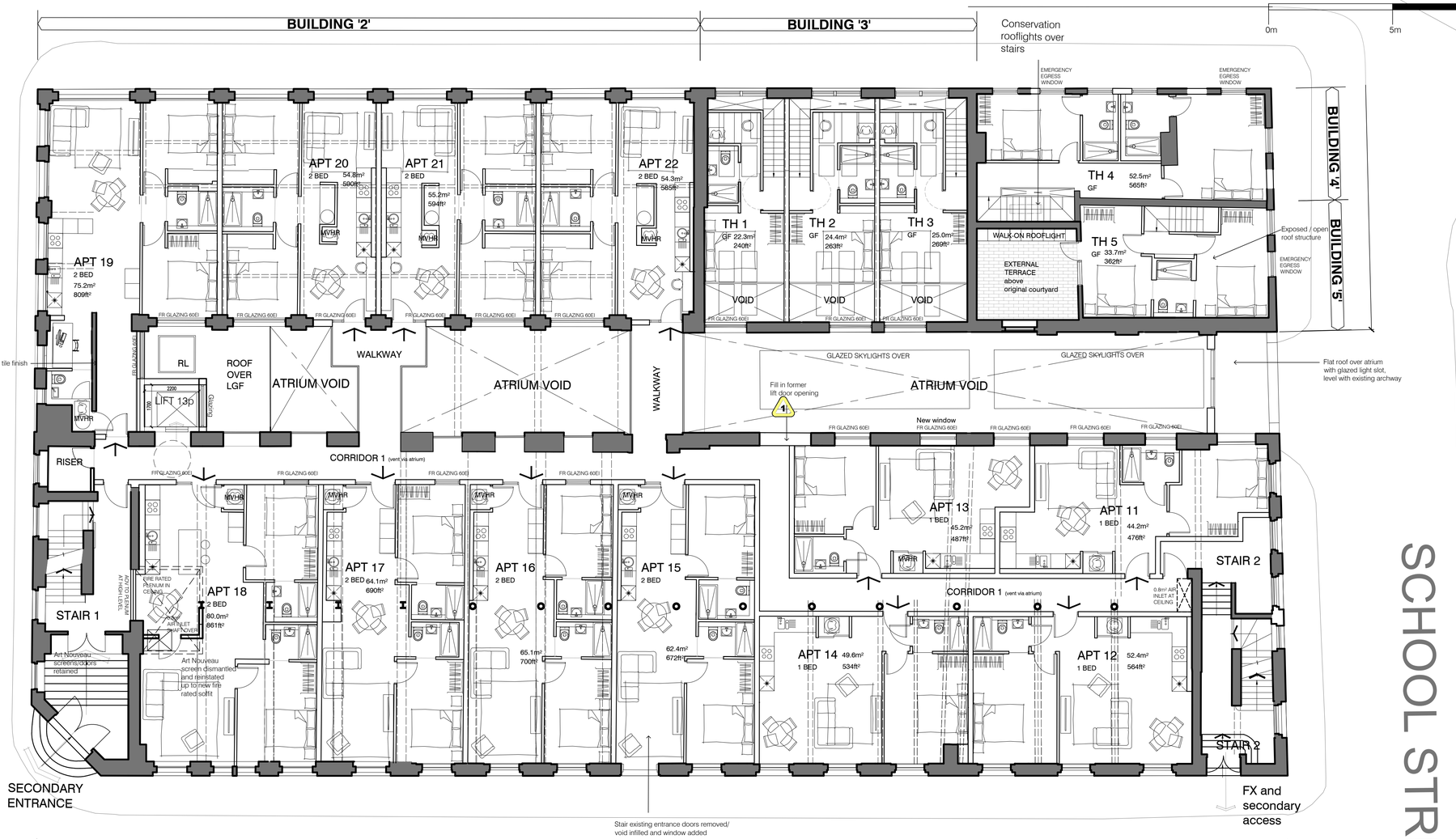
Wherever possible unnecessary risk is designed out of these proposals. Where residual risk remains this is assessed and identified on the relevant drawings with this symbol. Refer to the note and the relevant measures in the Health + Safety documentation

N

1:100 / 200 SCALE BAR

0m 5m 10m 15m

NAPLES STREET



NEW MOUNT STREET

LUDGATE STREET

SCHOOL STREET

P	AIR INLET SHAFT REINSTATED AS PER FIRE ENGINEER COMMENTS. NOTES ADDED RE PLENUM AND REPOSITIONING OF EXISTING GLAZED SCREEN.	26-06-2018
N	BUILDING 1 REPLANNED	22-06-2018
M	APTS 15 AND 17 REPLANNED	CORRIDORS ADJUSTED TO GAIN FLOORSPACE TO APARTMENTS.	18-06-2018
L	ISSUED FOR TENDER AND UPDATE TO CONSULTANTS	18-05-2018
K	APARTMENTS 15 AND 17 REPLANNED TO FORM LARGER 1 BED UNITS, AS DISCUSSED WITH PLANNERS.	08-05-2018
J	BUILDING 1 REPLANNED WITH CENTRAL CORRIDOR, VENTED TO ATRIUM. ALL APARTMENTS RENUMBERED. LIFT REPOSITIONED.	09-03-2018
H	VARIOUS AMENDMENTS IN LINE WITH DESIGN DEVELOPMENT. DRAINAGE RUNS ADDED| AG	08/12/2017

Revision

AXIS architecture

Talbot Chambers 2-6 North Church Street Sheffield S1 2DH
tel: +44(0)114 2490944 fax: +44(0)114 2490966 www.axis-architecture.com

23 New Mount Street

Manchester

Clugston Estates

Proposed Ground Floor

GA PLAN

A1 Scale	A3 Scale	Date	Drawn By
1:100	1:200	14 07 2016	AXIS

Drawing Number 27005(02)02

Revision P

TENDER

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DO NOT SCALE for manufacture. Verify all dimensions prior to construction

Appendix B – Statutory Authority Correspondence

CONTENTS	
Identifier	**Name**
Manchester City Council	Pre-development enquiry response

Eleanor Dale

From: z.todorovic@manchester.gov.uk on behalf of floodriskmanagement@manchester.gov.uk
Sent: 17 November 2016 14:50
To: Eleanor Dale
Cc: floodriskmanagement@manchester.gov.uk
Subject: Re: URGENT pre-development enquiry
Attachments: NMS_27005_PROPOSED MASSING.PDF

Eleanor

We have reviewed your proposal.

We agree that there is a limited space for attenuation and it would be difficult to accommodate for it. We also acknowledge that the site is proposed as change of use.
However, the atrium that you are proposing is replacing the pavement area between the buildings and will have different drainage connections. We need to understand existing drainage of that area, what you intend to do with that drainage and how you intend to incorporate atrium roof drainage into the overall drainage.
If you are changing flows that are getting into the existing drainage system and ultimately into the public sewer, you need agreement from United Utilities that they accept these changes.

If you need further clarifications, let us know.

Regards

Zorica

Zorica Todorovic
Flood Risk Management
The Neighbourhoods Service
Growth and Neighbourhoods
Manchester City Council

Tel: 0161 219 6295
Email: floodriskmanagement@manchester.gov.uk
Web: http://www.manchester.gov.uk/

POSTAL ADDRESS: Manchester City Council, Public Realm, The Neighbourhood Service, PO Box 532, Town Hall, Manchester M60 2LA

Eleanor Dale <EleanorDale@hydrock.com>

16/11/2016 17:38

To "floodriskmanagement@manchester.gov.uk" <floodriskmanagement@manchester.gov.uk>
cc
Subject URGENT pre-development enquiry

Dear Sir/Madam,

Could you please advise on the surface water drainage requirements for the proposed change of use from offices to residential use? There is no available floor space on the site to include attenuation and the building itself is not built to withstand a green roof for example.

Thanks,

Eleanor

Eleanor Dale
Infrastructure Engineer

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Total Control Panel Login

To: eleanordale@hydrock.com
From: prvs=112936d67d=z.todorovic@manchester.gov.uk

Message Score: 50
My Spam Blocking Level: Medium

Block this sender
Block manchester.gov.uk

High (60): Pass
Medium (75): Pass
Low (90): Pass

This message was delivered because the content filter score did not exceed your filter level.

Appendix C - Sewer Records

CONTENTS	
Identifier	**Name**
United Utilities	Sewer Records

Extract from Map of Public Sewers

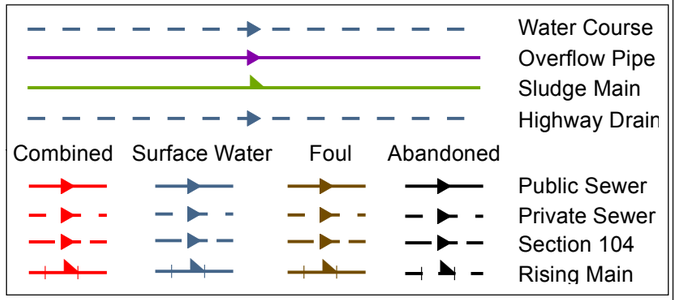
The position of underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available.

The actual positions may be different from those shown on the plan and private pipes, sewers or drains may not be recorded.

United Utilities will not accept any liability for any damage caused by the actual positions being different from those shown.

United Utilities Water Limited 2014
The plan is based upon the Ordnance Survey Map with the sanction of the Controller of H.M. Stationery Office.Crown and United Utilities copyrights are reserved. Unauthorised reproduction will infringe these copyrights.

LEGEND



23 NEW MOUNT STREET MANCHESTER

Printed By : Property Searches Date: 01/09/2016

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Approximate Scale: 1:2500

United Utilities
helping life flow smoothly