# DRAINAGE IMPACT ASSESSMENT

## Donaldson's Vets
## Honley
## Temporary Practice Scheme

| | |
|---|---|
| **Reference** | **6369-JPG-XX-XX-RP-D-0622-S2-P03** |
| **Date** | **July 2024** |
| **Author** | **SMS** |

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# CONTENTS



# APPENDICES

## CONFIDENTIALITY STATEMENT

This report is addressed to and may be relied upon by the following:

Donaldson's Properties
131 Somerset Road
Almondbury
HUDDERSFIELD
HD5 8HN

This report has been prepared for the sole use and reliance of the above-named parties. This report shall not be relied upon or transferred to any other parties without the express written authorisation of JPG (Leeds) Limited. No responsibility will be accepted where this report is used, either in its entirety or in part, by any other party.

## DOCUMENT HISTORY

| Revision | Date | Revision Details | Status | Author(s) | Approved |
|---|---|---|---|---|---|
| P01 | 18.07.2024 | First Issue | Information | SMS | RMR |
| P02 | 17.09.2024 | Drainage Strategy Amended | Information | SMS | BT |
| P03 | 10.06.2025 | Third Issue | Information | BT | BT |

# 1.0 INTRODUCTION

JPG (Leeds) Limited (JPG) has been instructed by Donaldson's Properties to prepare a Drainage Impact Assessment for a proposed temporary veterinary clinic located off Woodhead Road, Honley. This report will review the impact of the drainage on the proposed development.

# 2.0 THE SITE

The site is located approximately 0.5 km to the east of Honley centre, adjacent to Woodhead Road and the River Holme. The approximate centre of the site is at National Grid Reference (NGR) 414193, 411805. A site location plan and aerial photograph are provided in Appendix A.

The site is located within the boundary of a wider proposed veterinary clinic scheme. The site is irregularly shaped and covers an area of approximately 0.109 hectares (Ha). It is situated on a brownfield site, which was previously used as an industrial garage and yard.

The surrounding area is predominantly residential, with dwellings to the north and dense vegetation to the south of the site boundary. The eastern boundary lies along the bank of the River Holme, while the western boundary is adjacent to Woodhead Road.

The topography of the site generally slopes steeply from south to north. A copy of the topographic survey is provided in Appendix B.

# 3.0 EXISTING DRAINAGE AND SEWER NETWORK

We have received a consultation response from Yorkshire Water, they have confirmed that there is a 225mm diameter combined sewer within Woodhead Road, located on the western boundary of the site. Following a site walkover and historical planning application information, it can be assumed that surface and foul water previously discharged into this sewer network, due to the locations of manholes and the absence of an outfall headwall/ pipe into the River Holme.

The Yorkshire Water sewer records and preplanning advice are located in Appendix C.

A copy of the historical topographical survey is located in Appendix D.

# 4.0 DEVELOPMENT PROPOSALS

The proposed development consists of a temporary veterinary clinic with an accompanying carpark. A drawing showing the proposed scheme is included in Appendix E. The drainage will be split into a surface water network and a foul water network.

# 5.0 DRAINAGE ASSESSMENT

## 5.1 Proposed Surface Water Drainage & Disposal Hierarchy

SuDs features employed as part of the drainage infrastructure on the development will be privately maintained by a private management company.

The detailed design and maintenance of SuDS features is outside the scope of this report.

The following assessment summarises the disposal of surface water from the site.

As detailed in Building Regulation Document H the hierarchy for surface water drainage disposal is as follows:

- Discharge to ground (infiltration).
- Discharge to a surface water body (Land drainage Ditch, Water Body or Watercourse).
- Discharge to a surface water sewer.
- Discharge to a combined water sewer.
- Discharge to a foul water sewer.

All options for the disposal of the surface water have been considered in accordance with current legislation, recommendations, and good practice. Refer to Section 5.3 for more details.

## 5.2 Sustainable Urban Drainage Systems (SUDS)

The LLFA, Kirklees Council, has been previously contacted regarding the utilisation of SuDS features as part of the development.

The following audit has been carried out relating to suitability of SuDS features/systems:

| Drainage Method | Description/Suitability | Proposal/Feasibility |
|---|---|---|
| 1. Infiltration. | Site ground conditions assumed unsuitable for infiltration | Not Applicable |
| 2. Ponds and wetlands. | May be utilised – subject to detailed design. | Applicable (non-infiltration method) |
| 3. Infiltration Basins. | Site ground conditions assumed unsuitable for infiltration | Not Applicable |
| 4. Detention Basins. | May be utilised – subject to detailed design. | Applicable (non-infiltration method) |
| 5. Swale. | May be utilised – subject to detailed design. | Applicable (non-infiltration method) |
| 6. French/Filter drain. | May be utilised to convey water. | Applicable (non-infiltration method) |
| 7. Pervious/Permeable Pavement. | May be utilised - subject to detailed design. | Applicable (non-infiltration method) |
| 8. Geocellular Systems/Tank systems. | May be utilised – subject to detailed design. | Applicable. |
| 9. Oversized pipes. | May be used as surface water attenuation. | Applicable. |
| 10. Box culverts. | May be used as surface water attenuation. | Applicable. |
| 11. Proprietary tank systems. | May be used as surface water attenuation. | Applicable. |

Sustainable Urban Drainage System (SuDS) may be used in conjunction with conventional drainage systems to improve water quality as well as manage surface water discharge. This should be considered at the detailed design stage of the project.

The SuDS Mitigation Indices have been included within Appendix F.

## 5.3 Surface Water Drainage

Within the temporary development, the permanent surface water drainage network is to be partially constructed and utilised to allow for future connections.

Requirement H3 of the Building Regulations establishes a preferred hierarchy for the disposal of surface water. Consideration should firstly be given to soakaway, infiltration, watercourse, and sewer in that priority order.

The advice from the LLFA states that infiltration is not possible due to the site being close to the watercourse and being in British Geological Survey Zone 4.

A copy of the LLFA feedback and advice can be found in Appendix G.

Based on the above statement and drainage hierarchy, connection to watercourse should be considered next.

The site benefits from the River Holme on the eastern boundary of the site and is the obvious point for surface water discharge. As per the advice received from the LLFA, surface water discharge to the River Holme should be restricted to 3l/s.

However, due to an existing Root Protection Zone located on the eastern boundary of the site, excavation within this area would not be feasible at the time of writing this report, subject to advice from the Local Planning Authority (Kirklees Council) regarding excavation works within the protected area. Therefore, the proposed network is to be directed towards the existing sewer network within Woodhead Road. The only available network to connect to is the existing 225mm combined sewer. JPG are yet to receive an agreed discharge rate into the combined sewer network; therefore, a discharge of 3 l/s has been maintained.

The location of the Root Protection Area is indicated in Appendix H.

Surface water runoff includes car parks and roof water drainage; this will be attenuated on site via twin 900 diameter concrete pipes situated beneath the western carpark. Carpark areas are to pass through a bypass separator before out falling into the attenuation pipes. A flow control device will restrict the discharge rate of the site to runoff rates of 3l/s. The surface water network will ultimately outfall via a new constructed manhole at the respective restricted discharge rate into existing combined network.

The surface water drainage strategy has been provided in Appendix I.

The surface water drainage network will drain a total impermeable area of 0.083Ha, attenuation is to be provided via oversized pipes, sized to contain the permanent scheme runoff with a minimum volume of 120.000m$^3$ and a restricted discharge of 3.0l/s into the existing combined Yorkshire Water sewer.

Please refer to Appendix J for the surface water hydraulic network model, including the surface water attenuation calculation.

## 5.4 Climate Change Allowance

For new developments, the current design criteria required for the surface water drainage will need to be based upon a 1 in 100-year storm event, with an additional allowance for climate change resulting from global warming.

The proposed allowance for climate change for this development is 45% based on the latest Environment Agency Climate Change Allowances.

The proposed onsite drainage system shall be designed in accordance with the requirements of Sewers for Adoption and shall demonstrate that:

- No surcharge of pipes occurs in the 1 in 2-year rainfall events.
- No surface flooding occurs in 1 in 30-year rainfall events.
- No flooding to buildings and adjacent properties occurs in 1 in 100-year rainfall events (including an allowance of 45% for the effects of future climate change), as defined in NPPF Technical Guidance.

SuDS features will be incorporated into the design where practical to do so.

## 5.5 Pollution Control

It is a requirement to ensure that the quality of any receiving water body is not adversely affected by the development.

To minimise the risk of pollution to the final discharge point, clean roof water drainage should discharge directly into the sealed drainage network (i.e., not via gullies).

Impermeable areas which are to be used for vehicle parking and circulation will be finished in concrete and would provide little or no treatment. Therefore, an appropriately sized, and specified oil interceptor for the permanent will be installed to provide treatment for these areas.

Pollution mitigation (total suspended solids, metals, and hydrocarbons) and the improvement of water quality have been accounted for through the implementation of filter drains and proprietary treatment systems in the form of petrol interceptors. SuDS mitigation indices for the proposed treatment components are provided in Appendix F; the quoted indices are in line with Table 26.3 of the SuDS manual and the manufacturer's specification.

## 5.6 Foul Water Drainage

Following consultation with Yorkshire Water, JPG have received existing sewer network plans and advice. Following the advice, the combined sewer network located within Woodhead Road would be the obvious discharge location for foul water.

JPG has proposed a new manhole is to be constructed within the existing network and serve as a discharge point for both the foul and surface water. The foul water network is to outfall into this manhole via a 150mm diameter pipe.

Within the temporary development, the permanent foul water drainage network is to be partially constructed and utilised to allow for future connections.

Refer to Appendix K for the Foul Water Drainage Strategy.

# 6.0 CONCLUSION

The report has been prepared to assess the drainage impact for a proposed veterinary clinic off Woodhead Road, Honley.

The onsite private surface water drainage system will be designed and constructed in accordance with Building Regulations, all national and local standards and best practices.

The hierarchy for discharge of surface water has been considered as detailed in building regulations document H3. Consideration should firstly be given to soakaway, infiltration, watercourse, and sewer in that priority order.

The site benefits from the River Holme watercourse traversing adjacent to the eastern site boundary. However, due to a Root Protection Area, surface water run off drainage will be restricted by flow control devices and attenuated on plot before discharging via a restricted rate into an existing Yorkshire Water combined sewer.

JPG have received advice from Yorkshire Water along with sewer record plans. The obvious drainage route for foul water is to be discharged into the existing combined water drainage sewer located within Woodhead Road via a 150mm diameter pipe connection.

As the temporary development, the permanent surface and foul water drainage network is to be partially constructed and utilised to allow for future connections.

It is assumed that the external consultees will agree with the proposed approach, however, should these consultees respond after this report is submitted for planning and require different criteria, the Drainage Impact Assessment Report and drainage strategy will need to be reviewed to take into consideration any comments received.

JPG have contacted Yorkshire Water for existing sewer records and confirmed that foul water is to be discharged into an existing combined water drainage sewer located within Woodhead Road via a new manhole.

It is assumed that the external consultees will agree with the proposed approach, however, should these consultees respond after this report is submitted for planning and require different criteria the Drainage Impact Assessment Report and drainage strategy will need to be reviewed to take into consideration any comments received.

# Appendix A Site Location Plan

**DO NOT SCALE (A1)**

## NOTES

**GENERAL NOTES**

1. ALL MATERIALS AND WORKMANSHIP IS TO COMPLY WITH JPG CONSULTANTS STANDARD SPECIFICATION & ALL RELEVANT BRITISH & EUROPEAN STANDARDS.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, M & E CONSULTANTS AND JPG CONSULTANTS DRAWINGS.
3. ANY DISCREPANCIES SHOULD BE REPORTED TO THE ENGINEER IMMEDIATELY SO THAT CLARIFICATION CAN BE SOUGHT PRIOR TO COMMENCEMENT OF WORKS.

**APPROXIMATE CO-ORDINATES**
**ORDINANCE SURVEY**
EASTINGS 414193, NORTHINGS 411805
**NATIONAL GRID**
SE14118/SE1419311805

0m 31.25m 62.5m
**SCALE 1:1250**


**SITE LOCATION PLAN**
SCALE 1:1250

| REV | DESCRIPTION | DATE | CHK | BY |
|---|---|---|---|---|
| P01 | ISSUED FOR INFORMATION | 18.07.24 | RMR | SMS |

Project
DONALDSON'S VETS
HONLEY

Drawing Title
TEMPORARY SITE LOCATION PLAN

**INFORMATION**

JPG
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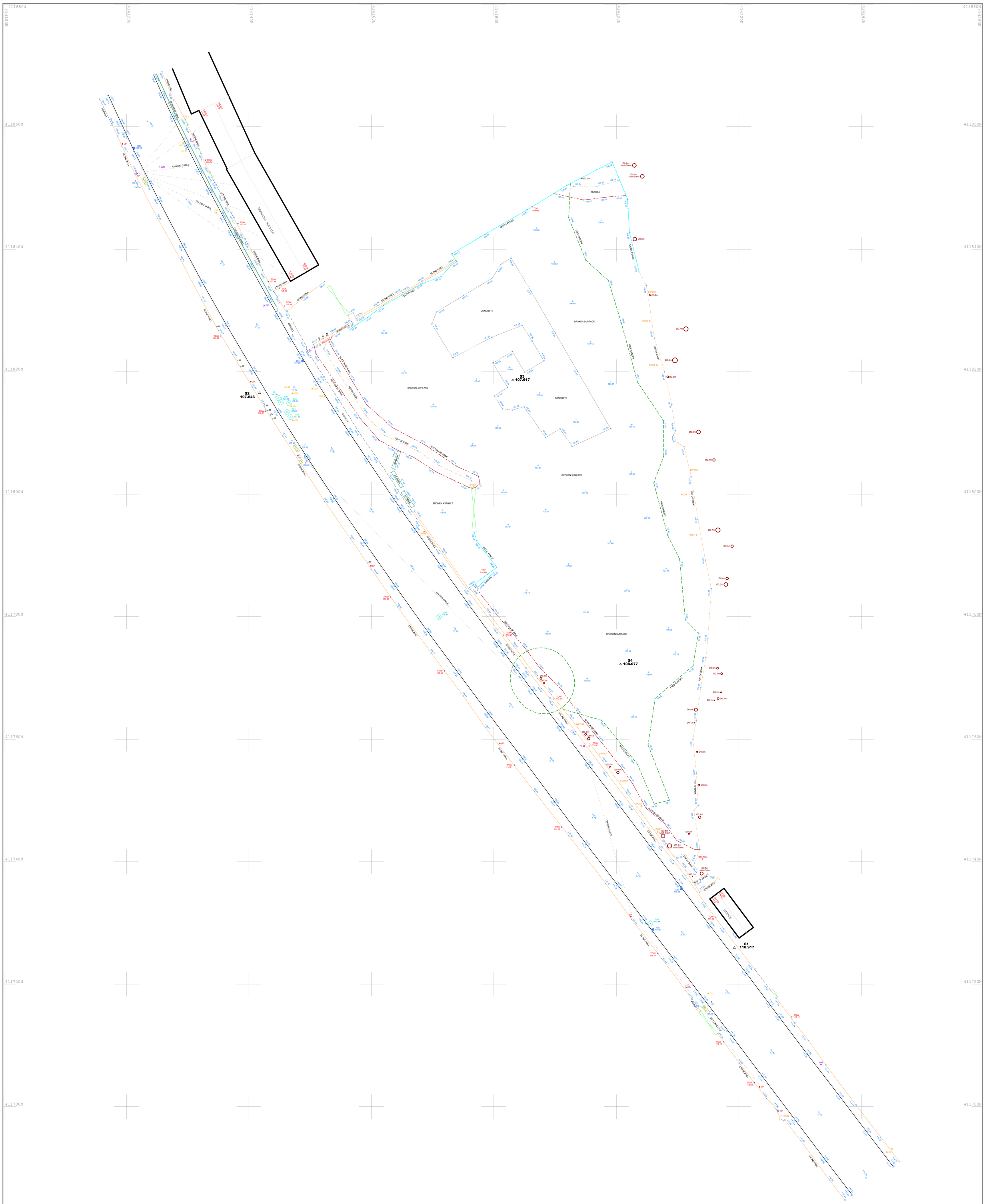
| 6369-JPG-ZZ-ZZ-DR-C-1002 | S2 | P01 |
|---|---|---|

# Appendix B Topographic Survey




## Notes

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Direction of North

NORTH

### GRID

OS NATIONAL GRID. Using the OS GPS Network and applying OSTN15 transformation and then removing the scale factor for true distances.

### DATUM

OS LEVEL DATUM. Using the OS GPS Network and applying OSGM15 National Geoid Model to obtain local area corrections.

### STATION LISTING

| Station | Easting | Northing | Level |
|---|---|---|---|
| S1 | 414219.275 | 411725.938 | 110.917 |
| S2 | 414141.731 | 411816.539 | 107.643 |
| S3 | 414183.114 | 411818.622 | 107.617 |
| S4 | 414200.694 | 411772.208 | 108.077 |

### TOPOGRAPHICAL SURVEY KEY

**DRAINAGE & WATER SERVICES**

| | |
|---|---|
| DG | Drain/Gully |
| KO | Kerb Outlet |
| MH | Circular Manhole |
| MH | Square Manhole |
| MH | Triangular Manhole |
| RE | Rodding Eye |
| FH | Fire Hydrant |
| ST | Stop Tap |
| SV | Stop Valve |
| TAP | Tap |
| WO | Wash Out |
| WM | Water Meter |
| WV | Water Valve |
| AV | Air Valve |

**STREET FURNITURE & GEOTEC**

| | |
|---|---|
| MAIL | Post Box |
| BUS | Bus Stop |
| BOL | Bollard |
| SIGN | Sign |
| TL | Traffic Light |
| CCTV | Camera |
| LP | Lamp Post |
| LIGHT | Light |
| COL | Column |
| V | Vent |
| BM | Bench Mark |
| M | Marker Post |
| | Trial Pit |
| BH | Borehole |

**SERVICES**

| | |
|---|---|
| G | Gas Valve |
| IC | Inspection Cover |
| C | Cable TV Cover |
| C | Cable TV Supply |
| E | Electric Cover |
| EP | Electricity Pole |
| ER | Earth Rod |
| T | Telecoms Cover |
| TP | Telegraph Pole |
| GAS | Gas Riser Pipe |
| RWP | Rainwater Pipe |
| SVP | Soil Vent Pipe |

**ABBREVIATIONS**

| | |
|---|---|
| CL | Cover Level |
| IL | Invert Level |
| UTR | Unable To Raise |
| THR | Threshold Level |
| TOF | Top Of Fence |
| TOH | Top Of Hedge |
| TOW | Top Of Wall |
| U/S | Underside |
| WC | Window Cill Level |
| WH | Window Head Level |
| DH | Door Head Level |

CLIENT

Dawson Williamson Architects

SITE

Land At Woodhead Road,
Honley, Huddersfield

DRAWING TITLE

2D Topographical Survey

| DRAWING REF (LAYOUT TAB) | SCALE@A0 |
|---|---|
| 1001-173_2D (A0) | 1/200 |
| PROJECT REF | REV |
| 1001-173 | Ø |

| | | | |
|---|---|---|---|
| SURVEYED | HR | DRAWN | HR |
| CHECKED | MT | DATE | 25 / 01 / 2022 |


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(t) (0)1274 408352

MT Surveys Ltd
Unit 8
Parkview Court
Shipley
BD18 3DZ


MT SURVEYS

| REV | DATE | DRAWN | DESCRIPTION | CHECKED |
|---|---|---|---|---|
| - | -- / -- / ---- | -- | -- | -- |

# Appendix C Yorkshire Water Sewer Map and Advice

**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**

**JPG (Leeds) Limited**
**5 John Charles Way**
**Leeds**
**West Yorkshire**
**LS12 6QA**
**sam.smickersgill@jpg.group**

**Your Ref:**
**Our Ref: A002668**

**For telephone enquiries ring:**
**George Mullaney on 0345 120 8482**

**13th June 2024**

Dear Mr Smickersgill,

**Woodhead Road, Honley, HD9 6NR - Pre-planning Enquiry V515366**

Thank you for your recent enquiry. Our charge of £187.00 plus VAT will be added to your account with us, reference JPG027. You will receive an invoice for your account in due course.

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:

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 225 mm diameter public combined sewer recorded in Woodhead Road, at a point west of the site.

YorkshireWater

Surface Water

The developer's attention is drawn to Requirement H3 of the Building Regulations 2010. 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.

It is understood that a watercourse (River Holme) is located to the east of the site. This appears to be the obvious place for surface water disposal (if SuDS are not viable).

Yorkshire Water has no objection in principle to :

1) The separate systems on and off site.
2) The point of discharge for surface water to watercourse.

Submitted on drawing numbered 6369-JPG-ZZ-ZZ-DR-D-1400 (revision P01), dated 28/05/2024 that has been prepared by JPG Group.

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.

Other Observations

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

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 or 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.

An off-site foul and surface water sewer may be required which may be provided by the developer and considered for Code for Adoption under Section 104 of the Water Industry Act 1991. Please telephone 0345 120 84 82 for advice on sewer adoptions. Alternatively, the developer may in certain circumstances be able to requisition off-site sewers under

Section 98 of the Water Industry Act 1991 for which an application must be made in writing. For further information, please telephone 0345 120 84 82.

Prospectively adoptable sewers and pumping stations must be designed and constructed in accordance with the Code for Adoption, pursuant to an agreement under Section 104 of the Water Industry Act 1991. We are happy to offer pre-development technical advice on any prospective sites that you would like to put forward for adoption, prior to submission of your adoption application.

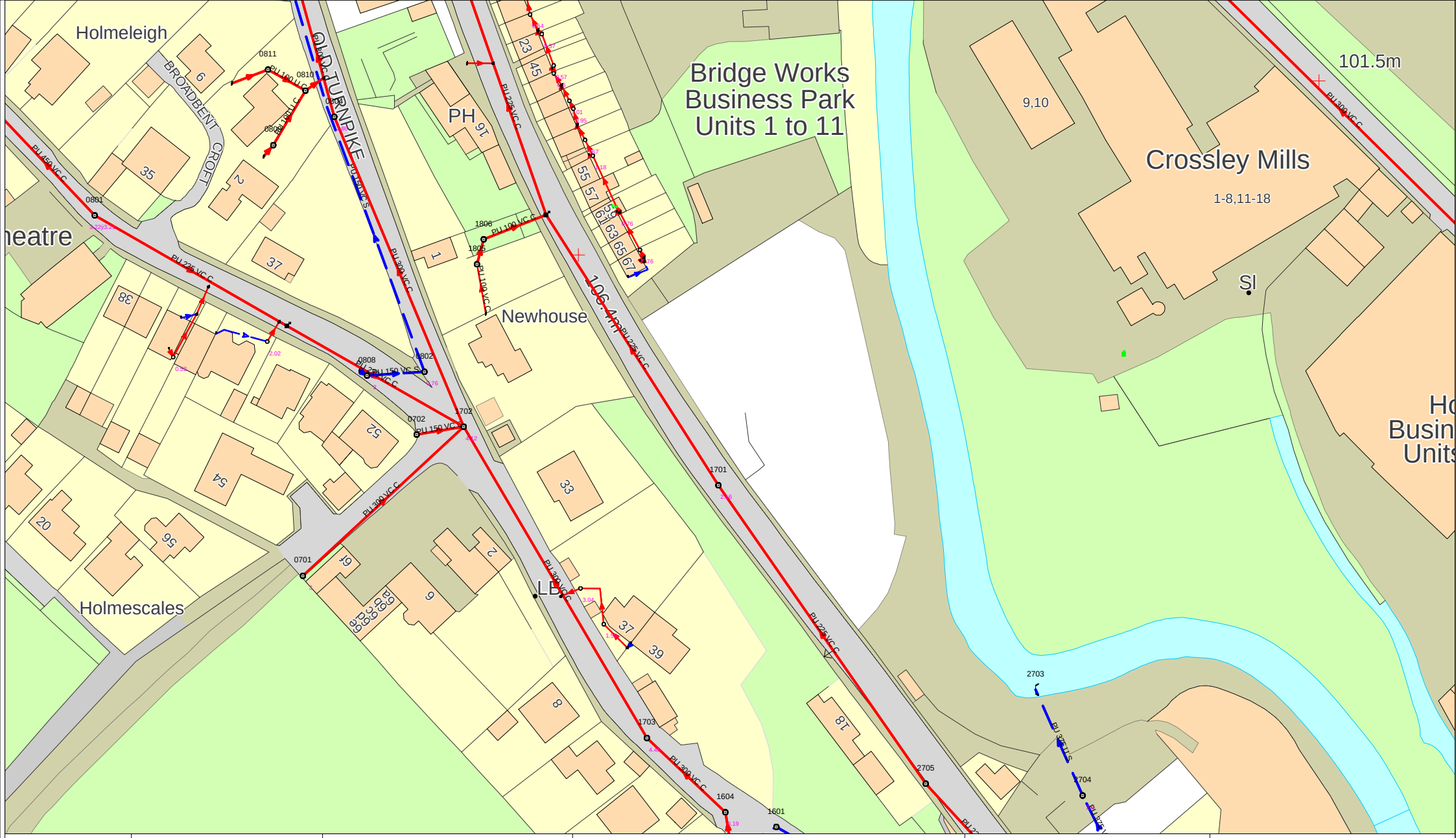
An application to enter into a Section 104 agreement must be made in writing prior to any works commencing on site. Please contact our Sewer Adoption, Diversion and Requisition (telephone 0345 120 84 82) or email technical.sewerage@yorkshirewater.co.uk or visit - https://www.yorkshirewater.com/developers/sewerage/sewer-adoptions/ 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.

All the above comments are based upon the information and records available at the present time and are valid for a period of 12 months. 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 Control Technician**




| | | | |
|---|---|---|---|
| 414003 : 411701 | Map Name : SE1311NE | Title | Partial Key<br>Foul Sewer = F<br>Combined Sewer = C<br>Surface Water Sewer = SW<br>Trade Sewer = TD<br>Partially Separate = PS |
| Yorkshire Water,<br>PO Box 500,<br>Halifax Road,<br>Bradford BD6 2LZ<br>Contact Name :<br>G Mullaney<br>Contact Tel : | | Notes | This plan is furnished as a general guide only and no warranty as to its correctness is given or implied. This plan must not be relied upon in the event of excavations or other works made in the vicinity of public sewers. No house or property connections are shown. |
| | | (Ody) COPYRIGHT STATEMENTS: Reproduced by permission of Ordnance Survey on behalf of HMSO © Crown copyright and database 2014. All rights reserved Ordnance Survey Licence number 100022432 | Date Req : 13/06/2024, 12:31:59<br>Source : Sewer Network Enquiry |
| | | | Date Gen : 13/06/2024, 12:32:22 |

UPN: Undefined Originator: G Mullaney, ,

# Appendix D Historical Topographical Survey

411850m

411800m

411750m

414150m

414200m

414250m

106.4m

Sun Path

Noon

Rise

59

61

63

65

67

69

33

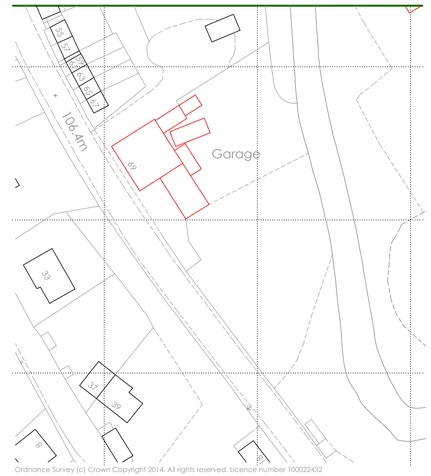
37

39

8

81

Location Plan Scale 1:1000






Survey Control Co-ordinates

| Reference | East | North | Elevation | Description |
|---|---|---|---|---|
| H01 | 414148.775 | 411824.895 | 107.17 | Survey Station |
| H02 | 414168.774 | 411793.045 | 108.39 | Survey Station |
| H03 | 414187.925 | 411750.804 | 109.91 | Survey Station |
| H04 | 414184.241 | 411802.914 | 107.70 | Survey Station |
| H04A | 414209.183 | 411813.474 | 107.03 | Survey Station |
| H05 | 414201.843 | 411774.443 | 107.98 | Survey Station |
| H05A | 414215.457 | 411782.769 | 107.75 | Survey Station |
| H05B | 414206.552 | 411747.623 | 108.53 | Survey Station |
| H05C | 414212.395 | 411745.683 | 108.61 | Survey Station |
| H06 | 414188.396 | 411781.939 | 108.11 | Survey Station |
| H07 | 414188.886 | 411839.783 | 106.86 | Survey Station |
| H08 | 414198.346 | 411832.500 | 107.14 | Survey Station |

## Control & Datum Information

**Grid Orientation:**

Survey related to Ordnance Survey "OSGB36" at control point GPS01 realtime correction received via Leica Geosystems "Smart Net" service.

**Level Datum:**

OS Orthometric hts

| Rev | Description | By | Date |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

| Surv. | Drawn | Date | Chkd | Date |
|---|---|---|---|---|
| NH | NH | 03.03.14 | | |



David Storrie Associates
Town Planning Consultants
Wellington House
Lincoln Street
Huddersfield
HD1 6RX

Holden Surveys Ltd
Topographical Building & Site Surveys - CAD Services

T/F: 01226 755365 E: holdensurveys@msn.com

Title. Site Plan

Site. Woodhoead Road
Honley
Huddersfield

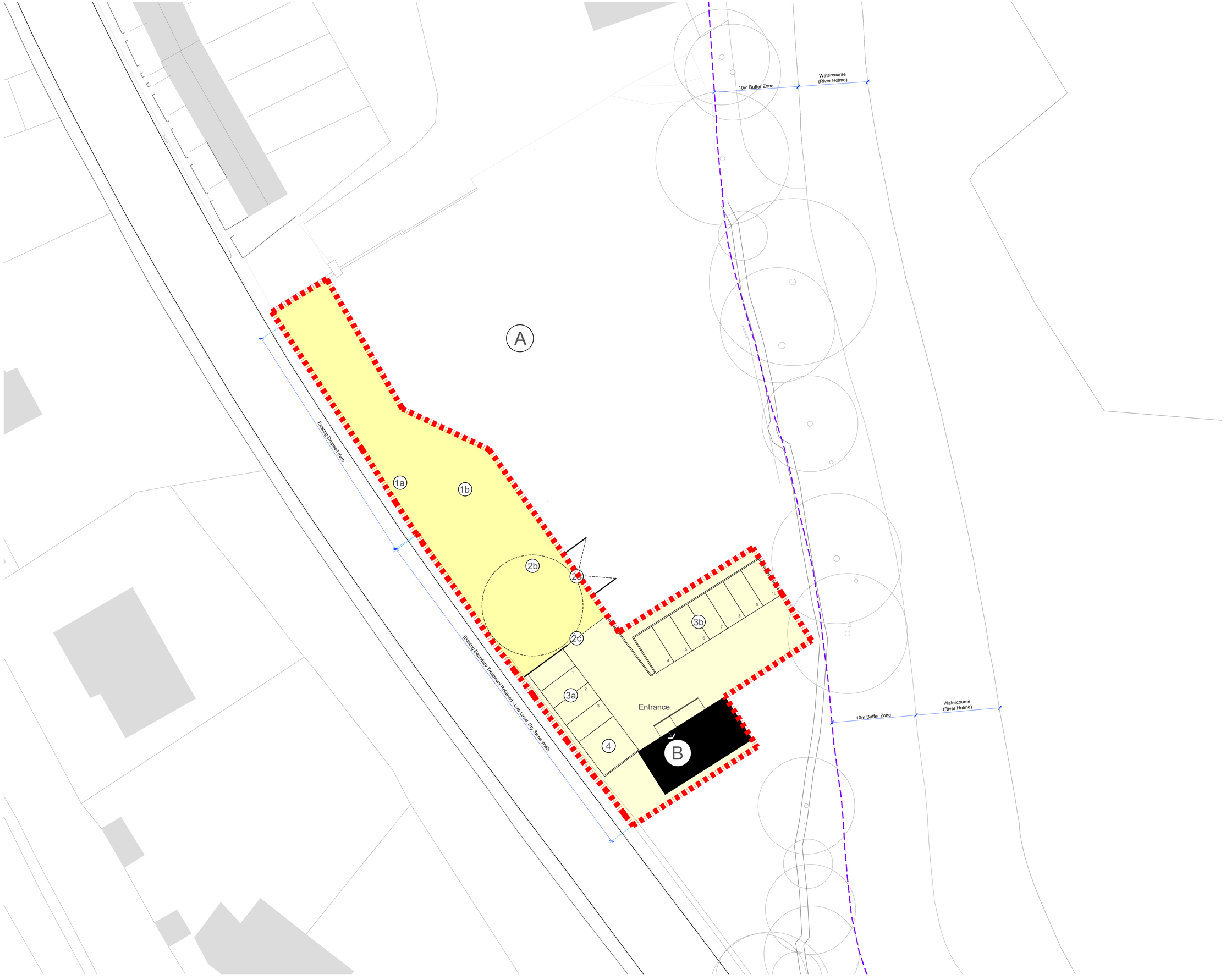
COMPUTER GENERATED DRAWING - DO NOT ALTER

Dwg No. DSA_01_Riverside Wks

Sheet No. 1

| SCALE | 1/250 | REV. | |
|---|---|---|---|

# Appendix E Architectural Layout




DO NOT SCALE FROM THIS DRAWING

Notes

All dimensions to be checked on site

Any discrepancies to be reported immediately to the Architect

Drawing to be read in conjunction with all relevant design information, including Architects, Services, Civil and Structural Engineers drawings

All existing site, tree, building and survey information has been compiled from different sources, including information supplied by third parties

NOT FOR CONSTRUCTION

**KEY:**

A POTENTIAL FUTURE SURGERY BUILDING

B TEMPORARY SURGERY BUILDING
Total Gross External Area Approx 75 sq.m

Site Boundary Indicated by Red Line
Total Site Area Approx 1115 sq.m

Yellow Hatch
Indicates the extent of the shared vehicular access

These areas will be formed with a compacted sub-base to suit existing levels and will not have a finished tarmac wearing course

Demarcation is to be undertaken using temporary markings and / or barriers where required

Levels will be amended to suit the proposals associated with the permanent surgery and the new junction with Woodhead Road if / when construction work starts on the permanent surgery scheme

Yellow Hatch
Indicates the extent of the temporary surgery site
These areas will be formed to their final, finished levels with kerbs, drainage etc however the final tarmac wearing course will be left off

1a Vehicular Access
Existing dropped kerb / established vehicular access retained and utilised during the lifetime of the temporary surgery to allow traffic to access surgery / site traffic to access the permanent surgery construction site when this commences

1b Vehicular Access
New vehicular access to the temporary surgery / permanent surgery construction site when this commences

2a Controlled Access Point (New Surgery Site)
Manned, controlled access point to new surgery site for construction traffic & personnel

2b Controlled Access Point (Turning Circle)
12m turning circle

2c Controlled Access Point (Temporary Surgery Site)
Manned, controlled access point to temporary surgery site for members of the public

Note: 2a, 2b & 2c will only be established if / when construction work starts on the permanent surgery scheme

3a Staff Parking Spaces (Temporary Surgery Site)
3 No

3b Public Parking Spaces (Temporary Surgery Site)
6 No

4 Refuse Storage / Cycle Parking (Temporary Surgery Site)

| | |
|---|---|
| Rev 9 2025.06.05 | Red line boundary updated to encompass all drainage work proposed by the project engineer (JPG) |
| Rev 8 2025.05.19 | Layout / specification notes updated to simplify vehicular access arrangements, red line updated to include refuse vehicle collection point proposed by VIA Solutions |
| Rev 7 2025.04.22 | Layout updated to reflect updates to permanent surgery scheme (revised vehicular / pedestrian access location) |
| Rev 6 2024.12.03 | Temporary surgery size / design updated to suit information supplied by client on the building which has been sourced |
| Rev 5 2024.10.03 | Updated to suit design information supplied by VIA Solutions in relation to vehicular access (red line amended) |
| Rev 4 2024.07.12 | Notes / drawing information regarding the condition of the existing vehicular access / boundary treatments added |
| Rev 3 2024.07.11 | Ramped access / landing added |
| Rev 2 2024.06.28 | Scheme re-designed to use 30ft 'high cube' shipping containers |
| Rev 1 2024.06.27 | Scheme re-designed to utilise shipping containers |

C1098 1100 Rev 9

TITLE PROPOSED DRAWING
SITE PLAN
TEMPORARY SURGERY BUILDING

SCALE 1:200 @ A1

PRELIMINARY

PROJECT TEMPORARY VETERINARY SURGERY
---
RIVERSIDE WORKS,
WOODHEAD ROAD, HONLEY
HUDDERSFIELD
HD9 6PW

CLIENT DONALDSON'S PROPERTIES LTD

DAWSON WILLIAMSON
ARCHITECTS
Bradford Edinburgh
01274 551 300
info@dawsonwilliamson.co.uk

# Appendix F SuDS Manual – SuDS Mitigation Indices

Project Number: 6369
By: SMS
Date: 31.05.24

www.jpg.group
Email: admin@jpg.group
Call: +44 (0)113 263 1155

**The SuDS Manual - Table 26.2 Pollution hazard indices for different land use classifications**

| Category | Land use | Pollution hazard level | Total suspended solids (TSS) | Metals | Hydrocarbons |
|---|---|---|---|---|---|
| 1 | Residential roofs. | Very low | 0.2 | 0.2 | 0.05 |
| 2 | Other roofs (typically commercial/industrial roofs). | Low | 0.3 | 0.2 | 0.05 |
| **3** | **Individual property driveways, residential car parks, low traffic roads (eg cul de sacs, homezones and general access roads) and non-residential car parking with infrequent change (eg schools, offices) ie < 300 traffic movements/day.** | **Low** | **0.5** | **0.4** | **0.4** |
| 4 | Commercial yard and delivery areas, non-residential car parking with frequent change (eg hospitals, retail), all roads except low traffic roads and trunk roads/motorways. | Medium | 0.7 | 0.6 | 0.7 |
| 5 | Sites with heavy pollution (eg haulage yards, lorry parks, highly frequented lorry approaches to industrial estates, waste sites), sites where chemicals and fuels (other than domestic fuel oil) are to be delivered, handled, stored, used or manufactured; industrial sites; trunk roads and motorways. | High | 0.8 | 0.8 | 0.9 |

| Summary | |
|---|---|
| Category | 3 |
| Pollution hazard level | Low |
| Total suspended solids (TSS) | 0.5 |
| Metals | 0.4 |
| Hydrocarbons | 0.4 |

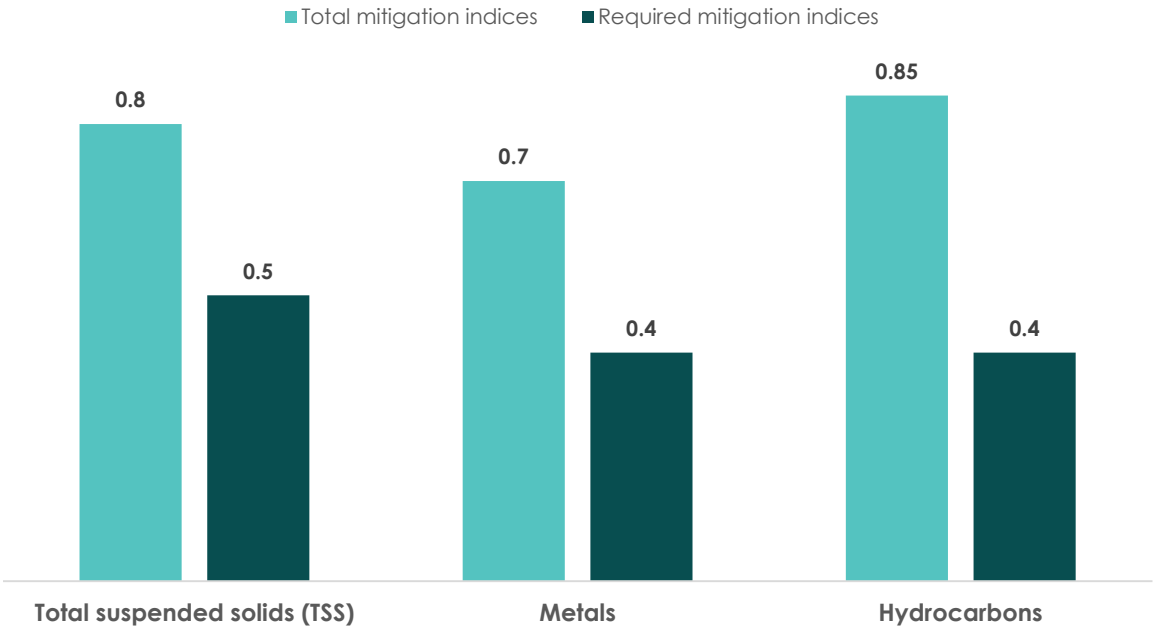
Project Number: 6369
By: SMS
Date: 31.05.24

www.jpg.group
Email: admin@jpg.group
Call: +44 (0)113 263 1155

**The SuDS Manual - Table 26.3 Indicative SuDS mitigation indices for discharges to surface waters**

| Type of SuDS component | Mitigation indices | | |
|---|---|---|---|
| | Total suspended solids (TSS) | Metals | Hydrocarbons |
| Filter strip | 0.4 | 0.4 | 0.5 |
| **Filter drain** | **0.4** | **0.4** | **0.4** |
| Swale | 0.5 | 0.6 | 0.6 |
| Bioretention system | 0.8 | 0.8 | 0.8 |
| Permeable pavement | 0.7 | 0.6 | 0.7 |
| Detention basin | 0.5 | 0.5 | 0.6 |
| Pond | 0.7 | 0.7 | 0.5 |
| Wetland | 0.8 | 0.8 | 0.8 |
| Bypass Petrol Interceptor | 0.8 | 0.6 | 0.9 |
| Proprietary treatment system 2 | 0 | 0 | 0 |
| Proprietary treatment system 3 | 0 | 0 | 0 |
| **None** | **0** | **0** | **0** |

| SuDS components | Mitigation indices | | |
|---|---|---|---|
| | Total suspended solids (TSS) | Metals | Hydrocarbons |
| (1) Filter drain | 0.4 | 0.4 | 0.4 |
| (2) Bypass Petrol Interceptor | 0.8 | 0.6 | 0.9 |
| (3) None | 0 | 0 | 0 |
| **Total mitigation indices** | **0.8** | **0.7** | **0.85** |
| **Required mitigation indices** | **0.5** | **0.4** | **0.4** |
| | ✓ | ✓ | ✓ |



# Appendix G LLFA Guidance

Kirklees Council
Planning and Development Service
PO Box 1720
Huddersfield

| | | |
|---|---|---|
| **Consultation Response from KC, Lead Local Flood Authority** | | |
| **2023/20223 at Riverside Works, Honley, Holmfirth, HD9 6PW** | | |
| **Pre application for mixed commercial (1 unit) and residental development (7 flats)** | | |
| **Date Responded: 18th April 2023** | **Responding Officer: Paul Farndale** | **Responding Ref:** |

**Topography**

The site (circa 0.35ha) appears from our mapping tool to have a fall toward the northeast at an average gradient of 1 in 5 to 1 in 6.

**Sequential Test and Flood Risk Assessment**

The site's red line boundary is below 1 hectare and entirely in flood zone 1. The blue boundary borders the river Holme. There is no need for a sequential test or a formal flood risk assessment. However, a drainage strategy will be required.

**Surface Water Flood Risk**

Third generation mapping of surface water flood risk does not reveal on catchment flood routes or identify any on site risk. There are no reported flood incidents in the immediate vicinity of the site.

**Watercourses**

The river Holme is adjacent to the blue line boundary and is classed as Main River. Please contact the Environment Agency for required buffer zones and consents required to work on or close to the bank.

**Surface Water Disposal**

SUDS infiltration techniques should be considered first. However, British Geological Survey suggests this area is zone 4, severe constraints. Also being so close to a watercourse the LLFA rules this out as an option.

SUDS however do not have to include infiltration and can simply be used for improving the water quality of any discharge. Treatment is expected where a connection to watercourse is envisaged. Biodiversity and amenity benefits should also be considered when examining the use of SUDS techniques.

A connection to watercourse is obvious with the river Holme former the blue line land boundary. Discharge will be restricted to 3l/s where existing positive drainage cannot be proved. A demonstration of where surface water currently drains to may increase this discharge allowance to a 30% reduction on existing peak discharges. Yards without formal drainage must be discounted from this assessment.

A connection to public combined sewer will not be considered at this stage.

Kirklees Council
Planning and Development Service
PO Box 1720
Huddersfield

**Surface Water Attenuation**

Any attenuation required should pay attention to the difficulties of road adoption where an 'structure' spanning more than 900mm is located under the highway. An early conversation with Farhad Khatibi in our structures team is advised. We advise against the use of storage crates due to long term maintenance and management requirements. This does not apply where roads are to remain private.

Attenuation must cater for the 1 in 30-year critical storm event with an appropriate allowance for climate change (see NPPF). Volumes generated by storms with greater return period can be stored above ground if demonstrated as safe. Alternatively, the attenuation must cater for the 1 in 100-year critical storm event with an appropriate allowance for climate change.

**Flood Routing**

We would expect the drainage plan to look at flood routes (where water cannot drain to gullies in extreme events or escapes from the attenuation tank) and come up with a least strategy for the development that clearly avoids buildings and uses roads, parking and service areas and open spaces as safe conduits.

**Section 106 – Management Company**

The LPA is obligated under House of Commons Written Statement 161 to ensure the maintenance and management of sustainable drainage for the lifetime of the site. This includes the period from construction up until a date of adoption by the statutory undertaker (Yorkshire Water). There is no guarantee that systems will be adopted even if an agreement is signed to do so. It is vital therefore that an undertaking is ensured in the planning process to maintain these systems to manage flood risk. A detailed maintenance plan including access and safety is expected to be included so it can be enforced against non-compliance.

This will not be applicable for single ownership developments where a maintenance plan can be secured on condition.

**Temporary Drainage**

Run off can increase post soil and vegetation strip and the risk of sediment entering the local drainage systems and watercourses. A plan to manage risk of flooding to nearby property and land and to protect watercourses from pollution will be required.

# Appendix H Root Protection Area Plan

# Appendix 5: Tree Constraints Plan

**ADDRESS: Land at Woodhead Road, Honley, Huddersfield, West Yorkshire, HD9 6PW.**
**JCA REF: 18440-E/AJB.**

| SCALE : 1:500 | PAPER SIZE : A3 |
|---|---|
| SURVEYED BY: AJB | DRAWN BY: AJB | APPROVED BY: LW |

BRITISH STANDARD 5837:2012: 4.5 RETENTION CATEGORIES

Detailed definitions of these catagories are at Appendix 2 of our report. N.B. These categories do not necessarily represent or correspond to recommendations for action made in this report.

| | |
|---|---|
| | CATEGORY A: 'RETENTION MOST DESIRABLE' |
| | CATEGORY B: 'RETENTION DESIRABLE' |
| | CATEGORY C: 'TREE WHICH COULD BE RETAINED' |
| | CATEGORY U: 'TREE FOR REMOVAL' |
| | STEM OF TREE TO BE RETAINED |
| | STEM OF TREE TO BE REMOVED |
| | ROOT PROTECTION AREA |
| | ROOT PROTECTION AREA (PRIOR TO OFF-SETTING) |

JCA Limited
Arboricultural & Ecological Consultants

N
W E
S

T16
T14
T13
T12
T11
T1
T2
T3
T4
T5
T7
G6
T9
T8
W15

T10: ESTIMATED LOCATION

GOAT WILLOW WHICH HAS AN EXTENDED LIMB TO THE NORTHWEST WHICH REQUIRES REMOVAL

S1 110.917
S2 107.643
S3 107.617
S4 108.077

0 1 5 10 15 20 30 40 50 metres

THIS PLAN IS TO BE PRINTED IN COLOUR AND READ IN CONJUNCTION WITH THE JCA ARBORICULTURAL REPORT (JCA REF: 18440-E/AJB)

## Root Protection Area: RPA

**THE ROOT PROTECTION AREA SHOULD IDEALLY REMAIN UNDISTURBED IF THE TREE IS TO BE RETAINED.**

THE DEVELOPMENT PROPOSALS SHOULD THEREFORE BE DESIGNED TO AVOID THE RPA OF ANY TREE WHICH IS TO BE RETAINED.

IF IT IS NECESSARY FOR THE DEVELOPMENT TO ENCROACH INTO THE RPA OF A TREE WHICH IS TO BE RETAINED THEN SPECIALIST CONSTRUCTION TECHNIQUES AND MATERIALS MUST BE CONSIDERED.

# Appendix I Surface Water Strategy

# DO NOT SCALE (A1)

## NOTES

### GENERAL NOTES

1. ALL MATERIALS AND WORKMANSHIP IS TO COMPLY WITH JPG CONSULTANTS STANDARD SPECIFICATION & ALL RELEVANT BRITISH & EUROPEAN STANDARDS.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, M & E CONSULTANTS AND JPG CONSULTANTS DRAWINGS.
3. ANY DISCREPANCIES SHOULD BE REPORTED TO THE ENGINEER IMMEDIATELY SO THAT CLARIFICATION CAN BE SOUGHT PRIOR TO COMMENCEMENT OF WORKS.

### DRAINAGE NOTES

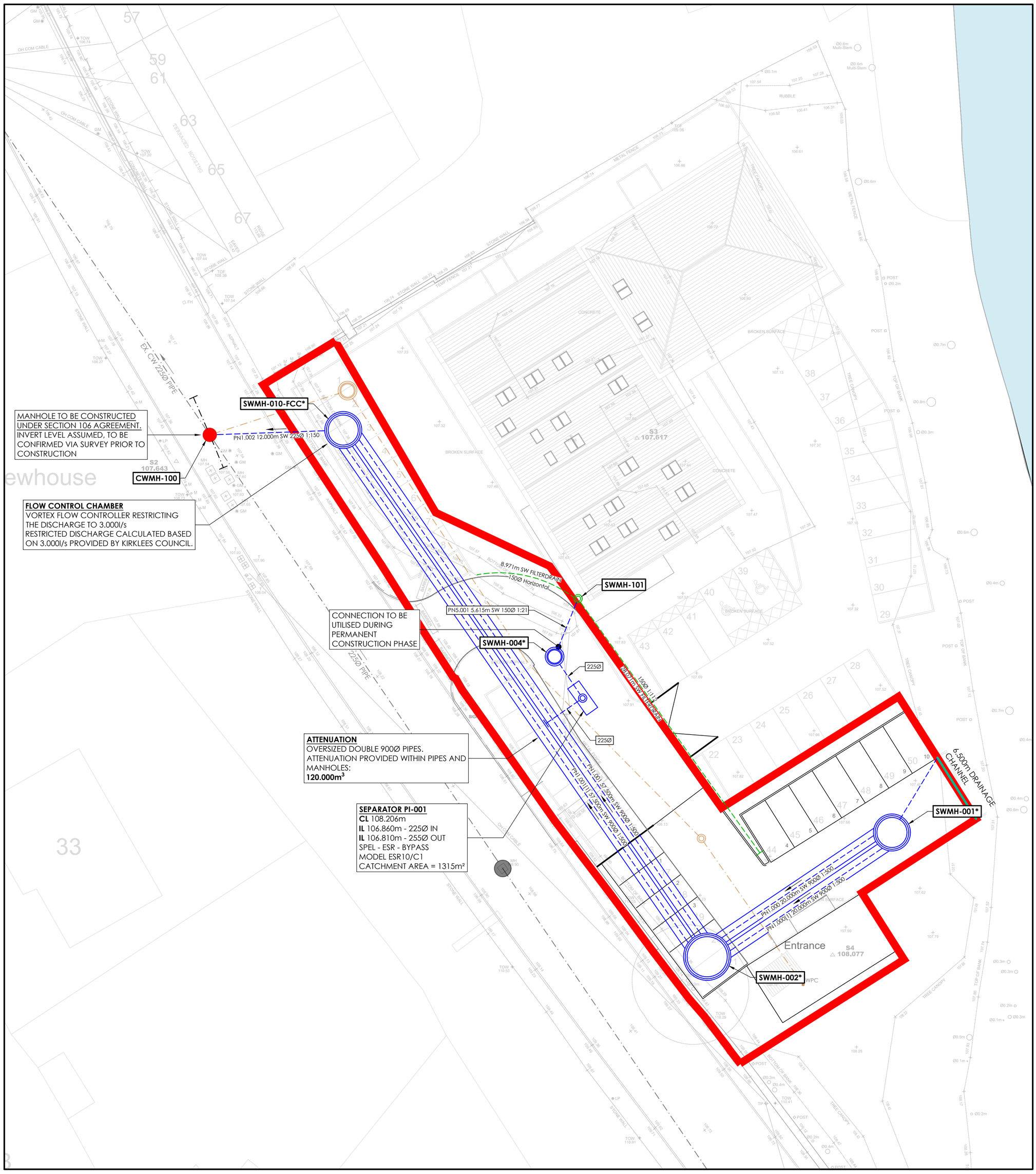
1. ALL BUILDING DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BS EN 752:2008 DRAINAGE AND SEWER SYSTEMS OUTSIDE BUILDINGS, THE CURRENT BUILDING REGULATIONS AND THE LOCAL AUTHORITY BUILDING CONTROL SPECIFICATIONS AND REQUIREMENTS.
2. ANY DRAINAGE TO BE PUT FORWARD FOR ADOPTION EITHER WITHIN THE SITE OR OUTSIDE SHALL BE CONSTRUCTED TO SEWERS FOR ADOPTION LATEST EDITION AND ANY SPECIFIC REQUIREMENTS OF THE ADOPTING SEWERAGE/WATER AUTHORITY.
3. THE LOCATION, SIZE AND DEPTH OF ALL EXISTING DRAINS/SEWERS AND SERVICES SHALL BE ESTABLISHED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORKS ON SITE. ANY DISCREPANCIES FROM THE INFORMATION INDICATED ON THESE DRAWINGS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
4. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER SHOULD ANY EXISTING LIVE DRAINAGE BE FOUND WITHIN THE SITE BOUNDARY SERVING ADJACENT PROPERTIES.
5. ALL EXISTING DRAINAGE WITHIN THE SITE NOT REQUIRED FOR THE NEW DEVELOPMENT SHALL BE ABANDONED. DRAINS AND SEWERS LESS THAN 1.500m DEEP WHICH ARE IN OPEN GROUND SHOULD AS FAR AS IS PRACTICABLE BE FULLY REMOVED ALL OTHER PIPES SHOULD BE SEALED AT BOTH ENDS AND AT ANY POINT OF CONNECTION, AND BE GROUT FILLED TO ENSURE THAT RATS CANNOT GAIN ACCESS. LARGER PIPES 225Ø OR ABOVE SHOULD BE GROUT FILLED TO PREVENT SUBSIDENCE OR DAMAGE TO BUILDINGS OR SERVICES IN THE EVENT OF COLLAPSE.
6. THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION, TEMPORARY AND PERMANENT SUPPORT AND DIVERSION WORKS AS NECESSARY, TO ALL EXISTING SERVICES TO THE SATISFACTION OF THE UTILITY COMPANIES.
7. THE CONTRACTOR SHALL ALLOW FOR DEALING WITH SURFACE WATER RUN OFF INTO EXCAVATIONS AND FROM GROUNDWATER BY MEANS OF SUMPS, PUMPING AND DE WATERING AS APPROPRIATE, IN ORDER TO KEEP THE EXCAVATION AS REASONABLY DRY AS POSSIBLE DURING THE CONSTRUCTION OF THE WORKS.
8. THE CONTRACTOR SHALL TAKE ALL NECESSARY SAFETY PRECAUTIONS IN LINE WITH CURRENT LEGISLATION WHEN WORKING IN/NEAR CONFINED SPACES, DEEP EXCAVATIONS AND MACHINERY.
9. THE CONTRACTOR SHALL ALLOW FOR OBTAINING ALL APPROVALS FROM THE RELEVANT AUTHORITIES WHEN WORKING IN THE PUBLIC HIGHWAY AND ON THE SEWERAGE SYSTEM.
10. THE CONTRACTOR SHALL SUITABLY PROTECT PEDESTRIANS AND VEHICLES FROM WORKING AREAS.
11. ALL MANHOLE/CHAMBER COVER LEVELS ARE APPROXIMATE AND SHALL BE ADJUSTED ON SITE TO SUIT THE PROPOSED FINISHED LEVELS.
12. ALL PIPES SHALL BE LAID WITH LEVEL SOFFITS AND ALL MANHOLE/INSPECTION CHAMBER INVERT LEVELS SHOWN ARE FOR THE OUT GOING PIPE UNO. ON THE DRAWING (NOTE THAT ALL PIPE GRADIENTS INDICATED ON THE DRAWING ARE APPROXIMATE ONLY).
13. ALL PIPE CONNECTION FROM DRAINAGE CHANNELS AND GULLIES SHALL BE 150Ø PIPES AT A MINIMUM GRADIENT OF 1:100 WITH CLASS Z BEDDING UNO. ON THE DRAWING.
14. ALL PIPE CONNECTIONS FROM RWP'S TO BE 100Ø AT 1:60 MIN. AND ALL PIPE CONNECTIONS FROM WPC'S TO FIRST CHAMBER SHALL BE 100Ø AT 1:40 MIN. WITH CLASS S BEDDING BENEATH THE BUILDING AND CLASS Z UNDER EXTERNALS WHERE COVER IS LESS THAN 1.20m UNO. ON THE DRAWING (LOCATION OF RWP'S AND WPC'S TO BE CONFIRMED BY THE ARCHITECT AND ARE SHOWN INDICATIVELY ONLY).
15. ALL SYPHONIC RWP SYSTEMS TO BE DESIGNED BY OTHERS. PIPEWORK FROM DOWN PIPE TO FIRST MANHOLE TO BE SIZED/ DESIGNED BY SYPHONIC SYSTEM DESIGNER. THE FIRST MANHOLE TO HAVE AN OPEN GRATE COVER SAINT GOBAIN WATERWAY 2000 - D400 OR SIMILAR APPROVED.
16. SUITABLY SIZED PETROL INTERCEPTORS MUST COMPLY WITH THE REQUIREMENTS OUTLINE IN PPG3 THESE INCLUDE SILT STORAGE CAPACITY AND HIGH LEVEL HYDROCARBON ALARM WIRED BACK TO A MANNED OFFICE.
17. UPON COMPLETION OF THE DRAINAGE WORKS THE CONTRACTOR SHALL CLEAN ALL DRAIN RUNS BY JETTING AND REMOVE ALL DEBRIS FROM SITE. NO DEBRIS SHALL BE PERMITTED TO ENTER THE PUBLIC SEWER AND/OR WATERCOURSE SYSTEM. ONCE THE DRAINAGE SYSTEM HAS BEEN FULLY CLEANED OUT A CCTV CAMERA CONDITION SURVEY SHALL BE UNDERTAKEN TO ALL CONSTRUCTED DRAINAGE AND SEWER PIPES WITH THE FOOTAGE ISSUED TO THE ENGINEER FOR VIEW. THE AS BUILT INVERT AND COVER LEVELS SHALL BE RECORDED BY THE CONTRACTOR AND PASSED ON TO THE ENGINEER FOR REVIEW.

### LEGEND

- PROPOSED SURFACE WATER PIPE
- PROPOSED SURFACE WATER MANHOLE
- PROPOSED DRAINAGE CHANNEL
- PROPOSED FILTERDRAIN
- RG PROPOSED ROAD GULLY
- RWP PROPOSED RAINWATER PIPE
- PROPOSED SITE BOUNDARY

**NOTE**
RAINWATER PIPE LOCATIONS SUBJECT TO DETAILED DESIGN

0m 5m 10m
**SCALE 1:200**




## PLAN ON SURFACE WATER DRAINAGE

SCALE 1:200

### 6369-TEMP_SW-DRAINAGE_NETWORK MANHOLE SCHEDULE

| REF. | COVER LEVEL | INVERT LEVEL | SUMP DEPTH | DEPTH | EASTING | NORTHING | DIAMETER | TYPE | COVER | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|
| 001* | 108.110m | 106.010m - 900Ø OUT<br>106.010m - 900Ø OUT | 0.000m | 2.100m | 414206.025 | 411783.208 | 2700Ø | TYPE B | 600x600 - CLASS D400 | - |
| 002* | 108.714m | 105.970m - 900Ø IN<br>105.970m - 900Ø IN<br>105.970m - 900Ø OUT<br>105.970m - 900Ø OUT | 0.000m | 2.744m | 414189.427 | 411772.049 | 3600Ø | TYPE B | 600x600 - CLASS D400 | - |
| 004* | 107.861m | 106.730m - 150Ø IN<br>106.655m - 225Ø IN<br>106.655m - 225Ø OUT | 0.000m | 1.206m | 414175.714 | 411799.000 | 1200Ø | TYPE C | 600x600 - CLASS D400 | - |
| 010-FCC* | 107.789m | 105.855m - 900Ø IN<br>105.855m - 900Ø IN<br>105.855m - 225Ø OUT | 0.500m | 2.434m | 414156.729 | 411819.347 | 2700Ø | TYPE B | 1220x675 - CLASS C250 | FLOW CONTROL CHAMBER |
| CWMH-100 | 107.427m | 105.775m - 225Ø IN<br>105.910m - 225Ø IN<br>105.910m - 225Ø OUT | 0.000m | 1.652m | 414144.737 | 411818.913 | 1200Ø | TYPE C | 600x600 - CLASS D400 | INVERT LEVELS ASSUMED |
| 101 | 107.839m | 106.995m - 150Ø IN<br>106.995m - 150Ø IN<br>106.995m - 150Ø OUT | 0.300m | 1.144m | 414177.825 | 411804.203 | 450Ø | PPIC | 300x300 - CLASS C250 | CATCHPIT |

**NOTE: '*' DENOTES NETWORK STRUCTURES TO BE UTILISED IN PERMANENT DRAINAGE STRATEGY**

| REV | DESCRIPTION | DATE | CHK | BY |
|---|---|---|---|---|
| P05 | REDLINE UPDATED | 10.06.25 | RMR | BT |
| P04 | REVISED TO SUIT LATEST TEMPORARY SITE PLAN | 28.05.25 | RMR | BT |
| P03 | UPDATED TO DRAINAGE LAYOUT | 13.09.24 | JDM | SMS |
| P02 | LAYOUT UPDATED TO SUIT RELOCATED OUTFALL. | 09.08.24 | RMR | SMS |
| P01 | ISSUED FOR INFORMATION | 18.07.24 | RMR | SMS |

Project
DONALDSON'S VETS
HONLEY

Drawing Title
TEMPORARY SURFACE WATER DRAINAGE STRATEGY

**INFORMATION**

www.jpg.group
E admin@jpg.group | T +44 (0)113 263 1155

6369-JPG-ZZ-ZZ-DR-D-1405 | S2 | **P05**

# Appendix J Surface Water Network Attenuation & Hydraulic Calculations

| Project: | Date: | | |
|---|---|---|---|
| Honley Vets<br>Temp Scheme | 05/06/2025 | | |
| | Designed by:<br>BT | Checked by: | Approved By: |
| Report Details:<br>Type: Inflows<br>Storm Phase: 6369-Temp_SW-Drainage_Network | Company Address:<br>JPG<br>Leeds | | |

**SWMH-004-01**

Type : Catchment Area

| | |
|---|---|
| Area (m²) | 303.849 |

## Dynamic Sizing

| Runoff Method | Time of Concentration |
|---|---|
| Summer Volumetric Runoff | 0.900 |
| Winter Volumetric Runoff | 0.840 |
| Time of Concentration (hrs) | 0.00 |
| Percentage Impervious (%) | 100 |

**SWMH03-01**

Type : Catchment Area

| | |
|---|---|
| Area (m²) | 359.622 |

## Dynamic Sizing

| Runoff Method | Time of Concentration |
|---|---|
| Summer Volumetric Runoff | 0.900 |
| Winter Volumetric Runoff | 0.840 |
| Time of Concentration (hrs) | 0.00 |
| Percentage Impervious (%) | 100 |

| Project: | Date: | | |
|---|---|---|---|
| Honley Vets<br>Temp Scheme | 05/06/2025 | | |
| | Designed by: | Checked by: | Approved By: |
| | BT | | |
| Report Details: | Company Address: | | |
| Type: Junctions<br>Storm Phase: 6369-Temp_SW-Drainage_Network | JPG<br>Leeds | | |

| Name | Junction Type | Easting (m) | Northing (m) | Cover Level (m) | Depth (m) | Invert Level (m) | Sump Depth (m) | Chamber Shape |
|---|---|---|---|---|---|---|---|---|
| PI-001* | Manhole | 414178.235 | 411795.272 | 107.959 | 1.359 | 106.600 | 0.000 | Circular |
| 004* | Manhole | 414175.714 | 411799.000 | 107.861 | 1.206 | 106.655 | 0.000 | Circular |
| 010-FCC* | Manhole | 414156.729 | 411819.347 | 107.789 | 2.434 | 105.355 | 0.500 | Circular |
| 100 | Manhole | 414144.737 | 411818.913 | 107.427 | 1.652 | 105.775 | 0.000 | Circular |
| 001* | Manhole | 414206.025 | 411783.208 | 108.109 | 2.099 | 106.010 | 0.000 | Circular |
| Simple Junction | Simple Junction | 414174.945 | 411792.998 | | | | | |
| 002* | Manhole | 414189.713 | 411771.685 | 108.713 | 2.743 | 105.970 | 0.000 | Circular |

| Name | Diameter (m) | Part Family | Lock |
|---|---|---|---|
| PI-001* | 0.450 | PPIC | All |
| 004* | 1.200 | Type E | All |
| 010-FCC* | 2.700 | Type B | All |
| 100 | 1.200 | Type E | All |
| 001* | 2.700 | Type B | All |
| Simple Junction | | | |
| 002* | 3.600 | Type E | All |

## Inlets

| Junction | Inlet Name | Incoming Item(s) | Bypass Destination | Capacity Type |
|---|---|---|---|---|
| PI-001* | Inlet | 2.001 | (None) | No Restriction |
| 004* | Inlet | SWMH-004-01 | (None) | No Restriction |
| 010-FCC* | Inlet | 1.001 | (None) | No Restriction |
| 100 | Inlet | 1.002 | (None) | No Restriction |
| 001* | Inlet | SWMH03-01 | (None) | No Restriction |
| Simple Junction | Inlet | 2.002 | (None) | No Restriction |
| 002* | Inlet | 1.000 | (None) | No Restriction |

| Project: | Date: | | |
|---|---|---|---|
| Honley Vets<br>Temp Scheme | 05/06/2025 | | |
| | Designed by: | Checked by: | Approved By: |
| | BT | | |
| Report Details: | Company Address: | | |
| Type: Connections<br>Storm Phase: 6369-Temp_SW-Drainage_Network | JPG<br>Leeds | | |

| Name | Length (m) | Connection Type | Slope (1:X) | Manning's n | Colebrook-White Roughness (mm) | Diameter / Base Width (mm) | Upstream Cover Level (m) | Upstream Invert Level (m) |
|---|---|---|---|---|---|---|---|---|
| 2.001 | 4.500 | Pipe | 900.000 | | 0.6 | 225 | 107.861 | 106.655 |
| 2.002 | 4.000 | Pipe | 133.000 | | 0.6 | 225 | 107.959 | 106.600 |
| 1.002 | 12.000 | Pipe | 150.000 | | 0.6 | 225 | 107.789 | 105.855 |
| 1.000 | 19.972 | Pipe | 499.293 | | 0.6 | 900 | 108.109 | 106.010 |
| 1.001 | 57.962 | Pipe | 504.014 | | 0.6 | 900 | 108.713 | 105.970 |

| Name | Downstream Cover Level (m) | Downstream Invert Level (m) | Part Family | Lock | Flow Restriction (L/s) | Culvert Type | Culvert Entrance |
|---|---|---|---|---|---|---|---|
| 2.001 | 107.959 | 106.650 | Clay Pipe SI | All | | (None) | (None) |
| 2.002 | 106.795 | 106.570 | Clay Pipe SI | All | | (None) | (None) |
| 1.002 | 107.427 | 105.775 | Clay Pipe SI | All | 3.3 | (None) | (None) |
| 1.000 | 108.713 | 105.970 | Concrete Pipe SI | All | | (None) | (None) |
| 1.001 | 107.789 | 105.855 | Concrete Pipe SI | All | | (None) | (None) |

| Project: | Date: | | |
|---|---|---|---|
| Honley Vets<br>Temp Scheme | 05/06/2025 | | |
| | Designed by: | Checked by: | Approved By: |
| | BT | | |
| Report Details: | Company Address: | | |
| Type: Network Design Criteria<br>Storm Phase: 6369-Temp_SW-Drainage_Network | JPG<br>Leeds | | |

## Flow Options

| | |
|---|---|
| Peak Flow Calculation | (UK) Modified Rational Method |
| Min. Time of Entry (hrs) | 0.083 |
| Max. Travel Time (hrs) | 0.50 |

## Pipe Options

| | |
|---|---|
| Lock Slope Options | None |
| Design Options | Minimise Excavation |
| Design Level | Level Soffits |
| Min. Cover Depth (m) | 1.200 |
| Min. Slope (1:X) | 500.00 |
| Max. Slope (1:X) | 40.00 |
| Min. Velocity (m/s) | 1.0 |
| Max. Velocity (m/s) | 3.0 |
| Use Flow Restriction | ☐ |
| Reduce Channel Depths | ☐ |

## Manhole Options

| | |
|---|---|
| Apply Offset | ☐ |

| Project: | Date: | | |
|---|---|---|---|
| Honley Vets<br>Temp Scheme | 05/06/2025 | | |
| | Designed by:<br>BT | Checked by: | Approved By: |
| Report Details:<br>Type: Outfall Details<br>Storm Phase: 6369-Temp_SW-Drainage_Network | Company Address:<br>JPG<br>Leeds | | |

## Outfalls

| Outfall | Outfall Type | Gated | Fixed Surcharged Level (m) | Level Curve |
|---|---|---|---|---|
| 100 | Free Discharge | | | |
| Simple Junction | Free Discharge | | | |

| Project: | Date: | | |
|---|---|---|---|
| Honley Vets<br>Temp Scheme | 05/06/2025 | | |
| | Designed by: | Checked by: | Approved By: |
| | BT | | |
| Report Details: | Company Address: | | |
| Type: Rainfall Analysis Criteria | JPG<br>Leeds | | |

| | |
|---|---|
| Runoff Type | Dynamic |
| Output Interval (mins) | 5 |
| Time Step | Default |
| Urban Creep | Apply Global Value |
| Urban Creep Global Value (%) | 0 |
| Junction Flood Risk Margin (mm) | 300 |
| Prefill Manhole Sumps | ☐ |
| Perform No Discharge Analysis | ☐ |

## Rainfall

### FSR 1IN2

Type: FSR

| | |
|---|---|
| Region | England And Wales |
| M5-60 (mm) | 19.4 |
| Ratio R | 0.314 |
| Summer | ☑ |
| Winter | ☑ |

### Return Period

| Return Period (years) | Increase Rainfall (%) |
|---|---|
| 2.0 | 0.000 |

### Storm Durations

| Duration (hrs) | Run Time (hrs) |
|---|---|
| 0.25 | 0.50 |
| 0.50 | 1.00 |
| 1.00 | 2.00 |
| 2.00 | 4.00 |
| 4.00 | 8.00 |
| 6.00 | 12.00 |
| 8.00 | 16.00 |
| 16.00 | 32.00 |
| 24.00 | 48.00 |

| Project: | Date: | | |
|---|---|---|---|
| Honley Vets<br>Temp Scheme | 05/06/2025 | | |
| | Designed by: | Checked by: | Approved By: |
| | BT | | |
| Report Details: | Company Address: | | |
| Type: Rainfall Analysis Criteria | JPG<br>Leeds | | |

## FSR 1IN30

Type: FSR

| Region | England And Wales |
|---|---|
| M5-60 (mm) | 19.4 |
| Ratio R | 0.314 |
| Summer | ☑ |
| Winter | ☑ |

### Return Period

| Return Period (years) | Increase Rainfall (%) |
|---|---|
| 30.0 | 0.000 |

### Storm Durations

| Duration (hrs) | Run Time (hrs) |
|---|---|
| 0.25 | 0.50 |
| 0.50 | 1.00 |
| 1.00 | 2.00 |
| 2.00 | 4.00 |
| 4.00 | 8.00 |
| 6.00 | 12.00 |
| 8.00 | 16.00 |
| 16.00 | 32.00 |
| 24.00 | 48.00 |

## FSR 1IN100

Type: FSR

| Region | England And Wales |
|---|---|
| M5-60 (mm) | 19.4 |
| Ratio R | 0.314 |
| Summer | ☑ |
| Winter | ☑ |

### Return Period

| Return Period (years) | Increase Rainfall (%) |
|---|---|
| 100.0 | 45.000 |

### Storm Durations

| Duration (hrs) | Run Time (hrs) |
|---|---|
| 0.25 | 0.50 |
| 0.50 | 1.00 |
| 1.00 | 2.00 |
| 2.00 | 4.00 |
| 4.00 | 8.00 |
| 6.00 | 12.00 |
| 8.00 | 16.00 |
| 16.00 | 32.00 |
| 24.00 | 48.00 |

| Project: | Date: | | |
|---|---|---|---|
| Honley Vets<br>Temp Scheme | 05/06/2025 | | |
| | Designed by:<br>BT | Checked by: | Approved By: |
| Report Details:<br>Type: Inflows Summary<br>Storm Phase: 6369-Temp_SW-Drainage_Network | Company Address:<br>JPG<br>Leeds | | |

**FSR 1IN2: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Inflow**

| Inflow | Storm Event | Inflow Area ($m^2$) | Max. Inflow (L/s) | Total Inflow Volume ($m^3$) |
|---|---|---|---|---|
| SWMH-004-01 | FSR 1IN2: 2 years: +0 %: 0.25 hrs: Summer | 303.85 | 5.6 | 2.451 |
| SWMH03-01 | FSR 1IN2: 2 years: +0 %: 0.25 hrs: Summer | 359.62 | 6.7 | 2.900 |

| Project: | Date: | | |
|---|---|---|---|
| Honley Vets<br>Temp Scheme | 05/06/2025 | | |
| | Designed by:<br>BT | Checked by: | Approved By: |
| Report Details:<br>Type: Inflows Summary<br>Storm Phase: 6369-Temp_SW-Drainage_Network | Company Address:<br>JPG<br>Leeds | | |

**FSR 1IN30: 30 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Inflow**

| Inflow | Storm Event | Inflow Area ($m^2$) | Max. Inflow (L/s) | Total Inflow Volume ($m^3$) |
|---|---|---|---|---|
| SWMH-004-01 | FSR 1IN30: 30 years: +0 %: 0.25 hrs: Summer | 303.85 | 10.7 | 4.636 |
| SWMH03-01 | FSR 1IN30: 30 years: +0 %: 0.25 hrs: Summer | 359.62 | 12.6 | 5.481 |

| Project: | Date: | | |
|---|---|---|---|
| Honley Vets<br>Temp Scheme | 05/06/2025 | | |
| | Designed by:<br>BT | Checked by: | Approved By: |
| Report Details:<br>Type: Inflows Summary<br>Storm Phase: 6369-Temp_SW-Drainage_Network | Company Address:<br>JPG<br>Leeds | | |

**FSR 1IN100: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Inflow**

| Inflow | Storm Event | Inflow Area ($m^2$) | Max. Inflow (L/s) | Total Inflow Volume ($m^3$) |
|---|---|---|---|---|
| SWMH-004-01 | FSR 1IN100: 100 years: +45 %: 0.25 hrs: Summer | 303.85 | 20.0 | 8.683 |
| SWMH03-01 | FSR 1IN100: 100 years: +45 %: 0.25 hrs: Summer | 359.62 | 23.7 | 10.278 |

| Project: | Date: | | |
|---|---|---|---|
| Honley Vets<br>Temp Scheme | 05/06/2025 | | |
| | Designed by:<br>BT | Checked by: | Approved By: |
| Report Details:<br>Type: Junctions Summary<br>Storm Phase: 6369-Temp_SW-Drainage_Network | Company Address:<br>JPG<br>Leeds | | |

**FSR 1IN2: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Depth**

| Junction | Storm Event | Cover Level (m) | Invert Level (m) | Max. Level (m) | Max. Depth (m) | Max. Inflow (L/s) | Max. Resident Volume (m³) | Max. Flooded Volume (m³) | Max. Outflow (L/s) | Total Discharge Volume (m³) | Status |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PI-001* | FSR 1IN2: 2 years: +0 %: 0.25 hrs: Summer | 107.959 | 106.600 | 106.657 | 0.057 | 5.4 | 0.009 | 0.000 | 5.3 | 2.440 | OK |
| 004* | FSR 1IN2: 2 years: +0 %: 0.25 hrs: Summer | 107.861 | 106.655 | 106.731 | 0.076 | 5.6 | 0.085 | 0.000 | 5.4 | 2.444 | OK |
| 010-FCC* | FSR 1IN2: 2 years: +0 %: 6.00 hrs: Summer | 107.789 | 105.355 | 105.937 | 0.582 | 1.6 | 3.330 | 0.000 | 1.0 | 6.506 | OK |
| 100 | FSR 1IN2: 2 years: +0 %: 6.00 hrs: Summer | 107.427 | 105.775 | 105.799 | 0.024 | 1.0 | 0.000 | 0.000 | 1.0 | 6.505 | OK |
| 001* | FSR 1IN2: 2 years: +0 %: 0.25 hrs: Summer | 108.109 | 106.010 | 106.049 | 0.039 | 6.7 | 0.225 | 0.000 | 5.9 | 2.915 | OK |
| Simple Junction | FSR 1IN2: 2 years: +0 %: 0.25 hrs: Summer | | 106.570 | 106.622 | 0.052 | 5.3 | | | 5.3 | 2.440 | OK |
| 002* | FSR 1IN2: 2 years: +0 %: 0.50 hrs: Summer | 108.713 | 105.970 | 106.003 | 0.033 | 4.6 | 0.337 | 0.000 | 3.8 | 3.753 | OK |

| Project: | Date: | | |
|---|---|---|---|
| Honley Vets<br>Temp Scheme | 05/06/2025 | | |
| | Designed by: | Checked by: | Approved By: |
| | BT | | |
| Report Details: | Company Address: | | |
| Type: Junctions Summary<br>Storm Phase: 6369-Temp_SW-Drainage_Network | JPG<br>Leeds | | |

**FSR 1IN30: 30 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Depth**

| Junction | Storm Event | Cover Level (m) | Invert Level (m) | Max. Level (m) | Max. Depth (m) | Max. Inflow (L/s) | Max. Resident Volume (m³) | Max. Flooded Volume (m³) | Max. Outflow (L/s) | Total Discharge Volume (m³) | Status |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PI-001* | FSR 1IN30: 30 years: +0 %: 0.25 hrs: Summer | 107.959 | 106.600 | 106.681 | 0.081 | 10.4 | 0.013 | 0.000 | 10.2 | 4.624 | OK |
| 004* | FSR 1IN30: 30 years: +0 %: 0.25 hrs: Summer | 107.861 | 106.655 | 106.759 | 0.104 | 10.7 | 0.118 | 0.000 | 10.4 | 4.628 | OK |
| 010-FCC* | FSR 1IN30: 30 years: +0 %: 2.00 hrs: Summer | 107.789 | 105.355 | 105.999 | 0.644 | 5.8 | 3.689 | 0.000 | 2.0 | 9.121 | OK |
| 100 | FSR 1IN30: 30 years: +0 %: 2.00 hrs: Summer | 107.427 | 105.775 | 105.808 | 0.033 | 2.0 | 0.000 | 0.000 | 2.0 | 9.115 | OK |
| 001* | FSR 1IN30: 30 years: +0 %: 0.25 hrs: Summer | 108.109 | 106.010 | 106.063 | 0.053 | 12.6 | 0.304 | 0.000 | 11.6 | 5.501 | OK |
| Simple Junction | FSR 1IN30: 30 years: +0 %: 0.25 hrs: Summer | | 106.570 | 106.642 | 0.072 | 10.2 | | | 10.2 | 4.624 | OK |
| 002* | FSR 1IN30: 30 years: +0 %: 0.50 hrs: Summer | 108.713 | 105.970 | 106.016 | 0.046 | 8.6 | 0.468 | 0.000 | 8.0 | 7.025 | OK |

| Project: | Date: | | |
|---|---|---|---|
| Honley Vets<br>Temp Scheme | 05/06/2025 | | |
| | Designed by: | Checked by: | Approved By: |
| | BT | | |
| Report Details: | Company Address: | | |
| Type: Junctions Summary<br>Storm Phase: 6369-Temp_SW-Drainage_Network | JPG<br>Leeds | | |

**FSR 1IN100: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Depth**

| Junction | Storm Event | Cover Level (m) | Invert Level (m) | Max. Level (m) | Max. Depth (m) | Max. Inflow (L/s) | Max. Resident Volume (m³) | Max. Flooded Volume (m³) | Max. Outflow (L/s) | Total Discharge Volume (m³) | Status |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PI-001* | FSR 1IN100: 100 years: +45 %: 0.25 hrs: Summer | 107.959 | 106.600 | 106.717 | 0.117 | 19.5 | 0.019 | 0.000 | 19.3 | 8.669 | OK |
| 004* | FSR 1IN100: 100 years: +45 %: 0.25 hrs: Summer | 107.861 | 106.655 | 106.801 | 0.146 | 20.0 | 0.166 | 0.000 | 19.5 | 8.674 | OK |
| 010-FCC* | FSR 1IN100: 100 years: +45 %: 2.00 hrs: Summer | 107.789 | 105.355 | 106.069 | 0.714 | 9.5 | 4.090 | 0.000 | 2.8 | 19.838 | OK |
| 100 | FSR 1IN100: 100 years: +45 %: 2.00 hrs: Summer | 107.427 | 105.775 | 105.814 | 0.039 | 2.8 | 0.000 | 0.000 | 2.8 | 19.826 | OK |
| 001* | FSR 1IN100: 100 years: +45 %: 0.25 hrs: Summer | 108.109 | 106.010 | 106.082 | 0.072 | 23.7 | 0.410 | 0.000 | 22.1 | 10.312 | OK |
| Simple Junction | FSR 1IN100: 100 years: +45 %: 0.25 hrs: Summer | | 106.570 | 106.672 | 0.102 | 19.3 | | | 19.3 | 8.669 | OK |
| 002* | FSR 1IN100: 100 years: +45 %: 2.00 hrs: Summer | 108.713 | 105.970 | 106.069 | 0.099 | 11.1 | 1.011 | 0.000 | 9.5 | 23.242 | OK |

# Appendix K Foul Water Strategy

# DO NOT SCALE (A1)

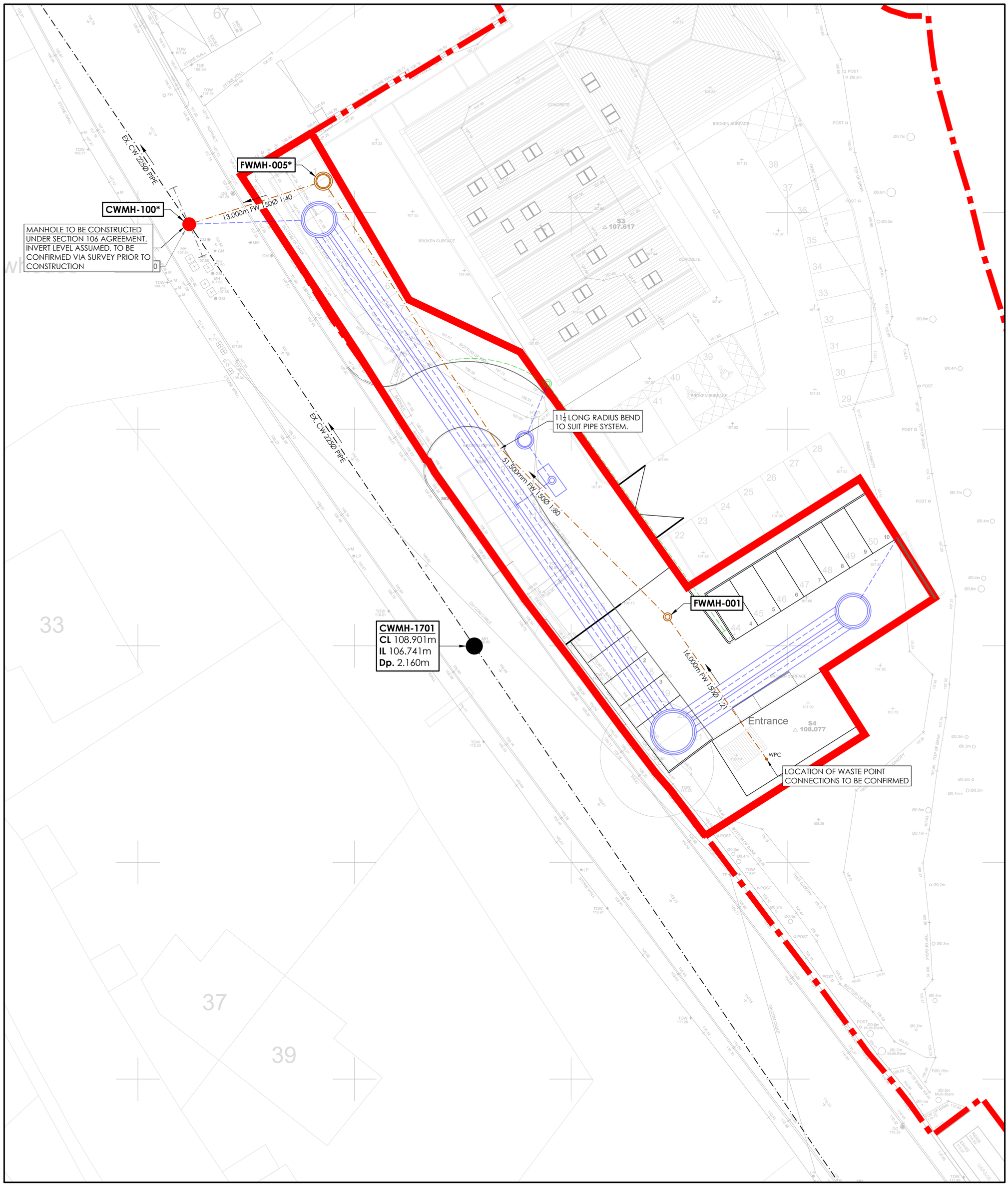
## NOTES

### GENERAL NOTES

1. ALL MATERIALS AND WORKMANSHIP IS TO COMPLY WITH JPG CONSULTANTS STANDARD SPECIFICATION & ALL RELEVANT BRITISH & EUROPEAN STANDARDS.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, M & E CONSULTANTS AND JPG CONSULTANTS DRAWINGS.
3. ANY DISCREPANCIES SHOULD BE REPORTED TO THE ENGINEER IMMEDIATELY SO THAT CLARIFICATION CAN BE SOUGHT PRIOR TO COMMENCEMENT OF WORKS.

### DRAINAGE NOTES

1. ALL BUILDING DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BS EN 752:2008 DRAINAGE AND SEWER SYSTEMS OUTSIDE BUILDINGS, THE CURRENT BUILDING REGULATIONS AND THE LOCAL AUTHORITY BUILDING CONTROL SPECIFICATIONS AND REQUIREMENTS.
2. ANY DRAINAGE TO BE PUT FORWARD FOR ADOPTION EITHER WITHIN THE SITE OR OUTSIDE SHALL BE CONSTRUCTED TO SEWERS FOR ADOPTION LATEST EDITION AND ANY SPECIFIC REQUIREMENTS OF THE ADOPTING SEWERAGE/WATER AUTHORITY.
3. THE LOCATION, SIZE AND DEPTH OF ALL EXISTING DRAINS/SEWERS AND SERVICES SHALL BE ESTABLISHED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORKS ON SITE. ANY DISCREPANCIES FROM THE INFORMATION INDICATED ON THESE DRAWINGS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
4. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER SHOULD ANY EXISTING LIVE DRAINAGE BE FOUND WITHIN THE SITE BOUNDARY SERVING ADJACENT PROPERTIES.
5. ALL EXISTING DRAINAGE WITHIN THE SITE NOT REQUIRED FOR THE NEW DEVELOPMENT SHALL BE ABANDONED. DRAINS AND SEWERS LESS THAN 1.500m DEEP WHICH ARE IN OPEN GROUND SHOULD AS FAR AS IS PRACTICABLE BE FULLY REMOVED ALL OTHER PIPES SHOULD BE SEALED AT BOTH ENDS AND AT ANY POINT OF CONNECTION, AND BE GROUT FILLED TO ENSURE THAT RATS CANNOT GAIN ACCESS. LARGER PIPES 225Ø OR ABOVE SHOULD BE GROUT FILLED TO PREVENT SUBSIDENCE OR DAMAGE TO BUILDINGS OR SERVICES IN THE EVENT OF COLLAPSE.
6. THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION, TEMPORARY AND PERMANENT SUPPORT AND DIVERSION WORKS AS NECESSARY, TO ALL EXISTING SERVICES TO THE SATISFACTION OF THE UTILITY COMPANIES.
7. THE CONTRACTOR SHALL ALLOW FOR DEALING WITH SURFACE WATER RUN OFF INTO EXCAVATIONS AND FROM GROUNDWATER BY MEANS OF SUMPS, PUMPING AND DE WATERING AS APPROPRIATE, IN ORDER TO KEEP THE EXCAVATION AS REASONABLY DRY AS POSSIBLE DURING THE CONSTRUCTION OF THE WORKS.
8. THE CONTRACTOR SHALL TAKE ALL NECESSARY SAFETY PRECAUTIONS IN LINE WITH CURRENT LEGISLATION WHEN WORKING IN/NEAR CONFINED SPACES, DEEP EXCAVATIONS AND MACHINERY.
9. THE CONTRACTOR SHALL ALLOW FOR OBTAINING ALL APPROVALS FROM THE RELEVANT AUTHORITIES WHEN WORKING IN THE PUBLIC HIGHWAY AND ON THE SEWERAGE SYSTEM.
10. THE CONTRACTOR SHALL SUITABLY PROTECT PEDESTRIANS AND VEHICLES FROM WORKING AREAS.
11. ALL MANHOLE/CHAMBER COVER LEVELS ARE APPROXIMATE AND SHALL BE ADJUSTED ON SITE TO SUIT THE PROPOSED FINISHED LEVELS.
12. ALL PIPES SHALL BE LAID WITH LEVEL SOFFITS AND ALL MANHOLE/INSPECTION CHAMBER INVERT LEVELS SHOWN ARE FOR THE OUT GOING PIPE UNO. ON THE DRAWING (NOTE THAT ALL PIPE GRADIENTS INDICATED ON THE DRAWING ARE APPROXIMATE ONLY).
13. ALL PIPE CONNECTION FROM DRAINAGE CHANNELS AND GULLIES SHALL BE 150Ø PIPES AT A MINIMUM GRADIENT OF 1:100 WITH CLASS Z BEDDING UNO. ON THE DRAWING.
14. ALL PIPE CONNECTIONS FROM RWP'S TO BE 100Ø AT 1:60 MIN. AND ALL PIPE CONNECTIONS FROM WPC'S TO FIRST CHAMBER SHALL BE 100Ø AT 1:40 MIN. WITH CLASS S BEDDING BENEATH THE BUILDING AND CLASS Z UNDER EXTERNALS WHERE COVER IS LESS THAN 1.20m UNO. ON THE DRAWING (LOCATION OF RWP'S AND WPC'S TO BE CONFIRMED BY THE ARCHITECT AND ARE SHOWN INDICATIVELY ONLY).
15. ALL SYPHONIC RWP SYSTEMS TO BE DESIGNED BY OTHERS. PIPEWORK FROM DOWN PIPE TO FIRST MANHOLE TO BE SIZED/ DESIGNED BY SYPHONIC SYSTEM DESIGNER. THE FIRST MANHOLE TO HAVE AN OPEN GRATE COVER SAINT GOBAIN WATERWAY 2000 - D400 OR SIMILAR APPROVED.
16. SUITABLY SIZED PETROL INTERCEPTORS MUST COMPLY WITH THE REQUIREMENTS OUTLINE IN PPG3 THESE INCLUDE SILT STORAGE CAPACITY AND HIGH LEVEL HYDROCARBON ALARM WIRED BACK TO A MANNED OFFICE.
17. UPON COMPLETION OF THE DRAINAGE WORKS THE CONTRACTOR SHALL CLEAN ALL DRAIN RUNS BY JETTING AND REMOVE ALL DEBRIS FROM SITE. NO DEBRIS SHALL BE PERMITTED TO ENTER THE PUBLIC SEWER AND/OR WATERCOURSE SYSTEM. ONCE THE DRAINAGE SYSTEM HAS BEEN FULLY CLEANED OUT A CCTV CAMERA CONDITION SURVEY SHALL BE UNDERTAKEN TO ALL CONSTRUCTED DRAINAGE AND SEWER PIPES WITH THE FOOTAGE ISSUED TO THE ENGINEER FOR VIEW. THE AS BUILT INVERT AND COVER LEVELS SHALL BE RECORDED BY THE CONTRACTOR AND PASSED ON TO THE ENGINEER FOR REVIEW.




## PLAN ON FOUL WATER DRAINAGE

SCALE 1:200

### LEGEND

- PROPOSED FOUL WATER PIPE
- PROPOSED FOUL WATER MANHOLE
- EXISTING FOUL WATER PIPE
- EXISTING FOUL WATER MANHOLE
- PROPOSED SITE BOUNDARY
- WPC PROPOSED WASTE POINT CONNECTION

**NOTE**
WASTE POINT CONNECTIONS SUBJECT TO DETAILED DESIGN

0m 5m 10m

**SCALE 1:200**

## 6369-TEMPORARY_FW-DRAINAGE_NETWORK MANHOLE SCHEDULE

| REF. | COVER LEVEL | INVERT LEVEL | SUMP DEPTH | DEPTH | EASTING | NORTHING | DIAMETER | TYPE | COVER | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|
| 001 | 108.351m | 106.795m - 150Ø IN<br>106.795m - 150Ø OUT | 0.000m | 1.556m | 414188.904 | 411782.671 | 450Ø | PPIC | 300x300 - CLASS D400 | - |
| 005* | 107.761m | 106.100m - 150Ø IN<br>106.100m - 150Ø OUT | 0.000m | 1.661m | 414157.114 | 411822.888 | 1200Ø | TYPE B | 600x600 - CLASS C250 | - |
| 100* | 107.427m | 105.910m - 225Ø IN<br>105.775m - 150Ø IN<br>105.910m - 225Ø OUT | 0.000m | 1.652m | 414144.737 | 411818.913 | 1200Ø | TYPE C | 600x600 - CLASS D400 | INVERT LEVELS ASSUMED |

**NOTE: '*' DENOTES NETWORK STRUCTURES TO BE UTILISED IN PERMANENT DRAINAGE STRATEGY**

| REV | DESCRIPTION | DATE | CHK | BY |
|---|---|---|---|---|
| P05 | REDLINE UPDATED | 10.06.25 | RMR | BT |
| P04 | UPDATED TO SUIT LATEST TEMPORARY SITE LAYOUT | 28.05.25 | RMR | BT |
| P03 | UPDATED TO SUIT NEW DRAINAGE ARRANGEMENT | 13.09.24 | JDM | SMS |
| P02 | UPDATED TO SUIT SURFACE WATER LAYOUT | 09.08.24 | RMR | SMS |
| P01 | ISSUED FOR INFORMATION | 18.07.24 | RMR | SMS |

Project
DONALDSON'S VETS
HONLEY

Drawing Title
TEMPORARY FOUL WATER DRAINAGE STRATEGY

**INFORMATION**

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