



South Crosland Barns

Drainage Strategy

October 2025

JLP Roberts

AMA Project Number: 23484

Andrew Moseley Associates

15 St Paul's Street

Leeds

LS1 2JG

www.amatp.co.uk

info@amatp.co.uk

REPORT QUALITY MANAGEMENT

	First Issue	Revision 1	Revision 2	Revision 3
Remarks	Planning	CCTV Survey		
Date	August 2025	October 2025		
Prepared	CS	CS		
Checked	AY	AY		
Authorised	GS	GS		

REPORT PRODUCTION TEAM

Name	Initials	Job Title
Caitlin Shearer	CS	Graduate Flood Risk Engineer
Aaron Yesudian	AY	Senior Flood Risk and Drainage Engineer
Gavin Shepherd	GS	Associate Director

TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	Overview	1
1.2	Regulatory Policy and Legislation	1
1.3	Scope of Detailed Drainage Strategy	1
2	METHODOLOGY	3
2.1	Introduction	3
3	PROJECT BACKGROUND	4
3.1	Development Description and Location	4
3.2	Topography	5
3.3	Geology and Ground Conditions	5
3.4	Hydrogeology	5
3.5	Hydrology	6
4	FOUL WATER DRAINAGE	7
4.1	Introduction	7
4.2	Existing Sewers	7
4.3	Foul Water Discharge Rates	7
4.4	Foul Water Capacity and Point of Connection	7
5	SURFACE WATER DRAINAGE STRATEGY	8
5.1	Introduction	8
5.2	Overview and Concept	8
5.3	Pre-Development Surface Water Run Off	8
5.4	Groundwater Protection	9
5.5	Methods of Surface Water Management	9
5.6	Infiltration	9
5.7	Watercourse	9
5.8	Public Sewers	9
5.9	Proposed Discharge Rates	10
5.10	Attenuation Requirements	10
5.11	Drainage Network	10
6	SUMMARY	11
7	LIMITATIONS	12
	APPENDICES	13

TABLES

Table 3-1	Site Context.....	4
-----------	-------------------	---

FIGURES

Figure 3-1	Site Location Plan	5
Figure 3-2	Watercourse Location	6

APPENDICES

Appendix A	Proposed Site Layout
Appendix B	Yorkshire Water Sewer Maps
Appendix C	CCTV Drainage Survey
Appendix D	Drainage Layout Drawing

1 INTRODUCTION

1.1 OVERVIEW

1.1.1 This Drainage Strategy (DS) has been provided at the request of Peacock and Smith, hereafter referred to as “the client”, to assess the possible ways of discharging surface and foul water from the site while analysing the flood risks associated with the proposed development of South Crosland Barns, hereafter referred to as “the site”.

1.1.2 The purpose of this Drainage Strategy is to:

- ▶ Investigate and define any potential drainage impacts associated with the site;
- ▶ Conceptually determine and define necessary surface water management controls to ensure no exacerbation of flood risk on the site or to external receptors due to any increase in surface water run-off; and
- ▶ Recommend appropriate and necessary mitigation measures and additional assessments that may be required to progress the sustainable development of the site.

1.1.3 The Drainage Strategy comprises the following:

- ▶ A desktop review of publicly available information, including information from the Environment Agency (EA) and Kirklees Council who are the Lead Local Flood Authority (LLFA) for the proposed development area; and
- ▶ An assessment and outline design of hydraulic controls and drainage requirements and drainage elements required to support the development of the site.

1.1.4 This report further details the methodologies employed within this study and provides recommendations as to any further work or investigations required to support the development of the site through the planning application process.

1.2 REGULATORY POLICY AND LEGISLATION

1.2.1 This assessment has been carried out in line with the current Government legislation, the National Planning Policy Framework (NPPF) 2024.

1.2.2 It has been assessed with reference to the following documents and legislative guidelines:

- ▶ CIRIA 753 The SUDS Manual V8 (2018);
- ▶ DEFRA “Flood Risk Assessment Guidance for New Developments” (2006);
- ▶ DEFRA “Surface Water Management Plan Technical Guidance” (2010);
- ▶ BS 8533 2017 Assessing & Managing Flood Risk in Development Code of Practice (2017);
- ▶ BS 8582:2013 Code of practice for surface water management for development Sites (2013);
- ▶ National Planning Practice Guidance (2012 – updated 2022);
- ▶ C624 Development and Flood Risk – Guidance for the Construction Industry’ (2004);
- ▶ Sewage Sector Guidance (2022);
- ▶ Planning Policy Guidance – Flood Risk and Climate Change (2014 – updated 2022).

1.2.3 In addition to the above, this report has also been informed by the following documents:

- ▶ Kirklees Local Plan Strategy and Policies 2019

1.3 SCOPE OF DETAILED DRAINAGE STRATEGY

1.3.1 Surface water run-off must be effectively managed to ensure that there is no exacerbation of potential surface water flooding issues on the site, or at any external receptors, due to any potential increases in surface water run-off rates and volumes.

- 1.3.2 The drainage hierarchy will be applied in determining the most suitable type and point of discharge of surface waters run-off from impermeable areas on the site. This will ensure that surface water is sustainably managed on the site, and that there is no exacerbation of flood risk elsewhere as a result of undertaking the development. This will be undertaken in accordance with industry best practice principles and guidance, such as the C753 SUDS Manual (2016), Design and Construction Guidance for Sewage Sector (DCGSS) (2020) and applicable sections of the Planning Policy Guidance (PPG).
- 1.3.3 Any increase in surface water run-off rate associated with the development of the site must also be managed in accordance with the guidelines set by LPA, the LLFA for the area.
- 1.3.4 As indicated in Policy LP28 of Kirklees Local Plan Strategy and Policies surface water run-off from the site must adhere to the following:
- ▶ The presumption is that Sustainable Drainage Systems (SuDS) will be used to assist in achieving the following on each site:
 - For proposals on greenfield sites, typical greenfield run-off rates should not be exceeded;
 - For proposals on brownfield sites there should be a minimum 30% reduction in surface water run-off where previous positive surface water connections from the site can be proven. New connections will be subject to at least greenfield restrictions;
 - No negative impact on local water quality and improvements in water quality where practicable;
 - Consider whether proposed open spaces and green infrastructure within sites can be contributed to the sustainable drainage of the site.
 - ▶ Local conditions including the existence of critical drainage areas may require a lower run-off rate to be agreed to reflect volume control, local surface water risks, water course capacity and flood risk further downstream.
 - ▶ There will be a general presumption against pumping surface water. It must also be demonstrated that the surface water management solution is designed to meet requirements over the lifetime of the development including evidence that management and maintenance arrangements have been secured to cover that period. This includes ensuring proposals to store water meet national standards and latest best practice.
 - ▶ Flow paths accommodating water from outside the site or due to an exceedance event should be designed to avoid buildings and curtilages.
 - ▶ Development will only be permitted if it can be demonstrated that the water supply and waste water infrastructure required is available or can be co-ordinated to meet the demand generated by the new development.
- 1.3.5 The Drainage Strategy will identify potential opportunities and locations for attenuation infrastructure, as well as potential connection points and provide calculations of permissible discharge rates for run-off generated on site.
- 1.3.6 The Drainage Strategy therefore aims to provide surety that any drainage provided as part of the project development can safely and appropriately convey all flows from the site to appropriate discharge locations. This is to ensure sustainable and safe operation within the site, as well as ensuring sustainable operation of any receiving infrastructure. These assessments have been undertaken in accordance with prescribed best practice and building codes, including prioritising the incorporation of SuDS, where appropriate and practicable for the management of surface water.
- 1.3.7 Following the completion of a final site masterplan the drainage scheme proposed within this report should be reassessed to ensure surface water run-off and foul water drainage can be appropriately managed in accordance with best practise and local and national standard requirements.

2 METHODOLOGY

2.1 INTRODUCTION

- 2.1.1 This report aims to demonstrate that the proposed development is sustainable and will not be impacted by or exacerbate flood risk elsewhere through the development of the site. This assessment will account for the effects of climate change, as well as identifying further opportunities to reduce the probability and consequences of flooding within the site locality.
- 2.1.2 This report aims to identify constraints and opportunities for the site based on the development proposals provided by the client ([Appendix A](#)) and provide recommendations for the sustainable provision of drainage and mitigation of any potential flood risk for the site.
- 2.1.3 The assessment methodology is as follows:
- ▶ Desktop review of the geology, hydrology, and other pertinent environmental characteristics of the site, and how these affect flood risk of the proposed development and site drainage.
 - ▶ Produce indicative design calculations for the Drainage Strategy to determine the requirements for developing the site's surface water drainage and providing adequate storage in line with local planning policy and guidance. This will include the presentation of drawings with an indicative layout for any additional drainage and attenuation infrastructure located on the site.
 - ▶ Review the findings from the above and advise on the suitability of developing the site for the proposed development in consideration of the applicable flood risk and drainage and comment on limitations and opportunities for the site, with recommendations of further mitigation where applicable and appropriate.

3 PROJECT BACKGROUND

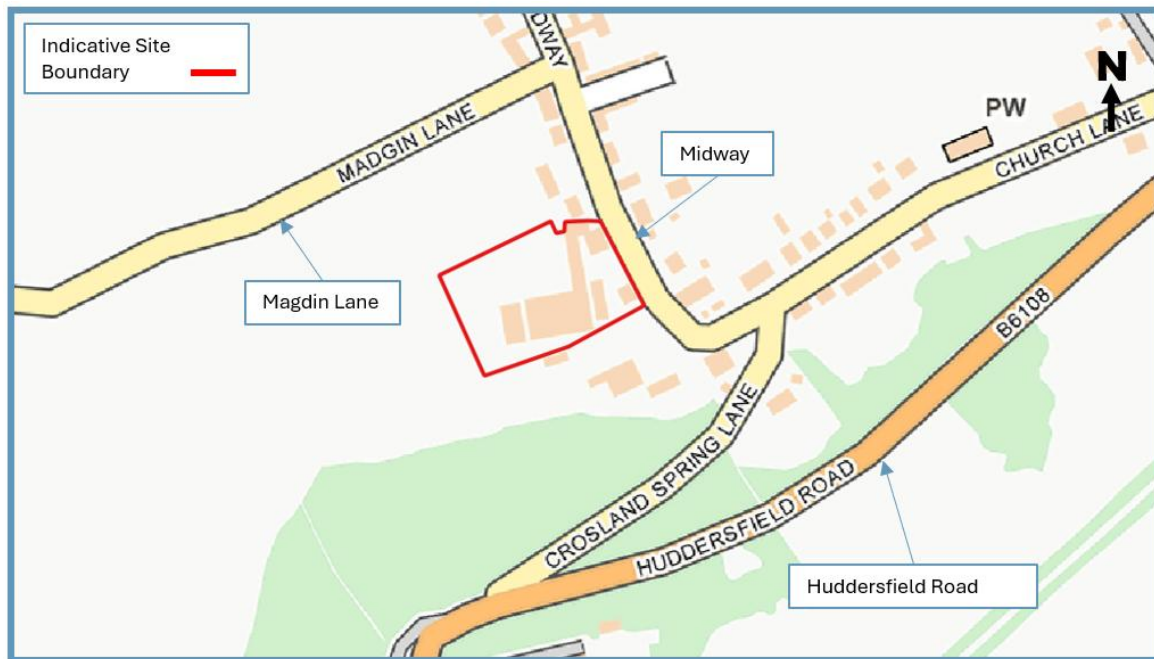
3.1 DEVELOPMENT DESCRIPTION AND LOCATION

- 3.1.1 Andrew Moseley Associates (AMA) was appointed by Peacock and Smith to provide a Drainage Strategy in support of a residential development, located at Fleece Farm, Midway, South Crosland, Huddersfield, HD4 7DA.
- 3.1.2 The proposed development is located in the area of South Crosland, approximately 5km southwest from Huddersfield city centre. Proposals for the site are for residential use, consisting of the demolition of existing buildings and the erection of six residential units with associated hardstanding, landscaping and infrastructure. A site layout can be found in [Appendix A](#).
- 3.1.3 The Local Planning Authority for this development is Kirklees Council who are also the Lead Local Flood Authority for the area.
- 3.1.4 This report has been prepared in accordance with the National Planning Policy Framework (NPPF) and the accompanying technical guidance to assess all forms of flooding including the management of surface water on-site.
- 3.1.5 The site is referenced in [Table 3-1](#) and [Figure 3-1](#) below.

Table 3-1 Site Context

Site Name	Fleece Farm
Location	South Crosland
NGR (approx..)	SE 11473 12644
General Locality	The site is located on previously developed brownfield land and borders undeveloped land to its south, west and north, residential development to its north and east, and commercial development to its south. Pedestrian and vehicular access to the site is provided via Midway which is located along the eastern boundary of the site.
Development Type	Residential
EA Flood Zone	Flood Zone 1

Figure 3-1 Site Location Plan



3.2 TOPOGRAPHY

- 3.2.1 A topographic survey provided by the client and undertaken by Orange Design Studio (Ref: ODS_24/943) shows ground levels at the site to be in the region of 220.19 to 221.85 m Above Ordnance Datum (m AOD). The topographic survey can be seen in [Appendix A](#).
- 3.2.2 Further review of topographical data shows site levels to be lowest at the centre of the site, while greatest levels are located at the northeast of the site. A general fall in gradient from west to east is observed across the site.

3.3 GEOLOGY AND GROUND CONDITIONS

- 3.3.1 British Geological Survey (BGS) Open Geoscience website indicates that the entire site is underlain by Rough Rock Flags - Sandstone with no record of overlying superficial deposits.
- 3.3.2 The BGS website information indicates that there is no borehole record within close proximity to the site.
- 3.3.3 As indicated by aerial imagery, the previously developed site consists of areas of hardstanding which make up approximately 100% of the site.
- 3.3.4 Information obtained from the Cranfield University's Soilscape website indicates that the site is located in an area classified as being Soilscape 6, which is defined as having freely draining slightly acid loamy soils.

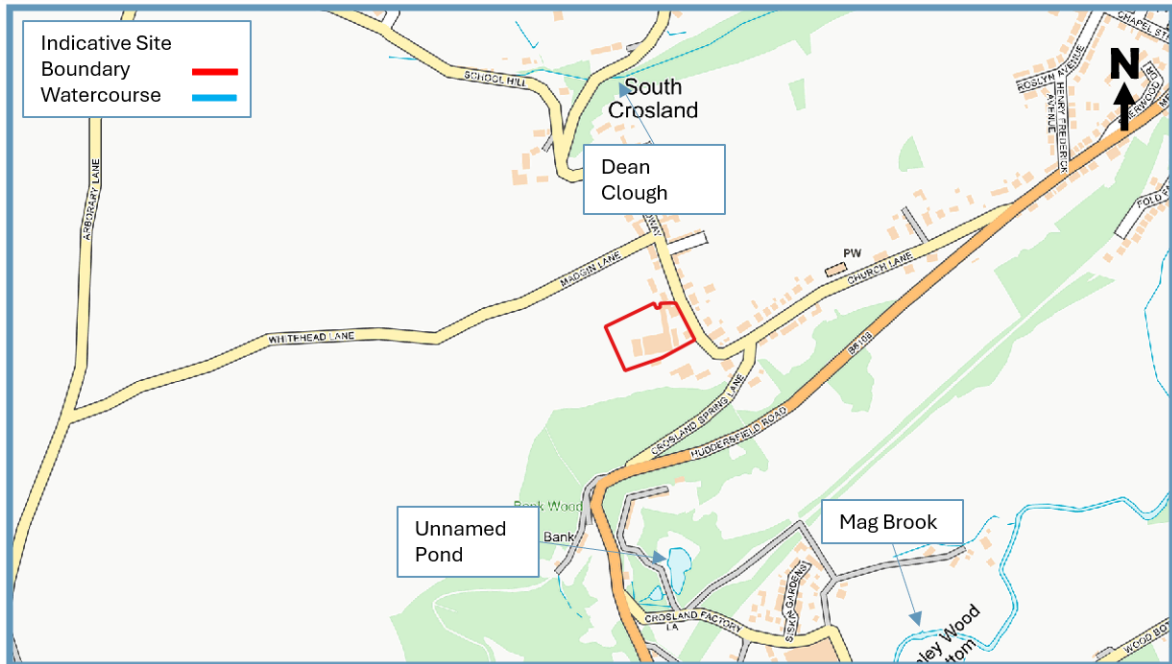
3.4 HYDROGEOLOGY

- 3.4.1 According to the Department for Environment, Food and Rural Affairs (DEFRA) MAGIC map, the site is indicated as not being located in a Groundwater Source Protection Zone (SPZ), as defined by the Environment Agency (EA) for the protection of a potable groundwater supply.
- 3.4.2 The site is located as being in an area of high groundwater vulnerability and located above a Secondary A bedrock aquifer.

3.5 HYDROLOGY

- 3.5.1 The Mag Brook is located approximately 630m to the southeast of the site at its closest point. There is an unnamed pond located approximately 325m to the south of the site at its closest point. The Dean Clough is located approximately 320m to the northwest of the site at its closest point.
- 3.5.2 The EA's Catchment Data Explorer website indicates that the site resides within the Colne and Holme operational catchment and the Mag Brook from Source to River Holme sub catchment.

Figure 3-2 Watercourse Location



4 FOUL WATER DRAINAGE

4.1 INTRODUCTION

- 4.1.1 It is proposed to install a new foul drainage system to serve the proposed residential development.
- 4.1.2 The foul water system will be designed and constructed in accordance with the current Building Regulations, BS EN:752 'Drainage and Sewer Systems Outside Buildings', the Local Authority Building Control specifications and requirements, Sewers for Adoption 8th Edition and the Civil Engineering Specification for the Water Industry.

4.2 EXISTING SEWERS

- 4.2.1 AMA attained Yorkshire Water sewer maps which can be seen in [Appendix B](#). They show that there is a combined public sewer that is located within Midway, adjacent to the site.
- 4.2.2 As the site is pre-developed, the client confirmed that the existing drainage within the site connects to the combined public Yorkshire Water sewer located within Midway. This should be confirmed with a CCTV drainage survey.
- 4.2.3 A CCTV drainage survey has been completed on site, and the report can be found in [Appendix C](#). The CCTV survey shows that the existing drainage discharges to the Yorkshire Water sewer in Midway.
- 4.2.4 The CCTV survey also shows that the existing drainage drains via a cesspit located within the northeast of the site. It is proposed that the cesspit, and associated drainage leading to the cesspit, is to be abandoned. The report states that cesspit pumps to the slurry tank, which is also to be removed as part of the proposed development.

4.3 FOUL WATER DISCHARGE RATES

- 4.3.1 The estimate design Dry Weather Flow (DWF) generated by the proposed development, based on a gravity system, has been calculated as 0.28 litres per second.
- 4.3.2 This figure is based on six dwellings at 4,000 litres per dwelling as prescribed in Sewers for Adoption.

4.4 FOUL WATER CAPACITY AND POINT OF CONNECTION

- 4.4.1 Foul water could discharge to the existing 225mm combined Yorkshire Water sewer located approximately 5m to the east of the site, located within Midway via the existing connection. There are no known capacity issues with the public sewer network in the area which would hinder development at the site.
- 4.4.2 Any proposed connection onto the public recorded sewers will require a S106 connection application.

5 SURFACE WATER DRAINAGE STRATEGY

5.1 INTRODUCTION

- 5.1.1 The National Planning Policy Framework (NPPF) and accompanying Technical Guidance indicate that surface water run-off should be controlled as near to its source as possible through a sustainable drainage approach to surface water management.
- 5.1.2 Consideration should therefore firstly be given to using sustainable drainage (SuDS) techniques including soakaways, infiltration trenches, permeable pavements, grassed swales, ponds and wetlands to reduce flood risk by attenuating the rate and quantity of surface water run-off from a site. This approach can also offer other benefits in terms of promoting groundwater recharge, water quality improvement and amenity enhancements. Approved document Part H of the Building Regulations (2015) sets out a hierarchy for the disposal of surface water which encourages a SuDS approach.

5.2 OVERVIEW AND CONCEPT

- 5.2.1 As detailed in [Section 3.1](#), development proposals for the site consist of residential use, consisting of the demolition of existing buildings and the erection of six residential units with associated hardstanding, landscaping and infrastructure. The site plan shows the developable area of the site to be restricted to the red line boundary, as shown in [Appendix A](#), with an approximate total developable area of 0.85 ha.
- 5.2.2 Review of the site plan shows proposals to consist of an approximate total impermeable area of 0.51 ha. The impermeable area is not changing post-development. The existing impermeable areas and proposed area of development have been identified within the Drainage Layout Drawing, in [Appendix D](#).

5.3 PRE-DEVELOPMENT SURFACE WATER RUN OFF

Brownfield

- 5.3.1 As the site is a previously developed, brownfield site, with an existing agricultural structure pre-development surface water drainage will be based upon the Modified Rational Method (MRM). Based on the redevelopment to the existing structure, it is noted that there may be requirements to improve the surface water drainage to effectively drain the site.
- 5.3.2 As discussed previously in this report the total site area marked out by the red line boundary found in [Appendix A](#) is 0.85 ha with a total impermeable area of 0.51 ha. The pre-development surface water run-off will be based upon the existing impermeable area 0.51 ha. Therefore:
- ▶ The total impermeable area (Pre-Development) of the site is 0.51 ha.
 - ▶ The estimated peak flow rate for the site for a 50 mm / event is defined below using the Modified Rational Equation method.
- 5.3.3 $Q = C i A$
- 5.3.4 Where:
- ▶ Q = Flow rate in m^3/ sec
 - ▶ C = site impermeability or run-off coefficient = estimated as 100% or 1
 - ▶ i = rainfall intensity = 50 mm/hr
 - ▶ A = impermeable site area producing run-off = 0.51 ha or 5100 m^2
- 5.3.5 The peak run-off rate using the above defined equation would therefore be:
- ▶ $Q = 1.00 \times 50 \times 0.51$ (impermeable area in ha) $\times 2.78 = 70.9$ Us

- 5.3.6 As shown above the peak run-off rate for the site using the modified rational method is estimated to be 70.9 l/s. As the impermeable area of the site is not changing, it is not proposed that there should be any restriction to the discharge rate.
- 5.3.7 Provision of suitable controls for the management of the on-site surface water run-off may be developed in conjunction with the future masterplan and existing site levels. Additional investigation would then need to be undertaken to determine if the site required betterment and attenuation.

5.4 GROUNDWATER PROTECTION

- 5.4.1 The proposed development site is not identified as being within a groundwater source protection zone (SPZ), as such no special measures are required to prevent risk to drinking water supplies.

5.5 METHODS OF SURFACE WATER MANAGEMENT

- 5.5.1 There are three methods that have been reviewed for the management and discharge of surface water which are detailed below; these may be applied individually or collectively to form a complete strategy. They should be applied in the order of priority as listed:
- ▶ Discharge via Infiltration
 - ▶ Discharge to a Watercourse
 - ▶ Discharge to Surface Water Sewer or Highway Drain
 - ▶ Discharge to Public Sewer

5.6 INFILTRATION

- 5.6.1 Any impermeable areas that can drain to a soakaway or an alternative method of infiltration would significantly improve the sustainability of any surface water systems.
- 5.6.2 The British Geological Society (BGS) Geology of Britain Viewer indicates that the entire site is underlain by Rough Rock Flags – Sandstone with no report of any overlying superficial deposits.
- 5.6.3 Information obtained from the Cranfield University's Soilscape website indicates that the site is in an area classified as being Soilscape 6, which is defined as freely draining slightly acid loamy soils.
- 5.6.4 From a desktop review of the geology and soil at the site, it is believed that infiltration may be an acceptable way of discharging surface water from the site.
- 5.6.5 Percolation testing has not yet been carried out on this site. It is recommended that infiltration testing to BRE 365 digest is undertaken as part of any future site investigations works at the site so that this can be used as satisfactory evidence for the LLFA or Yorkshire Water as necessary. The results of a percolation test will also be required to produce infiltration/soakaway designs.

5.7 WATERCOURSE

- 5.7.1 As discussed in [Section 3.5](#), the Mag Brook is located approximately 630m to the southeast of the site at its closest point. There is an unnamed pond located approximately 325m to the south of the site at its closest point. The Dean Clough is located approximately 320m to the northwest of the site at its closest point.
- 5.7.2 The distance and location of the watercourses with third-party land situated between the site and watercourse means it would be unviable to discharge surface water into a watercourse.

5.8 PUBLIC SEWERS

- 5.8.1 As a last resort and following the hierarchy of surface water, disposal discharge to the public sewer system may need to be considered.

- 5.8.2 In the Yorkshire Water sewer maps (**Appendix B**) they show that there is a combined Yorkshire Water sewer located in Midway.
- 5.8.3 As it is assumed that the existing connection from the site discharges to the combined Yorkshire Water sewer, it is proposed that surface water discharges via the existing connection. The existing connection should be confirmed via a CCTV Drainage Survey.
- 5.8.4 Therefore, it would be possible to discharge surface water from the site into a public sewer using the existing drainage infrastructure.

5.9 PROPOSED DISCHARGE RATES

- 5.9.1 Surface water from the site will be discharged via the existing connection to the Yorkshire Water combined sewer.
- 5.9.2 The site will be drained by discharging surface water into the public sewer. As the proposed development does not change the impermeable area at the site, there is no requirement to restrict the surface water discharge from the site.

5.10 ATTENUATION REQUIREMENTS

- 5.10.1 As discussed earlier the impermeable area at the site does not change post-development, therefore there is no requirement to restrict surface water discharge from the site. As such, there is no requirement for attenuation within the site.

5.11 DRAINAGE NETWORK

- 5.11.1 An indicative drainage network has been illustrated showing how flows would be intercepted and conveyed to the existing pipes and manholes.
- 5.11.2 The final surface water drainage network servicing the site should ideally consist of permeable paving to limit the run-off from any paved areas, whilst extending time of concentration for discharge to the accompanying drainage network.
- 5.11.3 For any portion of the network crossing a highway or an area to be trafficked by heavy grade vehicles (HGV's), a minimum cover requirement of 1.20 m below cover level should be provided where practically possible for the internal drainage network to satisfy Sewers for Adoption standards.

6 SUMMARY

- 6.1.1 The site is in an area identified as having a low probability of flooding on the EA Flood Map and is located in Flood Zone 1.
- 6.1.2 As with any drainage system, blockages within the surface water sewer systems constructed to serve the development has the potential to cause flooding or disruption. Any drainage systems which are not to be offered for adoption to either the Water Company or the Local Authority will have a suitable maintenance regime scheduled, and an appropriate management company appointed to carry out the works.
- 6.1.3 The primary option for surface water disposal is to use the existing connection into the public combined Yorkshire Water sewer located in Midway.
- 6.1.4 There is not a suitable watercourse in the vicinity of the site which could be utilised to dispose of surface water from the site.
- 6.1.5 There is a suitable public sewer in the vicinity of the site which could be utilised to dispose of the surface water. It is proposed that surface water will discharge through an existing connection into the combined Yorkshire Water sewer located to the east of the site, in Midway.
- 6.1.6 Attenuation is not required for surface water disposal, as the impermeable area is not changing within the site and as such, there is no restriction on the discharge rate from the site.
- 6.1.7 There is a formal point of connection into a Yorkshire Water public combined water sewer in close proximity to the site. Foul water domestic waste can discharge to the public combined sewer recorded in Midway, at a point to the east of the site via an existing connection.

7 LIMITATIONS

- 7.1.1 This report has been prepared for exclusive use by JLP Roberts for the purpose of assisting them in evaluating the potential constraints imposed by flood risk and drainage in making a Planning Application.
- 7.1.2 AMA accepts no liability for any use of this document other than by its client and only for the purposes, stated in the document, for which it was prepared and provided. No person other than the client may copy (in whole or in part) use or rely on the contents of this document, without the prior written permission of AMA. Any advice, opinions or recommendations within this document should be read and relied upon only in the context of the document as a whole.
- 7.1.3 AMA has endeavoured to assess all information provided to them during this appraisal. The report summarises from several external sources and cannot offer any guarantees or warranties for the completeness or accuracy of information relied upon.
- 7.1.4 This report has been undertaken with the assumption that the site will be developed in accordance with the above proposals without significant change. The conclusions resulting from this study are not necessarily indicative of future conditions or operating practices at or adjacent to the site.
- 7.1.5 A topographic survey has been completed for the site and was supplied to AMA by the client. AMA accepts no liability for the accuracy of this survey, and it is recommended that it is verified on-site prior to the commencement of any construction work.
- 7.1.6 Existing drainage information is based on third party survey data and record information which is considered to be incomplete. It is therefore recommended that a FULL drainage investigation survey is commissioned to establish the precise alignment, level, and condition of ALL existing drainage within the development site to inform the masterplan and future detailed design proposals.

APPENDICES

Appendix A Proposed Site Layout

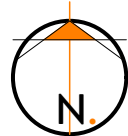
Appendix B Yorkshire Water Sewer Maps

Appendix C CCTV Drainage Survey

Appendix D Drainage Layout Drawing



Appendix A
Proposed Site Layout



- SHARED ACCESS - EXISTING HARD STANDING UPGRADED
- RESIDENTIAL AMENITY - 565M²
- EXISTING BARN FOOTPRINT - 1040M²



PROPOSED BLOCK PLAN
1:500

2022

Best of Houzz
Service

Build

Architecture
Awards

2019

REVISION	DESCRIPTION	DATE	STATUS

PLANNING DRAWING

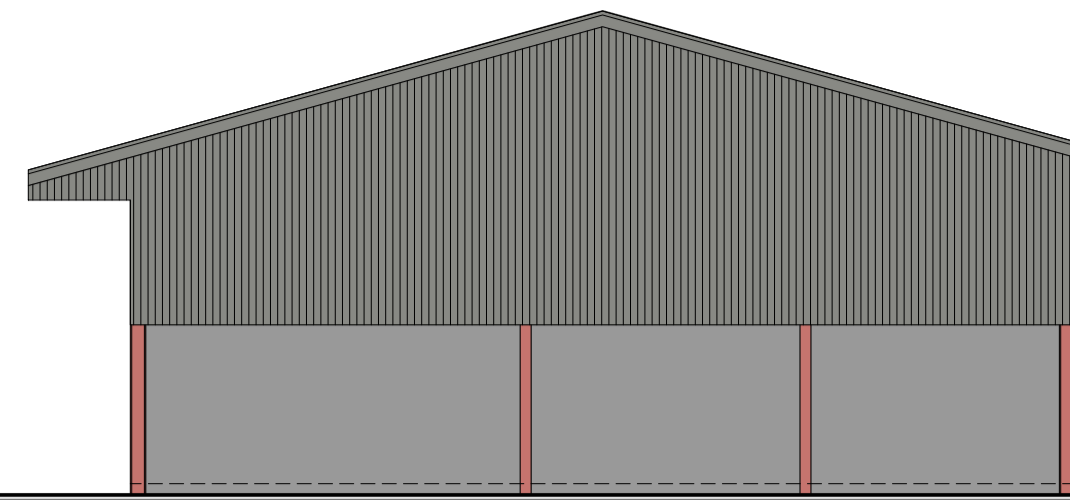
ORANGE DESIGN STUDIO.

ARCHITECTURAL PRACTICE

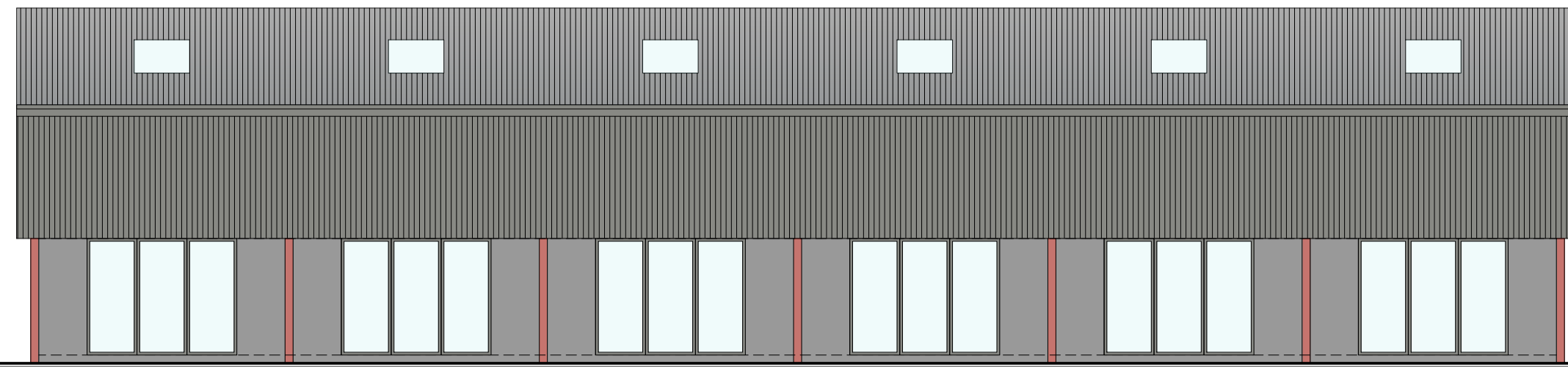
hello@orangedesignstudio.co.uk
59A, Huddersfield Road, Mirfield, WF14 8AA
orangedesignstudio.co.uk
01924 650930

COPYRIGHT © ORANGE DESIGN STUDIO LIMITED

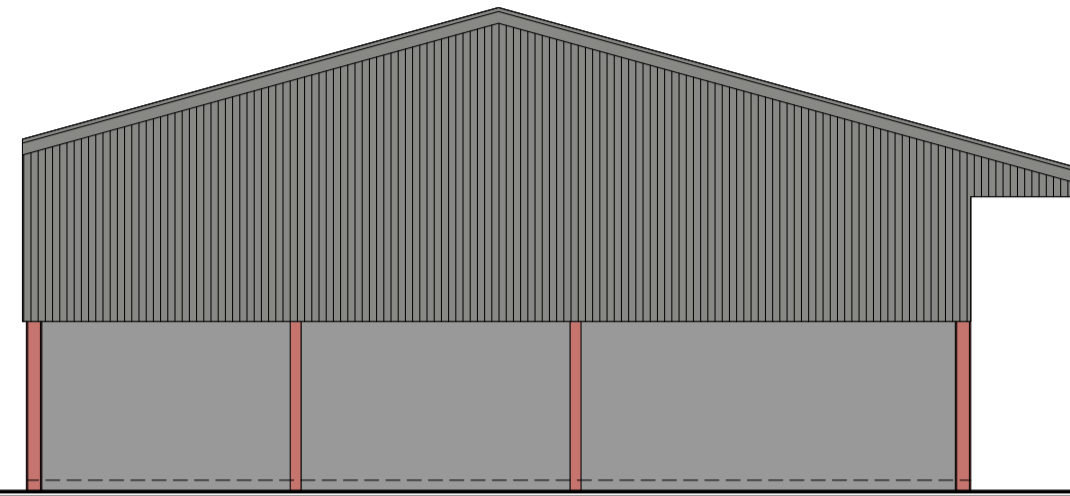
PROJECT TITLE FLEECE FARM			
DRAWING TITLE PROPOSED BLOCK PLAN			
SCALE	DRAWN	CHECKED	PROJECT REFERENCE
1:500	CF	JH	ODS_24/943
PAPER SIZE	DWG NUMBER	DATE	REVISION
A3	(20)003	28/03/25	1
CLIENT			
MR & MRS ROBERTS			



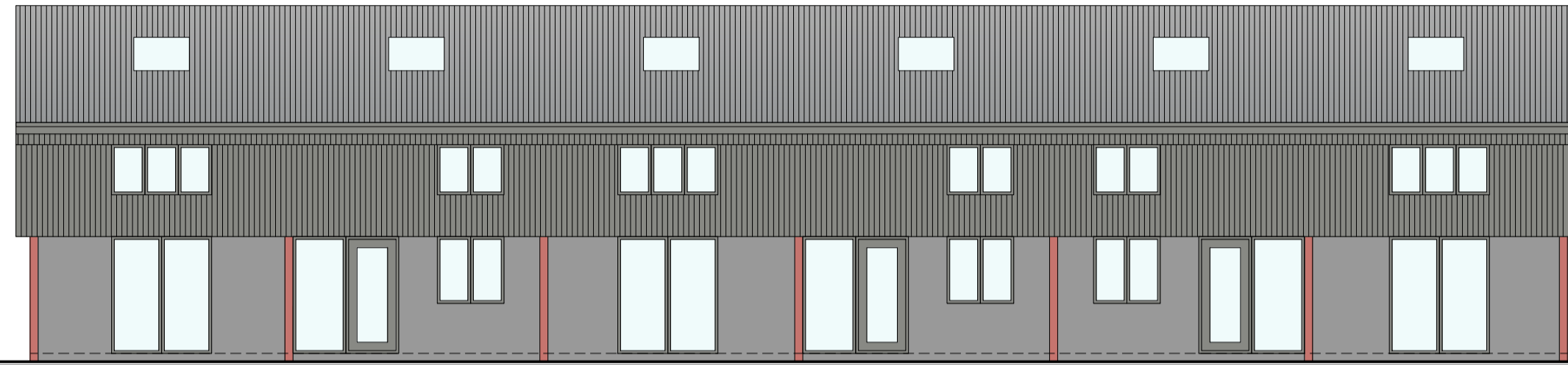
NORTH ELEVATION
1:100



EAST ELEVATION
1:100



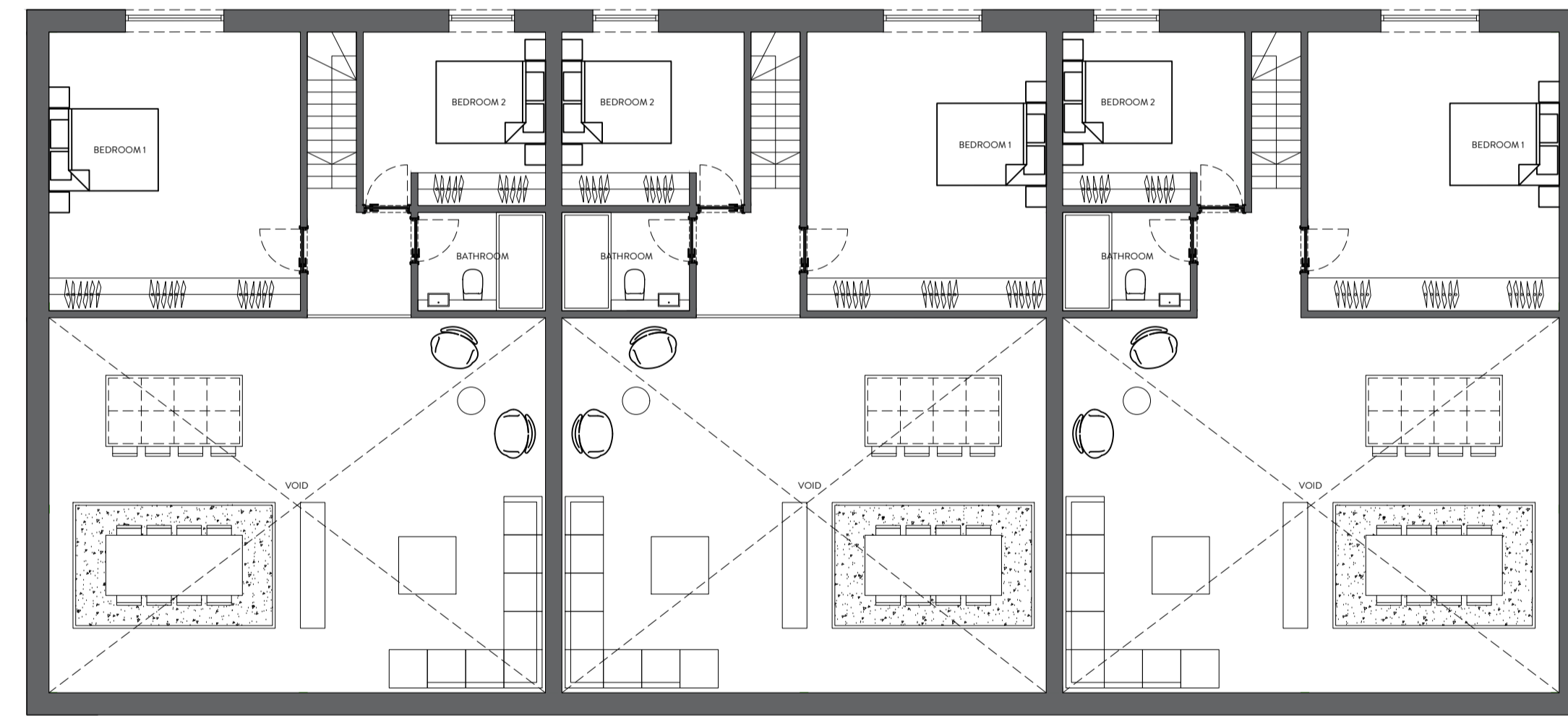
SOUTH ELEVATION
1:100



WEST ELEVATION
1:100



GROUND FLOOR PLAN
1:100

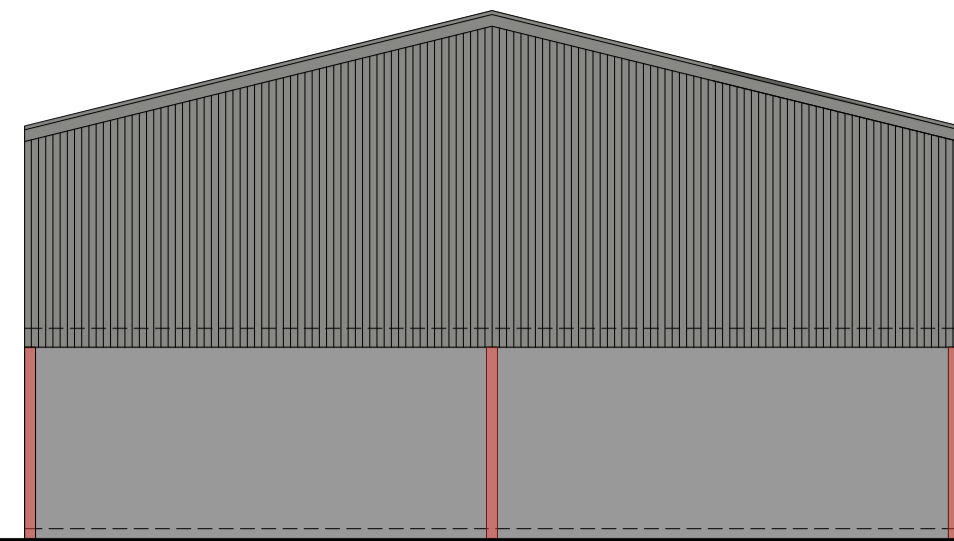


FIRST FLOOR PLAN
1:100

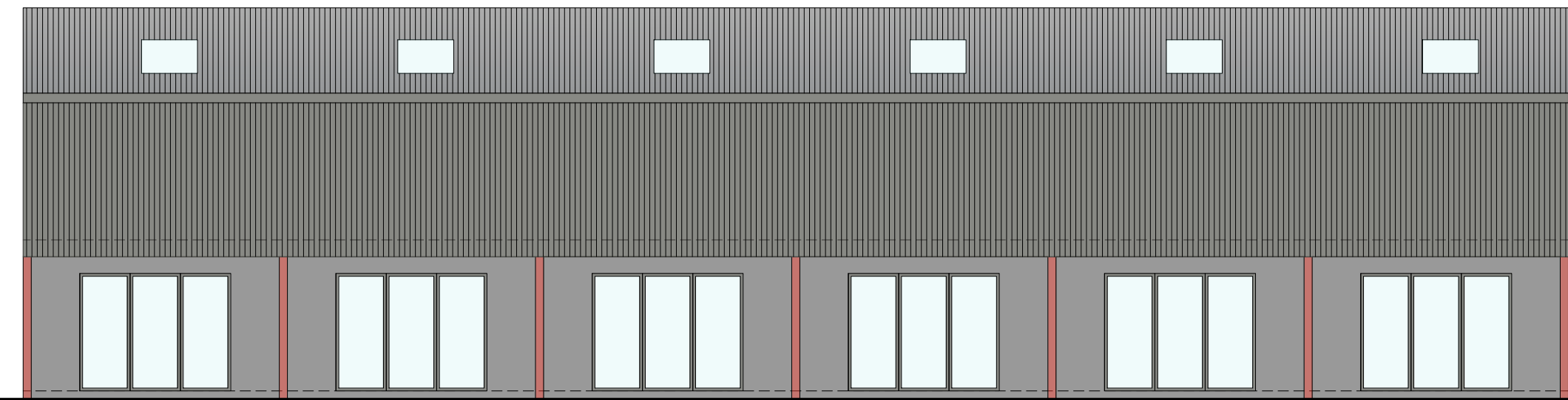


REVISION	DESCRIPTION	DATE	NOTES

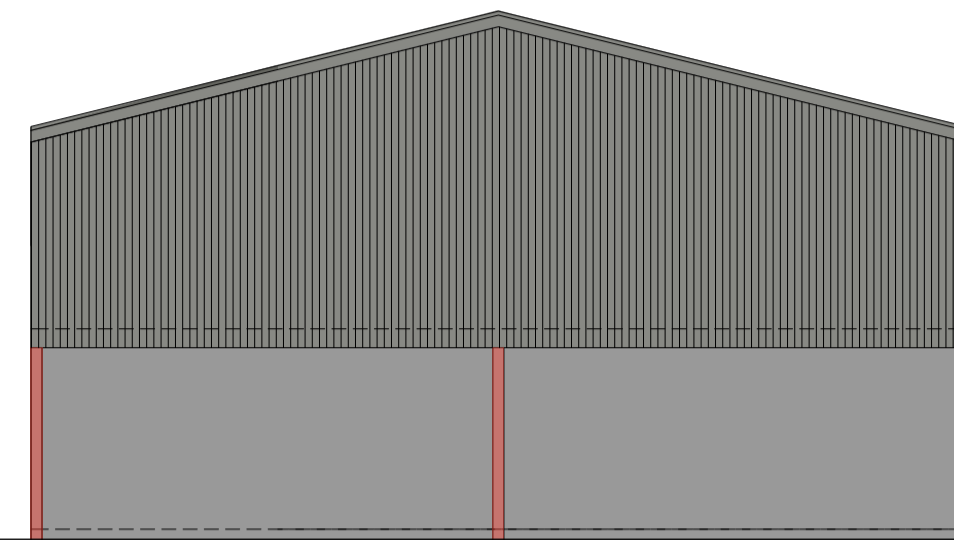
STATUS PLANNING DRAWING	PROJECT TITLE FLEECE FARM		
	DRAWING TITLE PROPOSED GA BARN 1		
ORANGE DESIGN STUDIO. ARCHITECTURAL PRACTICE hello@orangedesignstudio.co.uk 59A, Huddersfield Road, Mirfield, WF14 8AA orangedesignstudio.co.uk 01924 650930 <small>COPYRIGHT © ORANGE DESIGN STUDIO LIMITED</small>	SCALE 1:50	DRAWN CF	CHECKED JH
	PAPER SIZE A1	DWG NUMBER (20)001	DATE 28/03/25
CLIENT MR & MRS ROBERTS			



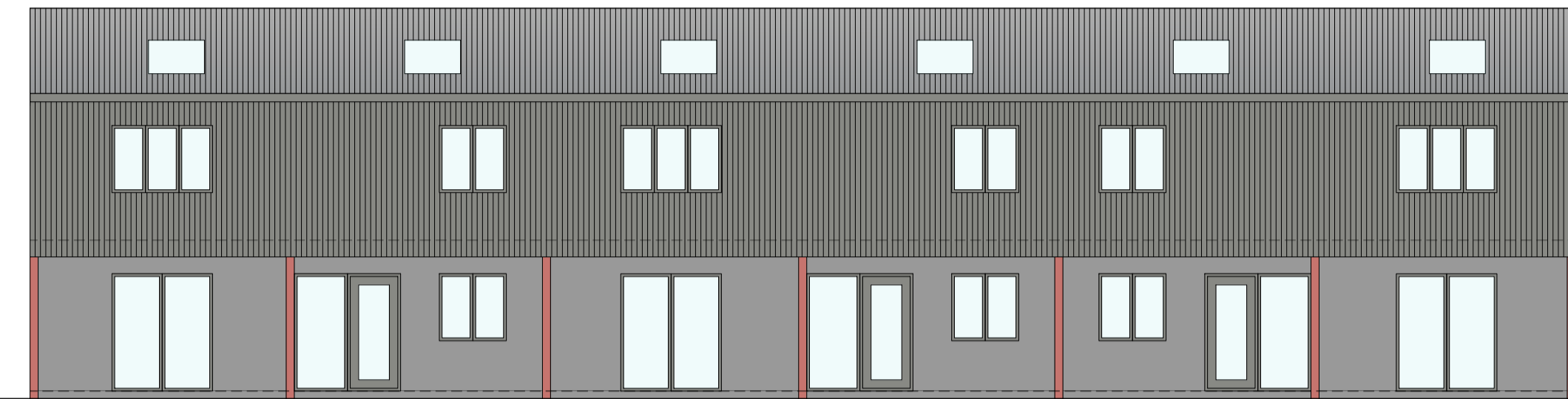
NORTH ELEVATION
1:100



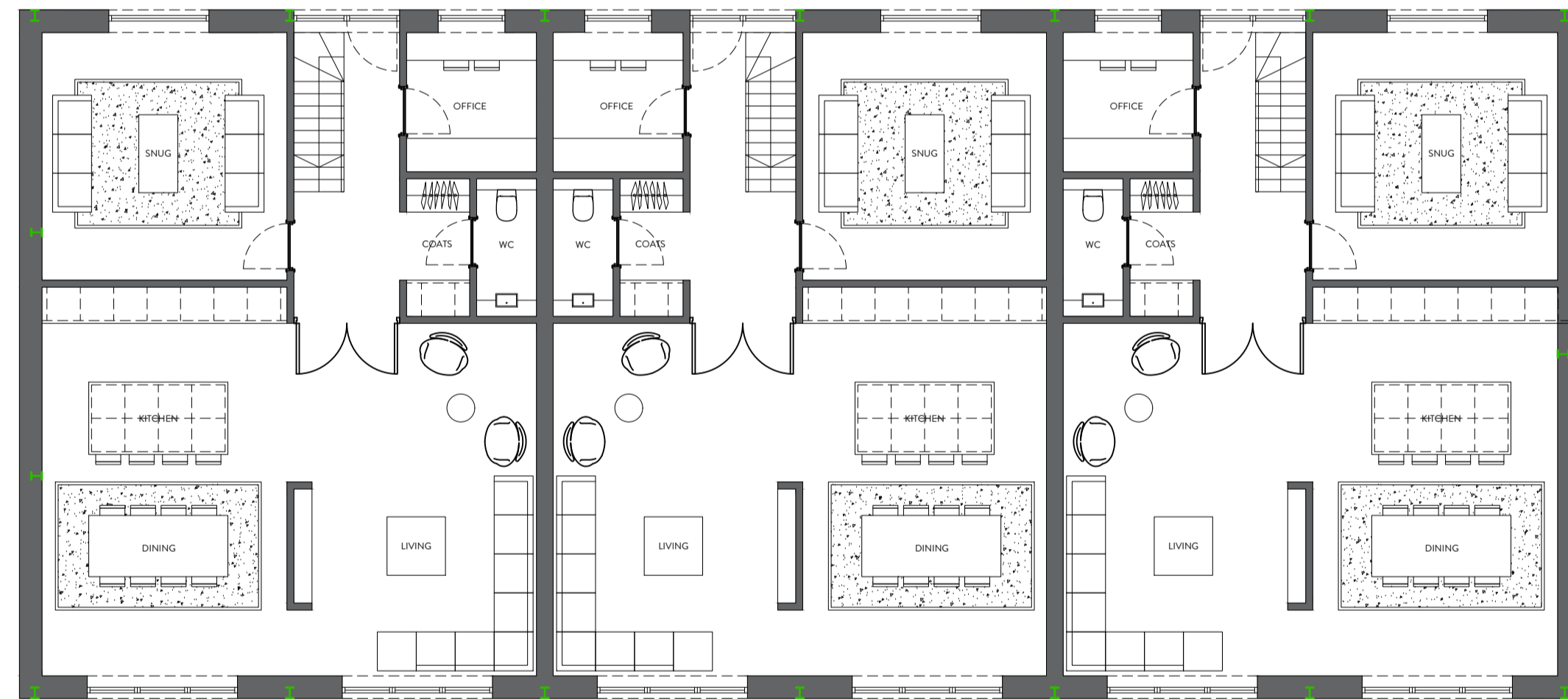
WEST ELEVATION
1:100



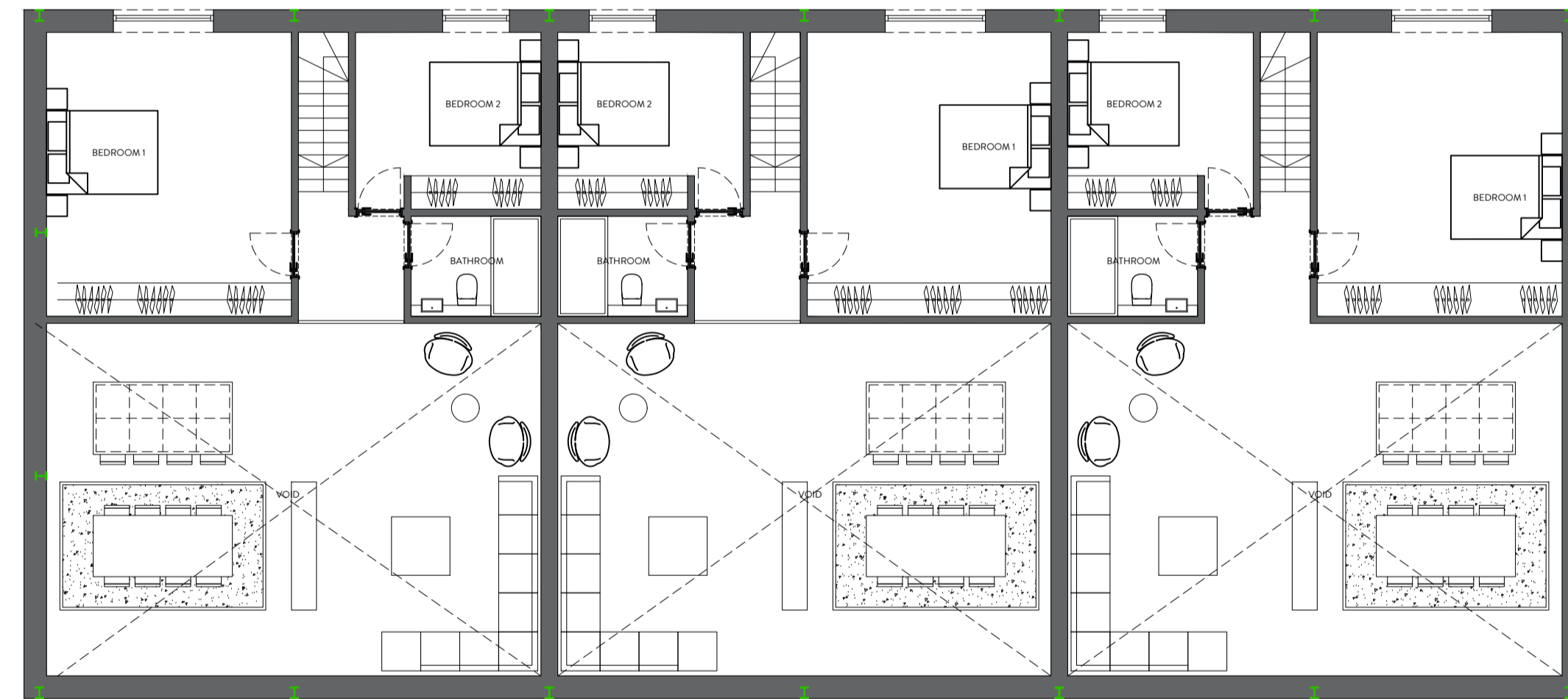
SOUTH ELEVATION
1:100



EAST ELEVATION
1:100



GROUND FLOOR PLAN
1:100

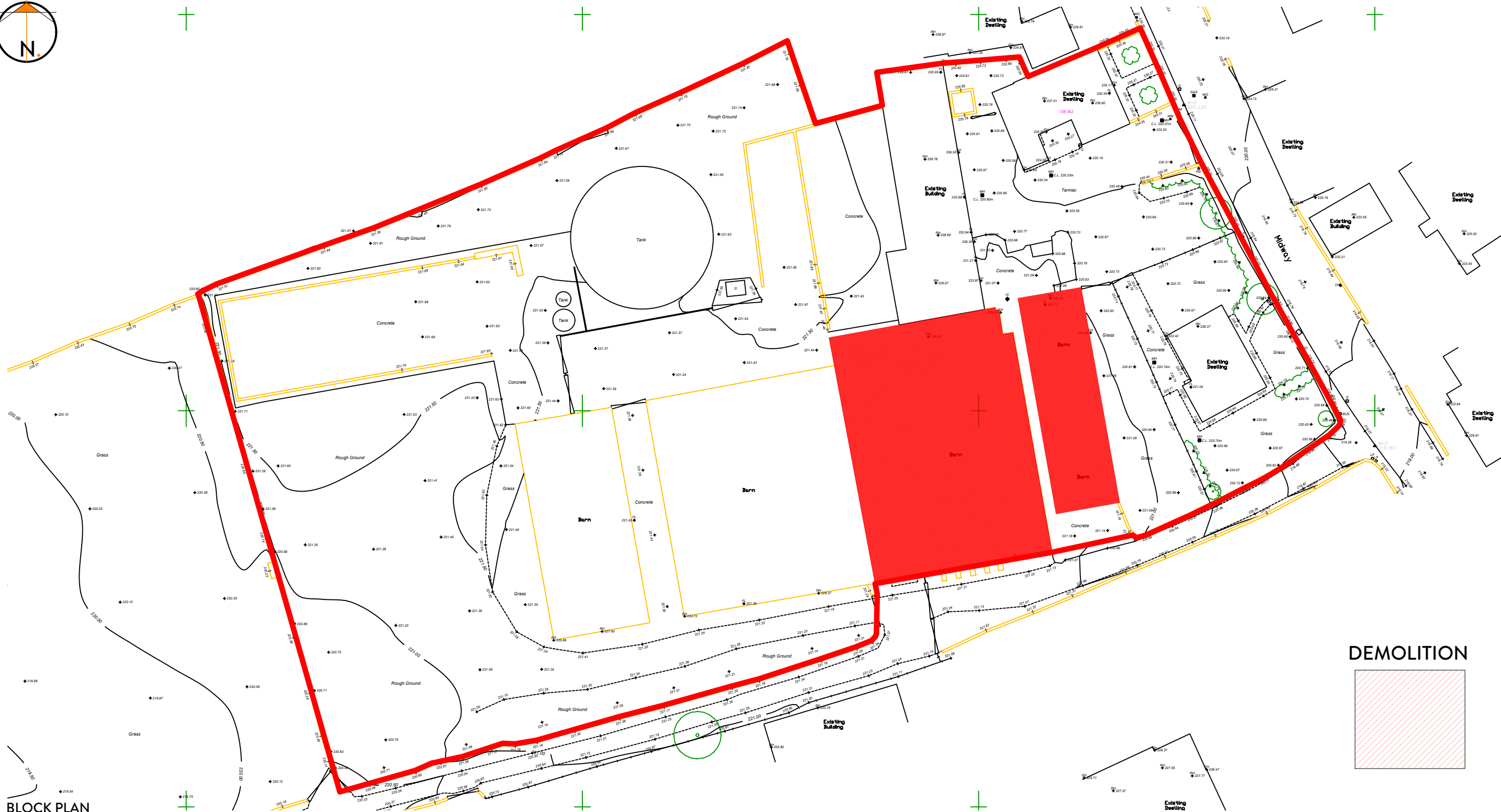
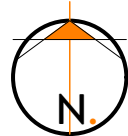


FIRST FLOOR PLAN
1:100



REVISION	DESCRIPTION	DATE	NOTES

STATUS PLANNING DRAWING		PROJECT TITLE FLEECE FARM	
ORANGE DESIGN STUDIO. ARCHITECTURAL PRACTICE <small>hello@orangedesignstudio.co.uk 59A, Huddersfield Road, Mirfield, WF14 8AA orangedesignstudio.co.uk 01924 650930</small>		DRAWING TITLE PROPOSED GA BARN 2	
		SCALE 1:50	PROJECT REFERENCE ODS_24/943
PAPER SIZE A1	DWG NUMBER (20)001	CHECKED JH	REVISION /
CLIENT MR & MRS ROBERTS		COPYRIGHT © ORANGE DESIGN STUDIO LIMITED	



BLOCK PLAN
1:500

2021
NORTHERN
DESIGN AWARDS
FINALIST

2022
Best of Houzz
Service

2021
Home Builder
Awards

BUILD
Architecture
Awards
2019

REVISION	DESCRIPTION	DATE	STATUS

PLANNING DRAWING

ORANGE DESIGN STUDIO.

ARCHITECTURAL PRACTICE

hello@orangedesignstudio.co.uk
59A, Huddersfield Road, Mirfield, WF14 8AA
orangedesignstudio.co.uk
01924 650930

COPYRIGHT © ORANGE DESIGN STUDIO LIMITED

PROJECT TITLE FLEECE FARM			
DRAWING TITLE BLOCK PLAN			
SCALE 1:500	DRAWN CF	CHECKED JH	PROJECT REFERENCE ODS_24/943
PAPER SIZE A3	DWG NUMBER (20)002	DATE 28/02/25	REVISION 1
CLIENT MR & MRS ROBERTS			



Appendix B
Yorkshire Water Sewer Maps

YORKSHIRE WATER PROTECTION OF MAINS AND SERVICES

1. The position of Yorkshire Water Services Ltd (YWS) apparatus shown on the existing mains record drawing(s) indicates the **general** position and nature of our apparatus and the accuracy of this information cannot be guaranteed. Any damage to YWS apparatus as a result of your works may have serious consequences and you will be held responsible for all costs incurred. Prior to commencing major works, the exact location of apparatus must be determined on site, if necessary by excavating trial holes. The actual position of such apparatus and that of service pipes which have not been indicated must be established on site by contacting the Customer Helpline on 0345 124 24 24 for both water and sewerage.
2. The public sewer and water network is lawfully retained in its existing position and the sewerage and water undertaker is entitled to have it remain so without any disturbance. The provisions of section 159 of the Water Industry Act 1991 provides that the undertaker may "inspect, maintain, adjust, repair or alter" the network. Those rights are given to enable the undertaker to perform its statutory duties. Any development of the land or any other action that unacceptably hindered the exercise of those rights would be unlawful. The provisions contained in Section 185 of the Water Industry Act 1991 state that where it is reasonable to do so, a person may require the water supply undertaker to alter or remove a pipe where it is necessary to enable that person to carry out a proposed change of use of the land. The provisions contained in Section 185 also require the person making the request to pay the full cost of carrying out the necessary works.
3. Ground levels over existing YWS apparatus are to be maintained. Sewers in highways will **generally** be laid to give 1200mm of cover from finished ground level working to kerb races, other permanent identification of the limits of the road or to an agreed line and level. Substantial increases or decreases to this 1200mm depth of cover will result in the sewer being re-laid at your expense. Water mains and services will **generally** be laid with a minimum of 750mm depth of cover however some mains and services usually those installed over 50 years ago may have less ground cover.
4. If surface levels are to be decreased / increased significantly the effects on existing water supply apparatus will be carefully considered and if any alterations are necessary, the costs of the alterations will be recharged to you in full. Outlets on fire hydrants must be no more than 300mm below the new levels and all surface boxes must be adjusted as part of the scheme.
5. To enable future repair works to be carried out without hindrance; any pipe, cable, duct, etc. installed parallel to a water main or service pipe should not be installed directly over or within 300mm of a water main or service pipe or 1000mm of a waste water asset. Where a pipe, cable, duct, etc. crosses a main or service it should preferably cross perpendicular or at an angle of no less than 45° and with a minimum clearance of 150mm. These requirements apply to activities within an existing highway and are relevant to the installation of pipes, cables, ducts, etc. up to and including 250mm in diameter (*see illustration below*). Necessary protection measures for installations greater than 250mm in diameter and/or in private land will need to be agreed on an individual basis. Installations within a new development site must comply with the National Joint Utilities Group publication Volume 2: NJUG Guidelines On The Positioning Of Underground Utilities Apparatus For New Development Sites.
6. All excavation works near to YW apparatus should be by hand digging only.
7. Backfilling with a suitable material to a minimum 300mm above YW apparatus is required.
8. Adequate support must be provided where any works pass under YW apparatus.
9. Jointing chambers, lighting columns and other structures must be installed in such a way that future repair or maintenance works to YW apparatus will not be hindered.
10. Apparatus such as; railings, sign posts, etc. must not be placed in such a way that they prevent access to or full operation of controlling valves, hydrants or similar apparatus. YWS surface boxes must not be covered or buried. Any adjustment, alteration or replacement of manhole covers must be agreed on site prior to the commencement of the works with a YWS Inspector who may be contacted via our Call Centre on 0345 124 24 24.
11. Explosives shall not be used within 100 metres of any Yorkshire Water Services apparatus or installations.
12. Vibrating plant should not be used directly over any apparatus. Movement or operation by vehicles or heavy plant is not to be permitted in the immediate vicinity of YWS plant or apparatus unless there has been prior consultation and, if necessary, adequate protection provided without cost to YWS.
13. **Under no circumstances** should thrust boring or similar trenchless techniques commence until the actual position of the Company's mains/services along the proposed route have been confirmed by trial holes.
14. Any alterations to the highway should be notified following the procedures outlined in the New Road and Street Works Act 1991 Code of Practice; Measures Necessary Where Apparatus Is Affected By Major Works (Diversionary Works).
15. You will be held responsible for any damage or loss to YWS apparatus during and after completion of work, caused by yourselves, your servant or agent. Any damage caused or observed to YWS plant or apparatus should be immediately reported to YWS. Should YW incur any costs as a result of non-compliance with the above, all costs will be rechargeable in full.
16. You should ensure that nothing is done on the site to prejudice the safety or operation of YWS employees, plant or apparatus.
17. In accordance with the New Roads and Street Works Act 1991, Chapter 22, Part 3, Section 80. The location of any identified YW asset "*which is not marked, or is wrongly marked, on the records made available*" should be communicated back to Yorkshire Water. The location of the apparatus should be identified on copies of the supplied plans which should be returned to Yorkshire Water (Asset Records Team) with photographic supporting evidence where possible.
18. The Government has decided that responsibility for private sewers serving two or more properties and lateral drains (the section of pipe beyond the boundary of a single property, connecting it to the public sewer) will be transferred to the water companies on Oct 1 2011.















Private pumping stations will also transfer during the period 1 October 2011 – 1 Oct 2016. Records of these assets may not yet be shown on the existing mains record drawing(s). If you encounter any of these assets you must inform Yorkshire Water Services Ltd (YWS).

19. Please note that the information supplied on the enclosed plans is reproduced from Ordnance Survey material with the permission of the 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 AC0000857457.
20. This information is for guidance only and the position and depth of any YW apparatus is approximate only. Likewise, the nature and condition of any YW apparatus cannot be guaranteed. YW has no responsibility for recording the locations of privately owned apparatus. As of 1 October 2011, there may be some lateral drains and/or public sewers which are not documented on YW records but may still be present. For the avoidance of doubt, this information is not a substitute for appropriate professional and/or legal advice. YW accepts no responsibility for any inaccuracy or omissions in this information. The actual position of YW apparatus must be determined on site by excavating trial holes by hand. YW requires a minimum of two working days' written notice of the intention to excavate any trial holes before any excavation can be undertaken. If there are any queries in this respect please contact Yorkshire Water on 0345 124 24 24.

Property Identifier










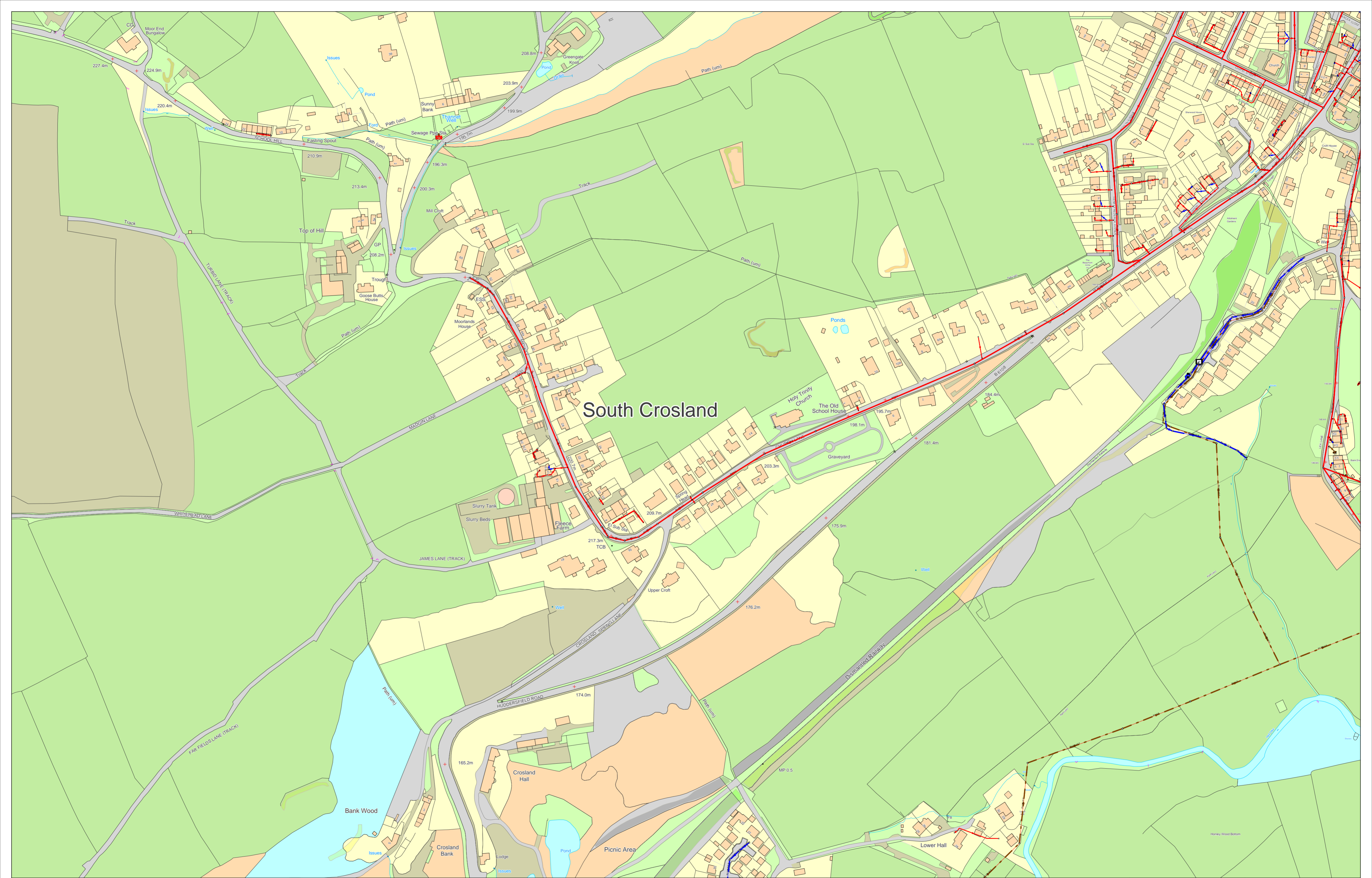
Sewer Legend

	Combined Sewer		S24 Combined Sewer
	Surface Water Sewer		S24 Surface Water Sewer
	Foul Sewer		S24 Foul Sewer
	Section 104 Sewer		Rising Main
	Overflow Sewer		Abandoned Sewer
	Manhole		Syphone Sewer & Vacuum Sewer
	Pumping Station		Public Sewer Treatment Works

Please note that the direction of flow arrows may not always appear depending on the scale of the map.

Water Legend

	Water Main 4" and below
	Water Main 4" and above
	Raw Water Main
	Private Water Main
	Fire Hydrant
	Pumping Station
	The assets in this area are the responsibility of another Water Undertaker



South Crosland

411455 : 412601

Map Name : SE1012SE

Title



Yorkshire Water,
 PO Box 500,
 Halifax Road,
 Bradford BD6 2LZ
 Contact Name :
 Contact Tel :

Notes

(Ody) COPYRIGHT STATEMENTS: Reproduced by permission of Ordnance Survey on behalf of HMSO © Crown copyright and database 2024. All rights reserved Ordnance Survey Licence number: AC0000813445

Partial Key

- Foul Sewer = F
- Combined Sewer = C
- Surface Water Sewer = SW
- Trade Sewer = TD
- Partially Separate = PS

Date Req : 31/07/2025, 12:41:43

Source : Sewer Network Enquiry

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.

Date Gen : 31/07/2025, 12:42:01



Appendix C
CCTV Drainage Survey

TCM DRAIN CARE

CCTV Inspection Report

View via iTouch Live 

Your full report,
including the video
is only a click away
download or
view online now.



**MIDWAY
SOUTH CROSLAND
HD4 7DA**

16/10/2025

Job Number: 124

TCM Draincare Ltd

94 Gloucester Avenue, Silsden, Keighley, West Yorkshire, BD20 0BY
Tel: 07496 092 461



Project Information

TCM Draincare Ltd
94 Gloucester Avenue
Silsden
Keighley
West Yorkshire
BD20 0BY

Job Number
124

Surveyed by (Operator)
TOM

Base Unit
L6G4NP9JYT

Date
16/10/2025

Client Details:

ANDREW MOSELEY ASSOCIATES LTD

Site Details:

MIDWAY
SOUTH CROSLAND
HD4 7DA

Contractor Details:












TCM Draincare Ltd
94 Gloucester Avenue
Silsden
Keighley
West Yorkshire
BD20 0BY

Office Contact Number: 07496 092 461

Purpose of Survey:






Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------

Report Contents

Page 1	Cover Page	
Page 2	Job Overview	
Page 3	Contents Page	
Page 5	Site Drawings	
Page 7	Site Photos	
Page 9	Job Summary	
Page 12	Survey Run Sheet(Survey 1 - MH1 to MH 1 B1)	View via iTouch Live 
Page 14	Survey Run Sheet(Survey 2 - MH 1 B3 to UNKNOWN)	View via iTouch Live 
Page 16	Survey Run Sheet(Survey 3 - MH1 to B2)	View via iTouch Live 
Page 18	Survey Run Sheet(Survey 4 - MH5 B1 to UNKNOWN)	View via iTouch Live 
Page 20	Survey Run Sheet(Survey 5 - MH5 to UNKNOWN)	View via iTouch Live 
Page 22	Survey Run Sheet(Survey 6 - MH 5 B2 to UNKNOWN)	View via iTouch Live 
Page 24	Survey Run Sheet(Survey 7 - MH1 to MH2)	View via iTouch Live 
Page 26	Survey Run Sheet(Survey 8 - MH2 to MH1)	View via iTouch Live 
Page 28	Survey Run Sheet(Survey 9 - MH2 B1 to UNKNOWN)	View via iTouch Live 
Page 30	Survey Run Sheet(Survey 10 - MH2 to MH3)	View via iTouch Live 
Page 33	Survey Run Sheet(Survey 11 - MH3 B1 to UNKNOWN)	View via iTouch Live 

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------

Report Contents

Page 35	Survey Run Sheet(Survey 12 - MH3 to MH4)	View via iTouch Live 
Page 37	Survey Run Sheet(Survey 13 - MH4 B1 to UNKNOWN)	View via iTouch Live 
Page 39	Survey Run Sheet(Survey 14 - MH4 to UNKNOWN)	View via iTouch Live 
Page 41	Survey Run Sheet(Survey 15 - MH to UNKNOWN)	View via iTouch Live 
Page 44	Survey Run Sheet(Survey 16 - MH to UNKNOWN)	View via iTouch Live 
Page 46	Grade Defect Descriptions	

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------







This sketch is not to scale and does not represent the exact routing of the drainage system



Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------

This sketch is not to scale and does not represent the exact routing of the drainage system



Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
 <p>Manhole / Access Point: MH2 Location</p>		 <p>Manhole / Access Point: MH3 Location</p>	
 <p>Manhole / Access Point: MH5 Location</p>		 <p>Manhole / Access Point: MH4 Location</p>	
 <p>Manhole / Access Point: MH1 Location</p>		 <p>Manhole / Access Point: MH Location</p>	

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
-------------------	-------------------------------	-------------------------	--------------------



Other Site Photos: Mh off boundary



Other Site Photos: RW pipe on to ground



Other Site Photos: SVP



Other Site Photos: Cesspit



Other Site Photos: RW pipe on to ground



Other Site Photos: Re pipe

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------

Job Information

Total Distance Surveyed: **125.54 meters**
 Engineer: **TOM**
 Number of Surveys: **16**
 Number of Surveys grade 4 or above: **0**

Job Comments

WHILST CARRYING OUT THE CCTV OF THE SITE WE FOUND THAT ALL MANHOLES FROM 1 TO 5 ARE FOR THE FOUL SYSTEM, THE DRAINS FROM THE COW SHED GO TO A CESSPIT WHICH IS THEN PUMPED TO A SLURRY TANK.

LINES WHICH ENTER MANHOLE 5 ARE FROM GULLYS WHICH ARE LOCATED IN THE OUT BUILDINGS, WE ALSO NOTED LINE THERE APPEARS TO BE A DISUED DRAIN GOING TO MANHOLE 1.

THE SURVEY HIGHLIGHTED MULTIPLE CRACKS AND DEFECTS WITHIN THE DRAINAGE SYTEM, WE WOULD RECOMEND THAT ALL THE DRAINS ARE REPLACED WITH NEW 150MM PVC PIPE UPSTREAM FROM MANHOLE 4.

Section 1 Overview (16/10/2025)

Manholes: **MH1 to MH 1 B1**
 Pipe Length: **11.48 metres**
 Structural Grade: **0**
 Service Grade: **0**
 Material: **Vitrified clay**
 Pipe Size: **150mm**
 Use: **Foul**

Section 2 Overview (16/10/2025)

Manholes: **MH 1 B3 to UNKNOWN**
 Pipe Length: **2.98 metres**
 Structural Grade: **0**
 Service Grade: **0**
 Material: **Vitrified clay**
 Pipe Size: **150mm**
 Use: **Foul**

Section 3 Overview (16/10/2025)

Manholes: **MH1 to B2**
 Pipe Length: **2.74 metres**
 Structural Grade: **0**
 Service Grade: **0**
 Material: **Polyvinyl chloride**
 Pipe Size: **100mm**
 Use: **Foul**

Section 4 Overview (16/10/2025)

Manholes: **MH5 B1 to UNKNOWN**
 Pipe Length: **0.9 metres**
 Structural Grade: **0**
 Service Grade: **0**
 Material: **Polyvinyl chloride**
 Pipe Size: **100mm**
 Use: **Foul**

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------

Section 5 Overview (16/10/2025)

Manholes: **MH5 to UNKNOWN**
Pipe Length: **3.81 metres**
Structural Grade: **0**
Service Grade: **0**
Material: **Polyvinyl chloride**
Pipe Size: **100mm**
Use: **Foul**

Section 6 Overview (16/10/2025)

Manholes: **MH 5 B2 to UNKNOWN**
Pipe Length: **15.57 metres**
Structural Grade: **0**
Service Grade: **0**
Material: **Polyvinyl chloride**
Pipe Size: **100mm**
Use: **Foul**

Section 7 Overview (16/10/2025)

Manholes: **MH1 to MH2**
Pipe Length: **0.26 metres**
Structural Grade: **0**
Service Grade: **0**
Material: **Vitrified clay**
Pipe Size: **150mm**
Use: **Foul**

Section 8 Overview (16/10/2025)

Manholes: **MH2 to MH1**
Pipe Length: **8.45 metres**
Structural Grade: **0**
Service Grade: **0**
Material: **Vitrified clay**
Pipe Size: **150mm**
Use: **Foul**

Section 9 Overview (16/10/2025)

Manholes: **MH2 B1 to UNKNOWN**
Pipe Length: **5.02 metres**
Structural Grade: **0**
Service Grade: **0**
Material: **Vitrified clay**
Pipe Size: **150mm**
Use: **Foul**

Section 10 Overview (16/10/2025)

Manholes: **MH2 to MH3**
Pipe Length: **7.6 metres**
Structural Grade: **3**
Service Grade: **0**
Material: **Vitrified clay**
Pipe Size: **150mm**
Use: **Foul**

LINE HAS MULTIPLE DEFECTS THROUGHOUT

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------

Section 11 Overview (16/10/2025)

Manholes: **MH3 B1 to UNKNOWN**
 Pipe Length: **26.45 metres**
 Structural Grade: **0**
 Service Grade: **0**
 Material: **Vitrified clay**
 Pipe Size: **100mm**
 Use: **Foul**

Section 12 Overview (16/10/2025)

Manholes: **MH3 to MH4**
 Pipe Length: **7.05 metres**
 Structural Grade: **0**
 Service Grade: **0**
 Material: **Vitrified clay**
 Pipe Size: **100mm**
 Use: **Foul**

Section 13 Overview (16/10/2025)

Manholes: **MH4 B1 to UNKNOWN**
 Pipe Length: **6.45 metres**
 Structural Grade: **1**
 Service Grade: **0**
 Material: **Vitrified clay**
 Pipe Size: **100mm**
 Use: **Foul**

Section 14 Overview (16/10/2025)

Manholes: **MH4 to UNKNOWN**
 Pipe Length: **5.62 metres**
 Structural Grade: **0**
 Service Grade: **0**
 Material: **Vitrified clay**
 Pipe Size: **150mm**
 Use: **Foul**

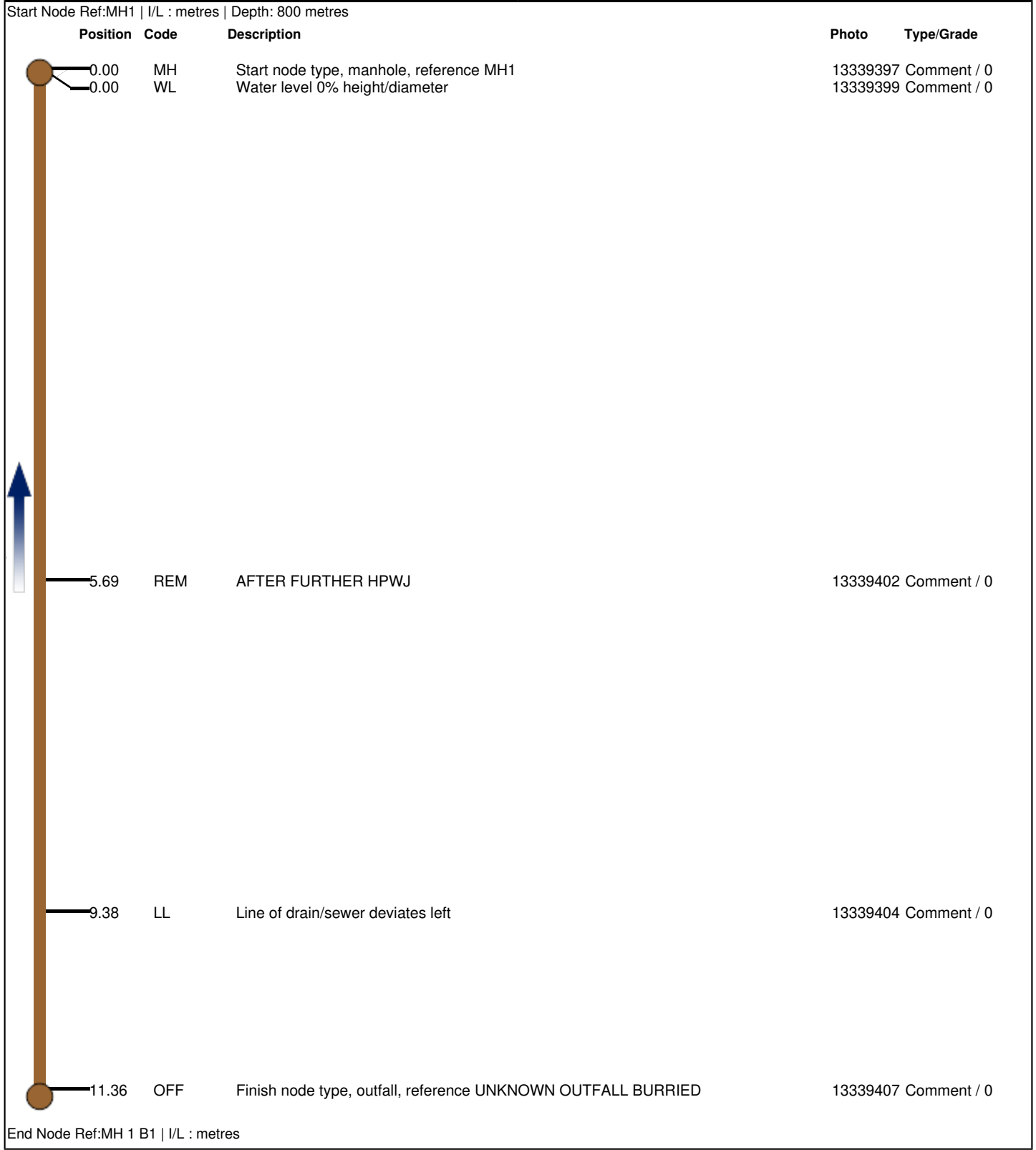
Section 15 Overview (16/10/2025)

Manholes: **MH to UNKNOWN**
 Pipe Length: **15.45 metres**
 Structural Grade: **0**
 Service Grade: **0**
 Material: **Vitrified clay**
 Pipe Size: **150mm**
 Use: **Foul**

Section 16 Overview (16/10/2025)

Manholes: **MH to UNKNOWN**
 Pipe Length: **5.71 metres**
 Structural Grade: **0**
 Service Grade: **0**
 Material: **Vitrified clay**
 Pipe Size: **150mm**
 Use: **Foul**

Surveyed by (Operator) TOM	Job Number 124	Pipe Length Reference(PLR) MH 1 B1 X	Date 16/10/2025	Pre Cleaned HPWJ to clean prior to survey
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/0	Base Unit L6G4NP9JYT	Section Number 1
Road MIDWAY Place SOUTH CROSLAND Location HD4 7DA		Division District Location Details		
Purpose Duty Foul Catchment	Shape/Size 150mm Material Vitrified clay Category	Start Node MH1 End Node MH 1 B1 Total length 11.48 metres		
Scale 1:0.60 Direction Upstream		View via iTouch Live Download		



Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------



Start node type, manhole, reference MH1



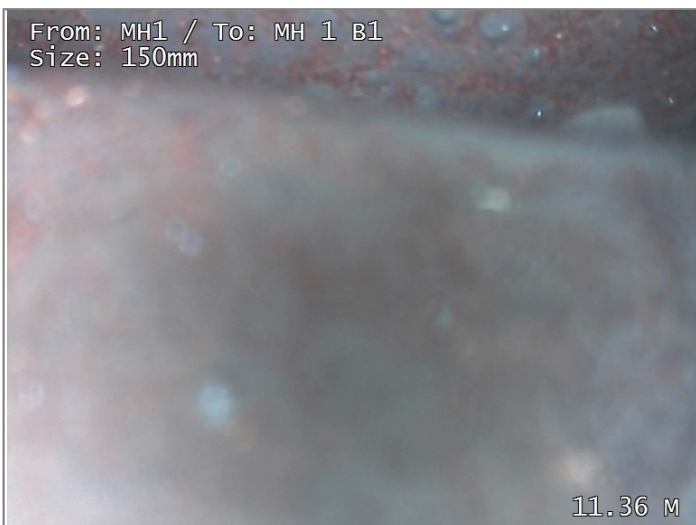
Water level 0% height/diameter



AFTER FURTHER HPWJ



Line of drain/sewer deviates left



Finish node type, outfall, reference UNKNOWN OUTFALL BURRIED

Surveyed by (Operator) TOM	Job Number 124	Pipe Length Reference(PLR) UNKNOWN X	Date 16/10/2025	Pre Cleaned HPWJ to clean prior to survey
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/0	Base Unit L6G4NP9JYT	Section Number 2

Road MIDWAY Place SOUTH CROSLAND Location HD4 7DA	Division District Location Details
--	--

Purpose Duty Foul Catchment	Shape/Size 150mm Material Vitrified clay Category	Start Node MH 1 B3 End Node UNKNOWN Total length 2.98 metres
--	---	---

Scale 1:0.16 Direction Upstream	View via iTouch Live	Download
--	--------------------------------------	--------------------------

Start Node Ref:MH 1 B3 | I/L : metres | Depth: 800 metres

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH 1 B3	13339410	Comment / 0
0.00	WL	Water level 0% height/diameter	13339411	Comment / 0
2.98	GYF	Finish node type, gully, reference GULLY	13339415	Comment / 0

End Node Ref:UNKNOWN | I/L : metres

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------



Start node type, manhole, reference MH 1 B3



Water level 0% height/diameter



Finish node type, gully, reference GULLY

Surveyed by (Operator) TOM	Job Number 124	Pipe Length Reference(PLR) B2 X	Date 16/10/2025	Pre Cleaned HPWJ to clean prior to survey
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/0	Base Unit L6G4NP9JYT	Section Number 3

Road MIDWAY Place SOUTH CROSLAND Location HD4 7DA	Division District Location Details
--	--

Purpose Duty Foul Catchment	Shape/Size 100mm Material Polyvinyl chloride Category	Start Node MH1 End Node B2 Total length 2.74 metres
--	---	--

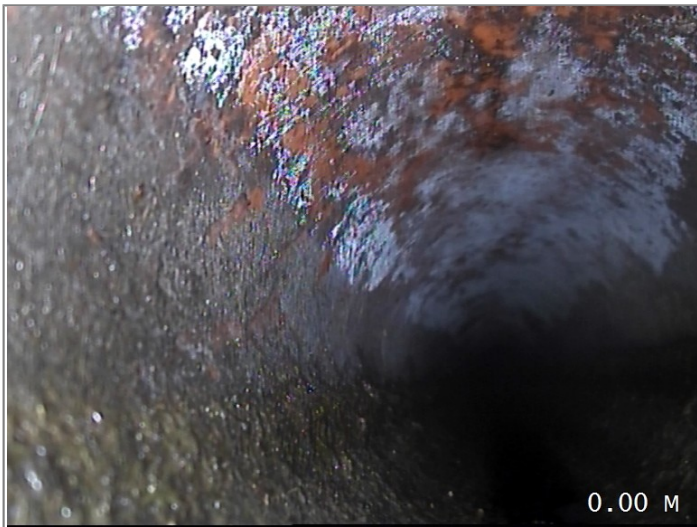
Scale 1:0.14 Direction Upstream	View via iTouch Live	Download
--	--------------------------------------	--------------------------

Start Node Ref:MH1 | I/L : metres | Depth: 800 metres

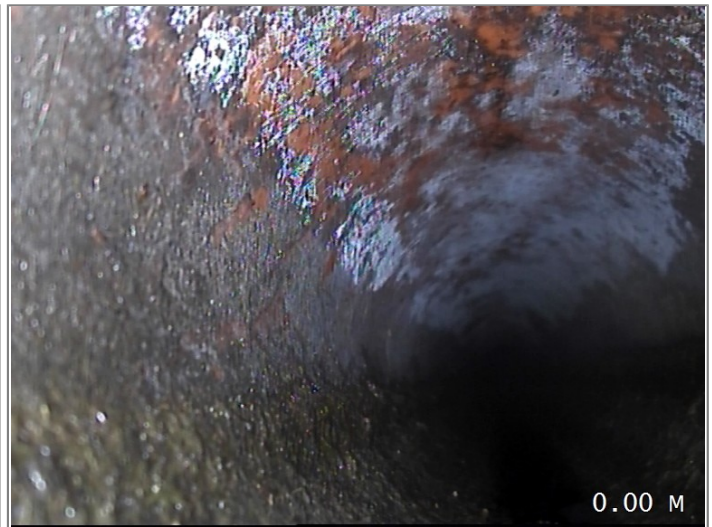
Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH1	13339418	Comment / 0
0.00	WL	Water level 0% height/diameter	13339421	Comment / 0
2.74	MHF	Finish node type, manhole, reference MH5	13339425	Comment / 0

End Node Ref:B2 | I/L : metres

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------



Start node type, manhole, reference MH1



Water level 0% height/diameter



Finish node type, manhole, reference MH5

Surveyed by (Operator) TOM	Job Number 124	Pipe Length Reference(PLR) UNKNOWN X	Date 16/10/2025	Pre Cleaned Not Cleaned
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/0	Base Unit L6G4NP9JYT	Section Number 4

Road MIDWAY Place SOUTH CROSLAND Location HD4 7DA	Division District Location Details
--	--

Purpose Duty Foul Catchment	Shape/Size 100mm Material Polyvinyl chloride Category	Start Node MH5 B1 End Node UNKNOWN Total length 0.9 metres
--	---	---

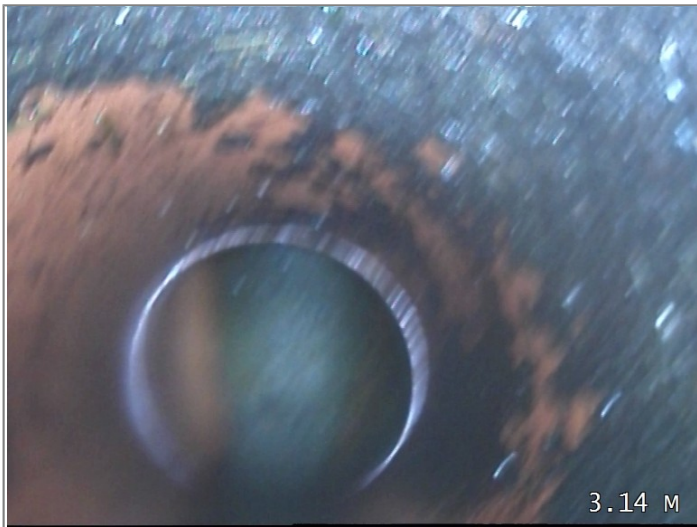
Scale 1:0.05 Direction Upstream	View via iTouch Live Download
--	---

Start Node Ref:MH5 B1 | I/L : metres | Depth: 800 metres

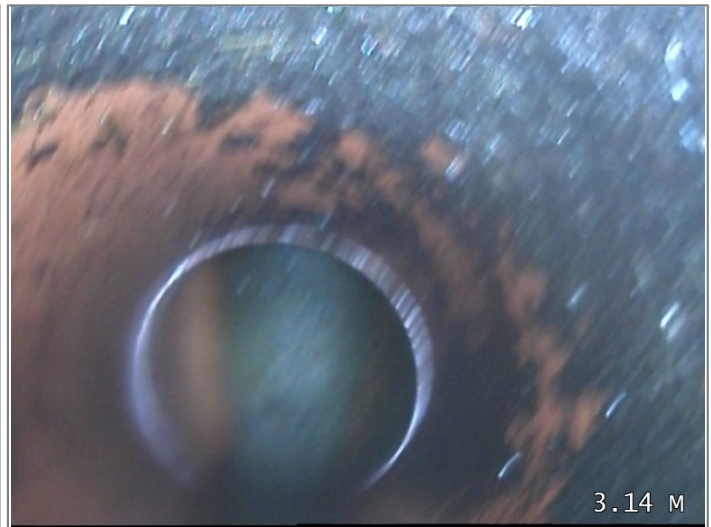
Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH5 B1	13339428	Comment / 0
0.00	WL	Water level 0% height/diameter	13339430	Comment / 0
0.90	GYF	Finish node type, gully, reference GULLY	13339431	Comment / 0

End Node Ref:UNKNOWN | I/L : metres

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------



Start node type, manhole, reference MH5 B1



Water level 0% height/diameter



Finish node type, gully, reference GULLY

Surveyed by (Operator) TOM	Job Number 124	Pipe Length Reference(PLR) UNKNOWN X	Date 16/10/2025	Pre Cleaned Not Cleaned
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/0	Base Unit L6G4NP9JYT	Section Number 5

Road MIDWAY Place SOUTH CROSLAND Location HD4 7DA	Division District Location Details
--	--

Purpose Duty Foul Catchment	Shape/Size 100mm Material Polyvinyl chloride Category	Start Node MH5 End Node UNKNOWN Total length 3.81 metres
--	---	---

Scale 1:0.20 Direction Upstream	View via iTouch Live	Download
--	--------------------------------------	--------------------------

Start Node Ref:MH5 | I/L : metres | Depth: 800 metres

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH5	13339433	Comment / 0
0.00	WL	Water level 0% height/diameter	13339435	Comment / 0
3.81	GYF	Finish node type, gully, reference GULLY	13339437	Comment / 0

End Node Ref:UNKNOWN | I/L : metres

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------



Start node type, manhole, reference MH5

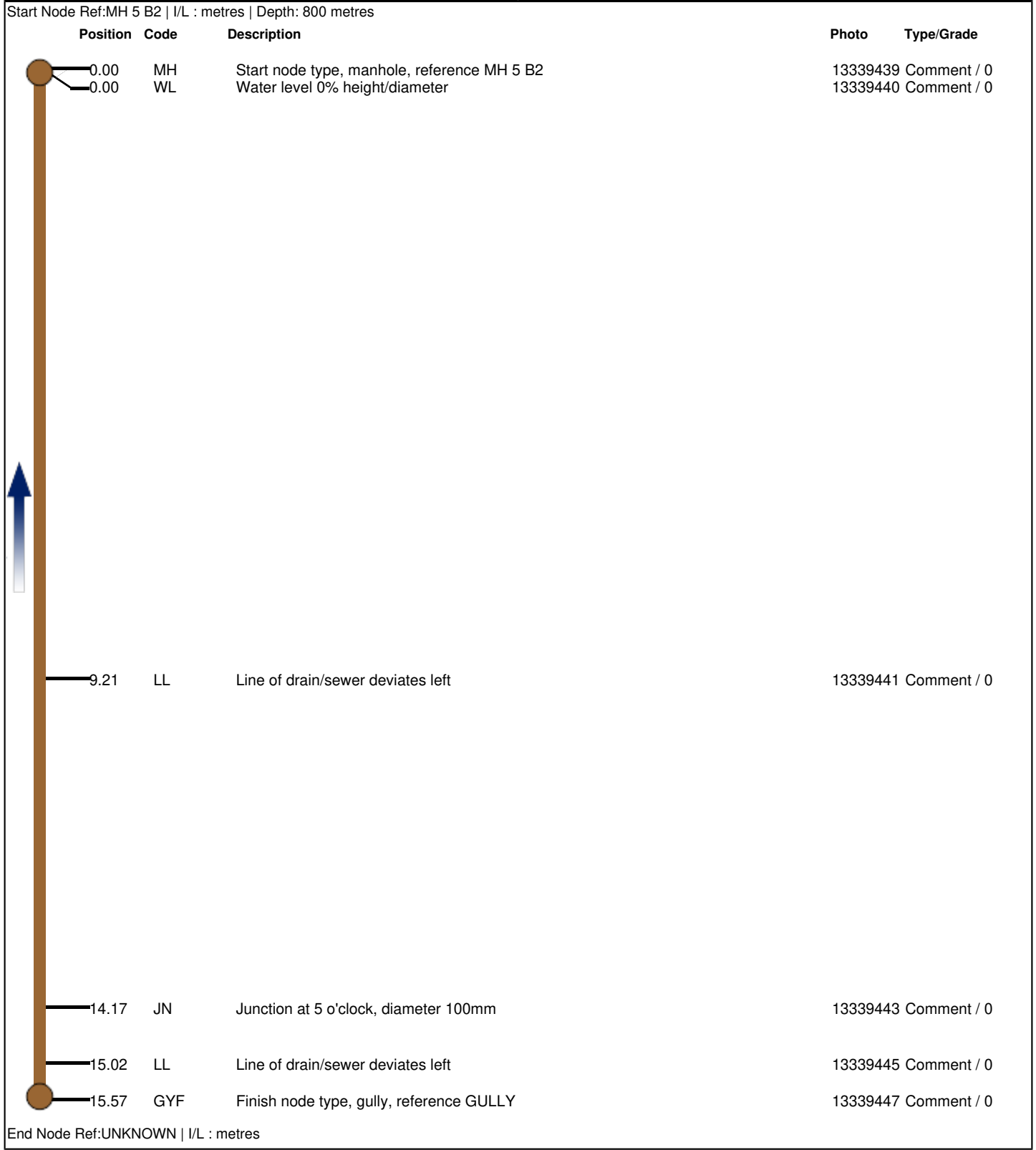


Water level 0% height/diameter



Finish node type, gully, reference GULLY

Surveyed by (Operator) TOM	Job Number 124	Pipe Length Reference(PLR) UNKNOWN X	Date 16/10/2025	Pre Cleaned Not Cleaned
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/0	Base Unit L6G4NP9JYT	Section Number 6
Road MIDWAY Place SOUTH CROSLAND Location HD4 7DA		Division District Location Details		
Purpose Duty Foul Catchment	Shape/Size 100mm Material Polyvinyl chloride Category	Start Node MH 5 B2 End Node UNKNOWN Total length 15.57 metres		
Scale 1:0.82 Direction Upstream		View via iTouch Live Download		



Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------



Start node type, manhole, reference MH 5 B2



Water level 0% height/diameter



Line of drain/sewer deviates left



Junction at 5 o'clock, diameter 100mm



Line of drain/sewer deviates left



Finish node type, gully, reference GULLY

Surveyed by (Operator) TOM	Job Number 124	Pipe Length Reference(PLR) MH1 X	Date 16/10/2025	Pre Cleaned HPWJ to clean prior to survey
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/0	Base Unit L6G4NP9JYT	Section Number 7
Road MIDWAY Place SOUTH CROSLAND Location HD4 7DA		Division District Location Details		
Purpose Duty Foul Catchment	Shape/Size 150mm Material Vitrified clay Category	Start Node MH1 End Node MH2 Total length 0.26 metres		
Scale 1:0.01 Direction Downstream		View via iTouch Live Download		

Start Node Ref:MH1 | I/L : metres | Depth: 800 metres

Position	Code	Description	Photo	Type/Grade
	0.00 SA	Survey abandoned - Remark: SILT	13339455	Comment / 0
	0.00 MH	Start node type, manhole, reference MH1	13339450	Comment / 0
	0.00 WL	Water level 0% height/diameter	13339452	Comment / 0

End Node Ref:MH2 | I/L : metres | Depth: 430 metres

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------



Survey abandoned - Remark: SILT



Start node type, manhole, reference MH1



Water level 0% height/diameter

Surveyed by (Operator) TOM	Job Number 124	Pipe Length Reference(PLR) MH1 X	Date 16/10/2025	Pre Cleaned HPWJ to clean prior to survey
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/0	Base Unit L6G4NP9JYT	Section Number 8

Road MIDWAY Place SOUTH CROSLAND Location HD4 7DA	Division District Location Details
--	--

Purpose Duty Foul Catchment	Shape/Size 150mm Material Vitrified clay Category	Start Node MH2 End Node MH1 Total length 8.45 metres
--	---	---

Scale 1:0.44 Direction Upstream	View via iTouch Live	Download
--	--------------------------------------	--------------------------

Start Node Ref:MH2 | I/L : metres | Depth: 430 metres

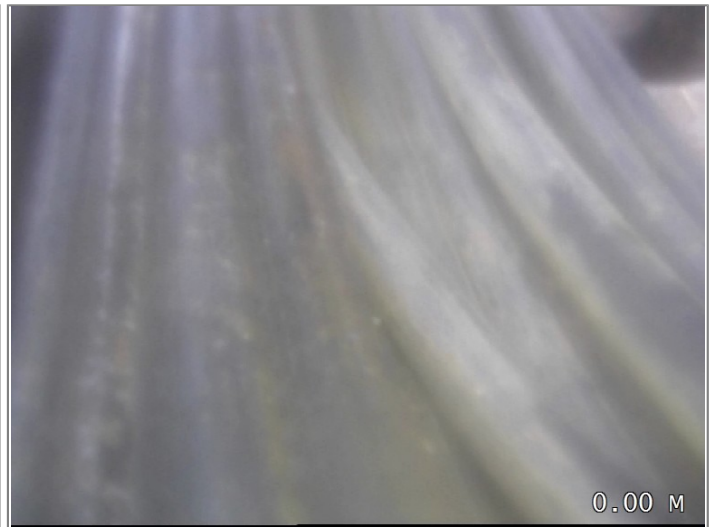
Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH2	13339456	Comment / 0
0.00	WL	Water level 0% height/diameter	13339457	Comment / 0
8.45	MHF	Finish node type, manhole, reference MH1	13339460	Comment / 0

End Node Ref:MH1 | I/L : metres | Depth: 800 metres

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------



Start node type, manhole, reference MH2

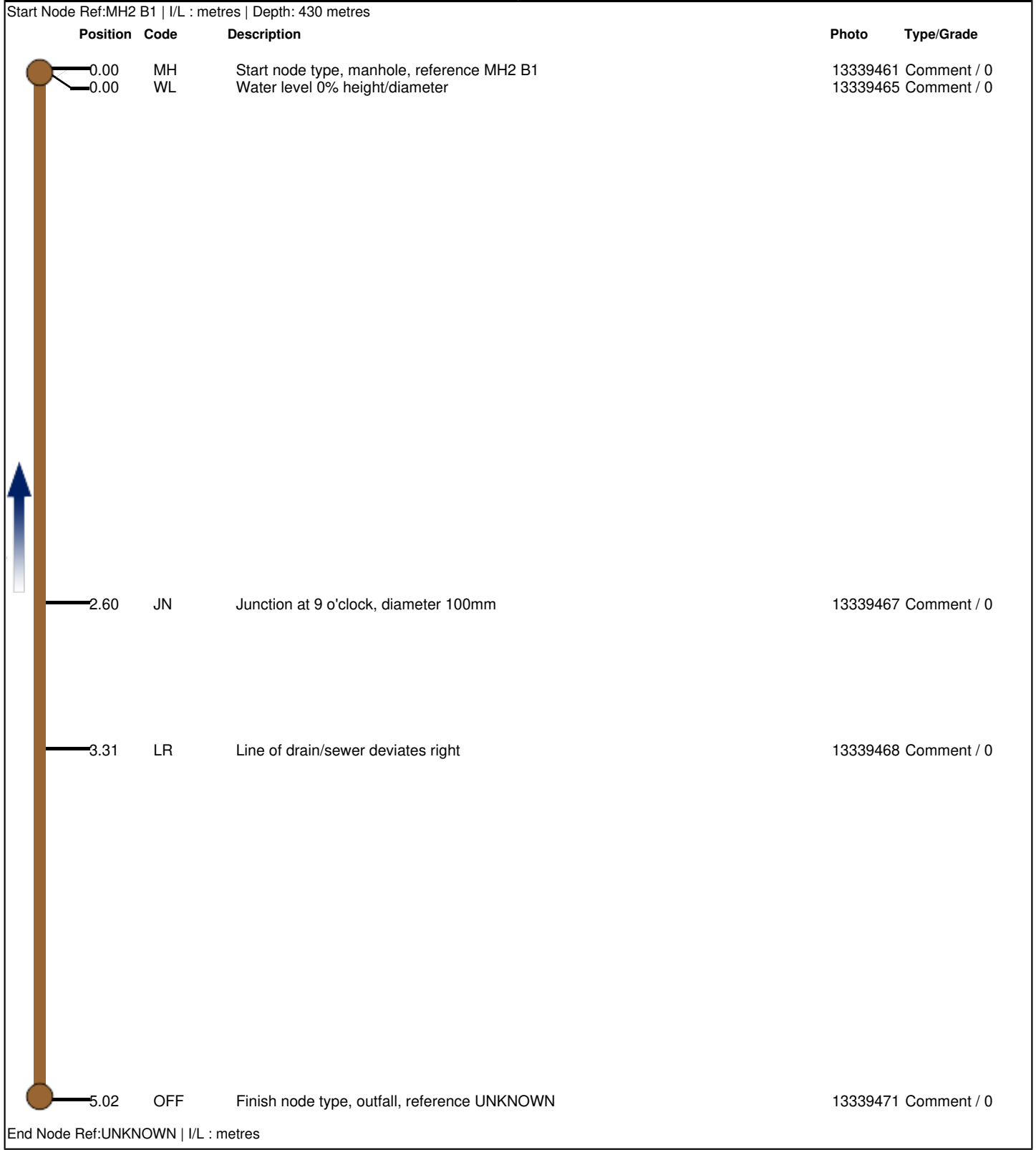


Water level 0% height/diameter



Finish node type, manhole, reference MH1

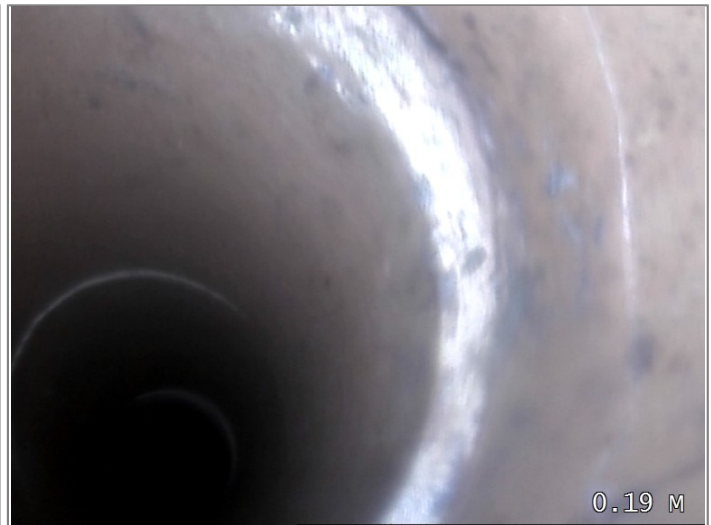
Surveyed by (Operator) TOM	Job Number 124	Pipe Length Reference(PLR) UNKNOWN X	Date 16/10/2025	Pre Cleaned HPWJ to clean prior to survey
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/0	Base Unit L6G4NP9JYT	Section Number 9
Road MIDWAY Place SOUTH CROSLAND Location HD4 7DA		Division District Location Details		
Purpose Duty Foul Catchment	Shape/Size 150mm Material Vitrified clay Category	Start Node MH2 B1 End Node UNKNOWN Total length 5.02 metres		
Scale 1:0.26 Direction Upstream		View via iTouch Live Download		



Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------



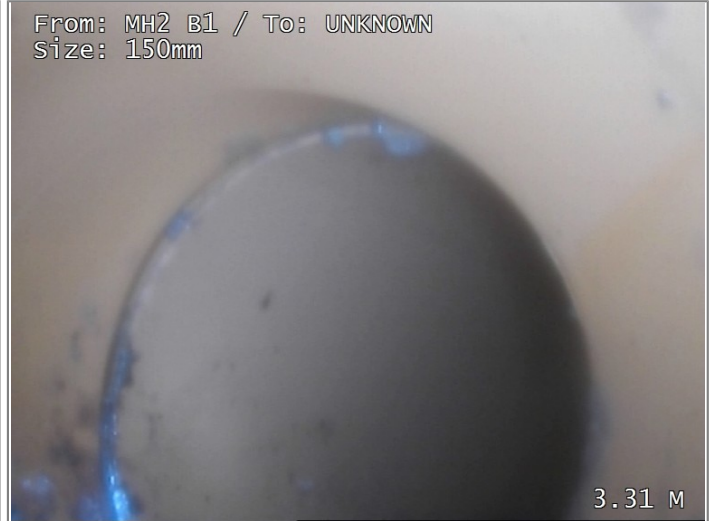
Start node type, manhole, reference MH2 B1



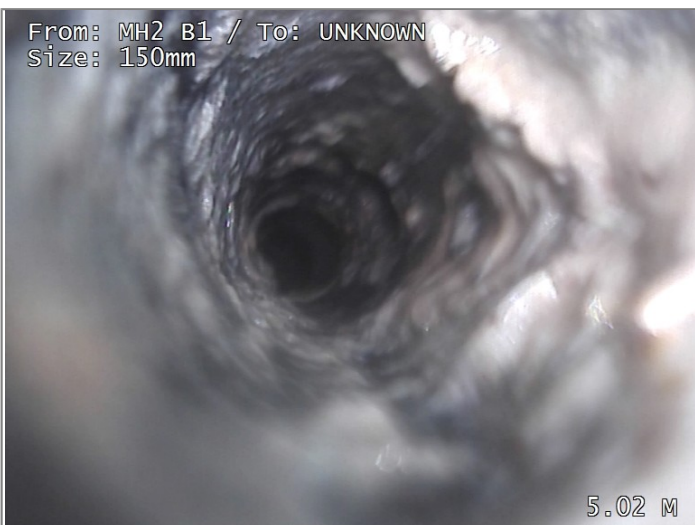
Water level 0% height/diameter



Junction at 9 o'clock, diameter 100mm




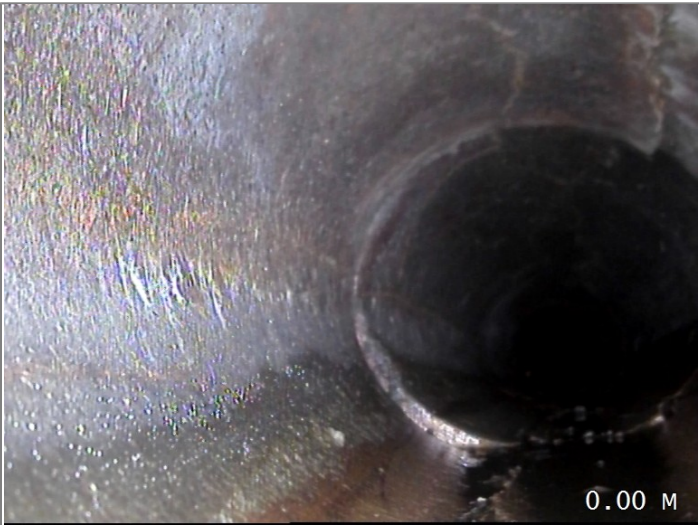




Line of drain/sewer deviates right



Finish node type, outfall, reference UNKNOWN

Surveyed by (Operator) TOM	Job Number 124	Pipe Length Reference(PLR) MH2 X	Date 16/10/2025	Pre Cleaned HPWJ to clean prior to survey
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/3	Base Unit L6G4NP9JYT	Section Number 10
Road MIDWAY Place SOUTH CROSLAND Location HD4 7DA		Division District Location Details		
Purpose Duty Foul Catchment	Shape/Size 150mm Material Vitrified clay Category	Start Node MH2 End Node MH3 Total length 7.6 metres		
Scale 1:0.40 Direction Downstream		View via iTouch Live Download		



Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
 <p>0.00 M</p> <p>Start node type, manhole, reference MH2</p>	 <p>0.00 M</p> <p>Water level 0% height/diameter</p>		
<p>From: MH2 / To: MH3 Size: 150mm</p>  <p>0.60 M</p> <p>Cracks multiple from 12 to 12 o'clock</p>	<p>From: MH2 / To: MH3 Size: 150mm</p>  <p>0.98 M</p> <p>Junction at 3 o'clock, diameter 100mm</p>		
<p>From: MH2 / To: MH3 Size: 150mm</p>  <p>1.43 M</p> <p>Cracks multiple from 12 to 12 o'clock</p>	<p>From: MH2 / To: MH3 Size: 150mm</p>  <p>2.19 M</p> <p>Water level 10% height/diameter</p>		

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------



Junction at 9 o'clock, diameter 100mm



Finish node type, manhole, reference MH3

Surveyed by (Operator) TOM	Job Number 124	Pipe Length Reference(PLR) UNKNOWN X	Date 16/10/2025	Pre Cleaned HPWJ to clean prior to survey
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/0	Base Unit L6G4NP9JYT	Section Number 11

Road MIDWAY Place SOUTH CROSLAND Location HD4 7DA	Division District Location Details
--	--







Purpose Duty Foul Catchment	Shape/Size 100mm Material Vitrified clay Category	Start Node MH3 B1 End Node UNKNOWN Total length 26.45 metres
--	---	---

Scale 1:1.39 Direction Upstream	View via iTouch Live	Download
--	--------------------------------------	--------------------------

Start Node Ref:MH3 B1 | I/L : metres | Depth: 630 metres

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH3 B1	13339886	Comment / 0
0.00	WL	Water level 0% height/diameter	13339888	Comment / 0
14.69	JN	Junction at 12 o'clock, diameter 100mm	13339900	Comment / 0
22.31	JN	Junction at 9 o'clock, diameter 100mm	13339912	Comment / 0
22.33	LL	Line of drain/sewer deviates left	13339904	Comment / 0
26.45	MHF	Finish node type, manhole, reference MH OFF BOUNDRY	13339928	Comment / 0

End Node Ref:UNKNOWN | I/L : metres

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
 <p>0.00 M</p> <p>Start node type, manhole, reference MH3 B1</p>	 <p>0.00 M</p> <p>Water level 0% height/diameter</p>		
<p>From: MH3 B1 / To: UNKNOWN Size: 100mm</p>  <p>14.69 M</p> <p>Junction at 12 o'clock, diameter 100mm</p>	<p>From: MH3 B1 / To: UNKNOWN Size: 100mm</p>  <p>22.31 M</p> <p>Junction at 9 o'clock, diameter 100mm</p>		
<p>From: MH3 B1 / To: UNKNOWN Size: 100mm</p>  <p>22.33 M</p> <p>Line of drain/sewer deviates left</p>	<p>From: MH3 B1 / To: UNKNOWN Size: 100mm</p>  <p>26.45 M</p> <p>Finish node type, manhole, reference MH OFF BOUNDRY</p>		

Surveyed by (Operator) TOM	Job Number 124	Pipe Length Reference(PLR) MH3 X	Date 16/10/2025	Pre Cleaned HPWJ to clean prior to survey
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/0	Base Unit L6G4NP9JYT	Section Number 12

Road MIDWAY Place SOUTH CROSLAND Location HD4 7DA	Division District Location Details
--	--

Purpose Duty Foul Catchment	Shape/Size 100mm Material Vitrified clay Category	Start Node MH3 End Node MH4 Total length 7.05 metres
--	---	---

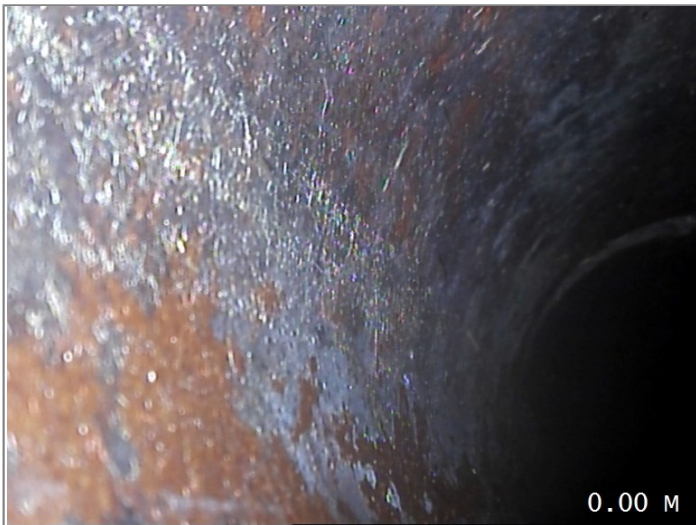
Scale 1:0.37 Direction Downstream	View via iTouch Live	Download
--	--------------------------------------	--------------------------

Start Node Ref:MH3 | I/L : metres | Depth: 630 metres

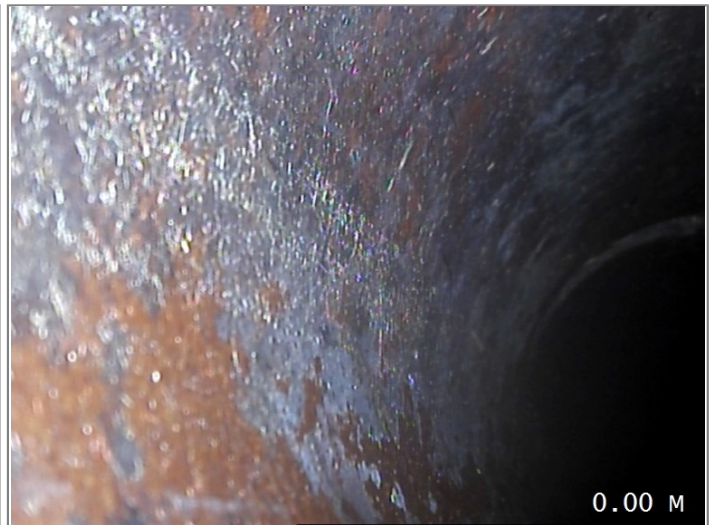
Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH3	13340243	Comment / 0
0.00	WL	Water level 0% height/diameter	13340267	Comment / 0
3.60	JN	Junction at 10 o'clock, diameter 100mm	13340625	Comment / 0
7.05	MHF	Finish node type, manhole, reference MH4	13340635	Comment / 0

End Node Ref:MH4 | I/L : metres | Depth: 750 metres

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------



Start node type, manhole, reference MH3



Water level 0% height/diameter



Junction at 10 o'clock, diameter 100mm

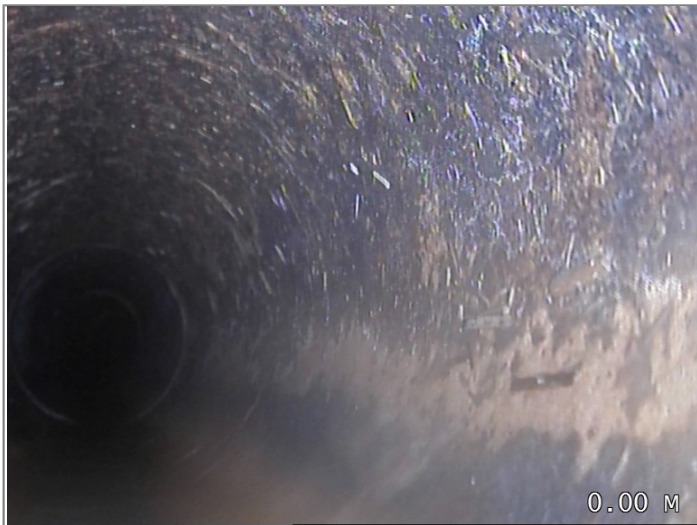


Finish node type, manhole, reference MH4

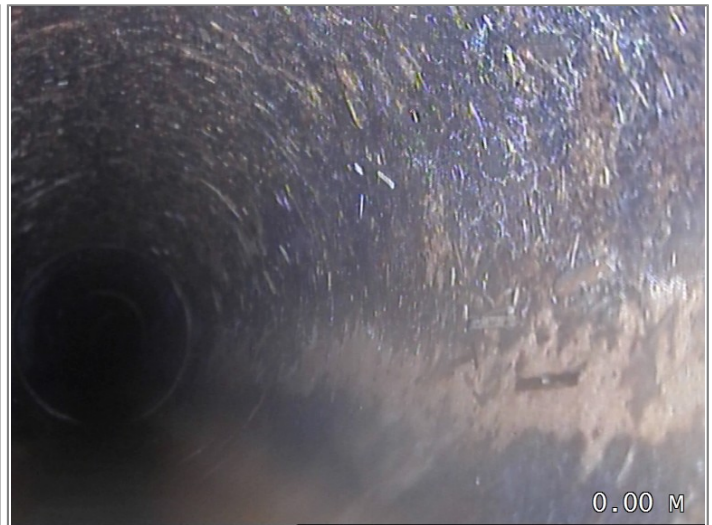
Surveyed by (Operator) TOM	Job Number 124	Pipe Length Reference(PLR) UNKNOWN X	Date 16/10/2025	Pre Cleaned HPWJ to clean prior to survey
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/1	Base Unit L6G4NP9JYT	Section Number 13
Road MIDWAY Place SOUTH CROSLAND Location HD4 7DA		Division District Location Details		
Purpose Duty Foul Catchment	Shape/Size 100mm Material Vitrified clay Category	Start Node MH4 B1 End Node UNKNOWN Total length 6.45 metres		
Scale 1:0.34 Direction Upstream		View via iTouch Live Download		



Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------



Start node type, manhole, reference MH4 B1



Water level 0% height/diameter



Joint displaced medium



Junction at 9 o'clock, diameter 100mm



Finish node type, outfall, reference SVP

Surveyed by (Operator) TOM	Job Number 124	Pipe Length Reference(PLR) MH4 X	Date 16/10/2025	Pre Cleaned HPWJ to clean prior to survey
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/0	Base Unit L6G4NP9JYT	Section Number 14

Road MIDWAY Place SOUTH CROSLAND Location HD4 7DA	Division District Location Details
--	--

Purpose Duty Foul Catchment	Shape/Size 150mm Material Vitrified clay Category	Start Node MH4 End Node UNKNOWN Total length 5.62 metres
--	---	---

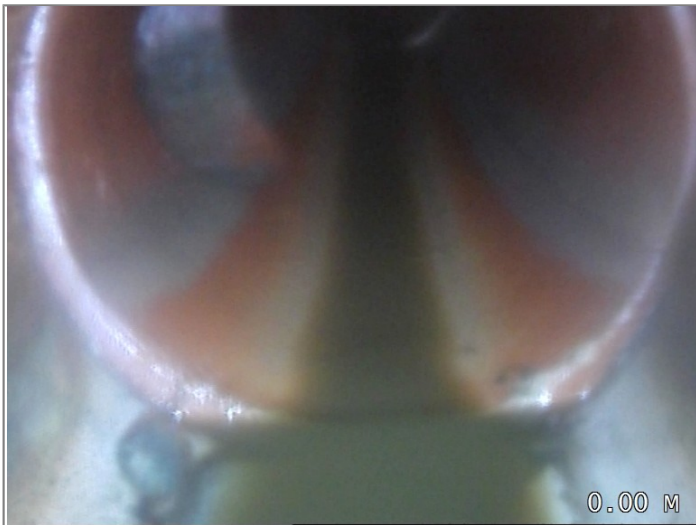
Scale 1:0.30 Direction Downstream	View via iTouch Live	Download
--	--------------------------------------	--------------------------

Start Node Ref:MH4 | I/L : metres | Depth: 750 metres

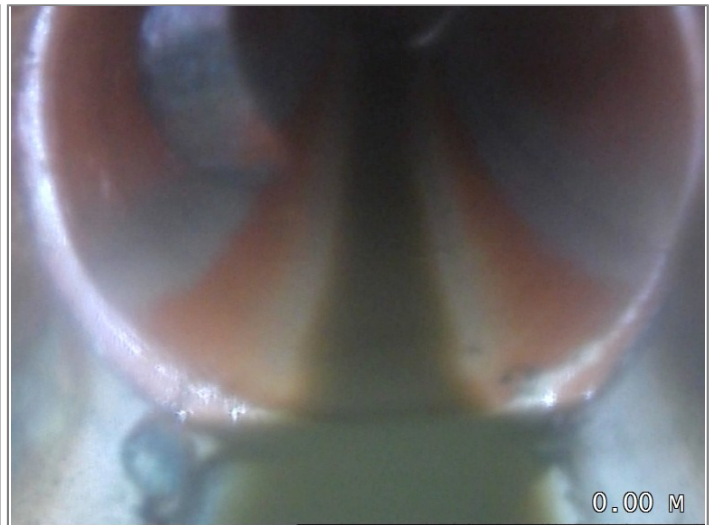
Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH4	13340779	Comment / 0
0.00	WL	Water level 0% height/diameter	13340781	Comment / 0
5.62	OFF	Finish node type, outfall, reference MAIN DRAIN	13340808	Comment / 0

End Node Ref:UNKNOWN | I/L : metres

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------



Start node type, manhole, reference MH4



Water level 0% height/diameter



Finish node type, outfall, reference MAIN DRAIN

Surveyed by (Operator) TOM	Job Number 124	Pipe Length Reference(PLR) UNKNOWN X	Date 16/10/2025	Pre Cleaned Not Cleaned
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/0	Base Unit L6G4NP9JYT	Section Number 15

Road MIDWAY Place SOUTH CROSLAND Location HD4 7DA	Division District Location Details
--	--

Purpose Duty Foul Catchment	Shape/Size 150mm Material Vitrified clay Category	Start Node MH End Node UNKNOWN Total length 15.45 metres
--	---	---

Scale 1:0.81 Direction Upstream	View via iTouch Live	Download
--	--------------------------------------	--------------------------

Start Node Ref:MH | I/L : metres | Depth: 600 metres

Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH	13340877	Comment / 0
0.00	WL	Water level 0% height/diameter	13340879	Comment / 0
0.36	REM	AFTER HPWJ	13341671	Comment / 0
3.64	LR	Line of drain/sewer deviates right	13341673	Comment / 0
4.95	JN	Junction at 3 o'clock, diameter 100mm	13341675	Comment / 0
9.81	JN	Junction at 3 o'clock, diameter 100mm	13341693	Comment / 0
13.81	JN	Junction at 3 o'clock, diameter 100mm	13341694	Comment / 0
15.45	OFF	Finish node type, outfall, reference END OF LINE	13341702	Comment / 0

End Node Ref:UNKNOWN | I/L : metres

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------



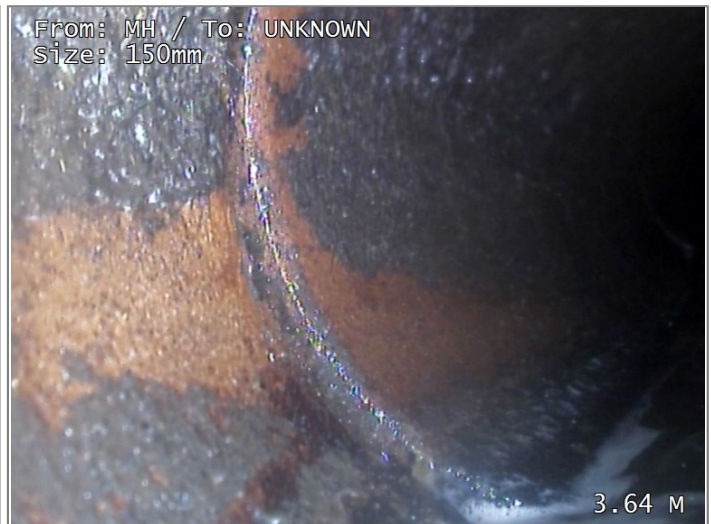
Start node type, manhole, reference MH



Water level 0% height/diameter



AFTER HPWJ



Line of drain/sewer deviates right

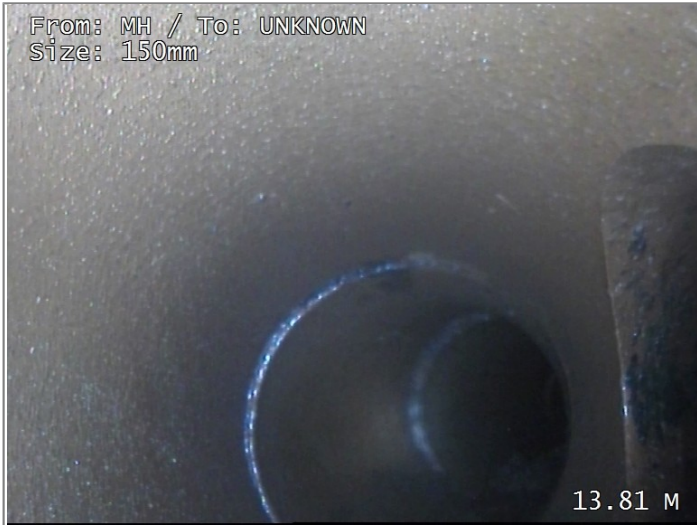


Junction at 3 o'clock, diameter 100mm



Junction at 3 o'clock, diameter 100mm

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------



Junction at 3 o'clock, diameter 100mm



Finish node type, outfall, reference END OF LINE

Surveyed by (Operator) TOM	Job Number 124	Pipe Length Reference(PLR) MH X	Date 16/10/2025	Pre Cleaned Not Cleaned
Weather 1 - Dry	Customer Present	Service Grade/Structural Grade 0/0	Base Unit L6G4NP9JYT	Section Number 16

Road MIDWAY Place SOUTH CROSLAND Location HD4 7DA	Division District Location Details
--	--

Purpose Duty Foul Catchment	Shape/Size 150mm Material Vitrified clay Category	Start Node MH End Node UNKNOWN Total length 5.71 metres
--	---	--

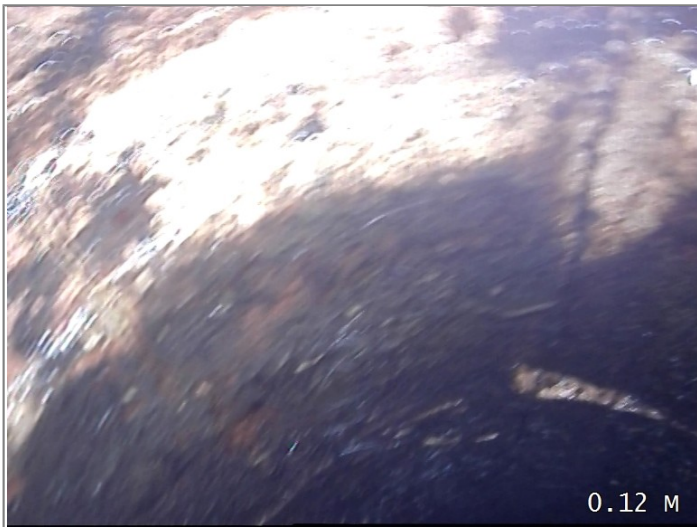
Scale 1:0.30 Direction Downstream	View via iTouch Live	Download
--	--------------------------------------	--------------------------

Start Node Ref:MH | I/L : metres | Depth: 600 metres

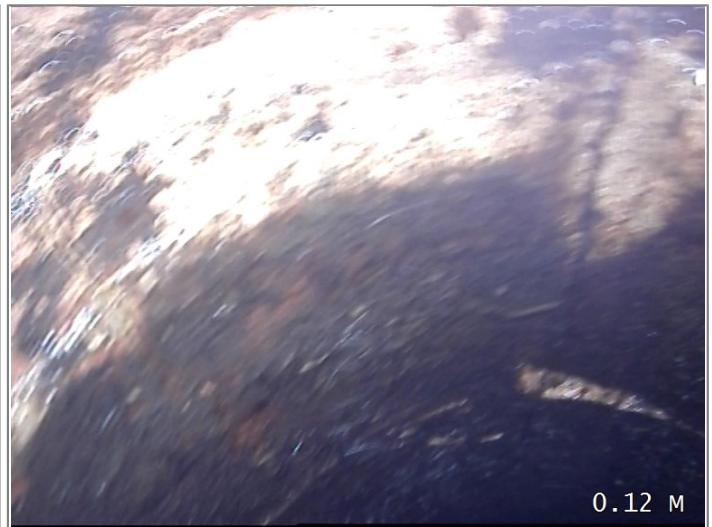
Position	Code	Description	Photo	Type/Grade
0.00	MH	Start node type, manhole, reference MH	13341740	Comment / 0
0.00	WL	Water level 0% height/diameter	13341744	Comment / 0
1.17	JN	Junction at 12 o'clock, diameter 100mm - Remark: PERTUDING	13341839	Comment / 0
5.71	OCF	Finish node type, other special chamber, reference CESSPIT WHICH PUMPS TO SLURRY TANK	13341989	Comment / 0

End Node Ref:UNKNOWN | I/L : metres

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------



Start node type, manhole, reference MH



Water level 0% height/diameter



Junction at 12 o'clock, diameter 100mm - Remark: PERTUDING



Finish node type, other special chamber, reference CESSPIT WHICH PUMPS TO SLURRY TANK

Job Number 124	Surveyed by (Operator) TOM	Base Unit L6G4NP9JYT	Date 16/10/2025
--------------------------	--------------------------------------	--------------------------------	---------------------------

1: Occurences without damage. For example, laterals, joints,etc.

NO DEFECTS WERE DETECTED.

2: Constructional deficiencies or occurences with insignificant influence to tightness, hydraulic or static pressure or pipe: Eg. wide joints, badly torched intakes, minor deformation of plastic pipes, minor erosions etc.

REHABILITATION CAN BE SCHEDULED LONG-TERM.

3: Constructional deficiencies diminishing static, hydraulic and tightness: Eg. untorched intakes, cracks, minor drainage obstructions such as calcite build ups, protruding laterals, minor damages to pipe wall, individual root penetrations, corroded pipe walls etc.

REHABILITATION IS NECESSARY MEDIUM-TERM WITHIN 3 TO 5 YEARS.

4: Constructional damages with insufficient static safety, hydraulic or tightness: Eg. axial/radial pipe bursts, pipe deformations, visually noticeable infiltration/exfiltration, cavities, in pipe-wall, severe protruding, laterals severe root penetrations, severe corrosion of pipe wall etc.

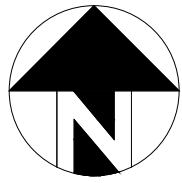
REHABILITATION PROCEDURE IS URGENT AND HAS TO BE COMPLETED WITHIN 1 TO 2 YEARS. NECESSITY FOR EMERGENCY OPERATIONS HAS TO BE EXAMINED.

5: Pipe is already or will shortly be impermeable: Eg. collapsed pipe, deeply rooted pipe or other drainage obstructions. Pipe loses water or danger of backwater in basements etc.

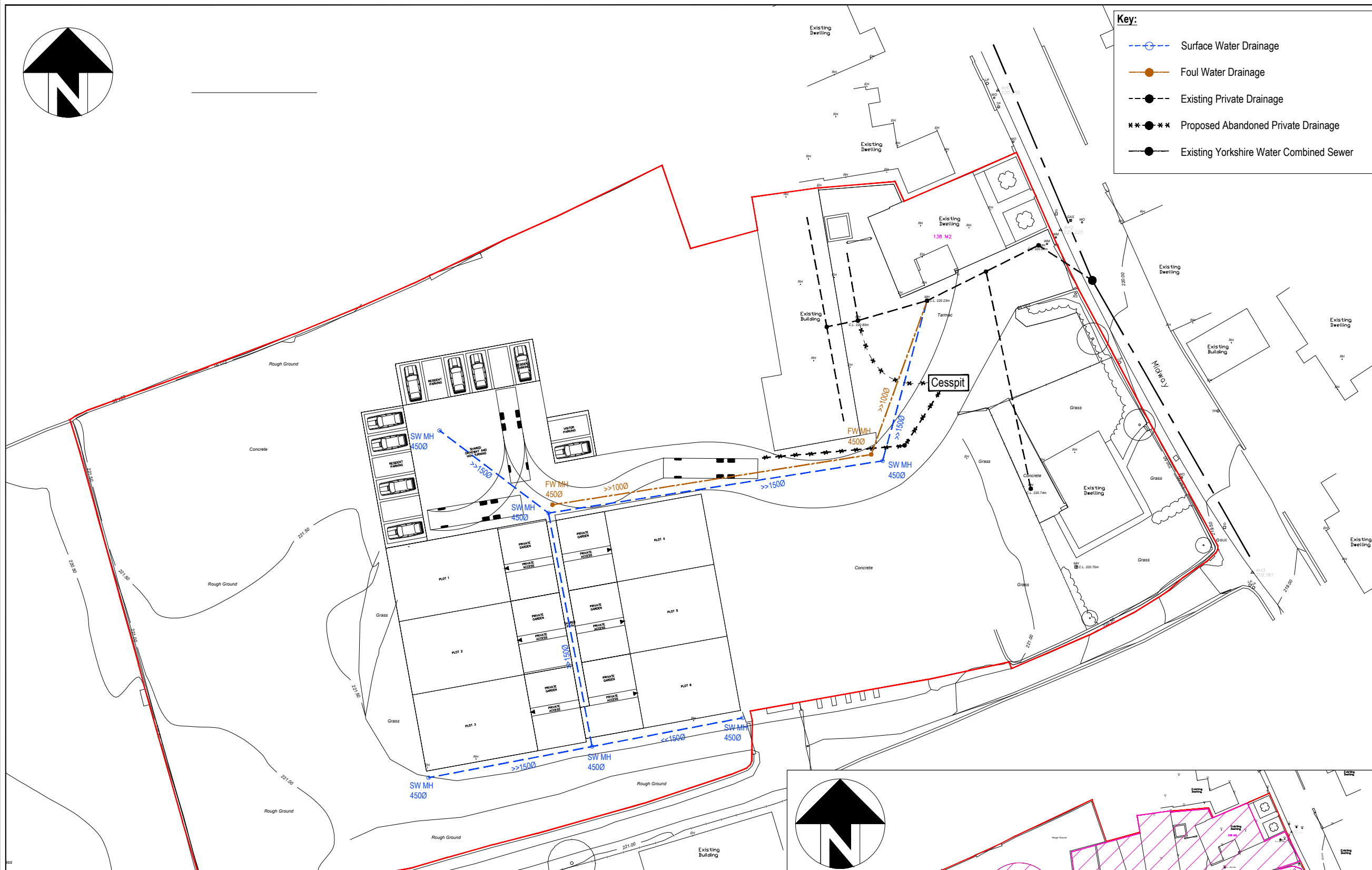
REHABILITATION IS URGENT AND SHORT-TERM. IN ORDER TO PREVENT FURTHER DAMAGE, NECESSARY TEMPORARY SPOT REPAIR HAS TO BE CONDUCTED ON EMERGENCY LEVEL.



Appendix D
Drainage Layout Drawing



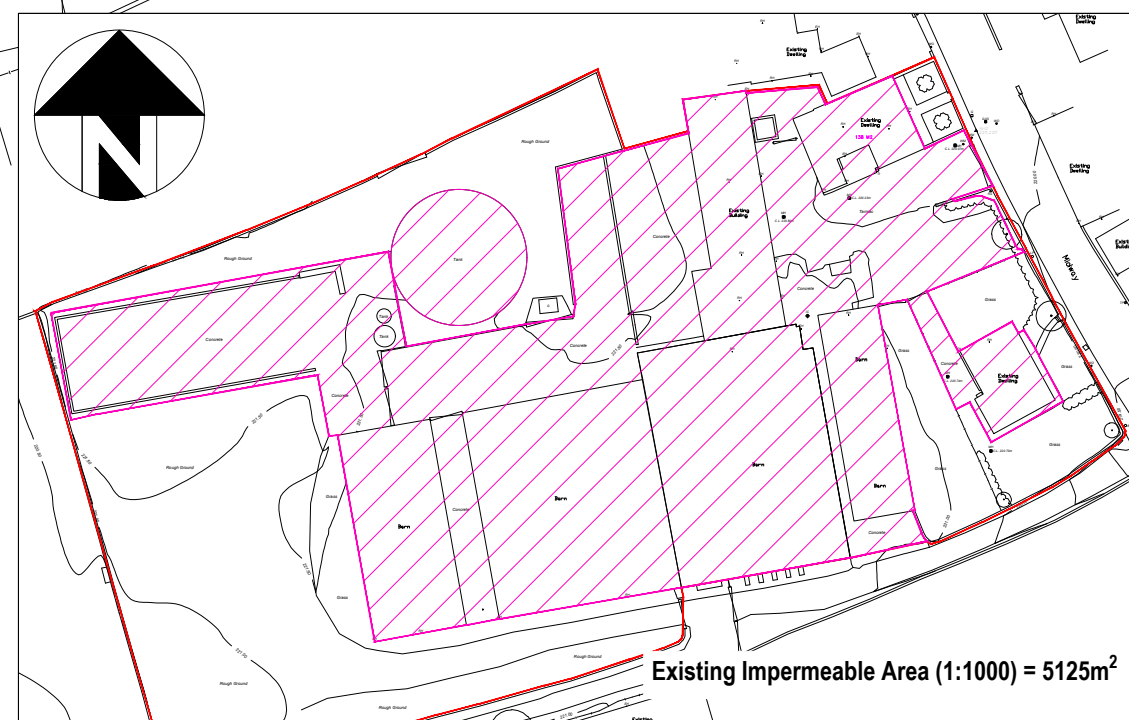
Key:	
	Surface Water Drainage
	Foul Water Drainage
	Existing Private Drainage
	Proposed Abandoned Private Drainage
	Existing Yorkshire Water Combined Sewer



Drainage Strategy:
 The surface water and foul water is to discharge to the Yorkshire Water combined sewer located in Midway via the existing drainage network within the site.

As the impermeable area is not changing, there is no requirement for attenuation within the site.

Notes:
 The pipe sizes and manholes are indicative.
 The cesspit and drainage leading to cesspit is proposed to be removed.



Existing Impermeable Area (1:1000) = 5125m²

P02	Updated with CCTV Survey	29.10.25	CS
P01	Preliminary Issue	14.08.25	CS

Project: South Croslands Barns

Client: JLP Roberts

Drawing: Drainage Layout Drawing

Drawn By:	CS	Date:	14.08.2025
Checked:	AY	Scale:	1:500
Drawing No.	AMA-23484-DS-001	Paper:	A3
		Rev.	P02



All rights are reserved. Copyright © 2024

Andrew Moseley Associates, 15 St Paul's Street, Leeds, LS1 2JG

www.amatp.co.uk

info@amatp.co.uk