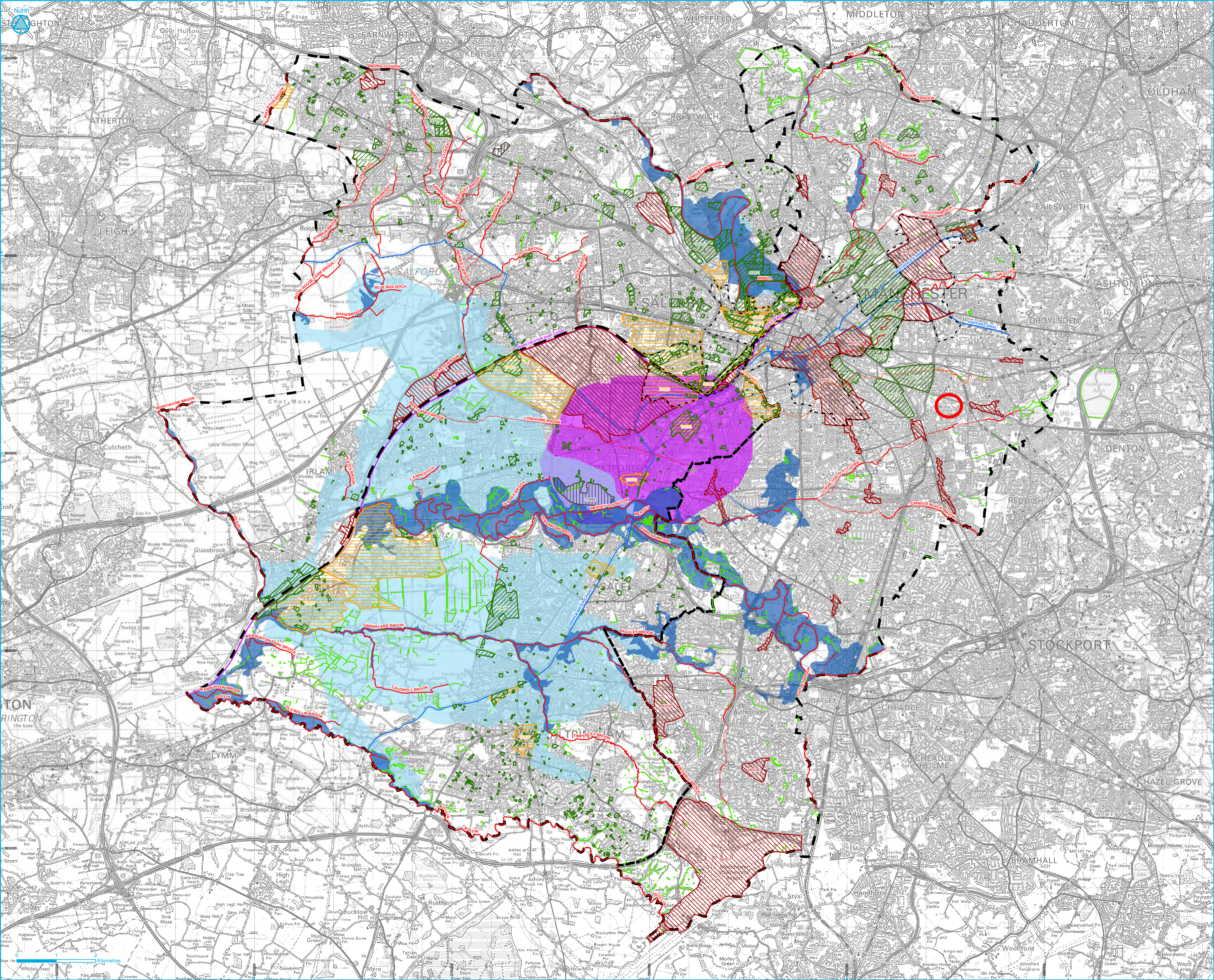




- Council Boundary
- Ashton, Bridgewater and Rochdale Canals
- Manchester Ship Canal / Grey Inwell
- Other Waterbodies
- Main Rivers (V8.0)**
 - Culverted
 - Open
- Digitised River Lines**
 - Culverted
 - Open
- Potential Development Sites / Locations**
 - Employment
 - Housing
 - Mixed Use
 - Other
- Regional Centre Boundary

The map has been produced in accordance with PPS25: Development and Flood Risk and its Practice Guide. This map shows areas that are potentially at risk from groundwater flooding and should be used to scope suitable mitigation measures in a site specific Flood Risk Assessment.

The Main River information shown in the SFRA is provided by the Environment Agency; the centreline data may deviate from that shown on basemapping due to inherent differences in data resolution. Further information on Main Rivers is provided on the Environment Agency's website. The mapping of culverted sections of watercourse is a strategic screening only based upon Ordnance Survey 1:10,000 mapping and should be confirmed for more detailed studies such as site specific Flood Risk Assessment. The canals layer does not necessarily cover all the canal arms, but the modelled overtopping/breaching and hydraulic interactions with rivers and other waterbodies is complete and accurate as appropriate for a Strategic Flood Risk Assessment.

The information on the map is based on Environment Agency potential groundwater rebound areas, data from the Coal Authority, BGS drift geology mapping and Defra Groundwater Emergence Maps.

The River Inwell between Victoria Station and Pomona Island is not shown as a Main River on the Environment Agency's Flood Map although Flood Zones related to the river are. The same approach has been taken in this SFRA.

www.jeremybenn.co.uk
t 01925 570876
f 0845 882772
e info@jbaconsulting.co.uk

Bank Quay House
Sankey Street
Warrington
WA1 1NN
United Kingdom

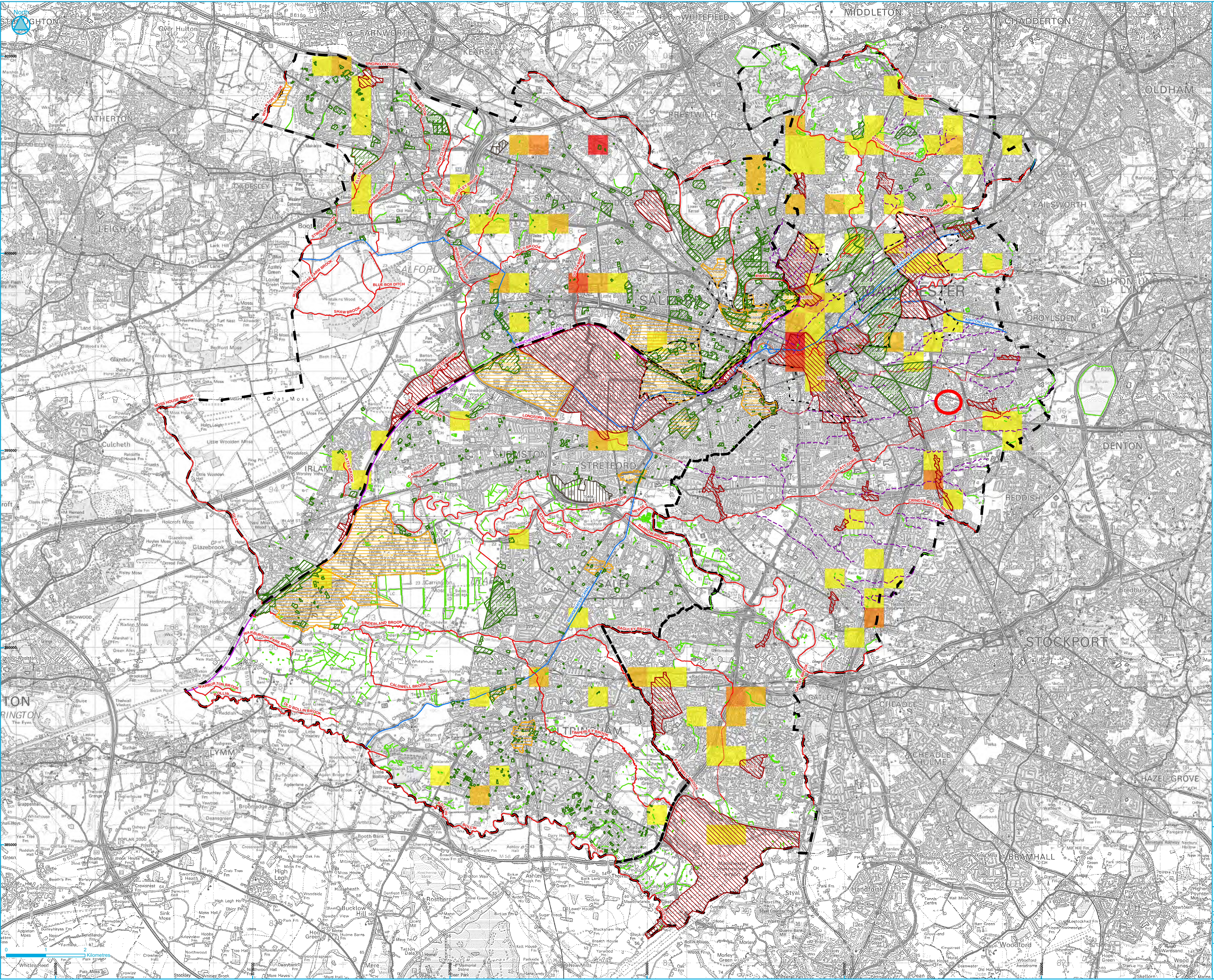
Other offices at: Atherstone, Doncaster, Edinburgh, Haywards Heath, Limerick, Newcastle upon Tyne, Newport, Northallerton, Salford, Skipton, Tadcaster & Wellingford

for

Manchester City, Salford City and Trafford Councils Level 2 Hybrid SFRA

Groundwater Flooding

Drawn by: J Cheetham	Date: 08/03/2011	This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office. Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Licence number: 100019068 2011.
Checked by: J Dimelow	Date: 01/02/2011	
Approved by: J Cooper	Date: 01/02/2011	
File Name: ..\ArcViewMapping\Level1\MS2_GroundwaterFlooding_V1.3.mxd		
Drawing Number:	Status:	Scale:
GW_2.1	FINAL	1:45,000
Original © A1		



- Council Boundary
- Lost Watercourses
- Number Of Properties At Risk**
 - 1 - 5
 - 5 - 20
 - 20 - 50
 - 50 - 100
 - 100 - 154
- Potential Development Sites / Locations**
 - Employment
 - Housing
 - Mixed Use
 - Other
- Regional Centre Boundary
- Ashton, Bridgewater and Rochdale Canals
- Manchester Ship Canal / Grey Inwell
- Other Waterbodies
- Main Rivers (V8.0)**
 - Culverted
 - Open
- Digitised River Lines**
 - Culverted
 - Open

This map has been produced in addition to the requirements of PPS25: Development and Flood Risk.

This map shows the results of an assessment of surface water flood risk to properties. This shows the number of properties that could potentially be affected by such flooding if a 1 in 200 rainfall event were to occur.

The data shown in this map has been used to scope the coverage of Critical Drainage Areas.

The Main River information shown in the SFRA is provided by the Environment Agency; the centreline data may deviate from that shown on basemapping due to inherent differences in data resolution. Further information on Main Rivers is provided on the Environment Agency's website. The mapping of culverted sections of watercourse is a strategic screening only based upon Ordnance Survey 1:10,000 mapping and should be confirmed for more detailed studies such as site specific Flood Risk Assessment. The canals layer does not necessarily cover all the canal arms, but the modelled overtopping/breaching and hydraulic interactions with rivers and other waterbodies is complete and accurate as appropriate for a Strategic Flood Risk Assessment.

The River Irwell between Victoria Station and Pomona Island is not shown as a Main River on the Environment Agency's Flood Map although Flood Zones related to the river are. The same approach has been taken in this SFRA.

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Other offices at Altherstone, Doncaster, Edinburgh, Haywards Heath, Limerick,
Newcastle upon Tyne, Newport, Northallerton, Salford, Skipton, Tadcaster &
Wellingford

Manchester City, Salford City and Trafford
Councils Level 2 Hybrid SFRA

Surface Water Flooding Risk Assessment - Current
Scenario

Drawn by: J Chestham	Date: 08/03/2011	This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office. © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. Licence number: 100016688 2011
Checked by: J Dimelew	Date: 01/02/2011	
Approved by: J Cooper	Date: 01/02/2011	
File Name: ...ArcViewMappingLevel2MST_SurfaceWaterFloodingRiskAssessment_Current_V1.2.mxd		
Drawing Number: SS_4.3	Status: FINAL	Scale: 1:45,000

Appendix H

Correspondence

From: Wastewater Developer Services
<WastewaterDeveloperServices@uuplc.co.uk>
Sent: 21 December 2020 14:19
To: Patten, Tatiana
Cc: Wastewater Developer Services
Subject: RE: Pre-Development Application - Hyde Road Secondary School - UU REF 4200035659

Categories: Filed by Newforma

Good Morning Tatiana,

Pre Development Enquiry for: Hyde Road Secondary School UU Reference Number : 4200035659

We have carried out an assessment of your application which is based on the information provided. This pre-development advice on your drainage strategy will be valid for 12 months. Your drainage strategy will need to be reviewed by other competent authorities as part of the planning process, and we advise that you carry out the necessary site investigations to confirm the viability of your proposals.

If your investigations require access to our public sewer network, we ask that you contact our network engineers with a request for an access certificate via our main contact telephone number 0345 3723223 or refer to the link below:

<https://www.unitedutilities.com/builders-developers/working-near-our-assets/>

Foul Water

Foul flow from this site will be allowed to drain into the public foul water/combined sewer system.

Our preferred point of discharge would be to the 225mm diameter public combined sewer within the site at an unrestricted rate.

If you are able to identify an alternative, more suitable point of discharge, we request that you contact us at your earliest convenience so that we can assess suitability.

In accordance with our infrastructure plans we may ask you to change your point of connection. Therefore please contact us when you are ready to formalise your drainage proposals, we would suggest before you submit for Full Planning.

Surface Water

All surface water flow from the proposed development should drain in-line with the drainage hierarchy, as outlined in Paragraph 80, (Reference ID: 7-080-20150323), of the National Planning Practice Guidance. We also recommend you prioritise the use of multi-functional sustainable drainage systems for the management of surface water in accordance with national planning policy.

Generally, the aim should be to discharge surface run off as high up the following hierarchy of drainage options as reasonably practicable.

This is outlined as follows, in order of priority:

- 1. into the ground (infiltration);**
- 2. to a surface waterbody;**

3. to a surface water sewer or highway drain;

4. to a combined sewer.

For guidance, The North West SuDS Pro-Forma provides information on the appropriate evidence required at each stage of the hierarchy, to demonstrate how each level has been discounted.

The Lead Local Flood Authority has responsibility for all surface water drainage concerns and their input to your proposal is critical. You should also consider whether it is necessary to discuss your proposal with the Environment Agency, or Internal Drainage Board (if operating in your area).

The Local Planning Authority are the determining authority for any application for planning permission and the appropriate authority for determining cost viability of a proposed drainage scheme, such assessments are outside of the jurisdiction of United Utilities.

Infiltration

Surface water runoff generated from this development should discharge to the ground via infiltration system where feasible.

A detailed evidence based feasibility assessment must be carried out in line with Chapter 25 of the CIRIA SuDS Manual 2015 to determine whether infiltration is a suitable method of surface water disposal.

Particular attention must be paid to Ground Water Source Protection Zones to ensure that the risk of pollution to these valuable resources is not compromised. Details can be obtained from the government website:

<https://www.gov.uk/guidance/groundwater-source-protection-zones-spzs#find-groundwater-spzs>

If your site is in a Groundwater Source Protection Zone, you should have regard to the Environment Agency's approach to Groundwater Protection. Information on this is available via the link below:

<https://www.gov.uk/government/publications/groundwater-protection-position-statements>

Please note that such a location could have implications for the principle of your development and the need for additional mitigating measures to protect the groundwater environment and public water supply in the detailed design of your site.

Highway Drainage

If an evidence based assessment has been carried out and confirms that infiltration is not feasible, we recommend that you investigate the possibility of draining surface water to the highway drain where this ultimately discharges to a watercourse, by contacting the relevant Highway Authority.

Public Sewer

In accordance with the hierarchy of drainage options within the National Planning Practice Guidance, both discharge to ground via infiltration and discharge to a waterbody should be discounted prior to consideration of discharging surface water to the public sewer system. Evidence should be provided to demonstrate how these have been discounted, as outlined in the North West SuDS pro-forma.

Once evidence is provided as outlined above, United Utilities will consider a connection to the 450mm diameter public surface water sewer located on-site at a pass forward flow to be agreed by the Lead Local Flood Authority. United Utilities request that any agreed rate does not exceed 45 l/s.

As a Water Company, we have no obligation to accept highway drainage into our public sewer network. However, should your proposals include runoff from highways, we would request that consideration is given to SuDS components that deliver source control are incorporated within the design of the scheme to reduce the volume and frequency of discharges of these flows to the public sewer.

Levels

For low-lying sites, (where the ground level of the site or the level of a basement is below the ground level at the point where the drainage connects to the public sewer), care should be taken to ensure that the property is not at increased risk of flooding. If these circumstances exist, we recommend that you contact us to discuss further. It could affect the detailed design of your site and result in the need to incorporate appropriate mitigating measures in your drainage scheme.

Sewer Adoptions

You have indicated on your application form that you intend to put the sewers forward for adoption (including any SuDS components that can come within the meaning of a sewer).

United Utilities assess adoption applications based on the current Design & Construction Guidance and local practices which have now replaced 'Sewers For Adoption 6th Edition'.

We recommend that you submit a pre design assessment to the sewer adoption mailbox (SewerAdoptions@uuplc.co.uk) stating pre design assessment in the title

Please refer to links below to obtain further guidance:

<https://www.unitedutilities.com/builders-developers/larger-developments/wastewater/sewer-adoptions/>

Site drainage must be designed in accordance with Building Regulations, National Planning Policy, and local flood authority guidelines, we would recommend that you speak and make suitable agreements with the relevant statutory bodies.

If you intend to put forward your wastewater assets for adoption by United Utilities, the proposed detail design will be subject to a technical appraisal by an Adoption Engineer as we need to be sure that the proposals meets the requirements set out in the Design & Construction Guidance. The proposed design should give consideration to long term operability and give United Utilities a safe and cost effective proposal for the lifetime of the assets. In these cases, we strongly recommend that no construction commences until the detailed drainage design, submitted as part of the Section 104 application, has been assessed and accepted in writing by United Utilities. Any work carried out prior to the technical assessment being approved is done entirely at the developer's own risk and could be subject to change.

Codes For Adoption

The new Codes for Adoption are outlined on the Water UK Website. The link below takes you to their webpage:

<https://www.water.org.uk/technical-guidance/developers-services/codes-for-adoption/>

A free copy of the new Design & Construction Guidance can be downloaded via the link below:

<https://www.water.org.uk/wp-content/uploads/2020/03/SSG-App-C-Des-Con-Guide-v-2-100320-C.pdf>

Existing Wastewater Assets Crossing the Site

According to our public sewer records there are public sewers located within your site boundary. We will require unrestricted access to the sewer for maintenance purposes, we would ask that you maintain a minimum clearance of 6m which is measured 3m from the centre line of the pipe unless there happens to be a formal easement agreement in place, in which case the specified easement width would apply. If you cannot achieve this then you may wish to consider diverting and or abandoning the public sewer

Please refer to the link below to obtain full details of the processes involved with sewer diversions:

<https://www.unitedutilities.com/builders-developers/larger-developments/wastewater/sewer-diversions/>

Existing Water Assets Crossing the Site

It is the developer responsibility to identify utilities on-site. Where clean water assets are shown on our records, we recommend that you contact our Water Pre-Development Team, via the following email address: DeveloperServicesWater@uuplc.co.uk. Further information for this service can be found on our website via the link below:

<https://www.unitedutilities.com/builders-developers/larger-developments/pre-development/water-pre-dev/>

Connection Application

Although we may discuss and agree discharge points and rates in principle, please be aware that you will have to apply for a formal sewer connection. This is so that we can assess the method of construction, Health & Safety requirements and to ultimately inspect the connection when it is made. Details of the application process and the form itself can be obtained from our website by following the link below:

<https://www.unitedutilities.com/builders-developers/larger-developments/wastewater/sewer-connections/>

We recommend that the detailed design should confirm the locations of all utilities in the area and ensure that any proposed drainage solution considers routing and clash checks where required.

If we can be of any further assistance please don't hesitate to contact us further.

Kind regards,



Matthew Dodd
Developer Engineer
Developer Services & Metering
Customer Services
T: 07468 758244
[unitedutilities.com](https://www.unitedutilities.com)

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We now have a live chat facility available to you Mon to Friday 8 -5pm. You just click on the orange live chat box on our webpage and one of our advisors will be ready to chat to you and help you with your enquiry <https://www.unitedutilities.com/builders-developers/> or you can email us at developerserviceswater@uuplc.co.uk

From: Patten, Tatiana [<mailto:Tatiana.Patten@bdp.com>]
Sent: 09 December 2020 11:41
To: Wastewater Developer Services <WastewaterDeveloperServices@uuplc.co.uk>
Subject: Pre-Development Application - Hyde Road Secondary School

Dear Sir / Madam,

Pre-Development Enquiry
Our Ref: P3001502
Project: Hyde Road Secondary School, Manchester
OS Grid: 387532 E, 396327 N
Post Code: M12 5AL

I am writing with regards to the above project Hyde Road School in Manchester. The project is a redevelopment of the previously used Showcase Manchester and adjacent car park. The site is about 5.4 ha and is to be redeveloped into a new secondary school. Please refer to the attached layout.

The project is currently at early concept stage and BDP have been commissioned to undertake a Flood Risk Assessment and Outline Drainage Strategy for the proposed redevelopment.

The existing site is predominantly hard-standing. The proposal will significantly reduce the impermeable area as listed below.

Existing hard-standing, m ²	Proposed hard-standing, m ²	Reduction in hard-standing, m ²
37900	15130	22770

Based on available information, it is understood that the site currently drains via separate conventional drainage networks into the public sewer located west of the site. The current indicative drainage strategy for the proposed development is to discharge foul and surface water to the public sewer utilising existing connections, where possible.

Surface Water:

The design intent is to apply various suitable SuDS techniques (swale, filter drains/rain gardens, permeable surfaces and attenuation storage) for surface water management across the site reducing the existing surface water runoff by minimum 50% and adding 40% climate change allowance. At this stage infiltration techniques have not been considered due to the initial site investigation showing high ground water and layer of impermeable soil, please refer to the extract below.

Phase 2 Intrusive Ground Investigation & Assessment
Renfrew Road, Paisley

5.8 Infiltration Drainage

Given the presence of site wide cohesive Glacial Till deposits underlying the Made Ground, infiltration drain via soakaways are unlikely to be feasible due to the anticipated low infiltration rate of the underlying soils.

It has been estimated that the existing surface water runoff rate is 526 l/s (based on Area ex.=3.79, intensity=50mm and C=1).

Therefore, the proposed maximum surface water discharge rate is 263 l/s. Further reduction in the discharge rate is to be considered as the project progresses.

Foul Water:

At this stage, the school capacity is 1200 pupils and 75 staff. The total of 1275 people. Assuming the usage is 20 l/person/day and peak factor of 6. Therefore, the estimated proposed peak foul water discharge is 1.77 l/s. The existing peak foul water discharge from the existing building is currently unknown.

As part of the pre-development application, we would be grateful if you could also provide details of the following:

1. Please advise of any restrictions associated with surface water discharge from the development;
2. Any records of flooding to the site or in the area;
3. Any record of groundwater flooding issues;
4. Any capacity issues to the existing public sewers, in particular located west of the site;
5. Information on other assets in the local area not shown on the attached sewer record.

Any other details and guidance relevant to undertaking a flood risk assessment for this site would be gratefully received.

Please do not hesitate to contact me should you wish to discuss. Looking forward to hearing from you soon.

Enclosed documents:



Kind regards,

Tatiana Patten

IEng MICE

Senior Civil Engineer

BDP

16 Brewhouse Yard, Clerkenwell

London EC1V 4LJ, United Kingdom

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D +44(0)20 7812 8322

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Singapore - BDP Architects (Southeast Asia) Pte. Ltd, registered in Singapore 201805176D, registered office 8 Marina View, #43-01, Asia Square Tower 1, Singapore 018960.

China - BDP Architectural Design Consulting (Shanghai) Co., Limited, registered in China 310000400639211, registered office Unit A, Floor 17, No 45, Nanchang Road, Huangpu District, Shanghai 200020

EMGateway3.uuplc.co.uk made the following annotations

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Patten, Tatiana

From: oliver.timmings@manchester.gov.uk on behalf of
floodriskmanagement@manchester.gov.uk
Sent: 17 December 2020 15:16
To: Patten, Tatiana
Subject: Re: Hyde Road School - Flood Risk Enquiry
Attachments: Manchester City Council - SuDS Requirement for Developers
2019.pdf

Categories: Filed by Newforma

Good Afternoon Tatiana,

Thank you for the email.

We would encourage you to design the drainage of the site to be in line with the MCC Local Flood Management Strategy. I have also attached the MCC SuDS Requirement for Developers, as the site is large in size we would expect to see SuDS techniques used for attenuation.

The site is located within a Conurbation Core Critical Drainage area. Therefore we ask that you refer to paragraphs 5.45-5.46 of the MCC Local Flood Management Strategy for information on appropriate drainage factors.

Also, our records do not show any historic flooding issues on the site.

Kind Regards,

Oliver

Flood Risk Management
Lead Local Flood Authority
Highways Service, Growth and Neighbourhoods Directorate
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

From: "Patten, Tatiana" <Tatiana.Patten@bdp.com>
To: "floodriskmanagement@manchester.gov.uk" <floodriskmanagement@manchester.gov.uk>,
Cc: "Jones, Lee" <Lee.Jones@bdp.com>, "Nicholls, David" <David.Nicholls@bdp.com>
Date: 04/12/2020 12:09
Subject: Hyde Road School - Flood Risk Enquiry

Dear Sir / Madam,

Our Ref: P3001502
Project: Hyde Road School, Manchester
OS Grid: 387606 E, 396275 N

Post Code: M12 5AL

I am writing with regards to the above project Hyde Road School in Manchester. The project is a redevelopment of the previously used Showcase Manchester and adjacent car park. The site is about 4 ha and is to be redeveloped into a new school. Please refer to the attached indicative masterplan drawing ref. '1.1.01 Hyde Road School – Site Plan' for your information.

The project is currently at early concept stage and BDP have been commissioned to undertake a Flood Risk Assessment and Outline Drainage Strategy for the proposed redevelopment.

The existing site is predominantly hard-standing. The proposal will significantly reduce the impermeable area. Based on available information, it is understood that the site currently drains via separate conventional drainage networks into the public sewer located west of the site. The current indicative drainage strategy for the proposed development is to discharge foul and surface water to the public sewer utilising existing connections, where possible. The design intent is to apply various suitable SuDS techniques for surface water management across the site reducing the existing surface water runoff by 50% and adding 40% climate change allowance. At this stage infiltration techniques have not been considered due to the initial site investigation showing high ground water and layer of impermeable soil, please refer to the report extract below.

5.8 Infiltration Drainage

Given the presence of site wide cohesive Glacial Till deposits underlying the Made Ground, infiltration drain via soakaways are unlikely to be feasible due to the anticipated low infiltration rate of the underlying soils.

We would be grateful if you could therefore provide details of the following, where possible:

1. Please advise of any restrictions associated with surface water discharge from the development;
2. Any records of flooding to the site or in the area;
3. Any record of groundwater flooding issues;

Any other details and guidance relevant to undertaking a flood risk assessment for this site would be gratefully received.

Please do not hesitate to contact me should you wish to discuss. Looking forward to hearing from you soon.

Kind regards,

Tatiana Patten
IEng MICE
Senior Civil Engineer

BDP
16 Brewhouse Yard, Clerkenwell
London EC1V 4LJ, United Kingdom

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China - BDP Architectural Design Consulting (Shanghai) Co., Limited, registered in China 310000400639211, registered office Unit A, Floor 17, No 45,

Nanchang Road, Huangpu District, Shanghai 200020[attachment "Hyde Road School - Site Boundary.JPG" deleted by Oliver Timmins/Neighbourhood.Services/MCC] [attachment "1.1.01 - Hyde Road School - Site Plan.pdf" deleted by Oliver Timmins/Neighbourhood.Services/MCC] [attachment "Sewer Records.pdf" deleted by Oliver Timmins/Neighbourhood.Services/MCC]

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Appendix I

Proposed Site Layout



SOFT LANDSCAPING

- 1A - Existing Trees
- 1B - Proposed Trees
- 1C - Meadow Grass
- 1D - Shrub Planting
- 1E - Soft Landscaping
- 1F - Proposed Playing Fields

HARD LANDSCAPING

- 2A - Proposed Car Park
- 2B - Proposed Plaza - Block Paving
- 2C - MUGA - Porous Tarmac
- 2D - Playground - Tarmac
- 2E - Cycle Shelters

FENCING

- 3A - Secure Boundary - 2.2m high
- 3B - Internal Secure Line - 1.8m high
- 3C - MUGA Fence - 3m high

SPACE

Spaceworks, Benton Park Road, Newcastle upon Tyne, NE7 7LX
T: +44 (0)191 4300 6600
www.spacearchitects.co.uk

Sir Robert McALPINE

MANCHESTER CITY COUNCIL

Project: **Hyde Road School, Manchester**

Drawing Title: **Proposed Site Plan**

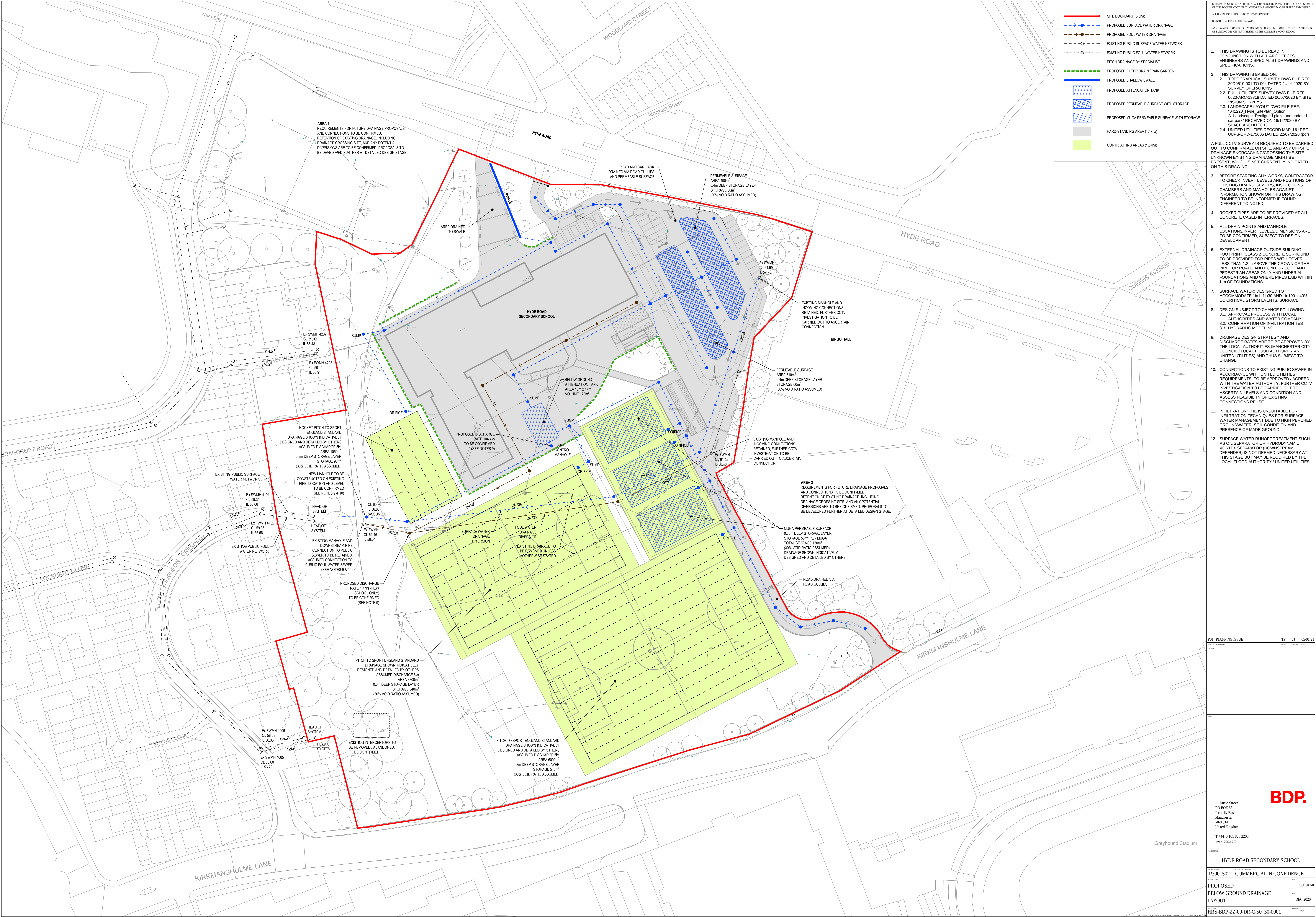
Project No: **08191**
Drawing No: **XX-DR-L-91-0001**
File Reference: **08191-SPACE-XX-DR-L-91-0001**

Status: **P01**
Revision: **As indicated**

Scale: **at A3**

Appendix J

Proposed Below Ground Drainage Layout



Appendix K

Greenfield Runoff Estimate



Greenfield runoff rate estimation for sites

www.uksuds.com | Greenfield runoff tool

Calculated by:	Tatiana Patten
Site name:	Hyde Road Secondary School
Site location:	Manchester

This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance "Rainfall runoff management for developments", SC030219 (2013), the SuDS Manual C753 (Ciria, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Site Details

Latitude:	53.46268° N
Longitude:	2.18811° W
Reference:	1111044025
Date:	Dec 24 2020 13:47

Runoff estimation approach

IH124

Site characteristics

Total site area (ha):	3.04
-----------------------	------

Methodology

Q_{BAR} estimation method:	Calculate from SPR and SAAR
SPR estimation method:	Calculate from SOIL type

Soil characteristics

	Default	Edited
SOIL type:	4	4
HOST class:	N/A	N/A
SPR/SPRHOST:	0.47	0.47

Hydrological characteristics

	Default	Edited
SAAR (mm):	892	892
Hydrological region:	10	10
Growth curve factor 1 year:	0.87	0.87
Growth curve factor 30 years:	1.7	1.7
Growth curve factor 100 years:	2.08	2.08
Growth curve factor 200 years:	2.37	2.37

Notes

(1) Is $Q_{BAR} < 2.0$ l/s/ha?

When Q_{BAR} is < 2.0 l/s/ha then limiting discharge rates are set at 2.0 l/s/ha.

(2) Are flow rates < 5.0 l/s?

Where flow rates are less than 5.0 l/s consent for discharge is usually set at 5.0 l/s if blockage from vegetation and other materials is possible. Lower consent flow rates may be set where the blockage risk is addressed by using appropriate drainage elements.

(3) Is $SPR/SPRHOST \leq 0.3$?

Where groundwater levels are low enough the use of soakaways to avoid discharge offsite would normally be preferred for disposal of surface water runoff.

Greenfield runoff rates

	Default	Edited
Q_{BAR} (l/s):	19.49	19.49
1 in 1 year (l/s):	16.96	16.96
1 in 30 years (l/s):	33.13	33.13
1 in 100 years (l/s):	40.54	40.54
1 in 200 years (l/s):	46.19	46.19

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