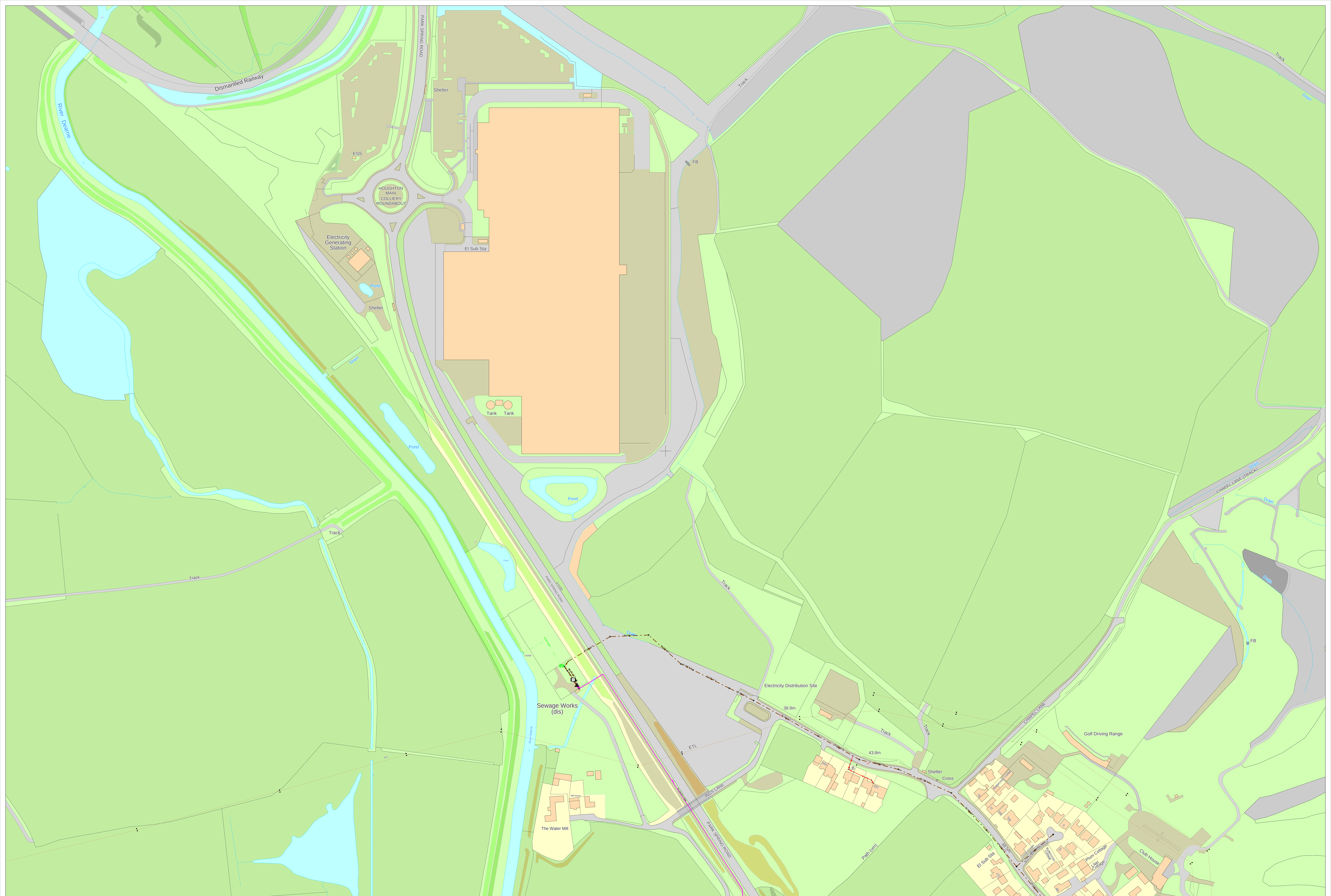




Appendix E Proposed Site Layout



Rev.	Date	Description	Drawn
B	16/09/2021	Updated the scheme following meeting's discussion, adjusted public walkway, reduced bus turnaround, increased unit 1's parking	BM
A	28/07/2021	Scheme adjusted from feasibility to planning stage, origin drawing 2621 F400B GA Site Layout Option 1	BM

htcarchitects

York Place Studio
8 Britannia Street
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LS1 2DZ

T: (0113) 244 3457
W: www.htcarchitects.co.uk
E: info@htcarchitects.co.uk

client
Harworth Estates

project
Park Spring Road,
Houghton Main

drawing title
GA Site Layout

date
March 2021

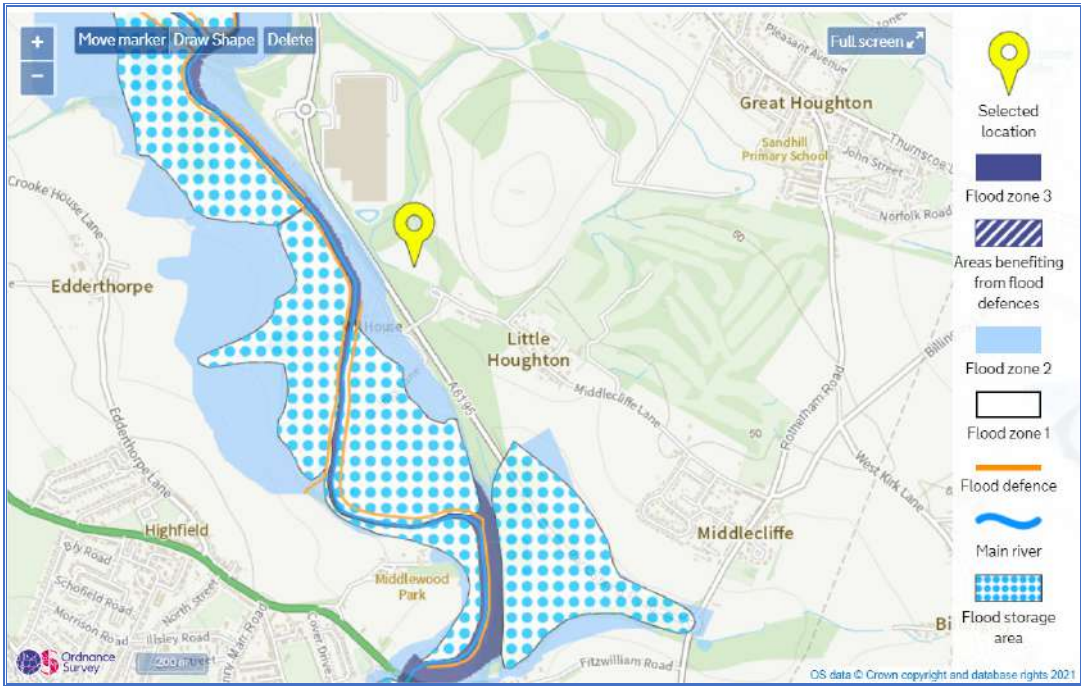
status
Planning

scale
1:1250 @ A3

drawn
BM checked PH

job no.
2621 dwg no. P401 rev. B

Appendix F Gov.UK Flood Map



Flood map obtained from Gov.UK website [02.09.2021]

Appendix G IH124 Calculation

Calculated by:	Andrew Fairburn
Site name:	Houghton Main
Site location:	Barnsley

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:	53.54837° N
Longitude:	1.36692° W
Reference:	3153913179
Date:	May 14 2021 16:43

Runoff estimation approach

IH124

Site characteristics

Total site area (ha):	5.48
-----------------------	------

Methodology

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

Soil characteristics

	Default	Edited
SOIL type:	2	2
HOST class:	N/A	N/A
SPR/SPRHOST:	0.3	0.3

Hydrological characteristics

	Default	Edited
SAAR (mm):	611	611
Hydrological region:	3	3
Growth curve factor 1 year:	0.86	0.86
Growth curve factor 30 years:	1.75	1.75
Growth curve factor 100 years:	2.08	2.08
Growth curve factor 200 years:	2.37	2.37

Notes

(1) Is $Q_{\text{BAR}} < 2.0$ 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 $\text{SPR/SPRHOST} \leq 0.3$?

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):	8.52	8.52
1 in 1 year (l/s):	7.33	7.33
1 in 30 years (l/s):	14.91	14.91
1 in 100 year (l/s):	17.72	17.72
1 in 200 years (l/s):	20.19	20.19

This report was produced using the greenfield runoff tool developed by HR Wallingford and available at www.uksuds.com. The use of this tool is subject to the UK SuDS terms and conditions and licence agreement, which can both be found at www.uksuds.com/terms-and-conditions.htm. The outputs from this tool are estimates of greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, CEH, Hydrosolutions or any other organisation for the use of this data in the design or operational characteristics of any drainage scheme.

Appendix H Barnsley MBC Correspondence

Ross Oakley

From: Atkins , Wayne (ASSET MANAGER) <WayneAtkins@barnsley.gov.uk>
Sent: 14 July 2021 07:00
To: Andrew Fairburn
Subject: RE: Y21011 - Houghton Main Site
Attachments: Little Houghton.BMP

Hi Andrew,

My sincerest apologies for the delay in responding.

I can confirm that a greenfield runoff rate of 1.55 litres/second/hectare for the site is acceptable to Barnsley MBC as Lead Local Flood Authority.

With regard to flooding issues associated with the site, as per my previous email, there are flooding issues on Middlecliffe Lane caused by the Highway drainage system which is blocked within the old colliery site. The problems occurred after the demolition phase allegedly 12 years since. The drain is blocked causing the lower gullies to discharge, causing water to stand against the bund in the remaining highway. Previous attempts at jetting went around 25metres into the proposed site so may be a broken pipe or dislodged Manhole Cover.

I am also aware of flooding to the West of the site which I too believe are associated with water being 'trapped' by Park Spring Road. I am aware of a watercourse on the northern/north western boundary of the site which I believe discharges into the River Dearne as shown on the attached plan.

If you need anything further or wish to discuss let me know.

Regards

Wayne Atkins F.I.H.E.
Principal Engineer – Highways Asset Management
Environment & Transport
Place Directorate
Barnsley Metropolitan Borough Council

E-mail: wayneatkins@barnsley.gov.uk

From: Andrew Fairburn <afairburn@rwo.group>
Sent: 13 July 2021 21:02
To: Atkins , Wayne (ASSET MANAGER) <WayneAtkins@barnsley.gov.uk>
Subject: RE: Y21011 - Houghton Main Site

Evening Wayne

I don't believe we have received a response to the earlier email below, your comments would be appreciated.

Thank you

Andrew Fairburn
Director
07496 111048

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Please consider the environment before printing this e-mail.

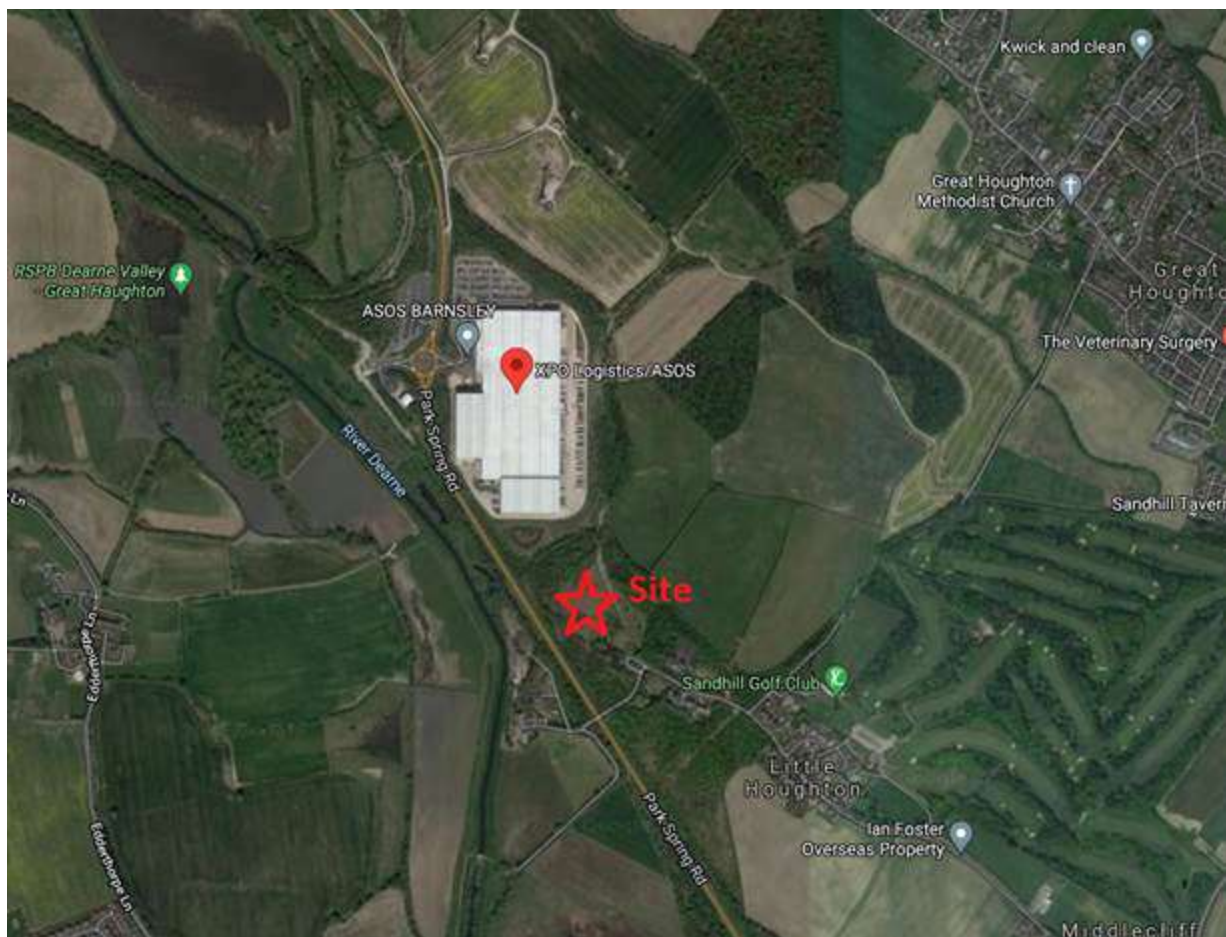
From: Andrew Fairburn
Sent: 14 May 2021 16:53
To: 'Atkins , Wayne (ASSET MANAGER)' <WayneAtkins@barnsley.gov.uk>
Subject: Y21011 - Houghton Main Site

Wayne

I hope you are well.

We are looking at a site at the former Houghton Main Colliery (location plan below), we have undertaken a greenfield runoff calculation for the site (copy attached) which indicates a greenfield runoff rate of 1.55 litres/second/hectare for the site. I would be grateful if you could confirm this is acceptable to the LLFA.

The EA flood maps show the site to be located within Flood Zone 1, the surface water flood maps indicate an area of flooding in the western area of the site which we assume is the low point on the site, the flooding associated with water being 'trapped' by Park Spring Road. The maps indicate watercourses/drains passing through the site which ties in with the area of surface water flooding. If you have any records of watercourses within the vicinity of the site or any historic flooding, we would be grateful if you could share this information.



*** Barnsley MBC Disclaimer: This e-mail and any files attached are confidential for the use of the intended recipient. If you have received this e-mail in error please notify the sender as soon as possible and delete the communication from your system without copying, disseminating or distributing the same in any way by any means. Any views or opinions expressed belong solely to the author and do not necessarily represent those of the Council. In particular, the Council will not accept liability for any defamatory statements made by email communications. Recipients are responsible for ensuring that all e-mails and files sent are checked for viruses. The Council will not accept liability for damage caused by any virus transmitted by this e-mail. No guarantees are offered on the security, content and accuracy of any e-mails and files received. Be aware that this e-mail communication may be intercepted for regulatory, quality control, or crime detection purposes unless otherwise prohibited. The content of this email and any attachment may be stored for future reference.

Appendix I Surface Water Attenuation Estimate Calculation

Quick Storage Estimate

Variables

FSR Rainfall: [v]
Return Period (years): [100]
Region: [England and Wales]
Map: [M5-60 (mm) 19.000]
Ratio R: [0.378]

Cv (Summer): [0.750]
Cv (Winter): [0.840]
Impermeable Area (ha): [3.900]
Maximum Allowable Discharge (l/s): [8.5]
Infiltration Coefficient (m/hr): [0.00000]
Safety Factor: [2.0]
Climate Change (%): [30]

Analyse OK Cancel Help

Enter Climate Change between -100 and 600

Attenuation Calculation Criteria

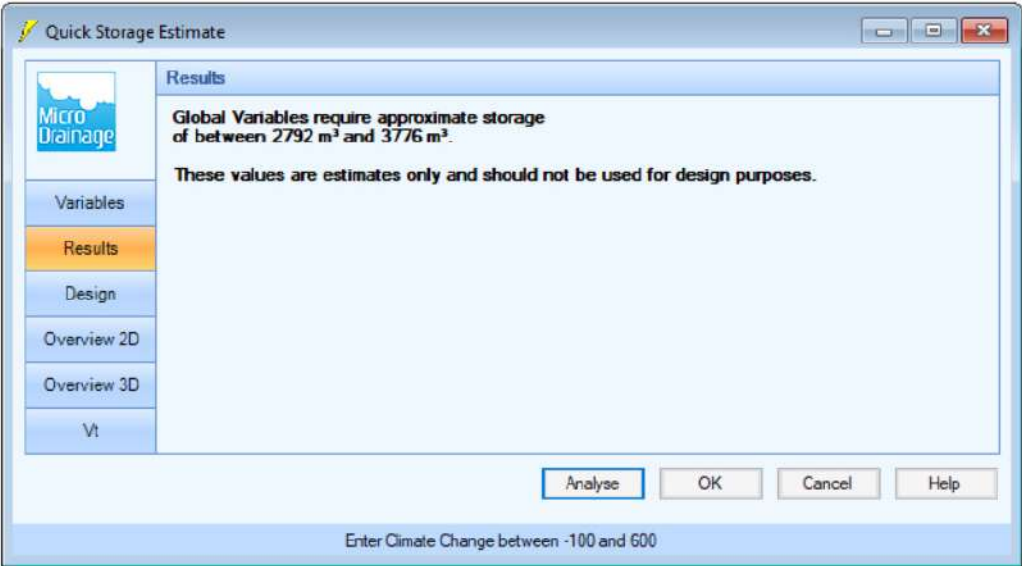
Quick Storage Estimate

Results

Global Variables require approximate storage of between 1462 m³ and 2073 m³.
These values are estimates only and should not be used for design purposes.

Analyse OK Cancel Help

30 Year Return Period Attenuation Calculation



100 Year Return Period Attenuation Calculation

Appendix J Yorkshire Water Correspondence

Archie Dalton
RWO - Second Floor - 4 Park Place
RWO
Second floor
Leeds
LS1 2RU
adalton@rwo.group

Yorkshire Water Services
Developer Services
Pre-Development Team
PO BOX 52
Bradford
BD3 7AY

Tel: 0345 120 8482
Fax:

Email:
technical.sewerage@yorkshirewater.co.uk

Your Ref:
Our Ref: X008835

For telephone enquiries ring:
George Mullaney on 0345 120 8482

24th May 2021

Dear Mr Dalton,

Y21011 - Houghton Main Coillery, Long Royd, Carlton Main Brickworks, Grimethorpe, S72 7GH
- Pre Planning Sewerage Enquiry - Commercial - U242946

Thank you for your recent enquiry and remittance. Our official VAT receipt has been sent to you under separate cover. Please find enclosed a complimentary extract from the Statutory Sewer Map which indicates the recorded position of the public sewers. Please note that as of October 2011 and the private to public sewer transfer, there are many uncharted Yorkshire Water assets currently not shown on our records.

The following comments reflect our view, with regard to the public sewer network only, based on a 'desk top' study of the site and are valid for a maximum period of twelve months:

Existing Infrastructure

There is a 225mm diameter public foul sewer recorded on the site. In this instance, building-over may take place under the control of Part H4 Building Regulations 2000. No trees planted within 5 (five) metres of this public sewer. It may not be acceptable to raise or lower ground levels over the sewer, nor to restrict access to the manholes on the sewer. If you wish to have this sewer diverted under Section 185 of the Water Industry Act 1991 an application should be made in writing. To discuss this matter, please telephone 0345 120 84 82.

There is a 180mm diameter public foul rising main recorded crossing the site. No buildings, or other obstructions, are to be erected within 4 (four), no trees planted within 5 (five) metres of this public sewer. It may not be acceptable to raise or lower ground levels over the sewer, nor to restrict access to the manholes on the sewer. If you wish to have this sewer diverted under Section 185 of the Water Industry Act 1991 an application should be made in writing. To discuss this matter, please telephone 0345 120 84 82.

There is a sewage pumping station, under the control of Yorkshire Water, located near to the site. Vehicular access, including with large tankers, could be required at any time.

The proximity of the existing sewage pumping station (SPS) to the site may mean a loss of amenity for future residents / workers. In order to minimise the risk of odour, noise and nuisance, industry standards recommend that habitable buildings must not be located within 15 (fifteen) metres from the edge of the SPS wet well. To reduce the visible impact of the installation, the erection (by the developer) of suitable screening is advised.

Foul Water

Development of the site should take place with separate systems for foul and surface water drainage. The separate systems should extend to the points of discharge to be agreed.

Foul water domestic waste can discharge to the 225mm diameter public foul sewer recorded running through the site and across Park Spring Road.

Foul water from kitchens and/or food preparation areas of any restaurants and/or canteens etc. must pass through a fat and grease trap of adequate design before any discharge to the public sewer network.

Surface Water

The developer's attention is drawn to Requirement H3 of the Building Regulations 2000. This establishes a preferred hierarchy for surface water disposal. Consideration should firstly be given to discharge to soakaway, infiltration system and watercourse in that priority order.

Sustainable Drainage Systems (SuDS), for example the use of soakaways and/or permeable hardstanding etc, may be a suitable solution for surface water disposal appropriate in this situation. You are advised to seek comments on the suitability of SuDS in this instance from the appropriate authorities.

As the proposed site is currently undeveloped no surface water is known to have previously discharged to the public sewer network

As such, the local public sewer network does not have capacity to accept any surface water from the proposed site. If SuDS are not viable, the developer is advised to contact the Environment Agency/local Land Drainage Authority/Internal Drainage Board with a view to establishing a suitable watercourse for discharge.

It is understood that a watercourse is located within the site. This appears to be the obvious place for surface water disposal (if SuDS are not viable). Please note Yorkshire Water cannot provide plans of culverted watercourses or highway drains. To obtain plans please contact the

Lead Local Flood Authority for more details.

Please note further restrictions on surface water disposal from the site may be imposed by other parties. You are strongly advised to seek advice/comments from the Environment Agency/Land Drainage Authority/Internal Drainage Board, with regard to surface water disposal from the site.

Surface water run-off from communal parking (greater than 800 sq metres or more than 50 car parking spaces) and hardstanding must pass through an oil, petrol and grit interceptor/separator of adequate design before any discharge to the public sewer network. Roof water should not pass through the traditional 'stage' or full retention type of interceptor/separator. It is good drainage practice for any interceptor/separator to be located upstream of any on-site balancing, storage or other means of flow attenuation that may be required.

Other Observations

Under the provisions of section 111 of the Water Industry Act 1991 it is unlawful to pass into any public sewer (or into any drain or private sewer communicating with the public sewer network) any items likely to cause damage to the public sewer network interfere with the free flow of its contents or affect the treatment and disposal of its contents. Amongst other things this includes fat, oil, nappies, bandages, syringes, medicines, sanitary towels and incontinence pants. Contravention of the provisions of section 111 is a criminal offence.

Prospectively adoptable sewers and pumping stations must be designed and constructed in accordance with the Codes for Adoption as supplemented by Yorkshire Water's requirements, pursuant to an agreement under Section 104 of the Water Industry Act 1991. An application to enter into a Section 104 agreement must be made in writing prior to any works commencing on site. Please contact our Developer Services Team (telephone 0345 120 84 82) for further information.

The site is within an area that may be affected by river, coastal or estuarine flooding. We would advise you to contact the Environment Agency for details.

Any new connection to an existing public sewer will require the prior approval of Yorkshire Water. You may apply on line or obtain an application form from our website (www.yorkshirewater.com) or by telephoning 0345 120 84 82.

Yorkshire Water's Trade Effluent team must be consulted in respect of any proposed trade effluent discharge to the public sewer.

All the above comments are based upon the information and records available at the present time and is subject to formal planning approval agreement. The information contained in this letter together with that shown on any extract from the Statutory Sewer Map that may be enclosed is believed to be correct and is supplied in good faith. Please note that capacity in the public sewer

network is not reserved for specific future development. It is used up on a 'first come, first served' basis. You should visit the site and establish the line and level of any public sewers affecting your proposals before the commencement of any design work.

Yours sincerely

George Mullaney
Development Services Technician

4 Park Place
Leeds
LS1 2RU

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info@rwo.group
www.rwo.group

